Registration No. 333-

## UNITED STATES SECURITIES AND EXCHANGE COMMISSION

**WASHINGTON, DC 20549** 

## FORM S-1 REGISTRATION STATEMENT UNDER

THE SECURITIES ACT OF 1933

### METABOLIX, INC.

(Exact Name of Registrant as Specified in its Charter)

#### Delaware

(State or Other Jurisdiction of Incorporation or Organization)

#### 8731

(Primary Standard Industrial Classification Code Number)

**04-3158289** (I.R.S. Employer Identification No.)

21 Erie Street Cambridge, MA 02139 (617) 492-0505

(Address, including zip code, and telephone number, including area code, of Registrant's principal executive office)

James J. Barber Chief Executive Officer Metabolix, Inc. 21 Erie Street Cambridge, MA 02139 (617) 492-0505

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

John M. Mutkoski, Esq. Christopher J. Denn, Esq. Robert E. Puopolo, Esq. Goodwin Procter LLP Exchange Place Boston, Massachusetts 02109 (617) 570-1000 Charles Ruck Joshua Tinkelman Latham & Watkins LLP 885 Third Avenue Suite 1000 New York, NY 10022 (212) 906-1200

**Approximate date of commencement of proposed sale to the public:** As soon as practicable after this registration statement becomes effective.

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. o

If this form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

#### **CALCULATION OF REGISTRATION FEE**

Proposed Maximum Aggregate Offering Price (1) Amount of Registration Fee (2)

- (1) Estimated solely for the purpose of calculating the registration fee in accordance with Rule 457(o) under the Securities Act of 1933, as amended.
- (2) Calculated pursuant to Rule 457(o) based on an estimate of the proposed maximum aggregate offering price and includes the offering price of shares that the underwriters have the option to purchase to cover over-allotments, if any.

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), shall determine.

The information in this prospectus is not complete and may be changed. We may not sell these securities until the Securities and Exchange Commission declares our registration statement effective. This prospectus is not an offer to sell these securities and is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

Shares

## METABOLIX, INC.



#### **Common Stock**

#### \$ per share

- Metabolix, Inc. is offering shares.
- We anticipate that the initial public offering price will be between \$ and \$ per share.
- This is our initial public offering and no public market currently exists for our shares.
- Proposed trading symbol: NASDAQ Global Market MBLX

Archer Daniels Midland Company, our collaborative partner and an existing stockholder, has agreed to purchase \$7.5 million of our shares of common stock in a private placement concurrent with this offering at a price per share equal to the price to the public above. The sale of such shares of common stock will not be registered in this offering. See "Certain Relationships and Related Party Transactions."

This investment involves risk. See "Risk Factors" beginning on page 7.

	Per Share	Total
Initial public offering price	\$	\$
Underwriting discount	\$	\$
Proceeds, before expenses, to Metabolix, Inc.	\$	\$

The underwriters have a 30-day option to purchase up to additional shares of common stock from us to cover over-allotments, if any.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

Sole Book-Running Manager

### **Piper Jaffray**

**Jefferies & Company** 

**Thomas Weisel Partners LLC** 

**Ardour Capital Investments, LLC** 

The date of this prospectus is , 2006.



## How Natural Plastics are Made **Feedstocks**



Metabolix produces **Natural Plastics** using corn sugars.



Corn syrup is a feedstock in the fermentation process, converted by microorganisms into Natural Plastics within the cell itself.

## **Fermentation**



Archer Daniels Midland is constructing a fermentation plant in Clinton, Iowa.

## Recovery



Dried polymer "crumb" is ready for pelletization.

The polymer is extracted from the cellular material using a proprietary process and the residual biomass removed by centrifugation.

The polymer is precipitated and excess liquid removed by filtration. It is then dried.

# **Applications**



Polymer is formulated and pelletized by conventional processes.



PHA Natural Plastics can be converted on standard equipment by injection molding, extrusion, paper coateing and other methods into a broad range of useful commercial products.

Proprietary microbes are filled with polymer globules by the end of the fermentation process.

## Biodegradation



These new materials, from renwable resources, perform like traditional plastics, but will biodegrade benignly once their use is over, even in a marine environment.

#### TABLE OF CONTENTS

	Page
Prospectus Summary	1
Risk Factors	7
Special Note Regarding Forward-Looking Statements	26
Use of Proceeds	28
Dividend Policy	28
Capitalization	29
Dilution	30
Selected Financial Data	32
Management's Discussion and Analysis of Financial Condition and Results of Operations	34
Business	47
Management	70
Certain Relationships and Related Party Transactions	83
Principal Stockholders	86
Description of Capital Stock	89
Shares Eligible for Future Sale	93
Underwriting	96
Legal Matters	100
Experts	100
Market and Industry Data	100
Where You Can Find More Information	100
Index to Consolidated Financial Statements	F-1

You should rely only on the information contained in this prospectus. We have not, and the underwriters have not, authorized any other person to provide you with different information. This prospectus is not an offer to sell, nor is it seeking an offer to buy, these securities in any state where the offer or sale is not permitted. The information in this prospectus is complete and accurate as of the date on the front cover, but the information may have changed since that date.

#### PROSPECTUS SUMMARY

The items in the following summary are described in more detail later in this prospectus. This summary provides an overview of selected information and does not contain all of the information you should consider before investing in our common stock. Therefore, you should also read the more detailed information set out in this prospectus, including the financial statements and the related notes appearing elsewhere in this prospectus. References in this prospectus to "we," "us" and "our" refer to Metabolix, Inc.

#### Metabolix, Inc.

We are a leading biotechnology company that develops and plans to commercialize environmentally sustainable, economically attractive alternatives to petrochemical-based plastics, fuels and chemicals. 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 will be commercializing through a strategic alliance with Archer Daniels Midland Company, or ADM, is a proprietary, large-scale microbial fermentation system for producing a versatile family of naturally occurring polymers known as polyhydroxyalkanoates, which we call *PHA Natural Plastics*. Through the alliance with ADM, we intend to sell these polymers as environmentally friendly, but functionally equivalent alternatives to petrochemical-based plastics in a wide range of commercial applications, including disposable goods, packaging, agricultural products, consumer goods and electronics. Also, as part of the strategic alliance with ADM, we have announced plans to build a 50,000 ton annual capacity commercial scale plant, or Commercial Manufacturing Facility, that will produce biodegradable *PHA Natural Plastics* out of corn sugar, an abundant agriculturally-produced renewable resource. We are currently producing pre-commercial quantities of *PHA Natural Plastics* jointly with ADM at a pilot plant having a capacity of 10 tons per month.

Our second technology platform, which is in an early stage, is a biomass biorefinery system using switchgrass to co-produce both *PHA Natural Plastics* and biomass feedstock for the production of ethanol. We believe that using switchgrass to co-produce these products can offer superior economic value and productivity as compared to single product systems that produce them individually. We have already achieved significant milestones in this program and can produce small amounts of *PHA Natural Plastics* in switchgrass. Our goals for this program are to have commercially viable switchgrass varieties in pilot field trials within four years and to establish strategic alliances with attractive partners to commercially exploit this platform.

The markets for petrochemical-based plastics, fuels and chemicals are among the largest in the global economy. While these markets encompass a diverse array of products, they are all derived from fossil fuels, particularly petroleum and natural gas. The prolonged broad use of these petrochemical-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 renewable, sustainable and not dependent on fossil fuels.

We believe that the widespread use of renewable agricultural feedstocks as manufacturing inputs can address many of the issues associated with petrochemical-based products. Our goal is to become the leader in discovering, developing and commercializing economically attractive, environmentally sustainable alternatives for petrochemical-based plastics, fuels and chemicals. To achieve this goal, we are building a portfolio of programs that we believe will provide not only an attractive slate of

commercial opportunities but also will generate leading and competitive intellectual property positions in the field.

#### **Business Strategy**

Key elements of our strategy include:

- Establishing Production of PHA Natural Plastics. We have put into operation a 10 ton per month capacity pilot manufacturing facility to
  produce PHA Natural Plastics to seed the market, and as part of our strategic alliance, ADM and Metabolix have announced plans to build a
  50,000 ton annual capacity Commercial Manufacturing Facility to produce PHA Natural Plastics. We anticipate that commercial production will
  commence in 2008.
- Market Positioning and Sales. We are building a marketing and sales team to educate and develop our prospective customer base. This team will
  focus on positioning PHA Natural Plastics as premium priced, specialty materials that are environmentally attractive alternatives to
  petrochemical-based plastics. We intend to build a brand around PHA Natural Plastics consistent with this positioning and will seek to co-brand
  PHA Natural Plastics with our customers.
- 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 PHA Natural Plastics can occur as we
  successfully exploit these opportunities.
- **Developing Applications for** *PHA Natural Plastics*. We have developed formulations of our polymer suitable for injection molding, casting film and sheet, thermoforming and paper coating. These grades will be refined further to tailor them for specific customer performance requirements, and additional grades will be developed for other applications.
- Advancing Switchgrass Research and Other Plant Strains. 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 Natural Plastics* content by weight.
  We also intend to research introducing traits to increase crop yields in terms of tons per acre, and enhance processability for the production of
  ethanol.
- **Partnering our Switchgrass Program**. We will 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 this platform.
- **Building Governmental Awareness of Our Approach.** We intend to continue to build our governmental affairs initiatives. We believe that higher awareness of our solution may result in opportunities to obtain additional funding or legislative support that can facilitate and accelerate the adoption of our products.
- Extending Our Technology to Sustainable Production of Large Volume Chemicals and Intermediates. Our technical capabilities can be applied to produce a number of important commercial chemicals and chemical intermediates, including C3 and C4 chemicals, through biological conversion of sustainable feedstocks such as sugars.

• **Furthering our Leading and Competitive Intellectual Property Position.** We have built a patent estate around our platform technologies and a variety of inventions relevant to the commercialization of *PHA Natural Plastics*. We are extending this patent estate within our core business as well as to other commercial opportunities in the area of bio-based plastics, fuels and chemicals.

#### **ADM Agreement to Purchase Shares**

ADM has agreed to purchase \$7.5 million of our shares of common stock in a private placement concurrent with this offering at a price per share equal to the price to the public in this offering.

#### **Corporate Information**

We were incorporated in Massachusetts in June 1992 under the name of Metabolix, Inc. In September 1998, we reincorporated in Delaware.

Our principal executive offices are located at 21 Erie Street, Cambridge, Massachusetts 02139, and our telephone number is (617) 492-0505. Our worldwide web address is *www.metabolix.com*. The information on our web site is not incorporated by reference into this prospectus and should not be considered to be part of this prospectus.

*Metabolix*, *Biopol* and *Where Nature Performs* are our registered trademarks. This prospectus also includes other registered and unregistered trademarks of ours. All other trademarks, tradenames and service marks appearing in this prospectus are the property of their respective owners.

#### THE OFFERING

Common stock offered by us	shares
Common stock to be outstanding after this offering	shares
Offering price	\$ per share
Use of proceeds	We intend to use the proceeds from this offering to make investments in equipment and operations for pilot manufacturing and formulating <i>PHA Natural Plastics</i> to their final form for commercial sale and to fund our working capital needs, including for pre-commercial activities with ADM, for the switchgrass biomass biorefinery program, for hiring of additional personnel, to continue research and development and for general corporate purposes. See "Use of Proceeds."
Proposed NASDAQ Global Market symbol	"MBLX"

The number of shares of common stock that will be outstanding after this offering is based on shares outstanding as of , and assumes the issuance of shares to ADM (the "ADM Shares") in a concurrent private placement and excludes:

- shares of common stock issuable upon exercise of options outstanding as of , 2006;
- shares of common stock issuable upon exercise of warrants outstanding as of , 2006; and
- shares of common stock reserved as of , 2006 for future issuance under our stock-based compensation plans.

Except as otherwise indicated, all information in this prospectus assumes:

- the conversion of all outstanding shares of our preferred stock into 12,225,818 shares of common stock immediately prior to the closing of this offering;
- the issuance in a private placement of the ADM Shares at an assumed initial public offering price of \$ per share;
- the filing of our amended and restated certificate of incorporation immediately prior to the closing of this offering; and
- no exercise of the underwriters' over-allotment option.

#### SUMMARY FINANCIAL DATA

The following tables present summary historical and pro forma as adjusted financial data. We derived the summary statements of operations data for the years ended December 31, 2003, 2004 and 2005 and the summary balance sheet data as of December 31, 2003, 2004 and 2005 from our audited financial statements and related notes included elsewhere in this prospectus. You should read this data together with our financial statements and related notes, "Selected Financial Data," and "Management's Discussion and Analysis of Financial Condition and Results of Operations" included elsewhere in this prospectus.

The selected condensed consolidated statement of operations data for the three months ended March 31, 2005 and 2006 and the selected condensed consolidated balance sheet data as of March 31, 2006 have been derived from our unaudited condensed consolidated financial statements included elsewhere in this prospectus. Our unaudited condensed consolidated financial statements have been prepared on the same basis as the audited consolidated financial statements and notes thereto, which include, in the opinion of our management, all adjustments (consisting of normal recurring adjustments), necessary for a fair statement of the information for the unaudited interim period. Our historical results for any prior or interim period are not necessarily indicative of results to be expected for a full fiscal year or for any future period.

	Year en	ded December 31,		T	hree months ended	March 31,
	2003	2004	2005		2005	2006
					(unaudited	)
		(in thousar	nds except share and pe	r share data	)	
Statements of Operations Data:						
Total revenue	\$ 2,383 \$	3,678 \$	2,781	\$	701 \$	3,081
Operating expenses:						
Research and development expenses, including cost of revenue	6,204	5,427	5,980		1,367	2,131
General and administrative	0,204	5,427	5,960		1,30/	2,131
expenses	2,692	3,252	3,825		923	1,382
Total operating expenses	8,896	8,679	9,805		2,290	3,513
Loss from operations	(6,513)	(5,001)	(7,024)		(1,589)	(432)
Interest income and (expense), net	(128)	(54)	99		3	131
Loss on investment in related party	_	_	$(700)^{(1)}$		_	_
Net loss	\$ (6,641) \$	(5,055) \$	(7,625)	\$	(1,586) \$	(301)
Net loss per share Basic and						
Diluted	\$ (2.73) \$	(1.37) \$	(2.09)	\$	(0.44) \$	(80.0)
Number of shares used in per share calculations Basic and Diluted Pro forma net loss per share Basic	2,436,209	3,681,823	3,640,194		3,637,481	3,642,814
and Diluted (unaudited) <sup>(2)</sup> Pro forma number of shares used in		\$	(0.60)		\$	(0.02)
per share calculation Basic and Diluted (unaudited) <sup>(2)</sup>			12,715,068			14,895,299

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

footnotes continued on following page

(2) We have computed the pro forma basic and diluted net loss per common share and the shares used to compute pro forma basic and diluted net loss per common share included in the statement of operations data as we describe in Note 2 of the notes to our consolidated financial statements.

The summary consolidated balance sheet data as of March 31, 2006 is presented:

- on an actual basis; and
- on a pro forma as adjusted basis to reflect:
- the conversion of all of our outstanding preferred stock into 12,225,818 shares of our common stock;
- the receipt by us of net proceeds of \$ million from the sale of the shares of common stock offered by us in this offering at an assumed public offering price of \$ per share, less underwriting discounts and commissions and estimated offering expenses payable by us; and

As of December 31,

the receipt by us of proceeds of \$7.5 million from the sale of the price of \$ per share.

ADM Shares in a concurrent private placement at an assumed

As of March 31, 2006

_	2003		2004		2005		Actual	Pro forma as adjusted
							(unau	ıdited)
				(in	thousands)			
\$	1,495	\$	4,455	\$	3,174	\$	17,045	
	3,331		7,510		7,325		22,329	
	266		1,440		1,280		1,239	
	_		3,000		5,621		3,917	
	4,546		7,246		9,874		7,677	
	32,640		39,235		44,009		61,442	
	(37,495)		(42,549)		(50,175)		(50,475)	
	(33,855)		(38,971)		(46,558)		(46,791)	
	\$	\$ 1,495 3,331 266 — 4,546 32,640 (37,495)	\$ 1,495 \$ 3,331 266 — 4,546 32,640 (37,495)	\$ 1,495 \$ 4,455 3,331 7,510 266 1,440 — 3,000 4,546 7,246 32,640 39,235 (37,495) (42,549)	\$ 1,495 \$ 4,455 \$ 3,331 7,510 266 1,440 — 3,000 4,546 7,246 32,640 39,235 (37,495) (42,549)	\$ 1,495 \$ 4,455 \$ 3,174 3,331 7,510 7,325 266 1,440 1,280 — 3,000 5,621 4,546 7,246 9,874 32,640 39,235 44,009 (37,495) (42,549) (50,175)	(in thousands)  \$ 1,495 \$ 4,455 \$ 3,174 \$ 3,331 7,510 7,325 266 1,440 1,280 3,000 5,621 4,546 7,246 9,874 32,640 39,235 44,009 (37,495) (42,549) (50,175)	(in thousands)  \$ 1,495 \$ 4,455 \$ 3,174 \$ 17,045  3,331 7,510 7,325 22,329  266 1,440 1,280 1,239  — 3,000 5,621 3,917  4,546 7,246 9,874 7,677  32,640 39,235 44,009 61,442  (37,495) (42,549) (50,175) (50,475)

#### RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the following risks and other information in this prospectus, including our financial statements and related notes appearing elsewhere in this prospectus, before you decide to invest in shares of our common stock. Additional risks and uncertainties not presently known to us or that we currently deem immaterial also may impair our business operations. If any of the events described below actually occurs, our business, financial condition and operating results could be harmed. In such an event, the market price of our common stock would likely decline and you could lose part or all of your investment in our common stock.

#### **Risks Related to Our Business**

#### We may not be able to successfully manufacture PHA Natural Plastics at commercial scale in a timely or economical manner.

We are currently producing *PHA Natural Plastics* using our fermentation platform in relatively small quantities, at pilot scale, for use in marketing activities. The current and anticipated methods for manufacturing *PHA Natural Plastics*, both in microbes and in crops, and the anticipated methods for producing fuels, 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 are currently developing methods for producing *PHA Natural Plastics* in plants, namely switchgrass, though we are only operating at research scale. We cannot predict the cost of producing *PHA Natural Plastics* at commercial scale in microbes or in switchgrass given the stage of development of this program. We cannot assure you that we will be able to successfully manufacture *PHA Natural Plastics* at a commercial scale in a timely or economical manner using either of our technology platforms.

PHA Natural Plastics 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 PHA Natural Plastics, 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.

Since ADM has yet to begin construction of the Commercial Manufacturing Facility, 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 *PHA Natural Plastics* 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 *PHA Natural Plastics* economically on a commercial scale or in commercial volumes, our commercialization of *PHA Natural Plastics* and our business, financial condition and results of operations will be materially adversely affected.

#### We may not be successful in the development of our products, including PHA Natural Plastics in switchgrass.

In addition to our development and scale-up work to produce *PHA Natural Plastics* through fermentation, we are also at an early stage of development of technology and a process to produce *PHA Natural Plastics* in crops. 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 *PHA Natural Plastics* in crops has focused primarily on the genetic engineering required to cause the crops to aggregate *PHA Natural Plastics* in the plant mass during the life cycle of the plant. We have not yet achieved a high enough concentration of *PHA Natural 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 *PHA Natural Plastics* 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 *PHA Natural Plastics*, the residual material, or biomass, can be readily converted into fuel 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 may not be able to develop manufacturing capacity sufficient to meet demand in an economical manner or at all.

The cost of planning, designing, constructing and operating the Commercial Manufacturing Facility being developed to serve the alliance with ADM Polymer Corp., a wholly-owned subsidiary of ADM, or the Joint Sales Company, and the cost of ancillary facilities and services related to the production of *PHA Natural Plastics* by the Joint Sales Company, will be very significant. ADM will be advancing a disproportionate share of the financial capital needed for such activities and as such, all profits, after payment of all royalties, reimbursements and fees, from the Joint Sales Company will first be distributed to ADM until ADM's disproportionate investment in the Joint Sales Company has been returned. If there are difficulties, delays or other unforeseen issues with such activities, the cost of such activities will almost certainly increase and the revenue from sales, if any, of *PHA Natural Plastics* and the distribution of profits, if any, to us will be delayed.

If demand for *PHA Natural Plastics* increases beyond the scope of the Commercial Manufacturing Facility being built to serve the Joint Sales Company, we may incur significant expenses in the expansion and/or construction of manufacturing facilities and increases in personnel in order to increase manufacturing capacity. To finance the expansion of a commercial-scale manufacturing facility is complex and expensive. 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 joint

venture, or that we will be able to develop this manufacturing infrastructure in a timely or economical manner, or at all. Our collaborative partners could experience financial or other setbacks unrelated to our collaboration that could, nevertheless, adversely affect us.

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

We do not currently have customers for any of our products. 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, *e.g.*, the ability of *PHA Natural Plastics* to resist biodegradation for a certain period of time in particular environments;
- the willingness and speed at which potential customers qualify PHA Natural Plastics 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 our plastics prior to making any 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 petrochemical-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 products 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 have recently hired a Vice President, Sales and Marketing, to add to those capabilities. We cannot assure you that we will be able to identify or hire additional individuals or that such individuals will perform to the level required. 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 *PHA Natural Plastics* manufactured by ADM and we will 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 will rely heavily on future collaborative partners.

An important component of our current business plan is to enter into strategic partnerships with large 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 strategic alliance with ADM is an example of our implementation of this strategy. These arrangements with collaborative partners are, and will continue to be, critical to our success in manufacturing our products and selling such products profitably. ADM Polymer, a subsidiary of 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 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 materially adversely affect 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. The performance of our programs may be adversely affected and 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 as a result of these disagreements. Performance issues, program delay or termination or unbudgeted use of our resources may materially adversely affect our business and financial condition.

Disputes may arise between us and a collaborative partner and may involve the issue of which of us owns the technology and other intellectual property that is 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. For example, our collaboration with BP was recently terminated after the division with which we were collaborating was sold to a third party buyer who was not interested in continuing the collaboration.

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

Our success will be influenced by the cost of *PHA Natural Plastics* relative to petrochemical-based plastics. The cost of petrochemical-based plastic is in part based on the price of petroleum. Our products are primarily manufactured using corn sugar, an agricultural feedstock. ADM currently supplies all required agricultural feedstock as part of our strategic alliance. Over the past 32 years, the prices of petroleum and corn have diverged dramatically with the increase in petroleum price being approximately eight times whereas the price of corn has remained relatively flat over the same period. If the price of corn or corn sugar were to dramatically increase while the price of petroleum decreased, we may not be able to produce *PHA Natural Plastics* on a cost effective basis relative to petrochemical-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 petrochemical-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 March 31, 2006, our accumulated deficit was approximately \$51 million. Since 1992, we have been engaged solely in research and development activities. As a part of our strategic alliance, ADM Polymer has yet to begin construction of the commercial scale Commercial Manufacturing Facility for *PHA Natural Plastics*. We currently expect the Commercial Manufacturing Facility to become operational in 2008, and until such time, our revenues from sales of *PHA Natural Plastics* will be limited. Because we have a limited history at 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 *PHA Natural Plastics* through our strategic alliance with ADM, 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 *PHA Natural Plastics* in crops and other products, or if sales of such *PHA Natural Plastics* or 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 PHA Natural Plastics in crops and 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. For the year ended December 31, 2005 we used \$6.3 million in cash, cash equivalents and investment securities to fund our operating and investing activities. Although we believe our existing cash resources plus the proceeds of this offering and anticipated payments from the strategic alliance with ADM 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 strategic collaborations, private or public sales of our securities, debt financings, governmental research grants, or by licensing all or a portion of our programs or technology. 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 James Barber, our President and Chief Executive Officer, Oliver Peoples, our Chief Scientific Officer and Johan van Walsem, our VP of Manufacturing, Development and Operations. Dr. Barber possesses unique talent and experience relating to our business and the markets in which we operate. Dr. Peoples and Mr. van Walsem possess unique information related to our research and manufacturing operations. Dr. Peoples was 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 the production of *PHA Natural Plastics*, 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 manufacturing operation and has been instrumental in developing manufacturing know-how sufficient to operate our pilot scale manufacturing plant. Mr. van Walsem has also been directing the design of the commercial scale Commercial Manufacturing Facility with ADM. 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.

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.

Because we operate in the highly technical field of biotechnology discovery and development, 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.

#### Patent 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. For example, P&G filed a nullity action in the Federal Patent Court in Munich, Germany, against the German equivalent of one of our patents covering the method of use of producing biopolymers. 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 five registered trademarks in the United States and three pending trademark applications filed with the U.S. Patent and Trademark Office and we expect to file additional applications as new trademarks are selected for our products. 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 often enter into 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 is 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.

A substantial portion of our core technology is protected by patents that are owned by Massachusetts Institute of Technology, or MIT, and exclusively licensed to us for the life of the patents. We cannot be certain that our right to use these patents will continue. MIT has the right to terminate this exclusive license for our nonpayment of royalties or our material breach which remains uncured. 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 *PHA Natural Plastics* and fuels, their compositions, formulations and uses, and processes for their production. Such third parties may claim that we infringe their patents. 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. For example, we are aware of competitors with patents relating to *PHA Natural Plastic*. 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. 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 *PHA Natural Plastics* using our fermentation platform, we plan to grow by allocating additional resources to developing marketing and sales expertise and resources, entering into additional collaborations with strategic partners, adding personnel with specific technological experience, and developing and commercializing additional products, such as *PHA Natural Plastics* using our switchgrass technology platform, 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 perhaps 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 and technical and operating personnel. If we are unable to do so, we may be unable to staff and manage projects adequately, which may slow the development process, 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, fuels and chemicals. 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 *PHA Natural Plastics*, 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 modified products which may be, or may be perceived as being, harmful to human health or the environment.

*PHA Natural Plastics* are new materials produced from genetically-engineered microbes and in the future may be produced in genetically-engineered crops. Some countries have adopted regulations prohibiting or limiting the production of genetically-engineered crops. Regulations or prohibitions on the production of genetically-engineered crops could harm our business and impair our ability to produce *PHA Natural 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. Social concerns could adversely affect acceptance of our potential products. Governmental regulation or negative publicity could 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, fuels and chemicals that we have developed or plan to develop will compete with other technologically innovative products as well as conventional petrochemical-based plastics, materials and fuels. 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 *PHA Natural Plastics* offer, 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. Other companies active in the PHA plastic segment include Kaneka. Our other competitors include, but are not limited to, key players in PLA and starch based biodegradables, Cargill, Mitsui Chemical, Toyota, Novamont and Stanelco, as well as all of the producers of petrochemical-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 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 are subject to a number of foreign, federal, state, and local laws and regulations relating to health and safety, protection of the environment, and the storage, use, disposal of, and exposure to, hazardous materials and wastes. 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 if we were to violate or become liable under environmental, health and safety laws. 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 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;
- 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 therefrom 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.

We will incur increased costs as a result of being a public company. In addition, the requirements of complying with the Securities Exchange Act of 1934, as amended, and the Sarbanes-Oxley Act of 2002, may drain our resources and distract management.

As a public company, we will incur significant legal, accounting and other expenses that we did not incur as a private company. We will incur additional costs associated with corporate governance requirements, including requirements under the Sarbanes-Oxley Act of 2002, as well as new rules implemented by the SEC and the National Association of Securities Dealers, Inc., or NASD. We expect these rules and regulations may make it more difficult and more expensive for us to obtain director and officer liability insurance and we may be required to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. As a result, it may be more difficult for us to attract and retain qualified individuals to serve on our board of directors or as executive officers. We cannot predict or estimate the amount of additional costs we may incur or the timing of such costs.

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.

Beginning with our annual report for the year ending December 31, 2007, Section 404 of the Sarbanes-Oxley Act of 2002 requires us to include an internal control report with our annual report on Form 10-K. That report must include management's assessment of the effectiveness of our internal control over financial reporting as of the end of the fiscal year. Additionally, our independent registered public accounting firm will be required to issue a report on management's assessment of our internal control over financial reporting and a report on their evaluation of the operating effectiveness of our internal control over financial reporting.

We continue to evaluate our existing internal control over financial reporting against the standards adopted by the Public Company Accounting Oversight Board, or PCAOB. During the course of our ongoing evaluation of the internal controls, we may identify areas requiring improvement, and may have to design enhanced processes and controls to address issues identified through this review. 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. We cannot assure you that any of the measures we implement to remedy any such deficiencies will effectively mitigate or remedy such deficiencies. 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.

## If we are unable to develop, implement and maintain appropriate internal controls we will not be able to comply with applicable regulatory requirements imposed on reporting companies.

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. While we anticipate being able to implement fully the requirements relating to internal controls and all other applicable requirements of the Sarbanes-Oxley Act of 2002 in a timely fashion, we cannot be certain as to the timing of the completion of our evaluation and testing and any necessary remediation or the impact of the same on our operations. Our development, implementation and maintenance of appropriate internal controls will depend materially both on our successful hiring and retention of key senior accounting personnel. If we are not able to complete the assessment required under Section 404 in a timely manner, we and our independent registered public accounting firm would be unable to conclude that our internal control over financial reporting is effective as of December 31, 2007.

## Changes in, or interpretations of, accounting rules and regulations, such as revenue recognition and expensing of stock options, could result in unfavorable accounting treatment or require us to change our compensation policies.

Accounting methods and policies, including policies governing revenue recognition, expenses, and accounting for stock options are subject to further review, interpretation and guidance from relevant accounting authorities, including the SEC. Changes to, or interpretations of, accounting methods or policies in the future may require us to reclassify, restate or otherwise change or revise our financial statements, including those contained in this prospectus.

Prior to January 1, 2006, we were not required to record stock-based compensation charges if the employee's stock option exercise price equaled or exceeded the fair market value of our common stock at the date of grant. As permitted by SFAS No. 123, we accounted for share-based payments to employees through December 31, 2005 using APB Opinion No. 25's intrinsic value method and, as such, generally recognized no compensation cost for employee stock options. Accordingly, the adoption of SFAS No. 123R's fair value method will have a material adverse impact on our results of operations, although it will have no impact on our overall financial position. The actual impact of adoption of SFAS No. 123R will depend on levels of share-based payments granted in the future and the assumptions for the variables which impact the computation.

We rely heavily on stock options to motivate existing employees and to attract new employees. Since we are now required to expense stock options, we may then choose to reduce our reliance on stock options as employee compensation. If we reduce our use of stock options, it may be more difficult for us to attract and retain qualified employees. If we do not reduce our reliance on stock options, our reported losses will increase.

#### Our pilot manufacturing recovery operations are currently conducted at a single location which makes us susceptible to disasters.

Our pilot manufacturing recovery operations are currently conducted at a single location in Fort Mill, South Carolina. As part of the strategic alliance with ADM, ADM intends to construct a 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. 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.

#### **Risks Related to This Offering**

There is no existing market for our common stock, and we do not know if one will develop to provide you with adequate liquidity. If the stock price fluctuates after this offering, you could lose a significant part of your investment.

Prior to this offering, there has been no public market for our common stock. An active public trading market may not develop after completion of this offering or, if developed, may not be sustained. The initial public offering price for our common stock will be determined by negotiations between us and the underwriters and may not be indicative of prices that will prevail in the open market following this offering. The public trading price for our common stock after this offering will be affected by a number of factors, including:

- reported progress of our business and technology development, including construction of the commercial plant 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, you may not be able to resell your shares at, or above, the initial offering 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. These factors may materially and adversely affect the market price of our common stock.

#### New investors in our common stock will experience immediate and substantial dilution.

Our initial public offering price is substantially higher than the book value per share of our common stock. If you purchase common stock in this offering, you will incur immediate dilution of \$ in net tangible book value per share of common stock, based on an assumed initial public offering price of \$ per share, the mid-point of the range on the front cover of this prospectus. In addition, the number of shares available for issuance under our stock plans may increase annually without further stockholder approval. Investors will incur additional dilution upon the exercise of stock options and warrants. See "Dilution."

#### If a substantial number of shares become available for sale and are sold in a short period of time, the market price of our common stock could decline.

If our existing stockholders sell a large number of shares of our common stock or the public market perceives that these sales may occur, the market price of our common stock could decline. Upon the closing of this offering and the sale of the ADM Shares, assuming no outstanding options or warrants are exercised prior to the closing of this offering, we will have approximately shares of common stock outstanding. The shares to be sold under this prospectus will be freely tradable without restriction or further registration under the federal securities laws, unless purchased by our affiliates. Taking into consideration the effect of the 180-day lock-up agreements that have been entered into by certain of our stockholders, we estimate that the remaining shares of our common stock outstanding upon the closing of this offering will be available for sale pursuant to Rule 144, Rule 144(k) and Rule 701, as follows:

#### **Number of Shares**

shares will be immediately eligible for sale in the public market without restriction pursuant to Rule 144(k);

additional shares will be eligible for sale in the public market under Rule 144 or Rule 701 beginning 90 days after the date of this prospectus, subject to volume, manner of sale, and other limitations under those rules;

additional shares will become eligible for sale, subject to the provisions of Rule 144, Rule 144(k) or Rule 701, beginning 180 days after the date of this prospectus, upon the expiration of agreements not to sell such shares entered into between the underwriters and such stockholders; and

additional shares will be eligible for sale from time to time thereafter upon expiration of their respective one-year holding periods, but could be sold earlier if the holders exercise any available registration rights.

Existing stockholders holding an aggregate of shares of common stock (including shares of our common stock issuable upon conversion of our preferred stock or purchasable pursuant to warrants to purchase our common stock), based on shares outstanding as of June 30, 2006, have rights with respect to the registration of these shares of common stock with the SEC. See "Description of Capital Stock — Registration Rights." If we register these shares of common stock, these holders will be able to sell immediately those shares in the public market.

Piper Jaffray, on behalf of the underwriters, may in its sole discretion, at any time without notice, agree to release all or any portion of the shares subject to the lock-up agreements, which would result in more shares being available for sale in the public market at earlier dates. Sales of common stock by existing stockholders in the public market, the availability of these shares for sale, our issuance of securities or the perception that any of these events might occur could materially and adversely affect the market price of our common stock.

Our management will have broad discretion over the use of the proceeds to us from this offering and might not apply the proceeds of this offering in ways that increase the value of your investment.

Our management will have broad discretion to use the net proceeds from this offering, and you will have to rely on the judgment of our management regarding the application of these proceeds. Our management might not apply the net proceeds of this offering in ways that increase the value of your investment. We expect to use the net proceeds from this offering to make investments in equipment and operations for formulating *PHA Natural Plastics* to their final form for commercial sale and to finance our working capital needs, including to develop pilot plant manufacturing, marketing and sales and other pre-commercial activities related to our alliance with ADM, the hiring of additional personnel for expansion of our switchgrass research and development program, for conduct of research and development for new opportunities in, for example, the biological production of key chemicals and chemical intermediates for renewable resources, and for general corporate purposes. We have not allocated these net proceeds for any specific purposes. Our management might not be able to yield a significant return, if any, on any investment of these net proceeds.

#### Our directors and management will collectively control over % of our outstanding common stock.

Immediately after this offering, our directors and executive officers and their affiliates will collectively control approximately % of our outstanding common stock or approximately % if the underwriters exercise their over-allotment option in full. As a result, these stockholders, if they act together, will be able to influence our management and affairs and all matters requiring stockholder approval, including the election of directors and approval of significant corporate transactions. You and other stockholders will have minimal influence over these actions. This concentration of ownership may have the effect of delaying or preventing a change in control of our company and might 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";
- 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 inherently 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 you might otherwise receive a premium for your 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;
- 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 you could receive a premium for your common stock in an acquisition.

We do not currently intend to pay dividends on our common stock and, consequently, your ability to achieve a return on your 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, you are not likely to receive any dividends on your common stock for the foreseeable future.

#### SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements. All statements other than statements of historical facts contained in this prospectus, including statements regarding our future results of operations and financial position, business strategy and plans prospects, projected revenue or costs and objectives of management for future research, development or operations, are forward-looking statements. These statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements, although not all forward-looking statements contain these identifying terms. We have identified below some important factors that could cause our forward-looking statements to differ materially from actual results, performance or financial conditions:

- our ability to become profitable;
- the ability of our products to achieve market acceptance;
- our ability to successfully manufacture PHA Natural Plastics at commercial scale in a timely or economical manner;
- our reliance on ADM and on future collaborative partners;
- our inability to effectively protect our intellectual property and not infringe on the intellectual property of others;
- our inability to raise sufficient capital when necessary or at satisfactory valuations;
- our ability to successfully develop platforms and products other than our fermentation system for producing PHA Natural Plastics;
- the loss of key personnel; and
- other factors discussed elsewhere in this prospectus.

In some cases, you can identify forward-looking statements by terms such as "may," "will," "should," "expects," "plans," "anticipates," "could," "intends," "target," "projects," "contemplates," "believes," "estimates," "predicts," "potential" or "continue" or the negative of these terms or other similar words, although not all forward-looking statements contain these identifying terms. These statements are only predictions. We have based these forward-looking statements largely on our current expectations and projections about future events and trends that we believe may affect our business, financial condition and results of operations. We discuss many of the risks in greater detail under the heading "Risk Factors." Also, these forward-looking statements represent our estimates and assumptions only as of the date of this prospectus. Except as required by law, we assume no obligation to update any forward-looking statements after the date of this prospectus.

This prospectus also contains estimates and other statistical data made by independent parties and by us relating to market size and growth, commodity prices and other industry data. This data involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. We have not independently verified the statistical and other industry data generated by independent parties and contained in this prospectus and, accordingly, we cannot guarantee their accuracy or completeness. In addition, projections, assumptions and estimates of our future

performance and the future performance of the industries in which we operate are necessarily subject to a high degree of uncertainty and risk due to a variety of factors, including those described in "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and elsewhere in this prospectus. These and other factors could cause results to differ materially from those expressed in the estimates made by the independent parties and by us.

#### **USE OF PROCEEDS**

We estimate that the net proceeds to us of the sale of the common stock that we are offering will be approximately \$\) million or approximately \$\) million if the underwriters exercise their over-allotment option in full, assuming an initial public offering price of \$\) per share, which is the midpoint of the range listed on the cover page of this prospectus, and after deducting estimated underwriting discounts and commissions and estimated offering expenses that we must pay. A \$1.00 increase (decrease) in the assumed initial public offering price of \$\) would increase (decrease) the net proceeds to us from this offering by \$\) million, assuming the number of shares offered by us, as set forth on the cover of this prospectus (and including the sale of the ADM Shares), remains the same and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. If the underwriters' overallotment option is exercised in full, we estimate the net proceeds payable to us will be approximately \$\) million.

We intend to use the net proceeds of this offering to make investments in equipment and operations for pilot manufacturing and formulating *PHA Natural Plastics* to their final form for commercial sale, and to fund our working capital needs, including marketing and sales and other pre-commercial activities related to our alliance with ADM, the hiring of additional personnel, for research and development activities related to the ADM alliance, for expansion of our switchgrass research and development program, for conduct of research and development of new opportunities in, for example, the biological production of certain key chemicals and chemical intermediates from renewable resources and for general corporate purposes.

We may also use a portion of the net proceeds to us to expand our current business through strategic alliances with, or acquisitions of, other businesses, products, intellectual properties or technologies. We currently have no agreements or commitments for any specific acquisitions at this time.

This expected use of the net proceeds of this offering represents our current intentions based upon our present plans and business condition. The amounts and timing of our actual expenditures will depend upon numerous factors, including cash flows from operations and the anticipated growth of our business. We will retain broad discretion in the allocation and use of our net proceeds. See "Risk Factors — Risks Related to This Offering — Our management will have broad discretion over the use of proceeds to us from this offering and might not apply the proceeds of this offering in ways that increase the value of your investment."

Pending any use, as described above, we plan to invest the net proceeds in investment-grade, short-term, interest-bearing securities.

#### DIVIDEND POLICY

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.

#### **CAPITALIZATION**

The following table sets forth our capitalization as of March 31, 2006, as follows:

- on an actual basis; and
- on a pro forma as adjusted basis to give effect to the conversion of all of our convertible preferred stock into shares of our common stock, and to reflect receipt by us of net proceeds of \$ from the sale of shares of common stock that we are offering at an assumed initial public offering price of \$ per share, which is the midpoint of the range listed on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us, and to reflect the sale of ADM Shares at an assumed initial public offering price of \$ per share.

You should read the following table in conjunction with our financial statements and related notes and the sections entitled "Selected Financial Data" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" appearing elsewhere in this prospectus.

	As of March 31, 2006		
	Actual		Pro forma as adjusted
	(	except share and e amounts)	
Cash and cash equivalents <sup>(1)</sup>	\$	685	\$
Short term investment		16,360	
Total debt		1,441	
Preferred stock		61,442	
Stockholders' equity (deficit):			
Common stock, \$.01 par value; 26,500,000 shares authorized, 2,498,666 shares issued, and 2,485,666 shares outstanding, actual; 100,000,000 shares authorized, shares issued and outstanding, pro forma as			
adjusted;		25	
Treasury stock (at cost), 13,000 shares		(35)	
Additional paid-in capital <sup>(1)</sup>		3,694	
Accumulated deficit		(50,475)	
Total stockholders' (deficit) <sup>(1)</sup>		(46,791)	
Total capitalization <sup>(1)</sup>	\$	16,092	\$

A \$1.00 increase (decrease) in the assumed initial public offering price of \$ would increase (decrease) each of cash and cash equivalents, common stock, additional paid-in capital, total stockholders' equity and total capitalization by \$ million, assuming the number of shares offered by us, as set forth on the cover of this prospectus (and including the sale of the ADM Shares), remains the same and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us.

#### DILUTION

Our net tangible book value as of March 31, 2006, was \$	million, or \$	per share of common stock. Net tangible book value per share
represents the amount of our total tangible assets less our total lia	bilities, divided by the	number of shares of common stock outstanding as of March 31, 2006
after giving effect to the assumed conversion of all of our conver	tible preferred stock.	

After giving effect to the sale by us of shares of common stock in this offering at an assumed initial public offering price of \$ per share, which is the midpoint of the range listed on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us, and after giving effect to the sale by us of the ADM Shares at an assumed initial public offering price of \$ , our adjusted net tangible book value as of March 31, 2006 would have been approximately \$ million, or approximately \$ per share. This amount represents an immediate increase in net tangible book value of \$ per share to our existing stockholders and an immediate dilution in net tangible book value of approximately \$ per share to new investors purchasing shares of common stock in this offering at the assumed initial public offering price. We determine dilution by subtracting the adjusted net tangible book value per share after this offering from the amount of cash that a new investor paid for a share of common stock. The following table illustrates this dilution on a per share basis:

Initial public offering price per share	\$
Net tangible book value as of March 31, 2006	\$
Increase attributable to this offering	
Adjusted net tangible book value per share after this offering	
Dilution in net tangible book value per share to new investors	\$

The following table summarizes, as of March 31, 2006, the differences between the number of shares purchased from us, the total consideration paid to us in cash and the average price per share that existing stockholders and new investors paid. The following table does not reflect any non-cash consideration paid to us, or deemed to be paid to us, by our existing stockholders. The calculation below is based on an assumed initial public offering price of \$ per share, which is the midpoint of the range listed on the cover page of this prospectus, before deducting estimated underwriting discounts and commissions and estimated offering expenses that we must pay:

	Shares Pi	Shares Purchased		ideration	
	Number	Percent	Amount	Percent	Average Price Per Share
Existing stockholders		%	\$	% \$	
New investors					
Total		%	\$	% \$	

A \$1.00 increase (decrease) in the assumed initial public offering price of \$ would increase (decrease) our pro forma net tangible book value per share after this offering by \$ per share, the pro forma as adjusted net tangible book value per share after this offering by \$ per share and the dilution in pro forma net tangible book value to new investors by \$ per share, assuming the number of shares offered by us, as set forth on the cover of this prospectus (and including the sale of the ADM Shares), remains the same and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

As of March 31, 2006, we had outstanding options to purchase a total of 2,493,441 shares of common stock at a weighted average exercise price of \$1.97 per share, and outstanding warrants to purchase a total of 2,309,822 shares of common stock at a weighted average exercise price of \$5.41 per share. To the extent any of these options or warrants are exercised, there will be further dilution to new investors.

# SELECTED FINANCIAL DATA

The selected condensed consolidated statement of operations data for the years ended December 31, 2003, 2004 and 2005 and balance sheet data as of December 31, 2004 and 2005 have been derived from our consolidated financial statements and related notes, which are included elsewhere in this prospectus, 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, 2001 and 2002 and the balance sheet data as of December 31, 2001, 2002 and 2003 have been derived from our audited financial statements that do not appear in this prospectus. 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 prospectus. The historical results are not necessarily indicative of the results to be expected for any future period.

The selected condensed consolidated statement of operations data for the three months ended March 31, 2006 and 2005 and the selected condensed consolidated balance sheet data as of March 31, 2006 have been derived from our unaudited condensed consolidated financial statements included elsewhere in this prospectus. Our unaudited condensed consolidated financial statements have been prepared on the same basis as the audited consolidated financial statements and notes thereto, which include, in the opinion of our management, all adjustments (consisting of normal recurring adjustments), necessary for a fair statement of the information for the unaudited interim period. Our historical results for any prior or interim period are not necessarily indicative of results to be expected for a full fiscal year or for any future period.

			Year	ended December	· 31,				_	Three month March 3	
	2001		2002	2003		2004	2005			2005	2006
										(unaudit	ed)
				(in tho	ısandı	s, except share a	and per share d	ata)			
Statement of Operations Data:											
Total revenue	\$ 441	\$	1,989	\$ 2,383	\$ \$	3,678	\$	2,781	\$	701 \$	3,081
Operating expenses: Research and development expenses,								_	-		
including cost of revenue	6,309(1)		4,409	6,204		5,427		5,980		1,367	2,131
General and administrative expenses	3,024		2,644	2,692	2	3,252		3,825		923	1,382
Total operating expenses	9,333		7,053	8,896	5	8,679		9,805		2,290	3,513
Loss from operations	(8,892)		(5,064)	(6,513	3)	(5,001)	C	7,024)		(1,589)	(432)
Interest income and (expense), net	(44)		(124)	(128		(54)	(	99		3	131
Loss on investment in related party	_		_	_	-	_		$(700)^{(2)}$		_	_
		_			_				_		
Net loss	\$ (8,936)	\$	(5,188)	\$ (6,641	.) \$	(5,055)	\$ (	7,625)	\$	(1,586) \$	(301)
Net loss per share Basic and Diluted	\$ (4.10)	\$	(2.38)	\$ (2.73	3) \$	(1.37)	\$	(2.09)	\$	(0.44) \$	(0.08)
Number of shares used in per share calculations Basic and Diluted	2,179,562		2,180,205	2,436,209	)	3,681,823	3 64	0,194		3,637,481	3,642,814
Pro forma net loss per share Basic and Diluted	2,173,302		2,100,200	2,450,200	<b>,</b>	5,001,025	3,04	0,154		3,037,401	5,042,014
(unaudited) <sup>(3)</sup>							\$	(0.60)		\$	(0.02)
Pro forma number of shares used in per share calculation Basic and Diluted (unaudited) <sup>(3)</sup>							12,71	5,068			14,895,299

<sup>(1)</sup> Research and development expenses include the cost associated with acquired technology of \$3,000.

<sup>(2)</sup> At December 31, 2005, we determined that the fair value of our preferred stock investment in Tepha, Inc. was impaired and recorded an asset impairment charge as to our entire investment in Tepha, Inc.

<sup>(3)</sup> We have computed the pro forma basic and diluted net loss per common share and the shares used to compute pro forma basic and diluted net loss per common share included in the statement of operations data as we describe in Note 2 to our consolidated financial statements.

The summary consolidated balance sheet data as of March 31, 2006 is presented:

- on an actual basis; and
- on a pro forma as adjusted basis to reflect:
- the conversion of all of our outstanding preferred stock into shares of our common stock;
- the receipt by us of net proceeds of \$ million from the sale of the shares of common stock offered by us in this offering at an assumed public offering price of \$ per share, less underwriting discounts and commissions and estimated offering expenses payable by us; and
- the receipt by us of proceeds of \$7.5 million from the sale of the \$ ADM Shares in a concurrent private placement at an assumed price of \$ per share.

			1					
	2001		2002	2003	2004	2005	As of March 31, 2006	Pro forma as adjusted
							(unaudited)	
					(in thous	sands)		
Balance Sheet Information:								
Cash and short-term investments	\$	298 \$	868	\$ 1,495	\$ 4,455	\$ 3,174	\$ 17,045	\$
Total assets		1,202	2,561	3,331		7,325		
Long-term obligations		1,455	857	266		1,280	1,239	
Long-term deferred revenue		_	_	_	5,000	5,621	3,917	
Total liabilities		3,972	3,588	4,546	7,246	9,874	7,677	
Redeemable convertible preferred stock		22,490	27,764	32,640	39,235	44,009	61,442	
Accumulated deficit	(	25,666)	(30,855)	(37,495	(42,549)	(50,175)	(50,475)	
Total stockholders' equity (deficit)	(:	25,259)	(28,791)	(33,855	(38,971)	(46,558)	(46,791)	

# MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our financial statements and related notes that appear elsewhere in this prospectus. In addition to historical financial information, the following discussion contains forward-looking statements that reflect our plans, estimates and beliefs. Our actual results may differ materially from those discussed in the forward-looking statements. Factors that could cause or contribute to these differences include those discussed below and elsewhere in this prospectus, particularly in "Risk Factors."

## Overview

We are a leading biotechnology company that develops and plans to commercialize environmentally sustainable, economically attractive alternatives to petrochemical-based plastics, fuels and chemicals. Our strategy is to develop technology platforms that integrate advanced biotechnology with current industrial practice and commercialize these platforms with industry leading strategic partners. Our first platform, which we will be commercializing through a strategic alliance with Archer Daniels Midland Company, or ADM, is a proprietary, large-scale microbial fermentation system for producing a versatile family of naturally occurring polymers known as polyhydroxyalkanoates, which we call *PHA Natural Plastics*. Through the alliance with ADM, we intend to sell these polymers as environmentally friendly, but functionally equivalent alternatives to petrochemical-based plastics in a wide range of commercial applications, including disposable goods, packaging, agricultural products, consumer goods and electronics. As part of the strategic alliance with ADM, we have announced plans to build a 50,000 ton annual capacity commercial scale plant, or the Commercial Manufacturing Facility, that will produce biodegradable *PHA Natural Plastics* out of corn sugar, an abundant agriculturally-produced renewable resource. We are currently producing pre-commercial quantities of *PHA Natural Plastics* jointly with ADM at a pilot plant having a capacity of 10 tons per month.

Our second technology platform, which is in an early stage, is a biomass biorefinery system using switchgrass to co-produce both *PHA Natural Plastics* and biomass feedstock for the production of ethanol. 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 ethanol production. We believe that using switchgrass to co-produce these 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 with support from the U.S. Department of Energy and the U.S. Department of Agriculture for several years, and we believe we are a scientific leader in this field. Our goals for this program are to have commercially viable switchgrass varieties in pilot field trials within four years and to establish strategic alliances with attractive partners to commercially exploit this platform.

To date, we have generated revenues primarily from government grants and to a lesser extent from license fees, royalty payments, and research and development revenue. We have funded our operations primarily through the sale of equity securities, government grants and, more recently, from upfront and milestone payments from our collaborative partners.

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 50,000 ton per year capacity. Upon achievement of such goals, ADM Polymer had the option

to enter into a commercial alliance, by execution of a Commercial Alliance Agreement, for further research, development, manufacture, use and sale of *PHA Natural Plastics*. In November of 2004, we received a \$3.0 million upfront payment from ADM, and in May 2006, we received \$2.0 million in milestone payments associated with the achievement of certain goals. On July 12, 2006, ADM Polymer exercised its option under our Technology Alliance and Option Agreement and entered into a Commercial Alliance Agreement with us. Consequently, we anticipate our funding from commercial partners under collaborative arrangements to rise as the Commercial Alliance Agreement calls for up to 12 quarterly payments of \$1.575 million during the construction period of the Commercial Manufacturing Facility. The first two such payments totaling \$3.15 million are due and payable on or before July 22, 2006.

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 pilot manufacturing of *PHA Natural Plastics*. Commercialization of *PHA Natural Plastics* will require significant additional expenditures, including research and development, pilot manufacturing, product development and sales and marketing organization development, and we expect these expenditures to increase in future years.

As of June 30, 2006, we had 43 full-time employees, of whom 31 are scientists specializing in *PHA Natural Plastics* production in microbial fermentation and plant technologies as well as extraction and manufacturing of *PHA Natural Plastics* from these technologies. We expect that we will add a significant number of employees in 2006 to support our research, development, sales and marketing and to build the infrastructure necessary to operate as a public company.

We have incurred significant losses since our inception. As of March 31, 2006, our deficit accumulated from inception to date was \$50.5 million and total stockholders' deficit was \$46.8 million. We recognized net losses of \$7.6 million, \$5.1 million and \$6.6 million in 2005, 2004 and 2003, respectively and \$0.3 million and \$1.6 million in the first quarter of 2006 and 2005, respectively. We expect our net losses to increase in the next two years as we continue our pilot manufacturing development, expand our research and development and add the necessary infrastructure to support operating as a public company.

# **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.

We entered into our alliance with ADM in November 2004 and a joint development arrangement with BP in February 2005. As of March 31, 2006, all payments received from ADM had been recorded as deferred revenue on our balance sheet. We expect that future payments from ADM, including quarterly operating payments, milestone payments and other payments will be classified as deferred revenue as well. The deferred revenue associated with the BP arrangement was recognized in full during the first quarter of 2006 when that alliance was terminated. We anticipate recognizing revenue for the payments received from ADM after the obligations under the multiple element arrangements are delivered.

We received the following payments from these arrangements to offset operating cash needs during 2004 and 2005 and first quarter of 2006:

- upfront payment of \$3.0 million from ADM in November 2004;
- cost sharing payments from ADM for pilot manufacturing plant construction and operations of \$620,000 during 2005 and an additional \$221,000 during the first quarter in 2006; and
- upfront payment of \$1.0 million and subsequent 2 quarterly payments of \$500,000 each, totaling \$2.0 million in payments from BP during 2005.

#### Revenues

Revenues for the years ended December 31, 2005, 2004 and 2003 were primarily derived from government grants and totaled \$2.8 million, \$3.7 million and \$2.4 million, respectively. Revenues totaled \$3.1 million and \$0.7 million for the first quarter ended March 31, 2006 and 2005, respectively. The first quarter 2006 amounts include \$2.5 million of revenue associated with the termination of the BP joint development agreement. We expect the revenues from government grants to fluctuate due to availability of funding from the government, and the revenue from collaborative arrangements will be recognized as future obligations under the agreements are completed. We expect research and development revenue to decline for the remainder of 2006 as we are not anticipating any other revenue from collaborative agreements to be recognized.

# **Research and Development Expenses**

Our operating expenses to date have substantially been for research and development activities. Research and development expenses consist of costs associated with research activities, as well as costs associated with our product development efforts, including pilot manufacturing costs. All research and development costs, including those funded by third parties, are expensed as incurred. Research and development expenses include:

- consultant and employee related expenses, which include salary and benefits;
- external research and development expenses incurred under agreements with third party organizations and universities; and
- facilities, depreciation and other allocated expenses, which include direct and allocated expenses for rent and maintenance of facilities, depreciation of leasehold improvements and equipment and laboratory and other supplies.

Research and development expenses for 2005, 2004 and 2003 were \$6.0 million, \$5.4 million and \$6.2 million, respectively, and \$2.1 million and \$1.4 million in the first quarter of 2006 and 2005, respectively. These expenses are related to developing our platform technologies and *PHA Natural Plastics* pilot manufacturing production. We expect that our expenses will increase significantly during 2006 as we continue pilot manufacturing production and expand our research and development programs.

We expect to incur increasing research and development expenses in future periods as we continue our pilot manufacturing and product development trials for our product derived from microbial fermentation. The potential for commercial success of our *PHA Natural Plastics* may be impacted by

numerous factors, including partnership continuance with ADM, product properties, manufacturing capability and commercial viability.

In addition, we expect research and development expenditures to grow as we advance our switchgrass program and explore other commercial opportunities our technology platform can be applied to.

# **General and Administrative Expenses**

General and administrative expenses consist principally of salaries and related costs for personnel in executive, finance, accounting, marketing and sales, business development, information technology, legal and human resources functions. Other general and administrative expenses include patent related costs, facility costs not otherwise included in research and development expenses and professional fees for legal, consulting and accounting services.

General and administrative expenses were \$3.8 million, \$3.3 million and \$2.7 million in 2005, 2004 and 2003, respectively, and \$1.4 million and \$0.9 million in the first quarter of 2006 and 2005, respectively. These expenses include patent protection fees for our extensive patent portfolio. We anticipate that our general and administrative expenses will increase as we expand the necessary infrastructure to support operating as a public company.

# **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 the notes 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 formulation services, marketing 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 be recognized in future periods after the commencement of product commercialization and as the final deliverables under the arrangements are being completed. As of March 31, 2006, payments received from ADM totaling \$3,841,000 have been recorded as deferred revenue, including non-refundable up-front payments totaling \$3.0 million and

approximately \$841,000 in reimbursements related to pilot manufacturing construction and operating costs.

Under our joint development arrangement with BP, we received \$2.0 million in 2005. 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. We recognized the revenue for this amount, plus an additional \$0.5 million which became due in the first quarter of 2006, upon the termination notice from BP in January 2006, as we have been 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, the Company adopted Statement of Financial Accounting Standards ("SFAS") No. 123-revised, Share-Based Payment ("SFAS 123R"), 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 123R requires that all 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 123R using the prospective method of application, which 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 123R and will continue to be accounted for in accordance with APB 25. These options were valued using the minimum value method.

Determining the appropriate fair value model and calculating the fair value of stock-based payment awards require 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 payment 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 123R, we had adopted SFAS 123, but in accordance with SFAS No. 123, we had elected not to apply fair value-based accounting for our awards under the employee stock incentive plan through December 31, 2005. Instead, we have measured compensation expense for our stock plans using the intrinsic value method prescribed 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*.

In 2006, the Black-Scholes option pricing model employs the following key assumptions for option grants.

	March 31, 2006
Expected dividend yield	
Risk-free interest rate	4.37%
Expected option term (in years)	6.1
Volatility	75%

For the period ended March 31, 2006, expected volatility is based on review of the volatility of peer companies adjusted for newly public company increased expected volatility. Management believes that the historical volatility of the Company's stock price does not best represent the expected volatility of the stock price.

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 similar expected life.

For the period ended March 31, 2006, 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.

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 123R 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 with the adoption of SFAS 123R. In developing a forfeiture rate estimate, the Company considered its historical experience, its growing employee based and the limited liquidity of its common stock. If the actual number of forfeitures differs from those estimated by management, additional adjustments to compensation expense may be required in future periods.

We did not incur any material compensation expenses during the first quarter of 2006 due to the adoption of SFAS 123R on January 1, 2006. However we expect to record increased and material compensation expenses related to the adoption of SFAS 123R in later quarters of 2006 and future years as we continue to issue stock options to expand and retain our staffing in research and development and general and administrative functions.

We have historically granted stock options at exercise prices equivalent to the fair value of our common stock as estimated by our board of directors, with input from management, as of the date of grant. Because there has been no public market for our common stock, our board of directors determined the fair value of our common stock by considering a number of objective and subjective factors, including our operating and financial performance and corporate milestones, the prices at which we sold shares of convertible preferred stock, the superior rights and preferences of securities senior to our common stock at the time of each grant and the risk and non-liquid nature of our common stock. We have not historically obtained contemporaneous valuations by an unrelated valuation specialist because, at the time of the issuances of stock options, we believed our estimates of the fair value of our common stock to be reasonable based on the foregoing factors.

In connection with this offering, we re-assessed the valuation of our common stock at December 31, 2005. There was an immaterial difference between the original estimated fair value and the re-assessed valuation of the common stock related to the grants made during December 2005. Therefore we have not made any retrospective adjustments to our accounting for stock options.

In 2006, determining the fair value of our stock requires making complex and subjective judgments. Our approach to valuation of the enterprise is based on a discounted future cash flow approach that uses our estimates of revenue, driven by assumed market growth rates, and estimated costs as well as appropriate discount rates. These estimates are consistent with the plans and estimates that we use to manage the business. There is inherent uncertainty in making these estimates. The enterprise value was then allocated to preferred and common shares using the option-pricing method which involves making estimates of the anticipated timing of a potential liquidity event such as a sale of our company or an initial public offering, and estimates of the volatility of our equity securities. The anticipated timing is based on the plans of our board and management. Estimating the volatility of the share price of a privately held company is complex because there is no readily available market for the shares. We estimated the volatility of our stock based on available information on volatility of stocks of publicly traded companies in the industry. Had we used different estimates of volatility, the allocations between preferred and common shares would have been different.

# **Results of Operations**

## Comparison of the Quarters Ended March 31, 2006 and 2005

#### Revenue

Our revenue for the quarters ended March 31, 2006 and 2005 was \$3.1 million and \$0.7 million, respectively. We recognized revenue from research and development services of \$2.5 million and \$26,000 during first quarter 2006 and 2005, respectively. The increase was due to the recognition of \$2.5 million in revenue from our joint development arrangement with BP in the first quarter of 2006 upon the termination of the arrangement by BP in January 2006, as we have been released from any future performance obligations. We also recognized revenue for government grants of \$400,000 and \$600,000 during the first quarters of 2006 and 2005, respectively. In the first quarter of 2006, we recognized revenue of \$140,000 from license fees and royalty income as compared to \$42,000 in the same period for 2005.

# Research and Development Expenses

Research and development expenses increased to approximately \$2.1 million in the first quarter 2006 from \$1.4 million in the same period in 2005. The increase was due primarily to increased spending on pilot material production of *PHA Natural Plastics*, increased staffing and other personnel related costs to support our collaborative arrangements. We expect that research and development expenses for pilot manufacturing and testing of *PHA Natural Plastics* will continue to increase in later periods of 2006 as we prepare to develop, test and refine products to meet the product specification requirements of our customers. We expect that our staffing and personnel related costs will also increase to support the research programs for our microbial and plant programs. We did not incur any material expenses during the first quarter of 2006 due to the adoption of SFAS 123R on January 1, 2006, however we expect to record increased compensation expenses in later quarters of 2006 and future years.

#### General and Administrative Expenses

General and administrative expenses increased to \$1.4 million in the first quarter 2006 from \$0.9 million in the first quarter 2005. This increase was primarily due to increased staffing necessary to manage and support our preparation of going public. We did not incur any material expenses during the first quarter of 2006 due to the adoption of SFAS 123R on January 1, 2006, however we expect to record increased compensation expenses in future quarters of 2006 and future years.

We expect that our general and administrative expenses will increase as we expand our legal and accounting staff and marketing and sales staff, add infrastructure and incur additional costs related to operating as a public company, including directors' and officers' insurance, investor relations programs, increased director fees, increased professional fees and non-cash stock-based compensation expense.

# Comparison of the Years Ended December 31, 2005 and 2004

#### Revenue

Our revenue for 2005 and 2004 was \$2.8 million and \$3.7 million, respectively. We recognized revenue from government grants of \$2.4 million during 2005 as compared to \$3.2 million during 2004. The decrease of \$0.8 million of government grant revenue was due to the expiration of a government grant in 2005. We expect that our grant revenue will fluctuate year to year depending on available funding from government agencies. We recorded approximately \$2.6 million of payments from collaborative arrangements as deferred revenue. In 2005, we recognized revenue of \$242,000 from license fees and related royalty payments as compared to \$392,000 during 2004. The decrease was substantially due to a change in our assessment regarding the collectibility of certain license fees and royalty payments due from a related party which are now recognized on a cash basis. We also recognized \$106,000 and \$97,000 of research and development revenue during 2005 and 2004 respectively.

# Research and Development Expenses

Research and development expenses increased to \$6.0 million in 2005 from approximately \$5.4 million in 2004. The increase was due primarily to increased rent for expanded facilities and related operating expenses, as well as increased staffing and other personnel related costs to support our collaborative arrangements in 2005. We expect that research and development expenses for pilot manufacturing and testing of *PHA Natural Plastics* will continue to increase in 2006 as we prepare to test and refine product to meet the product specification requirements of our customers. We expect that our staffing and personnel related costs will also increase to support the research programs for our microbial and plant programs.

# General and Administrative Expenses

General and administrative expenses increased to \$3.8 million in 2005 from \$3.3 million in 2004. This increase was primarily due to increased patent costs for protecting our extensive and increasing patent portfolio, as well as some increased staffing necessary to manage and support our growth. We also expect to record additional compensation expenses related to the adoption of SFAS 123R in 2006 and future years.

We expect that our general and administrative expenses will increase as we expand our legal and accounting staff and marketing and sales staff, add infrastructure and incur additional costs related to operating as a public company, including directors' and officers' insurance, investor relations programs, increased director fees, increased professional fees and non-cash stock-based compensation expense.

# Loss on investment in related party

During 2005 we recorded an asset impairment charge of \$700,000 for an investment in Tepha, Inc., a related party. We do not expect to incur any additional such charges during 2006 as there is no remaining net book value. See Footnote 8 to our financial statements included in this prospectus.

# Comparison of the Years Ended December 31, 2004 and 2003

#### Revenue

Our revenue for 2004 and 2003 was \$3.7 million and \$2.4 million, respectively. We recognized revenue from government grants of \$3.2 million during 2004 as compared to \$2.1 million during 2003. The increase of approximately \$1.1 million of government grant revenue was due to the start of a new government grant in 2004 and the full year in operation of another multi-year grant received during 2003. We expect that our grant revenue will fluctuate year to year depending on available funding from government agencies. We recorded approximately \$3.0 million of payments in 2004 from collaborative arrangements as deferred revenue and we recognized \$234,000 of previously deferred government revenue. In 2004, we recognized revenue of \$392,000 from license fees and related royalty payments as compared to \$113,000 during 2003. The primary reason for this increase in royalties received was due to a licensing agreement with a related party. We also recognized \$97,000 and \$120,000 of research and development revenue during 2004 and 2003, respectively.

## Research and Development Expenses

Research and development expenses decreased to \$5.4 million in 2004 from \$6.2 million in 2003. The higher expenses during 2003 were due primarily to increased contract spending of \$0.5 million to test larger scale proof-of-concept production of *PHA Natural Plastics*.

## General and Administrative Expenses

General and administrative expenses increased to \$3.3 million in 2004 from \$2.7 million in 2003. This increase was primarily due to increased professional fees incurred to negotiate and enter into agreements relating to our alliance with ADM concluded during 2004 and our joint development arrangement with BP in early 2005. We also incurred increased consultant costs to manage and support our growth.

# **Income Taxes**

Since inception, we have incurred operating losses and, accordingly, have not recorded a provision for income taxes for any of the periods presented. As of December 31, 2005, we had net operating loss carryforwards for federal and state income tax purposes of \$26.0 million and \$16.8 million, respectively. As of December 31, 2005, we also had federal and state research and development tax credit carryforwards of \$1.1 million and \$0.9 million, respectively. If not utilized, the federal and state net operating loss and tax credit carryforwards will expire beginning in 2012. The annual limitation may result in the expiration of our net operating loss and tax credit carryforwards before they can be used and therefore we have fully reserved the associated tax asset. Utilization of net operating loss and credit carryforwards may be subject to a substantial annual limitation due to limitations provided by the Internal Revenue Code of 1986, as amended, that are applicable if we experience an "ownership change" that may occur, for example, as a result of this offering aggregated with certain other sales of our stock before or after this offering.

# **Liquidity and Capital Resources**

Since inception, we have financed our operations primarily through private placements of equity securities, receiving aggregate net proceeds from such sales totaling \$61.4 million, revenues primarily from government grants and our joint development arrangement with BP totaling \$15.0 million and payments arising from our strategic alliance with ADM of \$3.8 million as of March 31, 2006. As of

March 31, 2006, we had \$17.0 million in cash, cash equivalents and short-term investments. Our cash and investment balances are held in money market accounts and certificates of deposit. Cash in excess of immediate requirements is invested in certificates of deposits with regard to liquidity and capital preservation.

Net cash used in operating activities was \$2.5 million and \$0.9 million during the first quarters in 2006 and 2005, respectively and \$4.4 million, \$1.0 million and \$5.1 million in 2005, 2004 and 2003 respectively. The net cash used in each of these periods primarily reflects net loss for these periods, offset in part by depreciation, non-cash stock-based compensation for non-employees and non-cash changes in operating assets and liabilities. During 2004 the landlord for our new research facilities provided lease incentives to offset our leasehold improvement costs of approximately \$1.5 million and we also received \$3.0 million in payments under the alliance agreement with ADM. During 2005 we received \$2.0 million and \$620,000 in payments from the joint development arrangement with BP and alliance agreement with ADM, respectively.

Net cash used in investing activities was \$15.4 million and \$36,000 during the first quarters in 2006 and 2005, respectively, and \$1.9 million, \$3.1 million and \$35,000 in 2005, 2004 and 2003, respectively. Investing activities consist primarily of purchases and sales of marketable securities and capital purchases. During 2005, we rolled over the certificate of deposit along with an additional amount of interest earned amounting to \$36,000 and during 2004, we purchased a \$1.3 million certificate of deposit. During the first quarter in 2006 we purchased additional certificates of deposits for \$16.2 million and a certificate of deposit for \$1.2 million matured. Purchases of property and equipment were \$413,000 and \$35,000 during the first quarters in 2006 and 2005, respectively, and \$1.9 million, \$1.3 million and \$35,000 in 2005, 2004 and 2003, respectively. The majority of the purchase of property and equipment in 2004 related to our moving to a different location, mostly funded by the landlord through lease incentives. The primary increase in the purchase of property and equipment during 2005 was due to the construction costs of approximately \$1.2 million for our pilot manufacturing facility for the pilot production of *PHA Natural Plastics*, co-funded through our alliance with ADM, and approximately \$600,000 during 2005 and an additional \$300,000 during the first quarter of 2006 for the construction of a greenhouse to support our switchgrass program. We expect to continue to make significant investments in the purchase of property and equipment to support our pilot manufacturing and other efforts.

Net cash provided by financing activities was \$16.8 million and \$0.9 million during the first quarters in 2006 and 2005, respectively, and \$5.0 million in 2005 and \$5.8 million in each of 2003 and 2004. Financing activities consist primarily of proceeds from the sale of our preferred stock and promissory notes. We received net proceeds from the issuance of preferred stock of \$17.4 million and \$1.1 million during the first quarters in 2006 and 2005, respectively, and \$4.8 million, \$6.5 million in 2005, 2004 and 2003, respectively. Payments on a convertible promissory note and capital lease obligations were each of \$417,000, \$721,000 and \$521,000 during 2005, 2004 and 2003, respectively.

# **Operating Capital and Capital Expenditure Requirements**

We anticipate commercializing our first product through our alliance with ADM during 2008. However, we anticipate that we will continue to incur net losses for the next several years as we incur expenses to commercialize our *PHA Natural Plastics*, and expand our marketing, sales, manufacturing and corporate infrastructure.

We believe that our cash, cash equivalents and short-term marketable securities balances, and the interest we earn on these balances, as well as cash expected from our ADM alliance plus the proceeds of this offering, will be sufficient to meet our anticipated cash requirements with respect to the initial commercial launch of our *PHA Natural Plastics* 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 seek 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.

Because of the numerous risks and uncertainties associated with the plant construction and commercialization of *PHA Natural Plastics*, we are unable to estimate the exact amounts of capital outlays and operating expenditures. Our future funding requirements will depend on many factors, including, but not limited to:

- continued funding and support payments from our key alliance agreement with ADM;
- the expenditures related to continued pilot production of PHA Natural Plastics during this period;
- costs related to the building of our formulation facility pursuant to the ADM alliance;
- successful commercialization commencement in 2008;
- our ability to scale our manufacturing operations to meet demand for PHA Natural Plastics;
- the revenue generated by sales of our *PHA Natural Plastics*;
- the expenses we incur in manufacturing, developing, marketing and selling our products;
- the costs and timing of additional regulatory approvals;
- the costs of filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights;
- the rate of progress and cost of our product development activities;

- the requirements for the development and commercialization of PHA Natural Plastics produced in switchgrass and, perhaps, other crop platforms;
- the success of our research and development efforts;
- the emergence of competing or complementary technological developments;
- the terms and timing of any collaborative, licensing and other arrangements that we may establish; and
- the acquisition of businesses, products and technologies, although we currently have no commitments or agreements relating to any of these types
  of transactions.

# **Off-Balance Sheet Arrangement**

As of March 31, 2006, 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**

Our future contractual obligations primarily for future rental payment obligations on the current office and lab space, including financing costs, at December 31, 2005 were as follows:

Payment	aue	υy	perioa	

Contractual Obligations	_	Fotal	Less than 1 year	2-	3 years	4-	-5 years	More than 5 years
Operating lease obligations	\$	8,385	\$ 988	\$	1,976	\$	1,977	\$ 3,444
Capital lease obligations	\$	63	\$ 63	\$	0	\$	0	\$ 0
Purchase obligations	\$	250	\$ 25	\$	50	\$	50	\$ 125
Total	\$	8,698	\$ 1,076	\$	2,026	\$	2,027	\$ 3,569

# **Related Party Transactions**

We have recorded license and royalty revenue from a related party and have an option grant to a related party. We also have various transactions with our alliance partner ADM, a related party. Additionally, the Company recorded as impairment charge on a related party investment. For a full description, see Note 8 to our notes to consolidated financial statements and the "Certain Relationships and Related Party Transactions."

# **Recent Accounting Pronouncements**

In December 2004, the Financial Accounting Standards Board ("FASB") issued SFAS No. 123R, which replaces SFAS No. 123 and supersedes APB No. 25. SFAS No. 123R will require all share-based payments to employees, including grants of employee stock options, to be recognized in the statement of operations based on their fair values. The Company implemented SFAS No. 123R in the reporting period beginning January 1, 2006, which resulted in an immaterial effect on its stock compensation expense for the period ended March 31, 2006. The Company expects stock compensation expense to materially increase in future periods as a result of the adoption of this standard and future possible stock grant activity.

In April 2005, the FASB issued FASB Interpretation No. 47, *Accounting for Conditional Asset Retirement Obligations* — *an interpretation of FASB Statement No. 143* ("FIN No. 47"). FIN No. 47 expands on the accounting guidance of Statement of Financial Accounting Standards No. 143, *Accounting for Asset Retirement Obligations* ("SFAS No. 143"), providing clarification of the term, conditional asset retirement obligation, and guidelines for the timing of recording the obligation. The interpretation is effective for fiscal years ending after December 15, 2005. The Company adopted FIN No. 47 and has recorded a long-term liability for its asset retirement obligations of \$66,218, and an associated non-current asset of \$64,615, at December 31, 2005 which represents the contractual obligations associated with the potential removal of a leasehold addition constructed during 2005.

In May 2005, the FASB issued Statement of Financial Accounting Standards No. 154, *Accounting Changes and Error Corrections*, a replacement of APB Opinion No. 20, *Accounting Changes*, and FASB issued Statement of Financial Accounting Standards No. 3, *Reporting Accounting Changes in Interim Financial Statements* ("SFAS 154"). SFAS No. 154 requires retrospective application to prior period financial statements of changes in accounting principle, unless it is impracticable to determine either the period-specific effects or the cumulative effect of the change. This statement requires that retrospective application of a change in accounting principle be limited to the direct effects of a change. SFAS 154 is effective for accounting changes and corrections of errors made in fiscal years beginning after December 15, 2005.

# Quantitative and Qualitative Disclosures about Market Risk

We had unrestricted cash, cash equivalents, short-term investments and restricted cash totaling \$17.5 million at March 31, 2006. The unrestricted cash and cash equivalents are held for working capital purposes. We do not enter into investments for trading or speculative purposes. Some of the securities in which we invest, however, may be subject to market risk. This means that a change in prevailing interest rates may cause the principal amount of the investment to fluctuate. To minimize this risk in the future, we intend to maintain our portfolio of cash equivalents and short-term investments in a variety of securities, including commercial paper, money market funds, debt securities and certificates of deposit. Due to the short-term nature of these investments, we believe that we do not have any material exposure to changes in the fair value of our investment portfolio as a result of changes in interest rates. As of March 31, 2006 all of our investments were held in money market accounts and certificates of deposit.

#### **BUSINESS**

#### Overview

We are a leading biotechnology company that develops and plans to commercialize environmentally sustainable, economically attractive alternatives to petrochemical-based plastics, fuels and chemicals. 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 will be commercializing through a strategic alliance with Archer Daniels Midland Company, or ADM, is a proprietary, large-scale microbial fermentation system for producing a versatile family of naturally occurring polymers known as polyhydroxyalkanoates, which we call *PHA Natural Plastics*. Through the alliance with ADM, we intend to sell these polymers as environmentally friendly, but functionally equivalent alternatives to petrochemical-based plastics in a wide range of commercial applications, including disposable goods, packaging, agricultural products, consumer goods and electronics. Also, as part of the strategic alliance with ADM, we have announced plans to build a 50,000 ton annual capacity commercial scale plant, or the Commercial Manufacturing Facility, that will produce biodegradable *PHA Natural Plastics* out of corn sugar, an abundant agriculturally-produced renewable resource. We are currently producing pre-commercial quantities of *PHA Natural Plastics* jointly with ADM at a pilot plant having a capacity of 10 tons per month.

Our second technology platform, which is in an early stage, is a biomass biorefinery system using switchgrass to co-produce both *PHA Natural Plastics* and biomass feedstock for the production of ethanol. 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 ethanol production. We believe that using switchgrass to co-produce these 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 with support from the U.S. Department of Energy and the U.S. Department of Agriculture for several years, and we believe we are a scientific leader in this field. Our goals for this program are to have commercially viable switchgrass varieties in pilot field trials within four years and to establish strategic alliances with attractive 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 other products and chemicals to help establish and grow an environmentally sustainable chemical industry.

We intend to explore the opportunities to apply our core capabilities in microbial engineering and plant transformation to develop biological routes to other chemicals and chemical intermediates and to research switchgrass varieties with improved traits for higher yields and greater ease of conversion to fuels such as ethanol.

To exploit our first technology platform, we are working with ADM to build the Commercial Manufacturing Facility in Clinton, Iowa which we expect will commence commercial production of

PHA Natural Plastics in 2008. The facility will produce PHA Natural Plastics which are highly versatile and range in properties from strong, moldable thermoplastics to highly elastic materials and soft, sticky compositions. They can be made as resins or as latex with excellent film-forming characteristics. 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 the strategic alliance with ADM we intend to initially position PHA Natural Plastics as premium priced specialty materials catering to customers who want to match the functionality of petrochemical-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 pilot production of material at a 10 ton per month scale facility, 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; or
- selling products where biodegradability is a key functional requirement.

We own over 320 issued patents and 100 patent applications world wide, and have licensed an additional 60 issued patents and 32 patent applications world wide. These patents cover, among other things, the fundamental biotechnology needed to produce *PHA Natural Plastics* as well as compositions, processes and derived products.

# **Market Opportunity**

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

The markets for petrochemical-based plastics, fuels and chemicals are among the largest in the global economy. While these markets encompass a diverse array of products, they are all derived from fossil fuels, particularly petroleum and natural gas. The prolonged broad use of these petrochemical-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 renewable, sustainable and not dependent on fossil fuels.

Plastic Waste Management and Pollution — According to the U.S. Environmental Protection Agency, 26.7 million tons of plastic solid waste was deposited into the U.S. municipal solid waste ("MSW") stream in 2003. Plastics are a rapidly growing contributor to U.S. MSW, having increased from less than 1% in 1960 to over 11% in 2003. In spite of intensive efforts to promote collection and recycling, only 1.4 million tons of plastic or 5.2% of plastic solid waste was recycled that year. While the balance is deposited in land fills 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 to consider legislation banning the use of such plastic items or imposing significant taxes on them.

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 been attempted through recycling legislation, it is still recognized that other solutions will need to be pursued to address the problem.

The threat that petrochemical-based plastics pose to the marine ecosystem has been well documented. Recent 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-\$3 billion.

The Rising Cost of Fossil Fuel — According to the U.S. Department of Energy's Report on International Energy Outlook dated July 2005, worldwide demand for oil is expected to rise by over 50% from 78 million barrels a day in 2002 to 119 million barrels a day in 2025. World oil prices have increased from an average of \$36 per barrel in 2004 to over \$70 per barrel in 2006. 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. According to the American Chemistry Council, approximately 9% of the oil and natural gas consumed in the United States is used in the production of plastics. 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 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 wide spread 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 been in line with overall economic growth as plastics have entered numerous new markets and product applications based on their functionality and ability to meet numerous user requirements. Plastics that perform well in extreme environment conditions and applications, offering good thermal and electrical insulating properties and corrosion resistance have been developed. By varying formulations and additive packages, plastic products can be produced in many shapes, sizes, colors and densities that satisfy specific application needs. Consequently, plastics are sold into a highly diverse set of markets including: electronics, automotive, furnishings, building and construction, textiles, packaging, and consumer products.

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 commodity 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. According to SRI Consulting, in 2004, the total global consumption of commodity grade plastics constituted approximately 90% of the total plastics market on a volume basis and amounted to over 260 billion pounds. Specialty polymers fill niches within the broader plastics market by offering unique and tailored functionalities and characteristics that cannot be addressed by the commodity classes. In 2004 this category of plastic constituted just over ten percent of the total plastic market on a volume basis and amounted to over 35 billion pounds of consumed material. Some of the more widely known specialty polymers include polycarbonate, ABS (Acrylonitrile Butadiene Styrene), nylon and thermoplastic elastomers. 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 Biofuels Markets

According to the U.S. Department of Energy's Report on International Energy Outlook July 2005, worldwide demand for oil is expected to rise by over 50% from 78 million barrels a day in 2002 to 119 million barrels a day in 2025. The issues surrounding petrochemicals discussed above have given rise to increasing demand for fuels produced from renewable sources. Biofuels such as ethanol and biodiesel are produced from renewable sources such as corn, sugar cane and rapeseed. In 2005, a record 4 billion gallons of ethanol was produced in the United States, an increase of 17% from 2004 and 126% since 2001. Even so, ethanol represented less than 3% of 140 billion gallons of gasoline

consumed in the United States in 2005. In August 2005, the United States enacted the Energy Policy Act of 2005, creating a national Renewable Fuels Standard (RFS) to encourage increased usage of ethanol. With the enactment of the nationwide RFS, the United States has made a commitment to renewable fuels, such as ethanol and biodiesel. The Act establishes a baseline for renewable fuel use, beginning with 4 billion gallons per year in 2006 and expanding to 7.5 billion gallons by 2012. The vast majority of the renewable fuel used is expected to be ethanol, necessitating a doubling of the domestic ethanol industry in the next 6 years. In addition to rising gasoline and oil prices, other factors will contribute to increased demand for biofuels. Many states are considering legislation to capitalize on the environmental and energy security benefits of renewable fuels by requiring their use.

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. The Energy Policy Act 2005 provides that beginning in 2013, a minimum of 250 million gallons a year of cellulosic derived ethanol must be included in the RFS. It also creates grant and loan guarantee programs for cellulose ethanol.

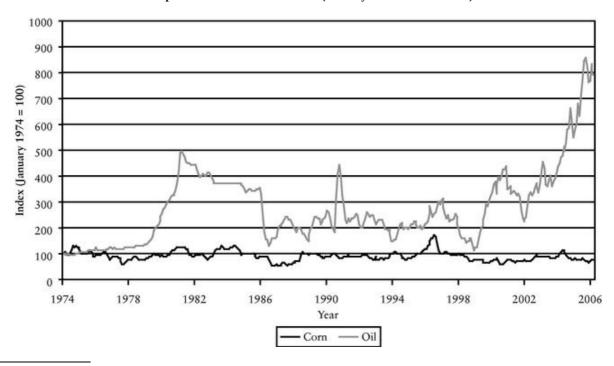
#### The Metabolix Solution

We use biotechnology to develop and plan to commercialize an economically attractive, environmentally sustainable alternative to petrochemical-based plastics that is both biodegradable and functionally equivalent to traditional petrochemical-based plastics. The use of a renewable agricultural feedstock as a manufacturing input and the biodegradability of *PHA Natural Plastics* can potentially address many of the issues associated with petrochemical-based products. Our *PHA Natural Plastics* degrade into water and carbon dioxide.

A Solution to Plastic Waste and Pollution from Persistent Plastics — PHA Natural Plastics are biodegradable under a wide variety of conditions and therefore offer 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, PHA Natural Plastics will decompose in landfills where air, moisture and bacteria are present. They will also rapidly decompose in the biologically intense environment of a waste treatment facility and will degrade when flushed into household septic systems. They are recyclable and can be cleanly incinerated, and can also be degraded in industrial or backyard composting environments. PHA Natural Plastics will also biodegrade in aquatic environments, and so offer a solution to the hazard of persistent plastics in wetland, river, coastal, and ocean ecosystems. It is critical to note, however, that PHA Natural Plastics are functionally durable and do not spontaneously degrade in cold, hot or wet conditions.

Leveraging the Stability of Agricultural Commodity Pricing — Our use of corn sugar as a feedstock to produce PHA Natural Plastics reduces the reliance on fossil fuel as the primary input source, thus significantly addressing the effects of the increasing cost of fossil fuel. The prices of agricultural commodities, and corn in particular, have been relatively stable during the past few decades compared to the price of fossil fuel, which has significantly increased over the same period. We expect that polymers based on agricultural feedstock, such as PHA Natural Plastics, may experience a more predictable cost structure and may become competitive to traditional petrochemical-based polymers over time. The chart below shows that over the past 32 years, the price of corn has remained relatively stable while the price of oil has been volatile and has risen by approximately eight times.

# Comparison of Oil and Corn Prices (January 1974 to March 2006)



Sources: Monthly Crude Oil Prices, January 1974 to March 2006; Energy Information Administration Monthly Corn for Grain Prices, January 1974 to March 2006; USDA National Agricultural Statistic Service

**Reducing Dependency on Foreign Energy** — We believe the widespread use of our *PHA Natural Plastics* can help lower the United States' exposure to oil imported from politically unstable countries. In addition, we believe that the PHA-producing switchgrass which we intend to develop offers 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 159 million tons of PHA-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.

**Decreasing Carbon Dioxide Emissions** — We believe that the widespread use of our *PHA Natural Plastics* can not only decrease the use of fossil fuel but also can reduce the emission of carbon dioxide into the atmosphere. While the production of *PHA Natural Plastics* produces carbon dioxide, both the agricultural production of corn feedstock for microbial fermentation and the direct production of *PHA Natural Plastics* in plants such as switchgrass have the added benefit of removing carbon dioxide from the environment through photosynthesis. While fermentation processes do require electricity which may be generated by carbon dioxide emitting sources, the increasing availability of clean power (such

as biomass, cogeneration, wind or solar power) is an attractive alternative to employ as the business develops.

#### History of PHA Natural Plastics and Formation of Metabolix

Polymers are found in nature in a wide range of organisms including bacteria, plants and in some animals. Polyhydroxyalkanoates, or PHAs, which we call *PHA Natural Plastics*, also naturally occur within certain organisms, including bacteria. PHA was first isolated from *Bacillus megaterium* by Maurice Lemoigne at the Institute Pasteur in 1925. Lemoigne determined that these bacteria use PHA as a store of energy and consume it for food in times of famine. It is this characteristic that gives PHA its biodegradability in the environment.

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 was prohibitively high using the naturally occurring bacterial strains that were available at the time. 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 substantially. Bacteria 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 *PHA Natural Plastics* 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.

We were formed in 1992 to exploit these discoveries. In order to fully capture the opportunity, we also acquired Monsanto's patent estate which relates to *PHA Natural Plastics*, which included the Biopol assets, in 2001. We have since fully developed an integrated manufacturing process including both transgenic strains and a proprietary recovery process that have been demonstrated to work in commercial equipment.

# **Business Strategy**

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

**Establishing Production of PHA Natural Plastics** — We have put into operation a 10 ton per month capacity pilot manufacturing facility to produce *PHA Natural Plastics* to seed the market, and as part of our strategic alliance, ADM and Metabolix have announced plans to build a 50,000 ton annual capacity Commercial Manufacturing Facility to produce *PHA Natural Plastics*. The ADM site in Clinton, Iowa is being designed, engineered and is expected to be built to accommodate significant expansion beyond its initial capacity. We anticipate that commercial production will commence in 2008.

**Market Positioning and Sales** — We are building a marketing and sales team to educate and develop our prospective customer base. This team will focus on positioning *PHA Natural Plastics* as premium priced, specialty materials that are environmentally attractive alternatives to petrochemical-based plastics. We intend to build a brand around *PHA Natural Plastics* consistent with this positioning and will seek to co-brand *PHA Natural Plastics* with our customers. The focus of this effort will be to build a pipeline of approximately 100 customer prospects across a range of applications, and presently we have ongoing relationships with over 30 customer prospects for approximately 50 different applications. Our goal is to dedicate a substantial amount of our commercial production capacity to these customers before the Commercial Manufacturing Facility commences operations.

**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 *PHA Natural Plastics* 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 PHA Natural Plastics** — We have developed formulations of our polymer suitable for injection molding, casting film and sheet, thermoforming and paper coating. 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 will develop new formulations and processing protocols to extend the applications into which we can sell our products. Specific areas of work will include: foam, blown film, blow molded bottles, stretch wrap and fiber.

**Advancing Switchgrass Research and Other Plant Strains** — We believe that we are pioneering the technical process of introducing traits to switchgrass for the production of *PHA Natural 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 Natural Plastics* 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 ethanol.

We intend to explore additional crop varieties that offer attractive commercial opportunities. These may include rapeseed, which is suitable for northern climates and can co-produce *PHA Natural Plastics* along with bio-diesel feedstock and sugar cane, which is suitable for tropical climates and can co-produce *PHA Natural Plastics* along with ethanol feedstock.

**Partnering our Switchgrass Program** — As we have done with ADM for our microbial fermentation platform, we will 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 this platform. At the same time, we will seek an arrangement that allows us to retain an attractive share of the economic value of the project. In order to fund continued development, we intend to actively pursue grants from the government for our switchgrass program.

**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. We believe that higher awareness of our solution may result in opportunities to obtain additional funding or legislative support that can facilitate and accelerate the adoption of our products.

Extending Our Technology to Sustainable Production of Large Volume Chemicals and Intermediates — Our technical capabilities can be applied to produce a number of important commercial chemicals and chemical intermediates, including C3 and C4 chemicals, through biological

conversion of sustainable feedstocks such as sugars. Examples of C3 chemicals include acrylamide and acrylic acid, and examples of C4 chemicals include 1,4-butanediol, THF, N-methylpyrrolidinone, and N-vinylpyrrolidinone.

**Furthering our Leading and Competitive Intellectual Property Position** — We have built a patent estate around our platform technologies and a variety of inventions relevant to the commercialization of *PHA Natural Plastics*. We are extending this patent estate within our core business as well as to other commercial opportunities in the area of bio-based plastics, fuels and chemicals. Some of the areas in which we may seek to establish leading and competitive intellectual property include:

- intermediates and chemicals produced by microbial fermentation;
- fermentation products for nutraceutical applications;
- alternate plant varieties to co-produce PHA Natural Plastics and fuels (ethanol and biodiesel); and
- switchgrass strains that optimize crop yields and processing traits for conversion to fuels.

# Fermentation Alliance with Archer Daniels Midland Company

On November 3, 2004, we entered into a strategic alliance with ADM Polymer Corporation, a wholly-owned subsidiary of ADM, one of the largest agricultural processors in the world. The strategic alliance has three phases, which are described below and include: (i) a Technology Alliance Phase, (ii) a Commercial Alliance Phase and (iii) a Joint Venture Phase.

**Technology Alliance Phase** — The purpose of this phase, which has been achieved, was to determine whether our process for fermenting and recovering *PHA Natural Plastics* could achieve certain performance benchmarks in commercial scale equipment and to prepare a master plan and budget for the construction of the Commercial Manufacturing Facility. In November of 2004 we received a \$3.0 million upfront payment from ADM and in May 2006, we received \$2.0 million in milestone payments associated with the achievement of Technology Alliance goals.

**Commercial Alliance Phase** — The purpose of this phase is to build the Commercial Manufacturing Facility, to market and sell *PHA Natural Plastics* through a separate legal entity owned equally by each of Metabolix and ADM Polymer which we refer to as the Joint Sales Company, 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. During the Commercial Alliance Phase, ADM will take responsibility for and will finance construction of the Commercial Manufacturing Facility, which it will own and contract on a dedicated basis to the Joint Sales Company. In addition, ADM will finance the working capital requirements of the Joint Sales Company. We are responsible for formulation operations and investing in formulation equipment and we will take responsibility for continuing research and development. In addition, we will lead the sales and marketing efforts on behalf of the Joint Sales Company until completion of the construction of the Commercial Manufacturing Facility. At that time, the Joint Sales Company will assume control of such activities. The Joint Sales Company will make up to twelve payments of \$1.575 million to us to support these activities during the construction of the Commercial Manufacturing Facility. The first two such payments totaling \$3.15 million are due and payable on or before July 22, 2006. Subsequent payments will become due and payable on the first business day of each successive calendar quarter during the construction of the Commercial Manufacturing Facility. In the event construction is

completed and sale of commercial product commences prior to the Joint Sales Company making all twelve such payments, the quarterly payments will cease, and the Joint Sales Company will pay us a lump sum equal to the number of remaining unpaid payments multiplied by \$250,000.

Upon the commencement of commercial sales, the Joint Sales Company will pay royalties to us for all *PHA Natural Plastic* sold by the Joint Sales Company. The Joint Sales Company will also pay manufacturing fees to ADM for production of *PHA Natural Plastics* and will pay formulation fees to us for certain formulation services. The Joint Sales Company will compensate ADM and us for services that we each may provide to the Joint Sales Company under separate service agreements. For example, we anticipate that we may provide research, development, marketing and sales services to the Joint Sales Company under such a service agreement.

ADM will construct, finance, own and operate the Commercial Manufacturing Facility through a manufacturing agreement with the Joint Sales Company. Even though the Joint Sales Company is a separate legal entity owned equally by each of Metabolix and ADM Polymer, ADM will disproportionately fund the activities of the Joint Sales Company 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 the Joint Sales Company will be distributed to ADM until ADM's disproportionate investment in the Joint Sales Company, 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 Sales Company shall 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 *PHA Natural Plastics* through fermentation. These agreements do not, however, limit our right to develop, manufacture or sell *PHA Natural Plastics* produced through plants such as switchgrass (rather than through fermentation) outside of the Joint Sales Company.

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. Finally, the parties have specific obligations to fulfill in the event of termination or if they file for bankruptcy protection.

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 owned equally by each of Metabolix and ADM Polymer with us to build additional capacity and expand the commercial operation beyond the limits of the initial production capacity. Under certain circumstances, if ADM does not exercise its option, then Metabolix would have an opportunity to manufacture and sell PHA Natural Plastics outside of the Commercial Alliance.

# License Agreement with Massachusetts Institute of Technology

On July 15, 1993 we entered into an exclusive license agreement with Massachusetts Institute of Technology. The license covered intellectual property rights claiming inventions relating to our core genetic engineering technology as described in several patent applications and invention disclosures. The MIT license has been amended three times to add or subtract specific patent applications to the

rights licensed to us. The MIT license was amended a fourth time to clarify certain rights relating to the right to grant sublicenses.

The MIT license is a world wide exclusive license. The license does not expire until the expiration of the last patent within the licensed patent rights. The license is subject to termination by either party upon an uncured material breach by the other party. Under the license we are required to pay a royalty to MIT based on net sales of products or services covered by a patent that is subject to the license and to share proceeds received from third parties in connection with the grant of a sublicense of rights granted under the license.

The MIT license contains other terms that are customary for university licenses, including without limitation, provisions relating to reporting requirements, patent prosecution, and indemnification.

# Metabolix PHA Natural Plastics Target Markets

We believe *PHA Natural Plastics* from fermentation is the first of several attractive opportunities we will pursue to meet the world's plastic, fuel and chemical needs through the biological conversion of renewable and sustainable agricultural feedstocks. *PHA Natural Plastics* possess comparable functional properties to petrochemical 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 *PHA Natural Plastics*' distinctive properties.

## **Market Segments**

We initially intend to target 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 intend to brand *PHA Natural Plastics* and we expect that by co-branding with products that use our *PHA Natural Plastics* we and our customers will be able to jointly promote environmental sustainability. Numerous companies have begun to position themselves and their products as more environmentally responsible. Some recent and well publicized examples of this include:

- General Electric's "Ecomagination" initiative;
- Wal-Mart's 21st Century Leadership environmental initiative;
- Toyota's success with hybrid gasoline electric vehicles;
- General Motor's "Flex-Fuel" vehicle initiative;
- Hewlett Packard's decision to cease using plastics flame retarded with halogen-containing compounds; and
- Whole Foods Markets purchase of renewable energy certificates (REC) sufficient to be the first Fortune 500 company to be entirely greenpowered.

We believe that producers are positioning products as environmentally responsible or superior to gain a competitive advantage as producers believe consumer preferences are shifting. We believe the use of

PHA Natural Plastics 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 incumbents is rising. Examples of this can be found in the following jurisdictions:

- Taiwan and India have placed outright bans on plastic bags.
- Ireland has placed a 15 Euro cent tariff 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 United States, the federal government has been advancing bio-based material purchasing initiatives by government entities.
- In California, legislative action has been emerging to levy taxes on the use of disposable packaging.
- The U.S. government recently announced \$150 million dollars of funding within the 2007 budget to build biomass biorefineries.

In the geographic segments where regulatory changes occur, our *PHA Natural Plastics* can meet requirements for bio-based content or biodegradability that favor *PHA Natural Plastics* over conventional petrochemical-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 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 *PHA Natural Plastics* offer. 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. *PHA Natural Plastics*, 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 bacteria are present. Potential applications in this segment include:

- Mulch film;
- Erosion control netting;
- Single season irrigation devices;
- Stakes; and

Plant pots.

# **Product Applications**

To approach these market segments, we have developed four initial classes of functional formulations: injection molding, casting film and sheet, thermoforming and paper coating. We have begun 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 myriad of customer applications. Presently, we have ongoing relationships with over 30 customer prospects for approximately 50 different applications. We are actively developing additional customer prospects to qualify our products in the following application areas:

# Segment Examples of Application

Single Use Disposables	<ul><li>Hot cups (paper and plastic)</li><li>Lids</li><li>Dinnerware</li></ul>	<ul><li>Single serve coffee packs</li><li>Utensils</li><li>Golf tees</li></ul>
Packaging	<ul> <li>Caps and closures</li> <li>Food wrap</li> <li>Detergent sachets</li> <li>Food jars and tubs</li> <li>Beverage cartons</li> </ul>	<ul><li>Cosmetics cases</li><li>Stretch wrap</li><li>Bags</li><li>Foam</li></ul>
Agriculture & Erosion Control	<ul><li>Degradable stakes</li><li>Degradable erosion control netting</li></ul>	<ul><li>Degradable mulch film</li><li>Degradable plant pots</li></ul>
Consumer Products	Personal hygiene products	Flushable household products
Electronics	Cell phone housings	

To serve these market opportunities, we have developed formulations of *PHA Natural Plastics* that can be processed in conventional petrochemical-based plastics processing equipment for injection molding, casting film and sheet, thermoforming and paper coating. We have demonstrated our materials in prototyping trials internally and in some cases shared them with our customer prospects. 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 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 blown film, blow molded bottles and fiber.

# **Marketing and Sales**

Initially, we will be leading the marketing and sales effort on behalf of the Joint Sales Company. Sales of *PHA Natural Plastics* will be highly technical in nature. Our expertise in polymer science combined with our familiarity with the properties of the PHA family of polymers will be essential to developing resin grades that meet specific customer requirements. We will also conduct joint marketing and sales efforts with ADM through the Joint Sales Company. 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. With a strong existing customer base, we expect that ADM will provide sales prospects for the alliance.

It is our goal to have established customer relationships to dedicate a substantial portion of the Commercial Manufacturing Facility's initial output before production starts in 2008. To this end, we

are expanding our product development team and commencing efforts in applications development, pilot manufacturing, marketing and sales. At present, we have ongoing efforts with over 30 different customers for 50 different applications. We intend to build a pipeline of approximately 100 customer projects to maximize our production and marketing opportunities to fill the plant to capacity.

We are currently focusing our efforts on applications in the areas of injection molding, casting film and sheet, thermoforming and paper coating. We have developed prototype grades for each of these applications and have delivered small quantities of material to customer prospects for initial testing. If such tests are successful, we would expect some of our customer prospects to evaluate additional volumes of *PHA Natural Plastics* in larger scale product qualification trials and test marketing, which in turn may lead to product adoption and sales.

We intend to brand the *PHA Natural Plastics* and, where possible, to co-brand the materials with products that incorporate them. Prospective buyers of *PHA Natural Plastics* are seeking not only the functional properties they provide but also the progress toward sustainability, renewability and environmental responsibility they confer upon the products made or packaged with them. This will enable our customers to convey environmental responsibility to their end consumers by referencing our brand with their product. We have an ongoing effort to design branding ideas and conduct market research on them.

PHA Natural Plastics will initially be positioned as specialty materials that serve both a functional need (which petrochemical polymers may satisfy) and a social need (which petrochemical polymers cannot address). Consequently, we expect the Joint Sales Company to price PHA Natural Plastics as specialty products 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.

Through the strategic alliance with ADM, we intend to sell *PHA Natural Plastics* into markets around the globe. 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 exclusively with a market leader in that segment.

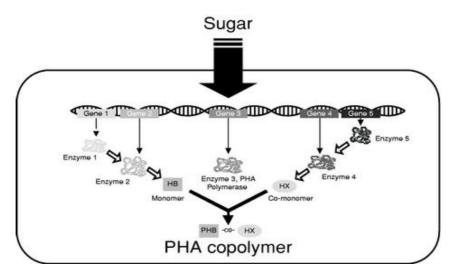
# **Our Technology and Product Development Process**

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 Genetics** — Today, biotechnology is used extensively for the production of protein-based drugs and enzymes. To produce these materials, a new gene is inserted into the DNA of a host organism, usually *e-coli* bacteria, the workhorse of the pharmaceutical industry. When that gene is expressed (i.e., turned on) the cell will produce the desired protein that is associated with the inserted

gene. We have taken this process several steps further. In order to convert sugar to a polymer, the sugar molecule must undergo not one but several chemical alterations to turn it into a monomer, the precursor to plastic. To execute all these reactions, we have encoded not one but several genes into the host DNA to produce each of the enzyme catalysts necessary for each step in the process. These genes come from multiple microbial sources and are selected for optimum performance using proprietary screening technology that we have developed. In addition to producing the monomer from sugar, depending on the kind of polymer desired, another feedstock may also be processed through a series of steps, requiring different genes and enzymes, to produce a different monomer. The two monomers are then joined together (polymerized) by yet one more genetically produced enzyme. These are complex multi-gene systems, and we integrate them directly into the genome of the organism to enhance its stability under what are rigorous operating conditions. Our process creates a complete biological system where all of the reactions to convert feedstock into polymer take place within the cell, essentially creating a biofactory. So, 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 in a concerted and harmonious fashion to execute the right reactions at the right times in a reliable way. 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 experienced. The illustration below shows a schematic of our multi-gene system to produce *PHA Natural Plastics*.



Industrial Fermentation Process Engineering — We also have important capabilities in industrial fermentation process engineering that we incorporate into our technology development process. Simply engineering a bacterial strain to convert sugar to polymer is insufficient because the conditions present in a laboratory bench scale experiment are considerably different than those present in an industrial scale manufacturing operation. Not only are there variable operating conditions (such as temperature, pressure, oxygenation and distribution of nutrients), but also the microbe must grow and uniformly multiply over 400 billion times to fill up a 100,000 gallon industrial reactor. 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 sophisticated 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 *PHA Natural Plastics* 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. In work recently completed with ADM, we successfully demonstrated our ability to efficiently isolate polymer from the cell debris, clean and dry the polymer and prepare it for processing into pellets, its final form.

**Polymer Science and Product Development** — The final element of our product development involves tailoring the polymer to provide the product properties and meet the processing requirements for specific customer applications. Typically, this work involves establishing which combination and ratio of comonomers is best suited for the target application, modifying and blending individual polymer grades, blending the pure polymer with additives such as nucleating agents, plasticizers, fillers and other materials to optimize performance properties, and finally designing processing protocols to successfully convert the material to its target form. When the composition and blend is right, the material will flow, form, crystallize or otherwise process into its end state with the customer's desired properties at an attractive conversion cost. Our product development team has considerable expertise in polymer science and to date has developed blends suitable for injection molding, casting film and sheet, thermoforming and paper coating. In the future, we have plans to create formulations for blown film, 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 switchgrass program where we intend to develop an industrial system to produce not only *PHA Natural Plastics* but also cost advantaged biomass for ethanol production. We believe our capabilities can also be applied successfully to other bio-based plastics, fuels and chemicals 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. While some biotechnology companies develop platform technologies (genomics, DNA synthesis, shuffling and directed evolution for example) or focus on singular aspects of a product's production (providing a key enzyme, catalyst or ingredient), we are focused on developing entire production systems from gene to end product. 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:

- drive down the cost of producing *PHA Natural Plastics* by microbial fermentation;
- expand the market applications into which PHA Natural Plastics can be sold;
- introduce a switchgrass production system that can dramatically transform the markets for plastics and fuels;

- · develop new opportunities to produce plastics, fuels and chemicals in either fermentation or plant based systems; and
- develop and acquire competitive intellectual property and know-how in bio-based plastics, fuels and chemicals 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 *PHA Natural Plastic* at lower cost than our current strains. We have identified specific projects that we believe will allow us to approach the maximum theoretical productivity of these systems. In addition, we are engaged in strain development work to facilitate production of other members of the PHA polymer family 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 *PHA Natural Plastics* directly in plants, specifically targeting switchgrass. This effort builds on our success in creating high productivity microbial biofactories and may enable the production of *PHA Natural Plastics* with economics that are as or more favorable than general purpose commodity plastics such as polyethylene, polypropylene, and polystyrene.

*New Systems and Products* — We plan to further apply our platform technologies to other commercial opportunities in the area of bio-based plastics, fuels and chemicals. We have an ongoing effort to evaluate new program opportunities in the following areas:

- Key chemicals and chemical intermediates, such as C3 and C4, based on fermentation or production in plants such as switchgrass;
- Fermentation products for nutraceutical applications;
- Alternate plant varieties for production of PHA Natural Plastics and fuels that are suitable for other geographic climate zones; and
- Enhancement of switchgrass strains to improve crop yields and processing traits for conversion to biofuels.

We currently employ 31 personnel conducting research and development for our programs. Among our research staff, 12 hold Ph.D.s and 16 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.

We supplement our internal resources by collaborating with outside parties including universities for specific targeted projects and over the last several years have sponsored targeted research projects at these as well as other institutions:

University of Massachusetts at Lowell University of Munster

University of Calgary Oak Ridge National Laboratories and National Renewable Energy Laboratories

# **Switchgrass Biomass Biorefinery Program**

We are developing a breakthrough technology to produce *PHA Natural Plastics* directly in plants. This effort builds on our success in creating high productivity microbial bio-factories and offers the potential to produce *PHA Natural Plastics* at comparable or lower costs than the current cost of producing commodity petrochemical-based plastics such as polyethylene, polypropylene, and polystyrene. We are presently focusing our efforts on switchgrass, a commercially and ecologically attractive, non-food energy crop that is indigenous to North America. We believe we can engineer a system that co-produces *PHA Natural Plastics* along with biomass for conversion to fuels (such as ethanol) or energy. We believe the co-production of *PHA Natural Plastics* with energy in one system will offer superior economic value and productivity to a single product system. We have received significant funding from the United States Government as well as from BP for these efforts. We have also performed work on rapeseed for co-production of *PHA Natural Plastics* along with biodiesel fuel.

Switchgrass is an attractive biomass to energy crop that is generally considered to be a leading candidate for cellulose-derived ethanol production. 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. It was the dominant plant species over the Great Plains of the United States prior to the introduction of modern agriculture.

We believe we are a leader in the science and technology related to the transformation of switchgrass. Precise insertion of novel pathways in switchgrass 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 outside of the PHA family of products. For example, we believe we can introduce traits into switchgrass that can improve the yield of switchgrass per acre as well as enhance its processability for conversion to fuel.

We have already achieved several significant milestones in this program and can produce small amounts of *PHA Natural Plastics* in switchgrass. Our research is currently focused on increasing *PHA Natural Plastic* production levels to amounts we believe would be commercially viable and our goal is to reach field trial demonstrations within the next four years.

We believe that our switchgrass biomass biorefinery program offers the potential to improve the economics of producing not only *PHA Natural Plastic* but also fuels, such as ethanol. Polymer production economics can be improved because the manufacture of the material will take place within the plant. With our current process, only the feedstock (i.e. corn sugar) is produced within the plant and considerable costs are incurred converting that feedstock to the polymer. Through direct production in switchgrass, 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 variety of switchgrass that is convertible to both fuel and *PHA Natural Plastic* can have more value than one that isn't.

In 2001, the U.S. Department of Energy awarded us a \$7.5 million, 5-year grant to develop production of *PHA Natural Plastics* directly in crops that can be used to generate energy. In 2003, the U.S. Department of Agriculture awarded us an additional \$2.0 million for this program. This concept,

called a "Biomass Biorefinery", is based on the coproduction of energy and higher value *PHA Natural Plastics*. 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.

## 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 petrochemical-based segment. Metabolix is focused on the biological processing of agricultural feedstocks and the production of biodegradable, renewable resource-based plastics, fuels and chemicals.

The current plastics market is primarily based on oil and natural gas. Established players in this segment include Dow Chemical, DuPont, BASF, Bayer, General Electric, Mitsubishi Chemical and Huntsman Chemical, among many others. The price of conventional petrochemical-based plastic is volatile, as it is dependent on petrochemicals as a key manufacturing input. In addition, the non-biodegradability of conventional petrochemical-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 petrochemical-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, PLA and starch based biodegradables. Just as a wide variety of different petrochemical-based plastics now serve the needs of the market, we believe that these three technologies are more complementary than competitive. We believe that of these three technologies, *PHA Natural Plastics* offer 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 petrochemical-based plastics. Unlike PLA and most starch-based biodegradables, *PHA Natural Plastics* decompose in the natural environment, including the marine environment, as well as in hot composts but remain functional in a wide range of temperature settings and will not deteriorate in everyday use. Other companies active in the PHA plastics segment include

Kaneka and minor producers in Brazil and China. The key players in PLA and starch based biodegradables are Cargill, Mitsui Chemical, Toyota, Novamont and Stanelco.

Diamage Dangwahla Dagaunga Dagad

Biodegradability	Fossil Carbon Based Plastics	Plastics
Biodegradable	Synthetic Biodegradable Polyesters:	PHA:
	Dow Chemical	<b>Metabolix</b> ' <i>PHA Natural Plastics</i> Kaneka's "PHBH"
	DuPont BASF	PLA: Cargill's NatureWorks™
	Mitsubishi Chemical Showa Denko	Mitsui Chemical's Lacea <sup>TM</sup> Toyota
		Starch-based Biodegradables:
		Novamont's MaterBi™ Stanelco's Starpol™
Non-Biodegradable	-Traditional petrochemical-based products	DuPont — Sorona™ (~30% bio-based) Dow Chemical — Soybean Polyurethanes Arkema — Nylon 11

We believe our PHA Natural Plastics products compare well against other biodegradable plastics when judged on the following factors:

- Biodegradability PHA Natural Plastics 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 PHA Natural Plastics possess a particularly broad range of functional properties, varying from stiff to flexible to rubbery;
- Processability PHA Natural Plastics can be processed in many types of existing polymer conversion equipment;
- *Upper Service Temperature* Some formulations of *PHA Natural Plastics* will withstand temperatures in excess of 100°C, i.e., the boiling point of water, an important threshold;
- Resistance to Hydrolysis While PHA Natural Plastics will biodegrade in marine, wetland, and fresh water environments, they are resistant to reacting with even hot water over durations encountered in most applications

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 competitor's products. We believe that we compare favorably with these competitors and have more stable feedstock input costs than conventional petrochemical-based plastics manufacturers.

Our ability to remain competitive will depend to a great extent upon our ongoing performance in the areas of product development and product performance. We cannot assure you that our products will achieve market acceptance or that we will be successful in the face of increasing competition from new products by existing competitors or new competitors entering the markets in which we intend to sell our products.

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 competitor's products. We believe that we compare favorably with these competitors and have more stable feedstock input costs than conventional petrochemical-based plastics manufacturers.

Our ability to remain competitive will depend to a great extent upon our ongoing performance in the areas of product development and product performance. We cannot assure you that our products will achieve market acceptance or that we will be successful in the face of increasing competition from new products by existing competitors or new competitors entering the markets in which we intend to sell our products.

## **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 over 320 issued patents and 100 patent applications world wide, and we have licensed approximately 60 issued patents and over 30 patent applications world wide. These patents cover, among other things, the fundamental biotechnology needed to produce *PHA Natural Plastics* as well as compositions, processes and derived products. Of the licensed patents and patent applications, many are owned by Massachusetts Institute of Technology and exclusively licensed to us. Under the MIT licensing agreement, we currently pay annual license fees. During the fiscal year ended December 31, 2005, these fees totaled approximately \$25,000. In addition, under this licensing agreement, we are obligated to pay royalties on future 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 bacteria, 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*. Our marks *Metabolix* and *Where Nature Performs* and certain other trademarks have also 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, including The Procter & Gamble Company, or P&G, nullity action filed in Federal Patent Court in Munich, Germany described below in "Legal Proceedings", 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 June 30, 2006, we had 42 full-time employees located in Cambridge, Massachusetts and one in Fort Mill, South Carolina, of whom 31 are in research and development, 3 are in marketing, 1 is in government programs and 8 are in operations/general and administration. None of our employees are subject to a collective bargaining agreement. We consider our relationships with our employees to be good.

## **Facilities**

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 do not own any real property. We believe that our leased facilities and additional and alternative space available to us will be adequate to meet our needs for the remainder of the year.

We have entered into an agreement with Nation Ford Chemical, or NFC, to act as a contract manufacturer and to operate a 10 ton per month recovery facility for pilot manufacturing in Fort Mill, South Carolina. We deliver raw materials to NFC for manufacturing and processing of *PHA Natural Plastics*, which is stored and then shipped at our instruction. The agreement terminates October 13, 2006, provided that the agreement will automatically be renewed for successive periods of 180 days, unless we or NFC give written notice of cancellation 30 days prior to the commencement of any such 180 day period. 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.

## **Legal Proceedings**

On March 8, 2005, P&G filed a nullity action in the Federal Patent Court in Munich, Germany, against the German equivalent of one of our patents covering the method of use of producing biopolymers. The patent at issue is licensed exclusively to us by MIT and will expire in July 2010. The nullity action alleges, among other things, extension of subject matter, insufficiency of disclosure, lack of novelty, and lack of inventive step. We are controlling the response to the nullity action with MIT's cooperation. We believe this nullity action is without merit and we intend to vigorously defend this action. However, the litigation process is inherently uncertain and there can be no assurance as to the ultimate outcome of this matter.

From time to time, we may be subject to other legal proceedings and claims arising 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 our business, financial condition or results of operations.

#### MANAGEMENT

## **Executive Officers and Directors**

The following table sets forth information regarding our executive officers and directors, including their ages and positions as of June 30, 2006:

Name	Age	Position
James J. Barber, Ph.D.	52	President and Chief Executive Officer, Director
Oliver P. Peoples, Ph.D.	48	Chief Scientific Officer, Vice President, Research, Director
Johan van Walsem	43	Vice President, Manufacturing, Development and Operations
Thomas G. Auchincloss, Jr.	45	Chief Financial Officer, Vice President, Finance and Corporate
		Development
Robert Findlen	44	Vice President, Marketing
Edward M. Muller <sup>(1)</sup>	70	Chairman of the Board, Director
Edward M. Giles <sup>(2)</sup>	70	Director
Jay Kouba, Ph.D. <sup>(1)</sup>	54	Director
Jack W. Lasersohn <sup>(2)(3)</sup>	53	Director
Anthony J. Sinskey, Sc.D. <sup>(1)(2)</sup>	66	Director
Simon F. Williams, Ph.D. <sup>(3)</sup>	44	Director

- (1) Member of the audit committee
- (2) Member of the compensation committee
- (3) Member of the nominating and corporate governance committee

*James J. Barber*, *Ph.D.* has served as our chief executive officer and as a director since joining Metabolix in January 2000. Prior to joining Metabolix, from September 1993 to January 2000, Dr. Barber was the global business director for the organometallics and catalysts business of Albemarle Corporation. From March 1992 to September 1993, Dr. Barber served as director, business development with Ethyl Corporation, a chemical manufacturing and supply company, where he was responsible for acquisitions and managed venture capital activities. Dr. Barber received a B.S. in Chemistry from Rensselaer Polytechnic Institute and a Ph.D. in Organic Chemistry from the Massachusetts Institute of Technology.

Oliver P. Peoples, Ph.D., a co-founder of Metabolix, has served as our chief scientific officer and vice president of research since January 2000, and was previously our director of research and vice president. Dr. Peoples has served as a director since June 1992. Prior to founding Metabolix, Dr. Peoples was a research scientist with the Department of Biology at the Massachusetts Institute of Technology where he emerged as one of the pioneers of the new field of metabolic pathway engineering and its applications in industrial biotechnology. The pioneering research carried out by Dr. Peoples at MIT established the vision and tools for modern biotechnology methods for the production of natural plastics. In 2000, Dr. Peoples developed the concept for integrated biomass biorefineries through the genetic engineering of switchgrass for the economic production of renewable energy, biofuels and natural plastics, which led to the award of a \$7.5 million grant from the Department of Energy in 2001. Dr. Peoples has published numerous peer-reviewed academic papers and is an inventor of over 90 patents and patent applications worldwide. Dr. Peoples received a Ph.D. in Molecular Biology from the University of Aberdeen, Scotland.

Johan van Walsem has served as our vice president of manufacturing, development and operations since October 2003, and was previously our director of manufacturing and development from September 2001 to October 2003. Prior to joining Metabolix, from December 2000 to September 2001, Mr. van Walsem was senior biochemical engineer with Montec Research, a division of Resodyn Corporation, where he was responsible for all fermentation technology development. Prior to that, Mr. von Walsem worked with AECI Bioproducts in South Africa in technology management and new product development, commercializing the first large scale biotechnology-based amino acid production in Africa. Mr. van Walsem received a master's degree in Chemical Engineering from the University of Pretoria (South Africa) and an M.B.A. from the University of South Africa.

Thomas G. Auchincloss, Jr. has served as our chief financial officer and vice president of finance and corporate development since May 2005. From April 2002 to May 2005, Mr. Auchincloss was a consultant to Metabolix, providing business development, financial and strategic consulting services. From 1994 to 2001, Mr. Auchincloss served in a variety of positions at Vertex Pharmaceuticals Incorporated, most recently as vice president, finance and treasurer. Mr. Auchincloss received a B.S. in Business Administration from Babson College and an M.B.A. in Finance from the Wharton School.

Robert Findlen has served as our vice president of marketing since June 2006. Prior to joining Metabolix, from March 2002 to June 2006, Mr. Findlen worked at GE Plastics, first from June 2003 to June 2006 as Product Market Director, LNP Plastics, and then from March 2002 to May 2003 as Vice President and Director, LNP Americas Commercial Business. LNP Engineering Plastics was acquired by GE Plastics in March 2002. Prior to the acquisition, Mr. Findlen held a number of positions at LNP Engineering Plastics, most recently, from 1998 to 2003, as Vice President of Sales and Marketing. Mr. Findlen received a B.S. in Plastics Engineering from University of Massachusetts at Lowell.

Edward M. Muller has served as the chairman of the board of directors since November 1993 and was previously our president and chief executive officer from October 1993 to January 2000. Mr. Muller held a number of positions, including chief executive officer, while at Halcon-SD Group between 1961 and 1985. That company developed a number of key processes for the production of raw materials for the polyester, nylon, polystyrene, and polyurethane industries. Mr. Muller serves on the board of directors of Tepha, Inc. Mr. Muller received a B.Ch.E. from The Cooper Union and a M.B.A. in Finance and Economics from New York University.

*Edward M. Giles* has served as a director since November 1993. Mr. Giles has served as the chairman of The Vertical Group, Inc., a venture capital company since January 1989. Mr. Giles was previously President of F. Eberstadt & Co., Inc., a securities firm. Mr. Giles serves on the board of directors as well as the Audit Committee of Ventana Medical Systems, Inc. Mr. Giles also serves on the board of directors of Tepha, Inc. Mr. Giles received a B.Ch.E. from Princeton University, and a S.M. in Industrial Management from the Massachusetts Institute of Technology.

*Jay Kouba*, *Ph.D.*, has served as director since June 2006. Since January 2006, Dr. Kouba has served as the president of Ohio Consulting, a strategic management consulting firm. From January 1999 to December 2005, Dr. Kouba held several positions with BP's Petrochemicals Segment. From August 2004 to December 2005, Dr. Kouba served as Senior Vice President, Strategy, Marketing and Technology for Innovene BP's olefins and polymers subsidiary, and earlier in 2004, as Vice President, Sales, Marketing and Logistics. Between 1999 and 2003, Dr. Kouba was Vice President, Technology. Dr. Kouba received a B.S. in Chemistry from Stanford University, a Ph.D. in Chemistry from Harvard University and a M.B.A. from University of Chicago.

*Jack W. Lasersohn* has served as a director since December 1999. Since 1989, Mr. Lasersohn has served as a general partner of The Vertical Group, a private venture capital firm. Mr. Lasersohn was a vice president and then director of the venture capital division of F. Eberstadt & Co., a securities firm, and Mr. Lasersohn serves as a director of Kyphon Inc., as well as several privately-held medical companies. Mr. Lasersohn received a B.S. in Physics from Tufts University, an M.A. from the Fletcher School of Law & Diplomacy at Tufts University and a J.D. from Yale University.

Anthony J. Sinskey, Sc.D., a co-founder of Metabolix, has served as a director since June 1992. From 1968 to present, Dr. Sinskey has been on the faculty of the Massachusetts Institute of Technology. Currently at M.I.T., he is Professor of Microbiology in the Department of Biology and Professor of Health Sciences and Technology in the Harvard-M.I.T. Health Sciences and Technology Program, as well as Co-Director of the Center for Biomedical Innovation. Dr. Sinskey serves on the board of directors of Tepha, Inc. Dr. Sinskey received a Sc.D. from Massachusetts Institute of Technology and a B.S. from the University of Illinois.

Simon F. Williams, Ph.D., a co-founder of Metabolix, has served as a director since June 1992. Dr. Williams is the president, chief executive officer and a director of Tepha, Inc. Between June 1992 and December 2002, Dr. Williams served in various roles within our company, including director of research, vice president, president, and treasurer. From October 1987 to May 1992, Dr. Williams was a lecturer in Organic Chemistry at Manchester University in England and a Visiting Scientist and NATO Postdoctoral Fellow at the Massachusetts Institute of Technology. Dr. Williams received a Ph.D. in Organic Chemistry from Cambridge University, England.

## **Board Composition**

We currently have eight directors, of whom Edward M. Giles and Jack W. Lasersohn were elected as directors under the board composition provisions of a stockholders agreement and our certificate of incorporation. The board composition provisions of the stockholders agreement and our certificate of incorporation will be terminated upon the closing of this offering. Upon the termination of these provisions, there will be no further contractual obligations regarding the election of our directors. Our directors hold office until their successors have been elected and qualified or until the earlier of their resignation or removal.

Following this offering, the board of directors will be divided into three classes with members of each class of directors serving for staggered three-year terms. The board of directors will consist of two Class I directors (currently Mr. Muller and Dr. Williams), three Class II directors (currently Mr. Lasersohn, Dr. Kouba and Dr. Peoples) and three Class III directors (currently Mr. Giles, Dr. Sinskey and Dr. Barber), whose initial terms will expire at the annual meetings of stockholders held in 2007, 2008 and 2009, respectively. Our classified board could have the effect of making it more difficult for a third party to acquire control of us.

#### **Board Committees**

Our board of directors has established an audit committee, a compensation committee and a nominating and corporate governance committee, each of which operates pursuant to a separate charter adopted by our board of directors. The composition and functioning of all of our committees will comply with all applicable requirements of the Sarbanes-Oxley Act of 2002, the NASDAQ Stock Market and the Securities and Exchange Commission rules and regulations.

*Audit Committee.* Edward M. Muller, Anthony J. Sinskey, Sc.D., and Jay Kouba, Ph.D., currently serve on the audit committee. Mr. Muller is the chairman of our audit committee. The audit committee's responsibilities include:

- appointing, approving the compensation of, and assessing the independence of our independent registered public accounting firm;
- pre-approving auditing and permissible non-audit services, and the terms of such services, to be provided by our independent registered public
  accounting firm;
- reviewing and discussing with management and the independent registered public accounting firm our annual and quarterly financial statements and related disclosures;
- coordinating the oversight and reviewing the adequacy of our internal control over financial reporting;
- establishing policies and procedures for the receipt and retention of accounting related complaints and concerns; and
- preparing the audit committee report required by Securities and Exchange Commission rules to be included in our annual proxy statement.

*Compensation Committee.* Anthony J. Sinskey, Sc.D., Edward M. Giles and Jack W. Lasersohn currently serve on the compensation committee. Dr. Sinskey is the chairman of our compensation committee. The compensation committee's responsibilities include:

- annually reviewing and approving corporate goals and objectives relevant to compensation of our chief executive officer;
- evaluating the performance of our chief executive officer in light of such corporate goals and objectives and determining the compensation of our chief executive officer;
- reviewing and approving the compensation of our other executive officers;
- overseeing and administering our compensation, welfare, benefit and pension plans and similar plans; and
- reviewing and making recommendations to the board with respect to director compensation.

*Nominating and Corporate Governance Committee.* Jack W. Lasersohn and Simon F. Williams, currently serve on the nominating and corporate governance committee. Mr. Lasersohn is the chairman of our nominating and corporate governance committee. The nominating and corporate governance committee's responsibilities include:

- developing and recommending to the board criteria for board and committee membership;
- establishing procedures for identifying and evaluating director candidates including nominees recommended by stockholders;
- identifying individuals qualified to become board members;

- · recommending to the board the persons to be nominated for election as directors and to each of the board's committees;
- developing and recommending to the board a code of business conduct and ethics and a set of corporate governance guidelines;
- serving as the Qualified Legal Compliance Committee in accordance with Section 307 of the Sarbanes-Oxley Act of 2002 and the rules and regulations promulgated thereunder; and
- overseeing the evaluation of the board and management.

## **Compensation of Directors**

Upon completion of the proposed initial public offering, each non-employee member of our board of directors will be entitled to receive an annual retainer of \$30,000. In addition, each non-employee director serving as a member but not chair of our audit committee, compensation committee and nominating and corporate governance committee will be entitled to an annual retainer of \$5,000, and the chairs of the audit committee, compensation committee and nominating and corporate governance committee will be entitled to an additional annual retainer of \$15,000, \$10,000 and \$10,000, respectively.

In June 2006, we granted Dr. Kouba an option to purchase 20,000 shares of our common stock as compensation for his service on our board of directors. This option has an exercise price of \$4.20 per share and is fully vested and exercisable immediately. We have not otherwise paid separate compensation for services rendered as a director.

## **Compensation Committee Interlocks and Insider Participation**

None of our executive officers serves as a member of the board of directors or compensation committee, or other committee serving an equivalent function, of any other entity that has one or more of its executive officers serving as a member of our board of directors or compensation committee.

#### **Executive Officers**

Each of our executive officers has been elected by our board of directors and serves until his or her successor is duly elected and qualified or until his or her earlier resignation or removal.

## **Executive Compensation**

## Compensation Earned

The following summarizes the compensation earned during the year ended December 31, 2005, by our chief executive officer and our three other most highly compensated executive officers who were serving as executive officers on December 31, 2005. We refer to these individuals as our "named executive officers." The compensation in this table does not include certain perquisites and other personal benefits received by the named executive officers that did not exceed the lesser of \$50,000 or 10% of any officer's total compensation reported in this table.

## **Summary Compensation Table**

Long-Term
Compensation

	Annua	ıl Co	ompensation	Securities	Allou	
Name and Principal Position	Salary		Bonus	Underlying Options (#)	All Other Compensation(\$)	
James J. Barber President and Chief Executive Officer	\$ 235,000		_	397,235	\$ 106,739 <sup>(1)</sup>	
Oliver P. Peoples Vice President, Research	\$ 182,400		_	144,000	_	
Johan van Walsem Vice President, Manufacturing, Development and Operations	\$ 172,267	\$	10,000	220,000	_	
Thomas G. Auchincloss, Jr. Chief Financial Officer	\$ 155,600 <sup>(2)</sup>		_	220,000	_	

<sup>(1)</sup> Represents \$75,000 of loan principal and \$31,739 of interest on that loan forgiven by the Company during 2005.

## **Option Grants in Last Fiscal Year**

The following table presents all grants of stock options during the year ended December 31, 2005 to each of the named executive officers. We have not granted any stock appreciation rights. The option grants listed below were made under our 1995 Stock Plan or 2005 Stock Plan at exercise prices equal to the fair market value of our common stock on the date of grant, as determined by our board of directors. The potential realizable value, if applicable, is calculated based on the term of the option at its time of grant, which is ten years. This value is net of exercise prices and before taxes, and is based on an assumed initial public offering price of \$ per share, the mid-point of the initial public offering price range, and the assumption that our common stock appreciates at the annual rate shown, compounded annually, from the date of grant until its expiration date. These numbers are calculated based on the Securities and Exchange Commission requirements and do not reflect our projection or estimate of future stock price growth. Actual gains, if any, on stock option exercises will depend on the future performance of the common stock and the date on which the options are exercised.

The percentage of total options granted to employees in 2005 shown in the table below is based on options to purchase an aggregate of 1,497,735 shares of common stock granted to employees in 2005.

In general, options granted to new employees in 2005 vest in quarterly installments over four years.

<sup>(2)</sup> Represents Mr. Auchincloss's salary during the year ended 2005 from commencement of his employment with us on May 1, 2005, plus \$40,000 in fees for consulting services rendered to us from January 1, 2005 to May 1, 2005.

	Number of Securities Percent of Total Underlying Options Granted Exercise or				Realiza Value at A Annual R Stock P Appreciat Option	ssumed ates of Price ion for
Name	Options Granted (#)	to Employees in Fiscal Year (%)	Base Price (\$/Share)	Expiration Date	5% (\$)	10% (\$)
James J. Barber	243,235	16.2	1.50	12/14/15		
	154,000 <sup>(1)</sup>	10.3	1.50	12/14/15		
Oliver P. Peoples	144,000	9.6	1.35	9/20/15		
Johan van Walsem	220,000	14.7	1.35	9/20/15		
Thomas G. Auchincloss, Jr.	220,000	14.7	1.35	9/20/15		

**Potential** 

## Option Exercises in Last Fiscal Year and Fiscal Year-End Option Values

The following table sets forth certain information concerning the number and value of options exercised by the named executive officers during 2005, if any, and the number and value of any exercised and unexercised options held by the named executive officers at December 31, 2005. There was no public market for our common stock as of December 31, 2005. Accordingly, the value of unexercised in-the-money options, if applicable, represents the total gain that would be realized if all in-the-money options held at December 31, 2005 were exercised, determined by multiplying the number of shares underlying the options by the difference between an assumed initial public offering price of \$ per share, the mid-point of the initial public offering price range, and the per share option exercise price.

	Shares		Underlying Opti	of Securities Unexercised ons at er 31, 2005	Value of Unexercised In-the-Money Options at December 31, 2005		
Name	Acquired on Exercise (#)	Value Realized(\$)	Exercisable	Unexercisable	Exercisable	Unexercisable	
James J. Barber	_	_	370,484	303,426			
Oliver P. Peoples	_	_	212,000	138,000			
Johan van Walsem	_	_	96,250	183,750			
Thomas G. Auchincloss, Jr.	_	_	98,750	181,250			

## **Employee Benefit Plans**

1995 Stock Plan

Our 1995 Stock Plan was adopted by our board of directors and approved by our stockholders in June 1995 and amended in February 1998, September 1998, November 1999, March 2000 and March 2003. Our 1995 Stock Plan is administered by the compensation committee of our board of directors. The compensation committee has the full authority and discretion to interpret the 1995 Stock Plan and to apply its provisions. Our 1995 Stock Plan permitted us to make grants of incentive and non-qualified stock options. The 1995 Stock Plan also permitted us to award both shares of our common stock and opportunities to make direct purchases of our common stock.

These options vest, in part, upon the attainment of specified performance and corporate financing milestones.

Stock options granted under our 1995 Stock Plan have a maximum term of ten years from the date of grant and incentive stock options have an exercise price of no less than the fair market value of our common stock on the date of grant. Awards granted under our 1995 Stock Plan are not transferable other than by will or the laws of descent and distribution. In the event of a change-in-control of the Company, our board of directors and the board of directors of the surviving or acquiring entity shall, as to outstanding awards under the 1995 Stock Plan, make appropriate provision for the continuation, assumption or other disposition of such awards.

Our 1995 Stock Plan was terminated in June 2005 and no further grants or awards have since been, or will be, made thereunder. Grants and awards that are outstanding under our 1995 Stock Plan continue to be governed by the terms of our 1995 Stock Plan and the agreements related to such grants and awards. As of June 30, 2006, there were outstanding options under our 1995 Stock Plan to purchase a total of 913,675 shares of our common stock.

## 2005 Stock Plan

Our 2005 Stock Plan was adopted by our board of directors and approved by our stockholders in June 2005. Our 2005 Stock Plan permits us to make grants of incentive stock options, non-qualified stock options, stock grants and other stock-based awards. We have initially reserved 2,250,000 shares of our common stock for the issuance of awards under the 2005 Stock Plan. This number is subject to adjustment in the event of a stock split, stock dividend or other change in our capitalization. Generally, shares that are forfeited or canceled from awards under the 2005 Stock Plan also will be available for future awards. In addition, awards returned to our 1995 Stock Plan as a result of their expiration, cancellation or termination are automatically made available for issuance under our 2005 Stock Plan. We do not intend to grant additional options under this plan after this offering and the aggregate number of shares to be issued under 2005 Stock Plan will be reduced to , which represents the total number of shares issuable upon exercise of outstanding options granted under the 2005 Stock Plan.

The 2005 Stock Plan is administered by our compensation committee. The compensation committee has full power and authority to select the participants to whom awards will be granted, to make any combination of awards to participants, to accelerate the exercisability or vesting of any award and to determine the specific terms and conditions of each award, subject to the provisions of our 2005 Stock Plan. All of our employees, directors and consultants are eligible to participate in the 2005 Stock Plan.

The exercise price of stock options awarded under our 2005 Stock Plan may not be less than the fair market value of our common stock on the date of the option grant and the term of each option granted under our 2005 Stock Plan may not exceed ten years from the date of grant. The compensation committee will determine at what time or times each option may be exercised (provided that in no event may it exceed ten years from the date of grant) and, subject to the provisions of our 2005 Stock Plan, the period of time, if any, after retirement, death, disability or other termination of employment during which options may be exercised.

Stock grants may also be awarded under our 2005 Stock Plan. Stock grants are awards of shares of our common stock that may be subject to restrictions or repurchase rights established by the compensation committee. The compensation committee may impose whatever conditions to vesting it determines to be appropriate in connection with such stock grants.

Other stock-based awards may also be granted under our 2005 Stock Plan. Other stock-based awards are awards based on our common stock having terms and conditions as the compensation committee may determine and could include the grant of shares based upon certain conditions, the grant of securities convertible into shares of our common stock, and the grant of stock appreciation rights, phantom stock awards or stock units.

Unless the compensation committee provides otherwise, our 2005 Stock Plan does not generally allow for the transfer of awards and only the recipient of an award may exercise an award during his or her lifetime. In the event of a change-in-control of the Company, our board of directors and the board of directors of the surviving or acquiring entity shall, as to outstanding awards under the 2005 Stock Plan, make appropriate provision for the continuation, assumption or other disposition of such awards.

No awards may be granted under our 2005 Stock Plan after June 1, 2015 and we do not intend to grant any awards under our 2005 Stock Plan after this offering. In addition, our board of directors may amend or discontinue our 2005 Stock Plan at any time and the compensation committee may amend or cancel any outstanding award for the purpose of satisfying changes in law or for any other lawful purpose. Our stockholders may also vote to terminate the 2005 Stock Plan. No amendment may adversely affect the rights under any outstanding award without the holder's consent.

As of June 30, 2006, there were 1,882,402 outstanding options to purchase shares of our common stock under our 2005 Stock Plan and, assuming that no shares are returned to our 1995 Stock Plan and made available for issuance under our 2005 Stock Plan, 683,765 shares of our common stock are available for future issuance or grant under our 2005 Stock Plan.

## 2006 Stock Plan

Our 2006 Stock Option and Incentive Plan, or 2006 Option Plan, was adopted by our board of directors and approved by our stockholders in 2006. The 2006 Option Plan permits us to make grants 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. We have initially reserved shares of our common stock for the issuance of awards under the 2006 Option Plan. The 2006 Option Plan provides that the number of shares reserved and available for issuance under the plan will automatically increase each January 1, beginning in 2007, by % of the outstanding number of shares of common stock on the immediately preceding December 31; provided that the maximum aggregate number of shares reserved may not exceed % of the total number of outstanding shares of stock. This number is subject to adjustment in the event of a stock split, stock dividend or other change in our capitalization. Generally, shares that are forfeited or canceled from awards, held back upon exercise of an award, or otherwise reacquired by the Company under the 2006 Option Plan also will be available for future awards. No awards have been granted under the 2006 Option Plan to date.

The 2006 Option Plan is administered by our compensation committee. The compensation committee has full power and authority to select the participants to whom awards will be granted, to make any combination of awards to participants, to accelerate the exercisability or vesting of any award and to determine the specific terms and conditions of each award, subject to the provisions of the 2006 Option Plan. All full-time and part-time officers, employees, directors and other key persons (including consultants and prospective employees) are eligible to participate in the 2006 Option Plan.

The exercise price of stock options awarded under the 2006 Option Plan may not be less than the fair market value of the common stock on the date of the option grant. The compensation committee will

determine at what time or times each option may be exercised (provided that in no event may it exceed ten years from the date of grant) and, subject to the provisions of the 2006 Option Plan, the period of time, if any, after retirement, death, disability or other termination of employment during which options may be exercised.

Stock appreciation rights may be granted under our 2006 Option Plan. Stock appreciation rights allow the recipient to receive the number of shares equal to the appreciation in the fair market value of our common stock between the exercise date and the date of grant. The compensation committee determines the terms of stock appreciation rights, including when such rights become exercisable.

Restricted stock, unrestricted stock, cash-based awards, deferred stock awards and dividend equivalent rights may also be granted under our 2006 Option Plan. Restricted stock awards are shares of our common stock that vest in accordance with terms and conditions established by the compensation committee. The compensation committee may impose whatever conditions to vesting it determines to be appropriate. Shares of restricted stock that do not vest are automatically subject to our right of repurchase or forfeiture. Unrestricted stock awards are awards of shares of stock that are free of any restrictions. The compensation committee may grant unrestricted stock awards in respect of past services or in lieu of other compensation. Cash-based awards are awards that entitle the recipient to receive a cash-denominated payment. The compensation committee shall establish the terms and conditions of cash-based awards, including the conditions upon which any such award will become vested or payable. Cash-based awards may be made in cash or shares of stock in the compensation committee's discretion. Deferred stock awards are units entitling the recipient to receive shares of stock paid out on a deferred basis, and subject to such restrictions and conditions, as the compensation committee shall determine. Dividend equivalent rights are the right to receive credits based on cash dividends that would have been paid on the shares of stock underlying the award and are subject to the terms and conditions specified by the compensation committee at the time of grant. The 2006 Option Plan also permits the compensation committee to grant awards that are intended to qualify as "performance-based compensation" under Section 162(m) of the Code. These awards are only payable upon the attainment of specified performance goals, as described in the 2006 Option Plan. The maximum performance-based award payable in any performance cycle to any one individual is or in the event of a performance-based award that is a cash-based award.

Unless the compensation committee provides otherwise, our 2006 Option Plan does not generally allow for the transfer of awards and only the recipient of an award may exercise an award during his or her lifetime. In the event of a change-in-control of Metabolix, our board of directors and the board of directors of the surviving or acquiring entity shall, as to outstanding awards under the 2006 Option Plan, make appropriate provision for the continuation or assumption of such awards.

No awards may be granted under the 2006 Option Plan after . In addition, our board of directors may amend or discontinue the 2006 Option Plan at any time and the compensation committee may amend or cancel any outstanding award for the purpose of satisfying changes in law or for any other lawful purpose. No such amendment may adversely affect the rights under any outstanding award without the holder's consent. Other than in the event of a necessary adjustment in connection with a change in our stock or a merger or similar transaction, the compensation committee may not "reprice" or otherwise reduce the exercise price of outstanding stock options.

As of June 30, 2006, there were no outstanding options to purchase shares of our common stock under our 2006 Option Plan and, assuming that no shares are returned to our 1995 Stock Plan and 2005 Option Plan and made available for issuance under our 2006 Option Plan, shares of our common stock are available for future issuance or grant under our 2006 Option Plan.

## 401(k) Plan

We maintain a tax-qualified retirement plan that provides all regular employees with an opportunity to save for retirement on a tax-advantaged basis. Under our 401(k) Plan, participants may elect to defer a portion of their compensation on a pre-tax basis and have it contributed to the plan subject to applicable annual Internal Revenue Code limits. Pre-tax contributions are allocated to each participant's individual account and are then invested in selected investment alternatives according to the participant's directions. Employee elective deferrals are 100% vested at all times. Our 401(k) Plan allows for discretionary matching contributions to be made by us. As a tax-qualified retirement plan, contributions to our 401(k) Plan and earnings on those contributions are not taxable to the employees until distributed from our 401(k) Plan and all contributions are deductible by us when made.

## **Employment, Severance and Non-Competition Arrangements**

We have employment agreements with Dr. Barber, Mr. van Walsem, Mr. Auchincloss and Mr. Findlen.

Dr. Barber, our president and chief executive officer, entered into an employment agreement with us on December 14, 2005. The agreement entitles Dr. Barber to an annual base salary of \$19,583 per month, subject to adjustment at our discretion. Pursuant to the agreement, Dr. Barber is eligible to receive a discretionary bonus. In addition, we agreed to forgive a \$75,000 loan made to Dr. Barber in 2000 in exchange for Dr. Barber's covenants under the agreement. Pursuant to the terms of the agreement, if we terminate Dr. Barber's employment without "cause" (as defined in the agreement), he will be entitled to continuing pay for a period of twelve months, at the rate equal to his base salary and the cost of COBRA premiums for twelve months. In addition, if the award of a bonus has become customary, Dr. Barber will be entitled to a payment equal to the average of the bonuses paid to him, if any, in the two years preceding the termination. If we terminate Dr. Barber's employment without cause or if Dr. Barber terminates his employment for "good reason" (as defined in the agreement) within the twentyfour month period immediately following, or the two month period immediately prior to, a "change of control" (as defined in the agreement), in addition to any accrued obligations, and subject to certain conditions: (i) we will continue Dr. Barber's base salary and payment of COBRA premiums for the period of twelve months following the termination, (ii) if the award of a bonus has become customary, Dr. Barber will be entitled to a payment equal to the average of the bonuses paid to him in the two years preceding the termination, and (iii) certain of Dr. Barber's stock options will be accelerated. To the extent the executive would be subject to tax under 4999 of the Code as a result of certain payment in connection with a "transaction" (as defined in the agreement), the number of stock options that would otherwise become exercisable will be reduced or delayed to the extent necessary to maximize the executive's total after-tax payments. Under the agreement, Dr. Barber was granted incentive stock options under our 2005 Stock Plan, with an exercise price of \$1.50 per share, as follows: (i) an option to purchase 243,235 shares of our common stock, 18% of which vested as of the date of grant, the remainder to vest over a 4 year period, subject to the terms of the agreement; (ii) options to purchase 102,666 shares of our common stock, the vesting of such options to be contingent upon the occurrence of certain financing milestones; and (iii) an option to purchase 51,334 shares of our common stock, the vesting of such option to be contingent upon the advancement of our strategic alliance with ADM and certain financing milestones.

Mr. van Walsem, our vice president, manufacturing, development and operations, has entered into an employment agreement with us dated May 1, 2006 that provides for a base salary of \$14,733 per month, subject to adjustment from time to time. Mr. Auchincloss, our chief financial officer, has entered into an employment agreement with us dated January 10, 2006 that provides for a base salary of \$14,733 per month, subject to adjustment from time to time. Mr. Findlen, our Vice President, Marketing, has entered into an employment agreement with us dated May 24, 2006 that provides for

a base salary of \$16,666 per month, subject to adjustment from time to time. Pursuant to these agreements, each executive is eligible to receive a discretionary bonus. Additionally, Mr. Findlen's employment agreement provides for a signing bonus of \$60,000, payable in two installments. If we terminate the executive's employment without "cause" (as defined in the agreement), in addition to any accrued obligations, and contingent on the executive's provision of a timely and complete release of claims against us, for the period of twelve months following the termination he will be entitled to continuation of his base salary and payment of COBRA premiums. In addition, if the award of a bonus has become customary, the executive will be entitled to a payment equal to the average of the bonuses paid to him in the two years preceding the termination. If we terminate the executive's employment without cause or if the executive terminates his employment for "good reason" (as defined in the agreement) within the twenty-four month period immediately following, or the two month period immediately prior to, a "change of control" (as defined in the agreement), in addition to any accrued obligations and subject to certain conditions: (i) for a period of twelve months following the termination, we will continue the executive's base salary and payment of COBRA premiums, (ii) if the award of a bonus has become customary, the executive will be entitled to a payment equal to the average of the bonuses paid to him in the two years preceding the termination, and (iii) all of the executive's stock options will be accelerated, subject to certain conditions. To the extent the executive would be subject to tax under Section 4999 of the Code as a result of certain payment in connection with a "transaction" (as defined in the agreement), the number of stock options that would otherwise become exercisable will be reduced or delayed to the extent necessary to maximize the executive's total after-tax payments.

Each of our executive officers has signed an employee noncompetition, nondisclosure and inventions agreement. These agreements include a provision prohibiting the executive, during his employment by us and for a period of two years thereafter, from engaging in certain business activities. Dr. Barber and Mr. van Walsem are restricted from business activities in the field of methods of production, application and use of PHAs, their derivatives and other related technology developed by us. Mr. Auchincloss, Dr. Peoples and Mr. Findlen are restricted from business activities which are directly or indirectly in competition with the products or services being developed, manufactured, marketed, distributed, planned, sold or otherwise provided by us or which are in any way directly or indirectly detrimental to our business.

## Limitation of Liability and Indemnification

As permitted by the Delaware General Corporation Law, we have adopted provisions in our certificate of incorporation and by-laws to be in effect at the closing of this offering that limit or eliminate the personal liability of our directors. Consequently, a director will not be personally liable to us or our stockholders for monetary damages or breach of fiduciary duty as a director, except for liability for:

- any breach of the director's duty of loyalty to us or our stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- · any unlawful payments related to dividends or unlawful stock repurchases, redemptions or other distributions; or
- any transaction from which the director derived an improper personal benefit.

These limitations of liability do not alter director liability under the federal securities laws and do not affect the availability of equitable remedies such as an injunction or rescission.

In addition, our by-laws provide that:

- we will indemnify our directors, officers and, in the discretion of our board of directors, certain employees to the fullest extent permitted by the Delaware General Corporation Law; and
- we will advance expenses, including attorneys' fees, to our directors and, in the discretion of our board of directors, to our officers and certain employees, in connection with legal proceedings, subject to limited exceptions.

Contemporaneous with the completion of this offering, we intend to enter into indemnification agreements with each of our executive officers and directors. These agreements provide that we will indemnify each of our directors to the fullest extent permitted by law and advance expenses to each indemnitee in connection with any proceeding in which indemnification is available.

We intend to obtain, contemporaneously with the offering, director and officer liability insurance that covers certain liabilities of our directors and officers arising out of claims based on acts or omissions in their capacities as directors or officers, including liabilities under the Securities Act of 1933, as amended. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers, or persons controlling the registrant pursuant to the foregoing provisions, we have been informed that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

These provisions may discourage stockholders from bringing a lawsuit against our directors for breach of their fiduciary duty. These provisions may also have the effect of reducing the likelihood of derivative litigation against directors and officers, even though such an action, if successful, might otherwise benefit us and our stockholders. Furthermore, a stockholder's investment may be adversely affected to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions. We believe that these provisions, the indemnification agreements and the insurance are necessary to attract and retain talented and experienced directors and officers.

At present, there is no pending litigation or proceeding involving any of our directors or officers where indemnification will be required or permitted. We are not aware of any threatened litigation or proceeding that might result in a claim for such indemnification.

## CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

Other than compensation agreements and other arrangements which are described as required in "Management" and the transactions described below, since January 1, 2002, there has not been, and there is not currently proposed, any transaction or series of similar transactions to which we were or will be a party in which the amount involved exceeded or will exceed \$60,000 and in which any director, executive officer, holder of five percent or more of any class of our capital stock or any member of their immediate family had or will have a direct or indirect material interest.

All of the transactions set forth below were approved by a majority of the board of directors, including a majority of the independent and disinterested members of the board of directors. We believe that we have executed all of the transactions set forth below on terms no less favorable to us than we could have obtained from unaffiliated third parties. It is our intention to ensure that all future transactions between us and our officers, directors and principal stockholders and their affiliates, are approved by a majority of the board of directors, including a majority of the independent and disinterested members of the board of directors, and are on terms no less favorable to us than those that we could obtain from unaffiliated third parties.

#### **Private Placements of Securities**

In April 2002 and May 2002, we issued and sold 637,461 shares of Series I convertible preferred stock at price of \$10.80 per share. In connection with the issuance of Series I preferred stock during 2002, we issued warrants to purchase 637,461 shares of common stock at an exercise price of \$10.80 per share. Also in April 2002 and May 2002, we exchanged 529,780 shares of Series H convertible preferred stock for 529,780 shares of Series I convertible preferred stock. Concurrently, we issued warrants to purchase 529,780 shares of common stock at an exercise price of \$10.80 per share in connection with the exchange.

In June 2003, we issued 270,704 shares of Series I preferred stock at \$10.80 per share. In conjunction with the issuance of the Series I preferred stock during 2003, we issued warrants to purchase 270,704 shares of common stock at an exercise price of \$10.80 per share.

In November 2003, we issued 324,074 shares of Series J convertible preferred stock at \$10.80 per share. In conjunction with the issuance of Series J preferred stock, shareholders of 1,208,880 shares of Series I preferred stock exercised their right to exchange the shares of Series I preferred stock for 1,208,880 shares of Series J preferred stock. Shareholders of 192,147 shares of Series I preferred stock who elected not to participate in the Series J preferred stock offering had their 192,147 shares of Series I preferred stock. In connection with the issuance of Series J preferred stock, we issued warrants to purchase 324,074 shares of common stock at an exercise price of \$0.10 per share. Concurrently, we issued warrants to purchase 1,208,880 shares of common stock at an exercise price of \$0.10 per share. In January 2004, we issued an addition, we cancelled warrants to purchase 426,259 shares of common stock at an exercise price of \$10.80 per share. In January 2004, we issued an additional 57,370 shares of Series J preferred stock at \$10.80 per share. In conjunction with the issuance of Series J preferred stock in 2004, the remaining shareholders of 36,918 shares of Series I preferred stock exercised their right to exchange the shares of Series I preferred stock for 36,918 shares of Series J preferred stock. In connection with the issuance of the Series J preferred stock during 2004, we issued warrants to purchase 57,370 shares of common stock at an exercise price of \$0.10 per share. Concurrently, we issued warrants to purchase 36,918 shares of common stock at an exercise price of \$0.10 per share. I preferred stock for Series J preferred stock.

In April through August 2004, we issued 1,100,766 shares of Series 04 convertible preferred stock at \$5.40 per share. In conjunction with the issuance of Series 04 preferred stock, shareholders of 1,625,242 shares of Series J preferred stock exercised their right to exchange the shares of Series J preferred stock for 3,250,484 shares of Series 04 preferred stock. A holder of 2,000 shares of Series J preferred stock who elected not to participate in the Series 04 preferred stock offering had his 2,000 shares of Series J preferred stock. In conjunction with the issuance of Series 04 preferred stock in 2004 and the exchange of the shares of Series J preferred stock, 189,716 warrants to purchase common stock were cancelled.

From March through May 2005, we issued 893,652 shares of Series 04 convertible preferred stock at \$5.40 per share.

In January 2006, we issued 2,920,000 shares of Series 05 convertible preferred stock at \$6.00 per share.

The following table summarizes, on a common stock equivalent basis, the participation by our five percent stockholders, officers and directors.

Purchaser <sup>(1)</sup>	Total Common Stock Equivalents	_	Aggregate Consideration Paid	Investment Participation
State Farm Automobile Insurance				
Co.	770,183	\$	5,970,207	Series I, J, 04 and 05
Vertical Group <sup>(2)</sup>	477,340	\$	3,775,269	Series I, J, 04 and 05
Archer Daniels Midland Company	833,333	\$	4,999,998	Series 05
Thomas G. Auchincloss, Jr.	22,791	\$	147,513	Series I, J, 04 and 05
Edward M. Muller	47,311	\$	510,959	Series I
Edward M. Giles <sup>(2)</sup>	247,221	\$	1,994,699	Series I, J, 04 and 05
Jack W. Lasersohn <sup>(2)</sup>	477,340	\$	3,775,269	Series I, J, 04 and 05
Anthony J. Sinskey	47,792	\$	331,159	Series I, J, 04 and 05

<sup>(1)</sup> See "Principal Stockholders" for more detail on shares held by these purchasers.

#### **Transactions with Archer Daniels Midland Company**

ADM has agreed to purchase \$7.5 million of our shares of common stock in a private placement concurrent with this offering at a price per share equal to the initial public offering price. The sale of such shares to ADM will not be registered in this offering. ADM will have piggyback registration rights and one demand registration right with respect to such shares upon the expiration of the lock-up agreement.

On July 12, 2006, we and ADM Polymer, a wholly-owned subsidiary of ADM, entered into the Commercial Alliance Agreement and related agreements. We are also a party to a Technology Alliance Agreement with ADM as part of our strategic alliance.

<sup>(2)</sup> Vertical Group, L.P. includes Vertical Fund I, L.P. and Vertical Fund II, L.P. Mr. Lasersohn, who is one of our directors, is a general partner of Vertical Group, L.P., the sole general partner of each of Vertical Fund I, L.P. and Vertical Fund II, L.P. Mr. Giles, who is one of our directors, is special limited partner of Vertical Group, L.P., the sole general partner of each of Vertical Fund II, L.P. Mr. Giles is the Chairman of the Board of Vertical Group, Inc. Mr. Lasersohn shares voting and investment power over shares held by Vertical Fund I, L.P. and Vertical Fund II, L.P. Mr. Giles does not, directly or indirectly, have any voting or dispositive power over shares held by Vertical Fund I, L.P. or Vertical Fund II, L.P.

#### **Transactions with our Executive Officers and Directors**

We have employment agreements with Dr. Barber, Mr. van Walsem, Mr. Auchincloss and Mr. Findlen, which provide for certain salary, bonus, stock option and severance compensation. For more information regarding these agreements, see "Management — Employment, Severance and Non-Competition Agreements."

Prior to completion of this offering, we intend to enter into indemnification agreements with each of our executive officers and directors, providing for indemnification against expenses and liabilities reasonably incurred in connection with their service for us on our behalf. For more information regarding these agreements, see "Management — Limitation of Liability and Indemnification."

In September 2005, we retained Dr. ChoKyun Rha, the spouse of our director, Dr. Sinskey, to serve as an advisor for the purpose of building and managing business relationships in Asia. In consideration for Dr. Rha's services, on September 20, 2005, we granted Dr. Rha a nonqualified stock option to purchase 20,000 shares of our common stock, with an exercise price of \$1.35 per share, vesting over a period of four years.

In 1999, we entered into a sublicense agreement with Tepha, Inc. ("Tepha"), to sublicense certain technology to Tepha. Our director, Dr. Williams, is the president and chief executive officer and a director of Tepha. In addition, our 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 us upon Tepha achieving certain financing milestones and for product related milestone payments. Under the agreement, we will also receive royalties on net sales of licensed products or sublicensing revenues received by Tepha, subject to a minimum payment each year.

In December 2002, we amended this agreement to provide that \$800,000 of Tepha's payment obligation pursuant to the agreement became payable in both cash and equity. In October 2002, Tepha paid us \$100,000 in cash, and the balance of the payment obligation was satisfied through the issuance of 648,149 shares of Tepha's Series A redeemable convertible preferred stock. We licensed or sublicensed additional technology to Tepha in 2003, 2004 and 2005. We recognized license and royalty revenues of \$112,800, \$316,880, \$242,100 and \$139,900 from Tepha for the years ended December 31, 2003, 2004, 2005 and for the quarter ended March 31, 2006, respectively. We believe that the terms of the agreements with Tepha are no less favorable to us than license agreements that might be entered into with an independent third party.

In June 2000, in connection with his relocation to Massachusetts, we made a \$75,000 loan to James J. Barber, our chief executive officer. The loan was evidenced by a promissory note bearing interest at the rate of 6.62% per annum. In December 2005 the loan principal of \$75,000 and the outstanding interest balance of \$106,739 were forgiven in full.

## **Stock Option Awards**

For information regarding stock options and stock awards granted to our named executive officers and directors, see "Management — Compensation of Director" and "Management — Executive Compensation."

## PRINCIPAL STOCKHOLDERS

The following table sets forth the beneficial ownership information of our common stock at June 30, 2006, and as adjusted to reflect the sale of the shares of common stock in this offering and the sale of the ADM Shares, for:

- · each person known to us to be the beneficial owner of more than 5% of our common stock and another significant stockholder;
- each named executive officer;
- each of our directors; and
- all of our executive officers and directors as a group.

Unless otherwise noted below, the address of the persons and entities listed on the table is c/o Metabolix, Inc., 21 Erie Street, Cambridge, MA 02139. We have determined beneficial ownership in accordance with the rules of the SEC. Except as indicated by the footnotes below, we believe, based on the information furnished to us, that the persons and entities named in the table below have sole voting and investment power with respect to all shares of common stock reflected as beneficially owned, subject to applicable community property laws. We have based our calculation of the percentage of beneficial ownership on 14,749,713 shares of common stock outstanding on June 30, 2006, assuming the conversion of all of the outstanding convertible preferred stock, and shares of common stock outstanding upon completion of this offering and the sale of the ADM Shares.

In computing the number of shares of common stock beneficially owned by a person and the percentage ownership of that person, we deemed outstanding shares of common stock subject to options or warrants held by that person that are currently exercisable or exercisable within 60 days of June 30, 2006. We did not deem these shares outstanding, however, for the purpose of computing the percentage ownership of any other person. Beneficial ownership representing less than 1% is denoted with an asterisk (\*).

# Shares Beneficially Owned Prior to this offering

# Shares Beneficially Owned After this offering

Beneficial Owner	Number	Percent	Number	Percent
5% Stockholders:				
Vertical Group <sup>(1)</sup> 25 DeForest Ave Summit, NJ 07901	2,080,015	13.94%	2,080,015	
State Farm Mutual <sup>(2)</sup> Automobile Insurance Co One State Farm Plaza Bloomington, IL 61701	2,882,199	18.64%	2,882,199	
Archer Daniels Midland Company <sup>(3)</sup> 4666 Faries Parkway Decatur, IL 62526	833,333	5.65%		
Westfield Capital One Financial Center Boston, MA 02111	666,667	4.52%	666,667	
Directors and Named Executive Officers:				
James J. Barber <sup>(4)</sup>	446,989	2.94%	446,989	
Oliver P. Peoples <sup>(5)</sup>	741,500	4.95%	741,500	
Johan van Walsem <sup>(6)</sup>	137,500	*	137,500	
Thomas G. Auchincloss, Jr. <sup>(7)</sup>	162,501	1.09%	162,501	
Robert Findlen	_	*	_	
Edward M. Muller <sup>(8)</sup>	1,537,507	10.30%	1,537,507	
Edward M. Giles <sup>(1)(9)</sup>	1,281,231	8.54%	1,281,231	
Jay Kouba <sup>(10)</sup>	20,000	*	20,000	
Jack W. Lasersohn <sup>(1)</sup>	2,080,015	13.94%	2,080,015	
Anthony J. Sinskey <sup>(11)</sup>	601,002	4.07%	601,002	
Simon F. Williams <sup>(12)</sup>	500,000	3.39%	500,000	
All directors and executive officers as a group (11 persons)	7,508,246	45.92%	7,508,245	

<sup>\*</sup> less than 1%.

footnotes continued on following page

Consists of 1,093,096 shares held by Vertical Fund I, L.P. and 116,760 shares issuable to Vertical Fund I, L.P. upon exercise of warrants. Also consists of 815,548 shares held by Vertical Fund II, L.P. and 54,611 shares issuable to Vertical Fund II, L.P. upon exercise of warrants. Mr. Lasersohn is a General Partner of Vertical Group, L.P., the sole general partner of each of Vertical Fund I, L.P. and Vertical Fund II, L.P., and may be deemed to share voting and investment power with respect to all shares held by those entities. Mr. Lasersohn disclaims beneficial ownership of such shares except to the extent of his pecuniary interest, if any. Mr. Giles is a special limited partner of Vertical Group, L.P., the sole general partner of each of Vertical Fund I, L.P. and Vertical Fund II, L.P. and Vertical Fund II, L.P. Mr. Giles disclaims beneficial ownership of such shares except to the extent of his pecuniary interest, if any.

<sup>(2)</sup> Includes 716,795 shares issuable to State Farm Mutual Automobile Insurance Co. upon exercise of warrants.

- (3) ADM has agreed to purchase \$7.5 million of our shares of common stock in a private placement concurrent with this offering at a price per share equal to the price to the public. The sale of such shares of common stock will not be registered in this offering.
- (4) Includes 430,664 shares issuable to Dr. Barber upon exercise of stock options.
- (5) Includes 241,500 shares issuable to Dr. Peoples upon exercise of stock options. Also includes 20,000 shares held by the George Stormont Trust for the benefit of certain family members. Dr. Peoples disclaims beneficial ownership of such shares except to the extent of his pecuniary interest, if any.
- (6) Represents shares issuable to Mr. van Walsem upon exercise of stock options.
- (7) Includes 1,250 shares issuable to Mr. Auchincloss upon exercise of warrants. Also includes 142,500 shares issuable to Mr. Auchincloss upon exercise of stock options. Also includes 2,000 shares held on behalf of his minor children. Mr. Auchincloss disclaims beneficial ownership of such shares except to the extent of his pecuniary interest, if any.
- (8) Includes 177,987 shares issuable to Mr. Muller upon exercise of warrants. Also includes 55,830 shares held by certain trusts for the benefit of family members and 5,830 shares issuable upon exercise of warrants held by such trusts. Mr. Muller disclaims beneficial ownership of such shares except to the extent of his pecuniary interest, if any.
- (9) Includes 259,125 shares issuable to Mr. Giles upon exercise of warrants. Also includes 418,770 shares held by certain entities over which Mr. Giles may be deemed to share voting and investment power with respect to such shares. Mr. Giles disclaims beneficial ownership of such shares except to the extent of his pecuniary interest, if any.
- (10) Represents shares issuable to Mr. Kouba upon exercise of stock options.
- (11) Includes 10,330 shares issuable to Dr. Sinskey upon exercise of warrants. Also includes 3,750 shares issuable to Chokyun Rha, Dr. Sinskey's spouse, upon exercise of options, of which Dr. Sinskey disclaims beneficial ownership except to the extent of his pecuniary interest, if any.
- (12) Includes 100,000 shares held by the Williams Children's Trust for the benefit of certain family members. Dr. Williams disclaims beneficial ownership of such shares except to the extent of his pecuniary interest, if any.

## DESCRIPTION OF CAPITAL STOCK

#### General

Upon completion of this offering, our authorized capital stock will consist of 100,000,000 shares of common stock, par value \$0.01 per share, and 5,000,000 shares of undesignated preferred stock, par value \$0.01 per share. The following description of our capital stock is intended as a summary only and is qualified in its entirety by reference to our second amended and restated certificate of incorporation and amended and restated by-laws to be in effect at the closing of this offering, which are filed as exhibits to the registration statement, of which this prospectus forms a part, and to the applicable provisions of the Delaware General Corporation Law. We refer in this section to our second amended and restated certificate of incorporation as our certificate of incorporation, and we refer to our amended and restated by-laws as our by-laws.

#### Common Stock

As of June 30, 2006, there were 14,749,713 shares of our common stock outstanding and held of record by approximately 121 stockholders, assuming conversion of all outstanding shares of preferred stock.

Holders of our common stock are entitled to one vote for each share of common stock held of record for the election of directors and on all matters submitted to a vote of stockholders. Holders of our common stock are entitled to receive dividends ratably, if any, as may be declared by our board of directors out of legally available funds, subject to any preferential dividend rights of any preferred stock then outstanding. Upon our dissolution, liquidation or winding up, holders of our common stock are entitled to share ratably in our net assets legally available after the payment of all our debts and other liabilities, subject to the preferential rights of any preferred stock then outstanding. Holders of our common stock have no preemptive, subscription, redemption or conversion rights. The rights, preferences and privileges of holders of common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of preferred stock that we may designate and issue in the future. Except as described below in "Provisions of our Certificate of Incorporation and By-Laws and Delaware Anti-Takeover Law," a majority vote of common stockholders is generally required to take action under our certificate of incorporation and by-laws.

#### Preferred Stock

Upon completion of this offering, our board of directors will be authorized, without action by the stockholders, to designate and issue up to an aggregate of 5,000,000 shares of preferred stock in one or more series. The board of directors can fix the rights, preferences and privileges of the shares of each series and any of its qualifications, limitations or restrictions. Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of common stock. The issuance of preferred stock, while providing flexibility in connection with possible future financings and acquisitions and other corporate purposes could, under certain circumstances, have the effect of delaying, deferring or preventing a change in control of our company and might harm the market price of our common stock.

Our board of directors will make any determination to issue such shares based on its judgment as to our company's best interests and the best interests of our stockholders. We have no current plans to issue any shares of preferred stock.

#### Warrants

As of June 30, 2006, warrants to purchase a total of 2,174,629 shares of our common stock were outstanding with exercise prices of \$0.10 per share, \$2.70 per share and \$10.80 per share. These warrants expire on various dates through May 21, 2014.

## **Registration Rights**

We entered into a stockholders' agreement, dated as of January 19, 2006, with the holders of shares of our common stock issuable upon conversion of the shares of preferred stock and other stockholders, including certain members of our management. Under this agreement, holders of shares having registration rights can demand that we file a registration statement or request that their shares be covered by a registration statement that we are otherwise filing. All of these registration rights are subject to conditions and limitations, including the right of the underwriters of an offering to limit the number of shares included in such registration and our right to postpone a requested registration for a period of no more than 180 days if we determine that this offering would be materially detrimental to us.

Demand Registration Rights. The holders of approximately 14,543,677 shares of common stock, after this offering, subject to exceptions, are entitled to certain demand registration rights, upon the request of holders of a certain percentage of such shares, pursuant to which they may require us to file a registration statement under the Securities Act at our expense with respect to their shares of common stock. We are required to use our best efforts to effect any such registration. In addition, we have granted ADM one demand registration right with respect to the ADM Shares.

*Piggyback Registration Rights.* If we propose to register any of our securities under the Securities Act for our own account or the account of any other holder, the holders of approximately 14,543,677 shares of common stock, after this offering, are entitled to notice of such registration and are entitled to include shares of their common stock therein. In addition, we have granted ADM piggyback registration rights with respect to the ADM Shares.

We will pay all registration expenses, other than underwriting discounts and commissions, related to any demand or piggyback registration. The stockholders' agreement contains customary cross- indemnification provisions, pursuant to which we are obligated to indemnify the selling stockholders in the event of material misstatements or omissions in the registration statement attributable to us, and they are obligated to indemnify us for material misstatements or omissions attributable to them.

## Provisions of our Certificate of Incorporation and By-Laws and Delaware Anti-Takeover Law

Our certificate of incorporation and by-laws will, upon completion of this offering, include a number of provisions that may have the effect of encouraging persons considering unsolicited tender offers or other unilateral takeover proposals to negotiate with our board of directors rather than pursue non-negotiated takeover attempts. These provisions include the items described below.

Board Composition and Filling Vacancies. In accordance with our certificate of incorporation, our board is divided into three classes serving staggered three-year terms, with one class being elected each year. Our certificate of incorporation also provides that directors may be removed only for cause and then only by the affirmative vote of the holders of 75% or more of the shares then entitled to vote at an election of directors. Furthermore, any vacancy on our board of directors, however occurring, including a vacancy resulting from an increase in the size of our board, may only be filled by the affirmative vote of a majority of our directors then in office even if less than a quorum.

*No Written Consent of Stockholders*. Our certificate of incorporation provides that all stockholder actions are required to be taken by a vote of the stockholders at an annual or special meeting, and that stockholders may not take any action by written consent in lieu of a meeting.

*Meetings of Stockholders*. Our by-laws provide that only a majority of the members of our board of directors then in office may call special meetings of stockholders and only those matters set forth in the notice of the special meeting may be considered or acted upon at a special meeting of stockholders. Our by-laws limit the business that may be conducted at an annual meeting of stockholders to those matters properly brought before the meeting.

Advance Notice Requirements. Our by-laws establish advance notice procedures with regard to stockholder proposals relating to the nomination of candidates for election as directors or new business to be brought before meetings of our stockholders. These procedures provide that notice of stockholder proposals must be timely given in writing to our corporate secretary prior to the meeting at which the action is to be taken. Generally, to be timely, notice must be received at our principal executive offices not less than 90 days nor more than 120 days prior to the first anniversary date of the annual meeting for the preceding year. The notice must contain certain information specified in the by-laws.

Amendment to By-Laws and Certificate of Incorporation. As required by the Delaware General Corporation Law, any amendment of our certificate of incorporation must first be approved by a majority of our board of directors and, if required by law or our certificate of incorporation, thereafter be approved by a majority of the outstanding shares entitled to vote thereon as a class, except that the amendment of the provisions relating to stockholder action, directors, limitation of liability and the amendment of our by-laws and certificate of incorporation must be approved by not less than 75% of the outstanding shares entitled to vote on the amendment, and not less than 75% of the outstanding shares of each class entitled to vote thereon as a class. Our by-laws may be amended by the affirmative vote of a majority of the directors then in office, subject to any limitations set forth in the by-laws; and may also be amended by the affirmative vote of at least 75% of the outstanding shares entitled to vote on the amendment, or, if the board of directors recommends that the stockholders approve the amendment, by the affirmative vote of the majority of the outstanding shares entitled to vote on the amendment, in each case voting together as a single class.

Blank Check Preferred Stock. Our certificate of incorporation provides for 5,000,000 authorized shares of preferred stock. The existence of authorized but unissued shares of preferred stock may enable our board of directors to render more difficult or to discourage an attempt to obtain control of us by means of a merger, tender offer, proxy contest or otherwise. For example, if in the due exercise of its fiduciary obligations, our board of directors were to determine that a takeover proposal is not in the best interests of us or our stockholders, our board of directors could cause shares of preferred stock to be issued without stockholder approval in one or more private offerings or other transactions that might dilute the voting or other rights of the proposed acquirer or insurgent stockholder group. In this regard, our certificate of incorporation grants our board of directors broad power to establish the rights and preferences of authorized and unissued shares of preferred stock. The issuance of shares of preferred stock could decrease the amount of earnings and assets available for distribution to holders of shares of common stock. The issuance may also adversely affect the rights and powers, including voting rights, of these holders and may have the effect of delaying, deterring or preventing a change in control of us.

## Section 203 of the Delaware General Corporation Law

Upon completion of this offering, we will be subject to the provisions of Section 203 of the Delaware General Corporation Law. In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a three-year period following the time that this stockholder becomes an interested stockholder, unless the business combination is approved in a prescribed manner. A "business combination" includes, among other things, a merger, asset or stock sale or other transaction resulting in a financial benefit to the interested stockholder. An "interested stockholder" is a person who, together with affiliates and associates, owns, or did own within three years prior to the determination of interested stockholder status, 15% or more of the corporation's voting stock. Under Section 203, a business combination between a corporation and an interested stockholder is prohibited unless it satisfies one of the following conditions:

- before the stockholder became interested, the board of directors approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction which resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the voting stock outstanding, shares owned by persons who are directors and also officers, and employee stock plans, in some instances; or
- at or after the time the stockholder became interested, the business combination was approved by the board of directors of the corporation and
  authorized at an annual or special meeting of the stockholders by the affirmative vote of at least two-thirds of the outstanding voting stock which
  is not owned by the interested stockholder.

## **NASDAQ Stock Market Listing**

We have applied to the NASDAQ Global Market for the quotation of our common stock under the trading symbol MBLX.

## **Transfer Agent and Registrar**

Upon completion of this offering, the transfer agent and registrar for our common stock will be American Stock Transfer & Trust Company.

## SHARES ELIGIBLE FOR FUTURE SALE

Immediately prior to this offering, there was no public market for our common stock. Future sales of substantial amounts of common stock in the public market, or the perception that such sales may occur, could adversely affect the market price of our common stock. Although we have applied to have our common stock approved for quotation on the NASDAQ Global Market, we cannot assure you that there will be an active public market for our common stock.

Upon completion of this offering, we will have outstanding an aggregate of shares of common stock, assuming the issuance of shares of common stock offered hereby, the issuance of the ADM Shares and no exercise of the underwriter's overallotment option and no exercise of outstanding options or warrants. Of these shares, shares sold in this offering will be freely tradable without restriction or further registration under the Securities Act, except for any shares purchased by our "affiliates," as that term is defined in Rule 144 under the Securities Act, whose sales would be subject to certain limitations and restrictions described below.

All remaining shares of common stock held by existing stockholders were issued and sold by us in reliance on exemptions from the registration requirements of the Securities Act. Of these shares, shares will be subject to "lock-up" agreements with the underwriters or us described below on the effective date of this offering. On the effective date of this offering, there will be shares that are not subject to lock-up agreements and eligible for sale pursuant to Rule 144(k). Upon expiration of the lock-up agreements 180 days after the effective date of this offering, shares will become eligible for sale, subject in most cases to the limitations of Rule 144. In addition, holders of stock options could exercise such options and sell certain of the shares issued upon exercise as described below.

Days After Date of this Prospectus	Shares Eligible for Sale	Comment
Upon Effectiveness		Freely tradable shares saleable under Rule 144(k) that are not subject to the lock-up
90 Days		Shares saleable under Rules 144 and 701 that are not subject to a lock-up
180 Days		Lock-ups released, subject to extension; shares saleable under Rules 144 and 701
Thereafter		Restricted securities held for one year or less

## **Lock-up Agreements**

We, each of our directors and executive officers, and certain of our other stockholders, who collectively own shares of our common stock, based on shares outstanding as of , 2006, have agreed that, without the prior written consent of Piper Jaffray on behalf of the underwriters, we and they will not, subject to limited exceptions, during the period ending 180 days after the date of this prospectus, subject to extension in specified circumstances:

• offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend or otherwise transfer or dispose of, directly or indirectly, any shares of our common stock or any securities convertible into or exercisable or exchangeable for common stock; or

 enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of our common stock,

whether any transaction described above is to be settled by delivery of our common stock or such other securities, in cash or otherwise. Any determination to release any shares subject to the lock-up agreements would be made on a case-by-case basis based on a number of factors at the time of determination, including the market price of the common stock, the liquidity of the trading market for the common stock, general market conditions, the number of shares proposed to be sold and the timing, purpose and terms of the proposed sale. Piper Jaffray on behalf of the underwriters will have discretion in determining if, and when, to release any shares subject to lock-up agreements.

The 180-day restricted period described in the preceding paragraph will be automatically extended if: (1) during the last 17 days of the 180-day restricted period we issue an earnings release or announce material news or a material event; or (2) prior to the expiration of the 180-day restricted period, we announce that we will release earnings results during the 15-day period following the last day of the 180-day period, in which case the restrictions described in the preceding paragraph will continue to apply until the expiration of the 18-day period beginning on the issuance of the earnings release of the announcement of the material news or material event.

We do not currently expect any release of shares subject to lock-up agreements prior to the expiration of the applicable lock-up periods. Upon the expiration of the applicable lock-up periods, substantially all of the shares subject to such lock-up restrictions will become eligible for sale, subject to the limitations discussed above.

## Rule 144

In general, under Rule 144 as currently in effect, beginning 90 days after the date of this prospectus, a person who has beneficially owned shares of our common stock for at least one year, including an affiliate, would be entitled to sell in "broker's transactions" or to market makers, within any three-month period, a number of shares that does not exceed the greater of:

- 1% of the number of shares of our common stock then outstanding, which will equal approximately shares immediately after this offering; or
- the average weekly trading volume in our common stock on the NASDAQ Global Market during the four calendar weeks preceding the filing of a notice on Form 144 with respect to such sale.

Sales under Rule 144 are generally subject to the availability of current public information about us.

## Rule 144(k)

Under Rule 144(k), a person who is not deemed to have been an affiliate of ours at any time during the 90 days preceding a sale, and who has beneficially owned the shares proposed to be sold for at least two years, is entitled to sell such shares without having to comply with the manner of sale, public information, volume limitation or notice filing provisions of Rule 144. Therefore, unless otherwise restricted, "144(k) shares" may be sold immediately upon the completion of this offering.

#### **Rule 701**

In general, under Rule 701, any of our employees, directors, officers, consultants or advisors who purchased shares from us in connection with a compensatory stock or option plan or other written agreement before the effective date of this offering is entitled to sell such shares 90 days after the effective date of this offering in reliance on Rule 144, without having to comply with the holding period and notice filing requirements of Rule 144 and, in the case of non-affiliates, without having to comply with the public information, volume limitation or notice filing provisions of Rule 144.

The SEC has indicated that Rule 701 will apply to typical stock options granted by an issuer before it becomes subject to the reporting requirements of the Securities Exchange Act of 1934, as amended, along with the shares acquired upon exercise of such options, including exercises after the date of this prospectus. Securities issued in reliance on Rule 701 are restricted securities and subject to the contractual restrictions described above, beginning 90 days after the date of this prospectus, may be sold by persons other than affiliates subject only to the manner of sale provisions of Rule 144 and by affiliates without compliance with its one year minimum holding period requirements.

## **Stock Options**

We intend to file one or more registration statements on Form S-8 under the Securities Act to register all shares of common stock subject to outstanding stock options and common stock issued or issuable under our stock plans. We expect to file the registration statement covering shares offered pursuant to our stock plans shortly after the date of this prospectus, permitting the resale of such shares by nonaffiliates in the public market without restriction under the Securities Act, but subject to the provisions of the lock-up agreements.

## **Registration Rights**

Upon completion of this offering, the holders of approximately 14,543,677 shares of our common stock will be eligible to exercise certain rights with respect to the registration of such shares under the Securities Act. In addition, we have granted ADM registration rights with respect to the ADM Shares. See "Description of Capital Stock — Registration Rights." Upon the effectiveness of a registration statement covering these shares, the shares would become freely tradable.

## UNDERWRITING

The underwriters named below have agreed to buy, subject to the terms of the purchase agreement, the number of shares listed opposite their names below. Piper Jaffray is acting as book-running manager for the offering and together with Jefferies & Company, Inc., Thomas Weisel Partners LLC and Ardour Capital Investments, LLC is acting as representative of the underwriters. The underwriters are committed to purchase and pay for all of the shares if any are purchased other than those shares covered by the over-allotment option described below.

Underwriters		of Shares
Piper Jaffray & Co.		
Jefferies & Company, Inc.		
Thomas Weisel Partners LLC		
Ardour Capital Investments, LLC	_	
Total		

The underwriters have advised us that they propose to offer the shares to the public at \$ per share. The underwriters propose to offer the shares to certain dealers at the same price less a concession of not more than \$ per share. The underwriters may allow and the dealers may reallow a concession of not more than \$ per share on sales to certain other brokers and dealers. After this offering, these figures may be changed by the underwriters.

We have granted to the underwriters an option to purchase up to an additional shares of common stock from us, at the same price to the public, and with the same underwriting discount, as set forth in the table above. The underwriters may exercise this option any time during the 30-day period after the date of this prospectus, but only to cover over-allotments, if any. To the extent the underwriters exercise the option, each underwriter will become obligated, subject to certain conditions, to purchase approximately the same percentage of the additional shares as it was obligated to purchase under the purchase agreement.

We estimate that the total fees and expenses payable by us, excluding underwriting discounts and commissions will be approximately \$ million, which includes legal, accounting and printing costs and various other fees associated with registration and listing of our common stock. The following table shows the underwriting fees to be paid to the underwriters in connection with this offering. These amounts are shown assuming both no exercise and full exercise of the underwriters' over-allotment option.

	No Exercise	Full Exercise
Per share	\$	\$
Total	\$	\$

We have agreed to indemnify the underwriters against certain liabilities, including civil liabilities under the Securities Act, or to contribute to payments that the underwriters may be required to make in respect of those liabilities.

We and each of our directors, executive officers and certain of our shareholders have agreed to certain restrictions on our ability to sell additional shares of our common stock for a period of 180 days after the date of this prospectus. We have agreed not to directly or indirectly offer for sale, sell, contract to

sell, grant any option for the sale of, or otherwise issue or dispose of, any shares of common stock, options or warrants to acquire shares of common stock, or any related security or instrument, without the prior written consent of Piper Jaffray. The agreements provide exceptions for (1) sales to underwriters pursuant to the purchase agreement, (2) our sales in connection with the exercise of options granted and the granting of options to purchase up to an additional shares under our existing stock option plans and (3) certain other exceptions.

The 180-day restricted period described in the preceding paragraph will be automatically extended if: (1) during the last 17 days of the 180-day restricted period we issue an earnings release or announce material news or a material event; or (2) prior to the expiration of the 180-day restricted period, we announce that we will release earnings results during the 15-day period following the last day of the 180-day period, in which case the restrictions described in the preceding paragraph will continue to apply until the expiration of the 18-day period beginning on the issuance of the earnings release of the announcement of the material news or material event.

Prior to this offering, there has been no established trading market for the common stock. The initial public offering price for the shares of common stock offered by this prospectus was negotiated by us and the underwriters. The factors considered in determining the initial public offering price include the history of and the prospects for the industry in which we compete, our past and present operations, our historical results of operations, our prospects for future earnings, the recent market prices of securities of generally comparable companies and the general condition of the securities markets at the time of this offering and other relevant factors. There can be no assurance that the initial public offering price of the common stock will correspond to the price at which the common stock will trade in the public market subsequent to this offering or that an active public market for the common stock will develop and continue after this offering.

To facilitate this offering, the underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of the common stock during and after this offering. Specifically, the underwriters may over-allot or otherwise create a short position in the common stock for their own account by selling more shares of common stock than have been sold to them by us. The underwriters may elect to cover any such short position by purchasing shares of common stock in the open market or by exercising the over-allotment option granted to the underwriters. In addition, the underwriters may stabilize or maintain the price of the common stock by bidding for or purchasing shares of common stock in the open market and may impose penalty bids. If penalty bids are imposed, selling concessions allowed to syndicate members or other broker-dealers participating in this offering are reclaimed if shares of common stock previously distributed in this offering are repurchased, whether in connection with stabilization transactions or otherwise. The effect of these transactions may be to stabilize or maintain the market price of the common stock at a level above that which might otherwise prevail in the open market. The imposition of a penalty bid may also effect the price of the common stock to the extent that it discourages resales of the common stock. The magnitude or effect of any stabilization or other transactions is uncertain. These transactions may be effected on the NASDAQ Global Market or otherwise and, if commenced, may be discontinued at any time.

In connection with this offering, some underwriters may also engage in passive market making transactions in the common stock on the NASDAQ Global Market. Passive market making consists of displaying bids on the NASDAQ Global Market limited by the prices of independent market makers and effecting purchases limited by those prices in response to order flow. Rule 103 of Regulation M promulgated by the SEC limits the amount of net purchases that each passive market maker may make and the displayed size of each bid. Passive market making may stabilize the market price of the common stock at a level above that which might otherwise prevail in the open market and, if commenced, may be discontinued at any time.

From time to time in the ordinary course of their respective businesses, certain of the underwriters and their affiliates may in the future engage in commercial banking or investment banking transactions with us and our affiliates.

## **Directed Share Program**

At our request, Piper Jaffray has reserved for sale as part of the underwritten offering, at the initial public offering price, up to 5% of the total number of shares offered by this prospectus, for our directors, officers, employees, business associates and other persons with whom we have a relationship. The number of shares of common stock available for sale to the general public will be reduced to the extent such persons purchase such reserved shares. Any reserved shares that are not so purchased will be offered by the underwriters to the general public on the same basis as the other shares offered in this prospectus.

#### **Notice to Prospective Investors**

In relation to each member state of the European Economic Area that has implemented the Prospectus Directive (each, a relevant member state), each underwriter has represented and agreed that with effect from and including the date on which the Prospectus Directive is implemented in that relevant member state, or the relevant implementation date, it has not made and will not make an offer of shares of our common stock to the public in this offering in that relevant member state prior to the publication of a prospectus in relation to such shares which have been approved by the competent authority in that relevant member state or, where appropriate, approved in another relevant member state and notified to the competent authority in that relevant member state, all in accordance with the Prospectus Directive, except that it may, with effect from and including the relevant implementation date, make an offer of our common stock to the public in that relevant member state at any time:

- to any legal entity that is authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose
  is solely to invest in securities;
- to any legal entity that has two or more of (1) an average of at least 250 employees during the last financial year; (2) a total balance sheet of more than €43,000,000 and (3) an annual net turnover of more than €50,000,000, as shown in its last annual or consolidated accounts;
- to fewer than 100 natural or legal persons (other than qualified investors as defined in the Prospectus Directive) subject to obtaining prior consent of the underwriters; or
- in any other circumstances that do not require the publication of a prospectus pursuant to Article 3 of the Prospectus Directive.

provided that no such offer of shares shall result in a requirement for the publication of a prospectus pursuant to Article 3 of the Prospectus Directive or any measure implementing the Prospectus Directive in a relevant member state and each person who initially acquires any share or to whom any offer is made under this offering will be deemed to have represented, acknowledged and agreed that it is a "qualified investor" within the meaning of Article 2(1)(e) of the Prospectus Directive.

For purposes of this provision, the expression an "offer to the public" in any relevant member state means the communication in any form and by any means of sufficient information on the terms of the offer and the securities to be offered so as to enable an investor to decide to purchase or subscribe the securities, as the expression may be varied in that member state by any measure implementing the

Prospectus Directive in that member state, and the expression "Prospectus Directive" means Directive 2003/71/EC and includes any relevant implementing measure in each relevant member state.

We have not authorized and do not authorize the making of any offer of our common stock through any financial intermediary on our behalf, other than offers made by the underwriters with a view to the final placement of the common stock as contemplated in this prospectus supplement. Accordingly, no purchaser of our common stock, other than the underwriters, is authorized to make any further offer of our common stock on behalf of the sellers or the underwriters.

The shares have not been and will not be offered to the public within the meaning of the German Sales Prospectus Act (Verkaufsprospektgesetz) or the German Investment Act (Investmentgesetz). The shares have not been and will not be listed on a German exchange. No sales prospectus pursuant to the German Sales Prospectus Act has been or will be published or circulated in Germany or filed with the German Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht) or any other governmental or regulatory authority in Germany. This propectus does not constitute an offer to the public in Germany and it does not serve for public distribution of the shares in Germany. Neither this prospectus, not any other document issued in connection with this offering, may be issued or distributed to any person in Germany except under circumstances which do not constitute an offer to the public within the meaning of the German Sales Prospectus Act or the German Investment Act.

Each underwriter has represented, warranted and agreed that: (i) it has not offered or sold and, prior to the expiry of a period of six months from the closing date, will not offer or sell any shares to persons in the United Kingdom except to persons whose ordinary activities involve them in acquiring, holding, managing or disposing of investments (as principal or agent) for the purposes of their businesses or otherwise in circumstances which have not resulted and will not result in an offer to the public in the United Kingdom within the meaning of the Public Offers of Securities Regulations 1995; (ii) it has only communicated or caused to be communicated and will only communicate or cause to be communicated any invitation or inducement to engage in investment activity (within the meaning of section 21 of the Financial Services and Markets Act 2000, or FSMA) received by it in connection with the issue or sale of any shares in circumstances in which section 21(1) of the FSMA does not apply to our company and (iii) it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the shares in, from or otherwise involving the United Kingdom.

The shares offered pursuant to this prospectus will not be offered, directly or indirectly, to the public in Switzerland and this prospectus does not constitute a public offering prospectus as that term is understood pursuant to Article 652a or Article 1156 of the Swiss Federal Code of Obligations. We have not applied for a listing of the shares being offered pursuant to this prospectus on the SWX Swiss Exchange or on any other regulated securities market, and consequently, the information presented in this prospectus does not necessarily comply with the information standards set out in the relevant listing rules. The shares being offered pursuant to this prospectus have not been registered with the Swiss Federal Banking Commission as foreign investment funds, and the investor protection afforded to acquirers of investment fund certificates does not extend to acquirers of securities.

If you purchase shares of common stock offered in this prospectus, you may be required to pay stamp taxes and other charges under the laws and practices of the country of purchase, in addition to the offering price listed on the cover page of this prospectus.

#### LEGAL MATTERS

Goodwin Procter LLP, Boston, Massachusetts, will pass upon the validity of the shares of common stock offered hereby. Latham & Watkins LLP, New York, New York, will pass upon certain legal matters relating to this offering for the underwriters. As at the date of this prospectus, Christopher J. Denn, a partner at Goodwin Procter LLP, is the beneficial owner of 5,369 shares of our common stock.

#### **EXPERTS**

The financial statements as of December 31, 2005 and 2004 and for each of the three years in the period ended December 31, 2005 included in this prospectus have been so included in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of such firm as experts in auditing and accounting.

#### MARKET AND INDUSTRY DATA

Unless otherwise indicated, information contained in this prospectus concerning the plastics, fuels and biofuels markets and industries, including our general expectations and market position, market opportunity and market share, is based on information from independent industry analysts and third party sources and management estimates. Management estimates are derived from publicly available information released by independent industry analysts and third party sources, as well as data from our internal research, and are based on assumptions made by us based on such data and our knowledge of such industry and markets, which we believe to be reasonable. None of the sources cited in this prospectus has consented to the inclusion of any data from its reports, nor have we sought their consent. Our internal research has not been verified by any independent source, and we have not independently verified any third party information and cannot assure you of its accuracy or completeness. In addition, while we believe the market position, market opportunity and market share information included in this prospectus is generally reliable, such information is inherently imprecise. Such data involves risks and uncertainties and are subject to change based on various factors, including those discussed under the heading "Risk Factors."

## WHERE YOU CAN FIND MORE INFORMATION

We have filed a registration statement on Form S-1 with the SEC for the stock we are offering by this prospectus. This prospectus does not include all of the information contained in the registration statement. You should refer to the registration statement and its exhibits for additional information. Whenever we make reference in this prospectus to any of our contracts, agreements or other documents, the references are not necessarily complete and you should refer to the exhibits filed as part of the registration statement for copies of the actual contract, agreement or other document. We file annual, quarterly and special reports, proxy statements and other information with the SEC.

You can obtain copies of our SEC filings, including the registration statement, over the Internet at the SEC's web site at *www.sec.gov*. You may also read and copy any document we file with the SEC at its public reference facilities at 100 F Street, NE, Washington, DC 20549. You may also obtain copies of the documents at prescribed rates by writing to the Public Reference Section of the SEC at 100 F Street, NE, Washington, DC 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the public reference facilities.

You should rely on the information contained in this prospectus and in the registration statement as well as other information you deem relevant. We have not authorized anyone to provide you with

information different from that contained in this prospectus. This prospectus is an offer to sell, or a solicitation of offers to buy, securities only in jurisdictions where offers and sales are permitted. The information contained in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or any sale or exchange of securities. However, we have a duty to update that information while this prospectus is in use by you where, among other things, any facts or circumstances arise which, individually or in the aggregate, represent a fundamental change in the information contained in this prospectus or any material information with respect to the plan of distribution was not previously disclosed in the prospectus or there is any material change to such information in the prospectus. This prospectus does not offer to sell or solicit any offer to buy any securities other than the common stock to which it relates, nor does it offer to sell or solicit any offer to buy any of these securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction.

# METABOLIX, INC.

# INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

	Page
Report of Independent Registered Public Accounting Firm	——— F-2
Consolidated Financial Statements	1'-2
Balance Sheets	F-3
Statements of Operations	F-4
Statements of Stockholders' Equity (Deficit)	F-5
Statements of Cash Flows	F-6
Notes to Financial Statements	F-7

## 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, stockholders' equity (deficit) and cash flows present fairly, in all material respects, the financial position of Metabolix, Inc. and its subsidiary at December 31, 2004 and 2005, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2005 in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

/s/ PricewaterhouseCoopers LLP

Boston, Massachusetts June 26, 2006, (except for Note 14, as to which the date is July 13, 2006).

## **Consolidated Balance Sheets**

Dacom	how	21	

	December 31,						Pro Forma		
		2004		2005		March 31, 2006		March 31, 2006	
						(Una	udite	d)	
Assets									
Current assets									
Cash and cash equivalents	\$	3,151,673	\$	1,834,632	\$	685,347	\$	685,347	
Short-term investments		1,302,906		1,339,015		16,359,897		16,359,897	
Restricted cash		497,486		496,367		497,627		497,627	
Accounts receivable		26,675		30,000		503,214		503,214	
Unbilled receivable		399,334		430,873		444,552		444,552	
Other current assets		47,855		123,709		148,193		148,193	
	_				_		_	-,	
Total current assets		5,425,929		4,254,596		18,638,830		18,638,830	
Property and equipment, net		1,383,799		3,005,472		3,228,753		3,228,753	
Other assets		_		64,526		461,048		461,048	
Investment in related party		700,000		_				_	
Total assets	\$	7,509,728	\$	7,324,594	\$	22,328,631	\$	22,328,631	
Liabilities, Redeemable Convertible Preferred Stock and Stockholder' Equity (Deficit)									
Current liabilities									
Accounts payable	\$	1,494,883	\$	1,299,356	\$	974,175	\$	974,175	
Accrued expenses		725,616		830,704		1,344,785		1,344,785	
Advances on financing from investors		2,000		614,994		_		_	
Current portion of capital lease obligations		118,929		62,571		36,744		36,744	
Current portion of deferred rent		165,470		165,470		165,469		165,469	
Convertible promissory note		299,731				´ —			
Translation (Palatical		2,000,020		2.072.005		2 521 172		2 521 172	
Total current liabilities		2,806,629		2,973,095		2,521,173		2,521,173	
Capital lease obligations		60,694							
Deferred rent		1,378,911		1,213,443		1,172,075		1,172,075	
		3,000,000		5,620,808		3,916,695		3,916,695	
Long-term deferred revenue		3,000,000							
Other long-term liabilities		_		66,218		66,861		66,861	
Total liabilities		7,246,234		9,873,564		7,676,804		7,676,804	
Commitments and contingencies (Note 7)									
Redeemable convertible preferred stock (Note 9)		39,234,609		44,008,906		61,442,480		_	
Stockholders' equity (deficit)									
Common stock (\$0.01 par value per share); 23,000,000 shares authorized in 2004 and 2005 and 26,500,000 shares authorized in									
March 31, 2006; 2,212,955, 2,218,080 and 2,498,666 shares issued in 2004, 2005 and March 31, 2006, respectively; 2,199,955, 2,205,080 and 2,485,666 shares outstanding in 2004, 2005 and March 31, 2006,									
respectively; 14,724,484 and 14,711,484 shares issued and outstanding									
on a pro forma basis at March 31, 2006 (unaudited)		22,130		22,181		24,987		639,412	
Treasury stock (at cost); 13,000 shares in 2004, 2005 and 2006		(35,100)		(35,100)		(35,100)		(35,100)	
Additional paid-in capital		3,590,993		3,629,608		3,694,376		64,522,431	
Accumulated deficit		(42,549,138)		(50,174,565)		(50,474,916)		(50,474,916)	
Total stockholders' equity (deficit)		(38,971,115)		(46,557,876)		(46,790,653)		14,651,827	
T. 1919.					_				
Total liabilities, redeemable convertible preferred stock and stockholders' equity (deficit)	\$	7,509,728	\$	7,324,594	\$	22,328,631	\$	22,328,631	

## **Consolidated Statements of Operations**

		Yea	ars Ended December 31,			Three Months Ended March 31,				
	2003		2004		2005		2005		2006	
							(Unauc	lited)		
Revenue										
Research and development revenue	\$ 120,430	\$	96,875	\$	106,462	\$	26,387	\$	2,502,450	
License fee and royalty revenue	112,800		391,880		242,100		41,600		139,900	
Grant revenue	2,149,995	_	3,189,449		2,432,439	_	633,432		439,147	
Total revenue	2,383,225		3,678,204		2,781,001		701,419		3,081,497	
Operating expenses										
Research and development expenses,										
including cost of revenue	6,203,632		5,426,601		5,980,339		1,367,468		2,130,555	
General and administrative expenses	2,692,105	_	3,251,800	_	3,825,303	_	922,769	_	1,382,653	
Total operating expenses	8,895,737		8,678,401		9,805,642		2,290,237		3,513,208	
Loss from operations	(6,512,512)		(5,000,197)		(7,024,641)		(1,588,818)		(431,711)	
Other income (expense)										
Interest income	6,876		14,154		109,356		10,807		132,819	
Interest expense	(134,430)		(68,468)		(10,142)		(8,137)		(1,459)	
Loss on investment in related party		_		_	(700,000)					
Net loss	\$ (6,640,066)	\$	(5,054,511)	\$	(7,625,427)	\$	(1,586,148)	\$	(300,351)	
Net loss per share										
Basic and Diluted	\$ (2.73)	\$	(1.37)	\$	(2.09)	\$	(0.44)	\$	(80.0)	
Number of shares used in per share calculations										
Basic and Diluted	2,436,209		3,681,823		3,640,194		3,637,481		3,642,814	
Pro forma net loss per share										
Basic and Diluted (unaudited)				\$	(0.60)			\$	(0.02)	
Pro forma number of shares used in per share calculations										
Basic and Diluted (unaudited)					12,715,068				14,895,299	
()					,. =2,230				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	

# Consolidated Statements of Stockholders' Equity (Deficit)

	Commo	n Sto	ck	Treas	ury	Stock	Additional	dditional			
	Shares	F	ar value	Shares		Amount	Paic Cap	l-in	Accumulated Deficit		Total
Balance, December 31, 2002	2,193,205	\$	21,932	13,000	\$	(35,100)	\$	2,076,342	5	(30,854,561) \$	(28,791,387)
Issuance of common stock warrants in connection with Series I preferred stock financing								149,405			149,405
Issuance of common stock warrants in connection with Series J preferred stock financing Issuance of common stock warrants in connection with								373,725			373,725
an exchange of Series I preferred stock and cancellation of warrants for Series I-1 and Series J preferred stock								908,771			908,771
Exercise of common stock options Stock-based compensation related to common stock	19,750		198					21,178			21,376
options issued to nonemployees Net loss								123,554		(6,640,066)	123,554 (6,640,066)
Balance, December 31, 2003	2,212,955		22,130	13,000		(35,100)		3,652,975		(37,494,627)	(33,854,622)
Issuance of common stock warrants in connection with Series J preferred stock financing								66,140			66,140
Issuance of common stock warrants in connection with an exchange of Series I preferred stock for Series J preferred stock								41,730			41,730
Cancellation of 189,716 shares of common stock warrants in connection with the exchange of Series J-1 and Series 04 preferred stock								(218,774)			(218,774)
Stock-based compensation related to common stock options issued to nonemployees								48,922			48,922
Net loss										(5,054,511)	(5,054,511)
Balance, December 31, 2004	2,212,955		22,130	13,000		(35,100)		3,590,993		(42,549,138)	(38,971,115)
Exercise of common stock options	5,125		51					11,593			11,644
Stock-based compensation related to common stock options issued to nonemployees Net loss								27,022		(7,625,427)	27,022 (7,625,427)
Balance, December 31, 2005	2,218,080	_	22,181	13,000	_	(35,100)		3,629,608		(50,174,565)	(46,557,876)
			ĺ	15,000		(55,100)				(50,174,505)	, , , ,
Exercise of common stock warrants (unaudited) Exercise of common stock options (unaudited) Stock-based compensation related to common stock options issued to nonemployees and employees	276,836 3,750		2,769 37					24,916 9,582			27,685 9,619
(unaudited) Net loss (unaudited)								30,270		(300,351)	30,270 (300,351)
Balance, March 31, 2006 (Unaudited)	2,498,666	\$	24,987	13,000	\$	(35,100)	\$	3,694,376	5	(50,474,916) \$	(46,790,653)

## **Consolidated Statements of Cash Flows**

Years Ended December 31,

### Three Months Ended March 31,

		2003		2004		2005		2005		2006	
								Una	udited		
Cash flows from operating activities											
Net loss	\$	(6,640,066)	\$	(5,054,511)	\$	(7,625,427)	\$	(1,586,148)	\$	(300,351)	
Adjustments to reconcile net loss to cash used in operating	Ψ	(0,040,000)	Ψ	(5,054,511)	Ψ	(7,025,427)	Ψ	(1,500,140)	Ψ	(500,551)	
activities											
		207 500		265,253		214 FCF		71,244		189,558	
Depreciation		307,508				314,565					
Stock-based compensation		123,554		48,922		27,022		(893)		30,270	
Loss on investment in related party		_		_		700,000		_		_	
Changes in operating assets and liabilities											
Accounts receivable		(36,848)		10,173		(3,325)		(5,000)		(473,214)	
Unbilled receivable		(261,679)		180,477		(31,539)		(146,500)		(13,680)	
Other current assets		(9,543)		(14,842)		(75,854)		(56,454)		(24,483)	
Other assets		84,050		234,082		(64,526)		(21,386)		(396,521)	
Accounts payable		928,774		(429,303)		(195,527)		(506,206)		(325,181)	
Accrued expenses		473,126		(439,535)		105,088		286,068		514,725	
Deferred rent											
		(30,270)		1,452,699		(165,469)		(41,368)		(41,368)	
Deferred revenue		(84,050)		2,765,918		2,620,808		1,075,001		(1,704,114)	
			_				_				
NT - 1 11 - 2 - 2 12		(5.445.444)		(000 007)		(4.204.404)		(004.640)		(0.544.050)	
Net cash used in operating activities		(5,145,444)		(980,667)		(4,394,184)		(931,642)		(2,544,359)	
Cash flows from investing activities											
Purchase of property and equipment		(35,182)		(1,324,397)		(1,870,019)		(35,275)		(412,839)	
Restricted cash		(33,102)									
		_		(497,486)		1,119		(921)		(1,260)	
Proceeds from maturity of short-term investments						1,287,521		_		1,225,289	
Purchase of short-term investments		_		(1,302,906)		(1,323,630)		_		(16,246,172)	
			_								
Not each used in investing activities		(35,182)		(2.124.700)		(1.005.000)		(36,196)		(15 424 002)	
Net cash used in investing activities		(35,162)		(3,124,789)		(1,905,009)		(30,190)		(15,434,982)	
Cash flows from financing activities											
Principal payments for capitalized lease obligations		(84,636)		(124,544)		(117,052)		(31,733)		(25,827)	
		(436,379)		(596,877)				(146,568)		(23,027)	
Payments on convertible promissory note		(430,379)		(590,077)		(299,731)		(140,500)		_	
Advances for financing from investors		_		_		612,994		_		_	
Proceeds from issuance of redeemable convertible preferred											
stock and warrants, net of issuance costs		6,307,220		6,484,038		4,774,297		1,110,003		16,818,581	
Proceeds from options exercised		21,376		_		11,644		_		9,619	
Proceeds from warrants exercised		_		_		_		_		27,683	
										,	
Net cash provided by financing activities		5,807,581		5,762,617		4,982,152		931,702		16,830,056	
		-,,		-, - ,-		,,-		/ -		-,,	
Net increase (decrease) in cash and cash equivalents		626,955		1,657,161		(1,317,041)		(36,136)		(1,149,285)	
Cash and cash equivalents at beginning of period		867,557		1,494,512		3,151,673		3,151,673		1,834,632	
0 · F										, ,	
Cash and cash equivalents at end of period	\$	1,494,512	\$	3,151,673	\$	1,834,632	\$	3,115,537	\$	685,347	
Supplemental disclosure of cash flow information											
Cash paid during the period for interest	\$	93,635	\$	35,233	\$	10,141	\$	8,137	\$	1,459	
Supplemental disclosure of noncash activities											
Equipment acquired under capital lease obligations		191,982		71,600		_		_		_	
Conversion of advances from investors to preferred stock		_		_		_		_		(614,994)	
										(: )== :)	

### **Notes to Consolidated Financial Statements**

(Information as of March 31, 2006 and the three months ended March 31, 2006 and 2005 is unaudited)

### 1. Nature of Business

Metabolix, Inc. (the "Company"), which began operations on June 19, 1992, uses advanced biotechnology to develop environmentally sustainable, economically attractive alternatives to petrochemical-based plastics, fuels and chemicals. Metabolix is a leader in applying the advanced tools of metabolic engineering and molecular biology to efficiently produce *PHA Natural Plastics* in microbial systems and directly in nonfood plant crops. In 2005 the Company determined that it is no longer a development stage enterprise due to the commencement of its principal operations, significant collaboration agreements and its revenue levels.

The Company has incurred losses since inception and expects to incur net operating losses and negative cash flows in the near term as expenditures for research and development and commercialization exceed its revenues. The Company plans to continue to seek additional financing and collaboration arrangements to fund operations. If the Company is unable to obtain cash from these sources at acceptable terms, management intends to reduce expenses so that it can continue to meet its obligations. There can be no assurance that the Company will be successful in raising additional funds or reducing spending to a sufficient level. The Company completed a preferred stock financing round in January 2006 (Note 9).

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. Summary of Significant Accounting Policies

### **Unaudited Interim Financial Statements**

The consolidated financial statements and related notes of the Company for the three months ended March 31, 2005 and March 31, 2006, respectively, are unaudited. Management believes the unaudited consolidated financial statements have been prepared on the same basis as the audited consolidated financial statements and include all adjustments, consisting only of normal recurring adjustments, necessary for a fair statement of the financial position and results of operations in such periods. Results of operations for the three months ended March 31, 2006 are not necessarily indicative of the results that may be expected for the year ended December 31, 2006.

### **Unaudited Pro Forma Presentation**

Unaudited pro forma net loss per share is computed using the weighted average number of common shares outstanding and warrants that can be issued with little or no consideration during the period, including the pro forma effects of automatic conversion of all outstanding redeemable convertible preferred stock into shares of the Company's common stock effective upon the assumed closing of the

Company's proposed initial public offering as if such conversion had occurred at the date of original issuance.

Upon the closing of the Company's initial public offering of securities, all of the outstanding shares of Series A, B, C, D, E, F, G, I-1, J-1, 04, and 05 convertible preferred stock will automatically convert on a one-for-one basis to 12,225,818 shares of the Company's common stock. The unaudited pro forma presentation of the balance sheet has been prepared assuming the conversion of the convertible preferred stock into common stock as of March 31, 2006.

### **Principles of Consolidation**

The consolidated financial statements include the accounts of the Company and its former wholly-owned subsidiary, Metabolix Canada. The subsidiary 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. Cash and cash equivalents consist of cash on deposit.

#### **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 certificates of deposit, for which the carrying amount approximates fair value.

#### **Restricted Cash**

The Company has restricted cash consisting of a certificate of deposit supporting a letter of credit, of \$496,367 and \$497,627 at December 31, 2005 and March 31, 2006, respectively, in connection with its leased facility.

### 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. For all periods presented the Company's net loss is equal to comprehensive loss and as a result separate disclosure is not necessary.

#### 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 invests its excess cash and cash equivalents in interest bearing certificates of deposit of a major U.S. bank. Accordingly, management believes these investments are subject to minimal credit and market risk and are of high credit quality.

At December 31, 2004 and 2005, all of the Company's unbilled receivables were due under U.S. government grants and credit risk is considered minimal. Additionally, all grant revenues were related to U.S. government grants for all periods presented.

### **Fair Value of Financial Instruments**

The carrying amounts of the Company's financial instruments as of December 31, 2004 and 2005, which include cash equivalents, accounts receivable, unbilled receivable, accounts payable, accrued expenses, promissory note and advances on financing from investors, 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 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.

### **Property and Equipment**

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

accounts. Depreciation is computed using the straight-line method over the estimated useful lives as follows:

	Estimated Useful Life
Equipment	2 <sup>1</sup> /2 - 3 years
Furniture and Fixtures	5
Software	3
Capital leases and leasehold improvements	Shorter of 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 (1) 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 (2) measure an impairment loss as the difference between the carrying amount and fair value of the asset.

### **Redeemable Convertible Preferred Stock**

The preferred stock contains certain redemption features that are considered outside the control of the Company, including redemption upon a change in control. Therefore the Company presents redeemable convertible preferred stock as temporary equity in the mezzanine level of the consolidated balance sheet.

### **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 development expenses.

### **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*, for all revenue transactions entered into in fiscal periods beginning after June 15, 2003. 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 research services and delivery of specified materials or sample product produced resulting from the research services and revenue is recognized upon completion of the related services.

Fees to license the use of the Company's proprietary and licensed technologies in research performed by the customer 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 collectibility 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 research grants that provide for payments to the Company for work performed are recognized as revenue when the related expense is incurred and the Company has obtained governmental approval to use the grant funds for agreed upon budgeted expenses. 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.

### **Stock-Based Compensation**

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 recognizes 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 requires 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 is subject to periodic adjustments as the underlying equity instruments vest.

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 quarter ended March 31, 2006 includes compensation cost for all share-based payments granted 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. The effect of adopting SFAS No. 123(R) on the three months ended March 31, 2006 was to increase net loss by \$3,000 with no change to basic and diluted net loss per share. 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.

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 would have increased to the pro forma amounts below:

	Years Ended December 31,						
	2003 2004			2005			
Net loss as reported	\$ (6,640,066)	\$	(5,054,511)	\$	(7,625,427)		
Add stock-based employee compensation expense included in reported net loss	_		_		<u> </u>		
Deduct stock-based employee compensation expense determined under							
fair value method	(80,316)		(32,264)		(106,255)		
				_			
Net loss — pro forma	\$ (6,720,382)	\$	(5,086,775)	\$	(7,731,682)		
Net loss per share, as reported							
Basic and Diluted.	\$ (2.73)	\$	(1.37)	\$	(2.09)		
Pro forma net loss per share							
Basic and Diluted	\$ (2.76)	\$	(1.38)	\$	(2.12)		
Number of shares used in per share calculations							
Basic and Diluted	2,436,209		3,681,823		3,640,194		

Pursuant to the requirements of SFAS No. 123, for the three years ended December 31, 2005 the Company had 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 quarter ended March 31, 2006, the Company determined the fair value of stock options using the Black-Scholes option pricing model with the following assumptions for option grants, respectively:

	Years En	ded Decemb		
	2003	2004	2005	Three Months Ended March 31, 2006
Expected dividend yield	_	_	_	_
Risk-free interest rate	3.77%	4.08%	4.22%	4.37%
Expected option term (in years)	5	5	5	6.1
Volatility	_	_	_	75%

For the period ended March 31, 2006, expected volatility is based on review of historical volatilities for similar companies as adjusted to anticipate increased expected volatility associated with being a newly public company. Management believes that the historical volatility of the Company's stock price does not best represent the expected volatility of the stock price.

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 similar expected life.

For the period ended March 31, 2006, 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.

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 123R 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 and the limited liquidity of its common stock. If the actual number of forfeitures differs from those estimated by management, additional adjustments to compensation expense may be required in future periods.

### Earnings per 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 the

inclusion of such shares would be anti-dilutive for the years ended December 31, 2003, 2004, 2005, and the three month periods ended March 31, 2005 and 2006 are shown below:

				Three Months E	ded March 31,		
	2003	2004	2005	2005	2006		
				(Unaudited)	(Unaudited)		
Redeemable convertible preferred stock	5,628,788	8,412,166	9,305,818	8,617,722	12,225,818		
Common stock options	833,675	933,175	2,492,410	933,175	2,493,441		
Common stock warrants	965,951	1,149,132	1,149,132	1,149,132	1,149,132		
	7,428,414	10,494,473	12,947,360	10,700,029	15,868,391		

### **Foreign Currency Translation**

The financial statements of the Company's former wholly-owned Canadian subsidiary which ceased to exist 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 are 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 are translated using historical exchange rates. All remeasurement gains and losses were included in determining net loss for the period in which exchange rates change 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.

### **Recent Accounting Pronouncements**

In December 2004, the Financial Accounting Standards Board ("FASB") issued SFAS No. 123(R), which replaces SFAS No. 123 and supersedes APB No. 25. SFAS No. 123(R) which requires all share-

based payments to employees, including grants of employee stock options, to be recognized in the statement of operations based on their fair values. The Company implemented SFAS No. 123(R) in the reporting period beginning January 1, 2006, which resulted in an immaterial effect on its stock compensation expense for the period ended March 31, 2006. The Company expects stock compensation expense to materially increase in future periods as a result of the adoption of this standard and future possible stock grant activity.

In April 2005, the FASB issued FASB Interpretation No. 47, *Accounting for Conditional Asset Retirement Obligations* — *an interpretation of FASB Statement No. 143* (FIN No. 47). FIN No. 47 expands on the accounting guidance of Statement of Financial Accounting Standards No. 143, *Accounting for Asset Retirement Obligations* (SFAS No. 143), providing clarification of the term, conditional asset retirement obligation, and guidelines for the timing of recording the obligation. The interpretation is effective for fiscal years ending after December 15, 2005. The Company adopted FIN No. 47 and has recorded a long-term liability for its asset retirement obligations of \$66,218 and an associated non-current asset of \$64,615 at December 31, 2005 which represents the contractual obligations associated with the potential removal of a leasehold addition constructed during 2005.

In May 2005, the FASB issued Statement of Financial Accounting Standards No. 154, *Accounting Changes and Error Corrections*, a replacement of APB Opinion No. 20, *Accounting Changes*, and FASB issued Statement of Financial Accounting Standards No. 3, *Reporting Accounting Changes in Interim Financial Statements* ("SFAS No. 154"). SFAS No. 154 requires retrospective application to prior period financial statements of changes in accounting principle, unless it is impracticable to determine either the period-specific effects or the cumulative effect of the change. This statement requires that retrospective application of a change in accounting principle be limited to the direct effects of a change. SFAS 154 is effective for accounting changes and corrections of errors made in fiscal years beginning after December 15, 2005.

### 3. 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 *PHA Natural Plastics* on a commercial scale basis. This agreement was amended by the parties on September 8, 2005 to define certain cost sharing activities related to pilot manufacturing, to change certain milestones and 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.

### **Technology Alliance and Option Agreement**

The goal of the Technology Alliance is 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 50,000 ton commercial manufacturing facility, which would provide the basis for entering into the Commercial Alliance Agreement.

The Technology Alliance and Option Agreement provides ADM with an option (the "Option") to enter into a commercial alliance for further research, development, manufacture, use and sale of *PHA Natural Plastics* on the terms and conditions set forth in the Commercial Alliance Agreement (see below). The Option is 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. This Agreement is scheduled to expire on October 6, 2006. On July 12, 2006, ADM exercised the Option (see Note 14).

Under the Technology Alliance and Option Agreement, ADM made a nonrefundable, noncreditable upfront payment of \$3,000,000 to the Company in 2004. The Company may earn three milestone payments totaling \$2,000,000 in the future for achievement of certain technical goals or upon exercise of the Option by ADM (see Note 14). Due to future obligations of the Company under the agreement for which fair value cannot be determined, including the requirement to provide certain manufacturing services, marketing and research and development activities, the entire upfront payment received is recorded as deferred revenue at December 31, 2004, 2005 and March 31, 2006. The Company's policy is to expense, as period costs, the direct and incremental costs incurred associated with this collaboration.

In connection with the 2005 amendment, ADM agreed to reimburse the Company for one-half of certain costs incurred by the Company through March 2006 related to the Company's establishment of pilot manufacturing capabilities. Under certain conditions, a portion of these reimbursements may have to be refunded to ADM in the future. Amounts reimbursed in 2005 and during the period ended March 31, 2006, totaled approximately \$620,000 and \$221,000, respectively, and have been recorded as deferred revenue.

## Commercial Alliance Agreement

The Commercial Alliance Agreement specifies the terms and structure of the relationship between the Company and ADM once the Option is exercised by ADM. As of December 31, 2005 and March 31, 2006, the Option had not been exercised (see Note 14). The primary goal of this agreement is to establish the activities and obligations of the Company and ADM by which the parties will commercialize *PHA Natural Plastics*. These activities include: the establishment of a Joint Sales Company (JSC) to market and sell *PHA Natural Plastics*, the construction of a manufacturing facility capable of producing 50,000 tons of material annually, the licensing of technology to the JSC and to

ADM, and the conducting of various research, development, manufacturing, marketing, formulation and administrative services by the parties.

The JSC will be 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 the *PHA Natural Plastics*, 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, formulation and marketing activities, and (iii) administer and account for financial matters on behalf of the parties. The Company and ADM will each have 50% equity and voting interest in the JSC.

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

The JSC will make up to twelve payments of \$1,575,000 per calendar quarter to the Company to support these activities during the construction of the Commercial Manufacturing Facility. In the event construction is completed and sale of commercial product commences prior to the JSC making all twelve such payments, the quarterly payments will cease, and the JSC will pay the Company a lump sum equal to the number of remaining unpaid payments multiplied by \$250.000.

Upon the commencement of commercial sales, the JSC will pay the Company royalties on sales as well as reimburse it for the cost of services provided pursuant to the agreement.

While the JSC will be 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 the activities of the JSC. Therefore, a preferential distribution of cash flow will be used, whereby all profits (after payment of all royalties, reimbursements and fees) from the JSC shall be distributed to ADM until ADM's disproportionate investment in the JSC has been returned in full. Once ADM has recouped such amounts, the profits of the JSC shall be distributed in equal amounts to the parties.

The Commercial Alliance Agreement provides for expansion of the operations of the JSC beyond the initial license of 50,000 tons 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.

The agreements 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 for 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 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. 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 America Production Company ("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 \$500,000 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 \$2,000,000 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 will no longer be any continuing obligations from either party. During the quarter ended March 31, 2006, the Company recognized \$2,500,000 in revenue from the BP arrangement, consisting of the \$2,000,000 of deferred revenue and the \$500,000 final payment due under the arrangement, which was received in June 2006 (unaudited).

### 4. Property and Equipment

Property and equipment consist of the following:

	Decem				
	2004		2005		March 31, 2006
					(Unaudited)
Equipment	\$ 1,810,395	\$	2,011,264	\$	2,074,405
Equipment under lease	342,539		249,030		249,030
Furniture and Fixtures	21,071		24,255		24,255
Leasehold improvements	1,284,020		3,104,947		3,454,645
Software	19,773		22,938		22,938
		_		_	
Total property and equipment, at cost	3,477,798		5,412,434		5,825,273
Less: Accumulated depreciation	(2,093,999)		(2,406,962)		(2,596,520)
		_		_	
Property and equipment, net	\$ 1,383,799	\$	3,005,472	\$	3,228,753

December 21

Depreciation expense for the quarters ended March 31, 2005 and 2006 and for the years ended December 31, 2003, 2004 and 2005 was \$71,244 (unaudited), \$189,559 (unaudited), \$307,508, \$265,253 and \$312,964, respectively. Accumulated depreciation for equipment acquired under capital leases was \$225,964 and \$200,750, respectively, as of December 31, 2004 and 2005.

During 2004 the Company received a lease incentive payment of \$1,521,045 from its lessor for leasehold improvements. In accordance with SFAS No. 13, the Company has recorded the leasehold improvements as an asset and is amortizing them over their 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.

### 5. Convertible Promissory Note

In conjunction with the purchase of certain technology in 2001, the Company issued a promissory note in the amount of \$2,000,000. 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 \$142,857 through March 2005. At December 31, 2005, the convertible promissory note had been repaid in full.

## 6. Accrued Expenses

Accrued expenses consist of the following:

		Decem				
	2004			2005	_	March 31, 2006
						(Unaudited)
Intellectual property costs	\$	111,938	\$	92,104	\$	115,635
Contracted research and development		31,805		126,259		61,054
Professional services		299,128		497,295		535,764
Other		282,745		115,046		632,332
					_	
Total accrued expenses	\$	725,616	\$	830,704	\$	1,344,785

## 7. Commitments and Contingencies

### Leases

The Company leases its facility under an operating lease, which expires in May 2014. The Company leases equipment under capital leases with various rates of interest, ranging from 10.07% to 15.71%, with expiration dates through August 2006. All commitments are collateralized by equipment under lease. Rental payments under operating leases for the years ended December 31, 2003, 2004 and 2005, were \$484,003, \$590,169 and \$834,148, 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, 2005, the Company's future minimum payments required under operating and capital leases are as follows:

		Operating	(	Capital
	_			
2006	\$	988,185	\$	65,001
2007		988,185		
2008		988,185		_
2009		988,185		_
2010		988,185		_
2011 and thereafter		3,443,948		_
	_			
Total commitments and contingencies	\$	8,384,873		65,001
	_			
Less: Amount representing interest				(2,430)
Present value of minimum lease payments				62,571
Less: Current portion				(62,571)
•				
Capital leases — long term			\$	_

### **Patent Action**

The Proctor & 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 patents. The patent is licensed by the Massachusetts Institute of Technology ("MIT") exclusively to the Company. The Company is controlling the response to the nullity action, at the Company's expense, with MIT's cooperation.

The Company believes this nullity action is without merit and intends to vigorously defend this patent. The Company is unable to determine the potential outcome at this time and has not reserved for any potential liability in this matter at either December 31, 2005 or March 31, 2006.

#### **Funded Research Arrangements**

The Company has entered into various arrangements with universities and other unrelated third parties to perform certain research and development activities. As of December 31, 2005, the Company has committed funding of approximately \$489,940 to these universities and unrelated parties. Certain of these arrangements also contain provisions for future royalties to be paid by the Company on sales of products developed under the arrangements. The Company has the right in most arrangements to terminate the relationship by giving written notice, after which the Company would be liable for services rendered to date under the arrangement.

### 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 \$25,000 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 are no material license fees or royalties accrued at December 31, 2004, 2005 and March 31, 2006.

### 8. Related Party Transactions

### Tepha, Inc.

During 1999, the Company entered into a sublicense agreement with Tepha, Inc. ("Tepha"), to sublicense technology to Tepha. The Company's director, Dr. Williams, is the president, chief executive officer and a director of Tepha. 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 will also receive royalties on net sales of licensed products or sublicensing revenues received by Tepha, subject to a minimum payment each year.

In December 2002, the Company amended this agreement to provide that \$800,000 of Tepha's payment obligation pursuant to the agreement became payable in both cash and equity. In October 2002, Tepha paid the Company \$100,000 and the balance of the payment obligation was satisfied in December 2002 through the issuance of 648,149 shares of Tepha's Series A redeemable convertible preferred stock. The Company licensed or sublicensed additional technology to Tepha in subsequent periods. The Company recognized license and royalty revenues of \$112,800, \$316,880, \$242,100 and \$139,900 from Tepha for the years ended December 31, 2003, 2004, 2005 and quarter ended March 31, 2006, respectively.

The Company reviewed the 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 \$700,000 in 2005.

### **ADM**

The Company's collaborative partner ADM made a \$5,000,000 investment in the Company as part of the Series 05 redeemable convertible preferred stock issuance in January 2006 (Note 9). ADM makes various payments to the Company under the collaborative agreement signed during November 2004 (Note 3.)

### 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 20,000 shares of the Company's common stock, vesting over a period of four years, with an exercise price of \$1.35 per share, which was the fair market value per share of the common stock at the date of grant of the option (Note 11).

#### 9. Redeemable Convertible Preferred Stock

At December 31, 2005 the total number of shares of all classes of stock which the Company had authorization to issue was 41,600,000, consisting of 18,600,000 shares of \$0.01 par value preferred stock, and 23,000,000 shares of \$0.01 par value common stock.

	Number of Shares Authorized	Shares Outstanding		Liquidation Preference	Carrying Value		
Series A preferred stock	1,033,000	1,033,000	\$	1,177,620	\$	1,177,279	
Series B preferred stock	396,000	396,000	Ф	633,600	Ф	633,600	
Series C preferred stock	785,000	785,000		1.884.000		1,884,000	
Series D preferred stock	733,000	733,000		3,371,800		3,374,732	
Series E preferred stock	420,751	420,751		4,544,111		4,515,903	
Series F preferred stock	186,899	186,899		2,018,509		2,018,509	
Series G preferred stock	312,119	312,119		3,370,885		3,370,885	
Series H preferred stock	300.000	312,119		3,370,003		3,370,003	
Series I preferred stock	1,437,945	36,918		398,714		335,220	
Series I-1 preferred stock	1,437,945	192,147		2,075,188		1,800,000	
Series J preferred stock	1,837,945	1,532,954		16,555,903		13,529,539	
Series J-1 preferred stock	1,837,945	1,332,334		10,555,505		13,323,333	
Series 5-1 preferred stock	1,037,343		_		_		
	10,718,549	5,628,788	\$	36,030,330	\$	32,639,667	

## 2004

Number of Shares Authorized	Shares Outstanding				Carrying Value
1,033,000	1,033,000	\$	1,177,620	\$	1,177,279
396,000	396,000		633,600		633,600
785,000	785,000		1,884,000		1,884,000
733,000	733,000		3,371,800		3,374,732
420,751	420,751		4,544,111		4,515,903
186,899	186,899		2,018,509		2,018,509
312,119	312,119		3,370,885		3,370,885
300,000	_		_		_
192,147	192,147		2,075,188		1,800,000
1,627,242	_		_		_
1,627,242	2,000		21,600		19,010
4,458,188	4,351,250		23,496,750		20,440,691
4,458,188	_		_		_
16,529,776	8,412,166	\$	42,594,063	\$	39,234,609
	of Shares Authorized  1,033,000 396,000 785,000 733,000 420,751 186,899 312,119 300,000 192,147 1,627,242 1,627,242 4,458,188 4,458,188	of Shares Authorized         Shares Outstanding           1,033,000         1,033,000           396,000         396,000           785,000         785,000           733,000         733,000           420,751         420,751           186,899         186,899           312,119         312,119           300,000         —           192,147         192,147           1,627,242         —           4,458,188         4,351,250           4,458,188         —	of Shares Authorized         Shares Outstanding           1,033,000         1,033,000           396,000         396,000           785,000         785,000           733,000         733,000           420,751         420,751           186,899         186,899           312,119         312,119           300,000         —           192,147         192,147           1,627,242         —           1,627,242         2,000           4,458,188         4,351,250           4,458,188         —	of Shares Authorized         Shares Outstanding         Liquidation Preference           1,033,000         1,033,000         \$ 1,177,620           396,000         396,000         633,600           785,000         785,000         1,884,000           733,000         733,000         3,371,800           420,751         420,751         4,544,111           186,899         186,899         2,018,509           312,119         3370,885           300,000         —         —           192,147         192,147         2,075,188           1,627,242         —         —           1,627,242         2,000         21,600           4,458,188         4,351,250         23,496,750           4,458,188         —         —	of Shares Authorized         Shares Outstanding         Liquidation Preference           1,033,000         1,033,000         \$ 1,177,620         \$ 396,000         \$ 336,000         633,600         785,000         1,884,000         733,000         3,371,800         420,751         4,544,111         186,899         1,018,509         312,119         3,370,885         300,000         —         —         —         192,147         192,147         2,075,188         1,627,242         —         —         1,627,242         2,000         21,600         4,458,188         4,351,250         23,496,750         —

	Number of Shares Authorized	Shares Outstanding			Carrying Value
Series A preferred stock	1,033,000	1,033,000	\$ 1,177,620	\$	1,177,279
Series B preferred stock	396,000	396,000	633,600		633,600
Series C preferred stock	785,000	785,000	1,884,000		1,884,000
Series D preferred stock	733,000	733,000	3,371,800		3,374,732
Series E preferred stock	420,751	420,751	4,544,111		4,515,903
Series F preferred stock	186,899	186,899	2,018,509		2,018,509
Series G preferred stock	312,119	312,119	3,370,885		3,370,885
Series H preferred stock	300,000	_	_		_
Series I-1 preferred stock	192,147	192,147	2,075,188		1,800,000
Series J preferred stock	1,627,242	_	_		_
Series J-1 preferred stock	1,627,242	2,000	21,600		19,010
Series 04 preferred stock	5,458,188	5,244,902	28,322,471		25,214,988
Series 04-1 preferred stock	5,458,188	_	_		_
	18,529,776	9,305,818	\$ 47,419,784	\$	44,008,906

At March 31, 2006, the total number of shares of all stock which the Company has authorized to issue is 47,400,000 (unaudited), consisting of 20,900,000 (unaudited) shares of \$0.01 par value preferred stock, and 26,500,000 (unaudited) shares of \$0.01 par value common stock.

Redeemable convertible preferred stock consists of the following at March 31:

	Number of Shares Authorized	Shares Outstanding	Liquidation Preference	Carrying Value		
		(Unau	dited)			
Series A preferred stock	1,033,000	1,033,000	\$ 1,177,620	\$	1,177,279	
Series B preferred stock	396,000	396,000	633,600	Ψ	633,600	
Series C preferred stock	785,000	785,000	1,884,000		1,884,000	
Series D preferred stock	733.000	733,000	3,371,800		3,374,732	
Series E preferred stock	420,751	420,751	4,544,111		4,515,903	
Series F preferred stock	186,899	186,899	2,018,509		2,018,509	
Series G preferred stock	312,119	312,119	3,370,885		3,370,885	
Series I-1 preferred stock	192,147	192,147	2,075,188		1,800,000	
Series J-1 preferred stock	2,000	2,000	21,600		19,010	
Series 04 preferred stock	5,244,902	5,244,902	28,322,471		25,214,988	
Series 04-1 preferred stock	5,244,902	_	_		_	
Series 05 preferred stock	2,920,000	2,920,000	17,520,000		17,433,574	
Series 05-1 preferred stock	2,920,000	_	_		_	
	20,390,720	12,225,818	\$ 64,939,784	\$	61,442,480	

## **Notes to Consolidated Financial Statements (Continued)**

(Information as of March 31, 2006 and the three months ended March 31, 2006 and 2005 is unaudited)

## 9. Redeemable Convertible Preferred Stock

The following table depicts the preferred stock activity for the years ended December 31, 2003, 2004, 2005 and the period ended March 31, 2006:

	Rede	es A-H eemable red Stock	Series l Redee Preferre	mable	Series J & J-1 Redeemable Preferred Stock		Series 04 & 04-1 Redeemable Preferred Stock		Red	ries 05 eemable red Stock	Rede	otal emable ed Stock
	Shares	Value	Shares	Value	Shares	Value	Shares	Value	Shares	Value	Shares	Value
Balance, December 31, 2002 Issuance of Series I preferred stock and common stock	3,866,769	\$ 16,974,908	1,167,241	\$ 10,789,439	_	\$ —		\$ —	_	\$ —	5,034,010	\$ 27,764,347
warrants, net of issuance costs of \$74,268 Issuance of Series J preferred stock and common stock warrants for cash and upon			270,704	2,699,931							270,704	2,699,931
conversion of notes payable and accrued expenses, net of issuance costs of \$42,115 Exchange of 1,401,027 shares					324,074	3,084,160					324,074	3,084,160
of Series I preferred stock and cancellation of warrants for 192,147 shares of Series I-1 preferred stock and 1,208,880 shares of Series J preferred												
stock and issuance of warrants			(1,208,880)	(11,354,150)	1,208,880	10,445,379						(908,771)
Balance, December 31, 2003 Issuance of Series J preferred stock and common stock warrants, net of issuance costs	3,866,769	16,974,908	229,065	2,135,220	1,532,954	13,529,539	_	_	_	_	5,628,788	32,639,667
of \$12,015 Exchange of 36,918 shares of Series I preferred stock for 36,918 shares of Series J preferred stock and issuance of					57,370	541,440					57,370	541,440
warrants Exchange of 1,627,242 shares of Series J preferred stock for 2,000 shares of Series J-1 preferred stock and 3,250,484 shares of Series 04 preferred stock and cancellation of			(36,918)	(335,220)	36,918	293,490					_	(41,730)
189,716 shares of common stock warrants Issuance of Series 04 preferred stock, net of issuance costs of					(1,625,242)	(14,345,459)	3,250,484	14,564,233			1,625,242	218,774
\$67,678							1,100,766	5,876,458			1,100,766	5,876,458
<b>Balance, December 31, 2004</b> Issuance of Series 04 preferred stock, net of issuance costs of	3,866,769	16,974,908	192,147	1,800,000	2,000	19,010	4,351,250	20,440,691		_	8,412,166	39,234,609
\$54,399							893,652	4,774,297			893,652	4,774,297
Balance, December 31, 2005 Issuance of Series 05 preferred stock, net of issuance costs of \$86,426 (unaudited)	3,866,769	16,974,908	192,147	1,800,000	2,000	19,010	5,244,902	25,214,988	2,920,000	17,433,574	9,305,818	44,008,906 17,433,574
Balance, March 31, 2006 (Unaudited)	3,866,769	\$ 16,974,908	192,147	\$ 1,800,000	2,000	\$ 19,010	5,244,902	\$ 25,214,988	2,920,000	\$ 17,433,574	12,225,818	\$ 61,442,480

### **Notes to Consolidated Financial Statements (Continued)**

(Information as of March 31, 2006 and the three months ended March 31, 2006 and 2005 is unaudited)

### 9. Redeemable Convertible Preferred Stock (Continued)

The rights and preferences of the preferred stock at December 31, 2005 are as follows:

#### **Dividends**

The holders of outstanding preferred stock shall be entitled to receive, out of funds legally available, when and if declared by the Board of Directors, dividends at the same rate as dividends that are paid with respect to the common stock, treating each share of preferred stock as being equal to the number of shares of common stock into which each such share of preferred stock is then convertible.

### **Liquidation Preferences**

In the event of any voluntary or involuntary liquidation, dissolution or winding-up of the Company, the holders of preferred stock then outstanding shall be entitled to be paid out of the assets of the Corporation available for distribution to its stockholders before any payment shall be made to the holders of common stock or any other class or series of stock ranking on liquidation junior to the preferred stock by reason of their ownership thereof, an amount equal to:

- (i) \$1.14 per share of Series A preferred,
- (ii) \$1.60 per share of Series B preferred,
- (iii) \$2.40 per share of Series C preferred,
- (iv) \$4.60 per share of Series D preferred,
- (v) \$10.80 per share of Series E preferred,
- (vi) \$10.80 per share of Series F preferred,
- (vii) \$10.80 per share of Series G preferred,
- (viii) \$10.80 per share of Series H preferred,
- (ix) \$10.80 per share of Series I-1 preferred,
- (x) \$10.80 per share of Series J preferred,
- (xi) \$10.80 per share of Series J-1 preferred,
- (xii) \$5.40 per share of Series 04 preferred, and
- (xiii) \$5.40 per share of Series 04-1 preferred.

Each of the above shall be appropriately adjusted for stock splits, stock dividends, reclassifications, recapitalizations or other similar events affecting the preferred stock.

If upon any such liquidation, dissolution or winding-up of the Company the remaining assets of the Company available for distribution to its stockholders shall be insufficient to pay the holders of shares of preferred stock the full amount to which they shall be entitled, the assets of the Company shall be distributed as follows:

- (i) ratably to the holders of shares of Series 04 preferred until the Series 04 preference is paid in full,
- ratably to the holders of shares of 04-1 preferred, Series, J preferred, Series J-1 preferred and Series I-1 preferred in proportion to the respective amounts which would otherwise be payable in respect to the shares held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full, until the Series 04-1 preference, Series J preference, Series J-1 preference and Series I-1 preference are paid in full, and
- (iii) then to the holders of shares of junior preferred and any class or series of stock ranking on liquidation on a parity with the junior preferred in proportion to the respective amounts which would otherwise be payable with respect to the shares held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full.

After the payment of all preferential amounts required to be paid to the holders of preferred stock and any other class or series of stock of the Company ranking on liquidation senior to or on a parity with the preferred stock, upon the dissolution, liquidation or winding-up of the Company, the remaining net assets of the Company available for distribution shall be distributed ratably among the participating holders of Series 04 preferred, Series 04-1 preferred, Series J preferred, Series J-1 preferred and common stock.

### **Change in Control**

A merger or consolidation of the Company, or the sale of all or substantially all the assets of the Company, shall be deemed to be a liquidation, dissolution or winding up of the Company, and the holders of preferred stock shall be paid the liquidation amount for their shares, but only if, in the case of a merger, after giving effect to such merger, the holders of the Company's securities immediately prior to such merger own 50% or less of any surviving entity's voting securities.

### Voting

Each holder of outstanding shares of preferred stock shall be entitled to the number of votes equal to the number of whole shares of common stock into which the shares of preferred stock held by such

holder are then convertible. Except as provided by law, by the provisions of the Certificate of Incorporation or by the provisions establishing any other series of preferred stock, holders of any outstanding series of preferred stock shall vote together with the holders of common stock as a single class on all actions to be taken by the stockholders of the Company.

In addition, the Certificate of Incorporation provides holders of certain series of preferred stock with additional voting rights and requires the Company to secure stockholder consent for certain actions as defined in the Certificate of Incorporation.

#### Conversion

The holders of the preferred stock shall have conversion rights as follows:

#### Right to Convert

Each share of preferred stock shall be convertible, at the option of the holder, at any time and from time to time, into such number of fully paid and nonassessable shares of common stock as is determined by dividing the Adjusted Purchase Price for the series of preferred stock being converted by the applicable Conversion Price in effect at the time of conversion. The Adjusted Purchase Price and the Conversion Price shall initially be equal to the liquidation preferences.

All shares of preferred stock then outstanding shall convert into shares of common stock at the then effective conversion rate at the closing of the sale of shares of common stock in a fully underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933.

### Adjustment of Series J and Series 04 Conversion Price Upon Issuance of Common Stock

If the Company shall, at any time there are shares of Series J preferred and/or Series 04 preferred outstanding, issue or sell, any shares of common stock for a consideration per share less than the Conversion Price of such series of preferred stock in effect immediately prior to the time of such issue or sale, then, the Effective Conversion Price for such series of preferred stock shall be reduced to the price determined by dividing (i) an amount equal to the sum of (a) the number of shares of common stock outstanding or deemed outstanding, determined on a fully diluted basis assuming the exercise, conversion and exchange of all outstanding shares of Convertible Securities and Options immediately prior to such issue or sale multiplied by the then existing per share Effective Conversion Price for such series of preferred stock and (b) the consideration, if any, received by the Company upon such issue or sale, by (ii) the total number of shares of common stock outstanding or deemed outstanding determined on a fully diluted basis assuming the exercise, conversion and exchange of all outstanding shares of Convertible Securities and Options immediately after such issue or sale.

### Pay to Play

In the event that the Company issues any securities which would result in the reduction of the Effective Conversion Price of the Series J preferred and/or the Series 04 preferred (a "Dilutive Equity Financing"), the Company shall, after the initial closing of such Dilutive Equity Financing, provide notice to each holder of the Series J preferred and/or Series 04 preferred, that did not purchase its Participation Amount of the securities issued in such Dilutive Equity Financing (the "Pay to Play Notice"). If such holder does not purchase or agree to purchase its Participation Amount by the close of business on the 15th day after delivery of the Pay to Play Notice, then, as of such date, such holder shall be deemed to be a "Non-Participating holder" and all of the shares of the Series J preferred and/or Series 04 preferred owned by the Non-participating Holder shall automatically be converted into one share of a newly created series of preferred stock (Series J-1 or Series 04-1, as the case may be), which series shall be identical in all respects to the Series J or Series 04 preferred except that the Conversion Price of the newly created series of preferred stock shall be equal to the Effective Conversion Price of the Series J or Series 04 preferred immediately prior to the applicable Subsequent Dilutive Equity Financing and shall not be subject to further anti-dilution adjustments.

### Redeemable Convertible Preferred Stock Issuances for 2003 through 2005 and for the period ended March 31, 2006 (unaudited)

In June 2003, the Company issued 270,704 shares of Series I preferred stock at \$10.80 per share and warrants to purchase common stock for gross proceeds of \$2.923.604.

In November 2003, the Company issued 324,074 shares of Series J redeemable convertible preferred stock at \$10.80 per share and warrants to purchase common stock for gross proceeds of \$3,499,999.

In November 2003, in conjunction with the issuance of Series J preferred stock, shareholders of 1,208,880 shares of Series I preferred stock exercised their right to exchange the shares of Series I preferred stock for 1,208,880 shares of Series J preferred stock.

In November 2003, shareholders of 192,147 shares of Series I preferred stock who elected not to participate in the Series J preferred stock offering had their 192,147 shares of Series I preferred stock converted into 192,147 shares of Series I-1 redeemable convertible preferred stock in accordance with the preferred stock provisions.

In January 2004, the Company issued an additional 57,370 shares of Series J preferred stock at \$10.80 per share and warrants to purchase common stock for gross proceeds of \$619,596.

In January 2004, in conjunction with the issuance of Series J preferred stock, the remaining shareholders of 36,918 shares of Series I preferred stock exercised their right to exchange the shares of Series I preferred stock for 36,918 shares of Series J preferred stock.

In April through August 2004, the Company issued 1,100,766 shares of Series 04 redeemable convertible preferred stock at \$5.40 per share for gross proceeds of \$5,944,136. In conjunction with the issuance of Series 04 preferred stock, shareholders of 1,625,242 shares of Series J preferred stock exercised their right to exchange the shares of Series J preferred stock for 3,250,484 shares of Series 04 preferred stock.

Shareholders of 2,000 shares of Series J preferred stock who elected not to participate in the Series 04 preferred stock offering had their 2,000 shares of Series J preferred stock converted into 2,000 shares of Series J-1 redeemable convertible preferred stock in accordance with the preferred stock provisions.

From March through May 2005, the Company issued 893,652 shares of Series 04 redeemable convertible preferred stock at \$5.40 per share for gross proceeds of \$4,825,721.

In January 2006, the Company issued 2,920,000 shares of Series 05 redeemable convertible preferred stock at \$6.00 per share for gross proceeds of \$17,520,000. The rights and preferences associated with this Series are similar to those rights of Series 04 redeemable convertible preferred stock. The Company also authorized 2,920,000 shares of Series 05-1 redeemable convertible preferred stock which has the rights similar to those of Series 04-1. The Company also cancelled Series H and Series J preferred stock during its first quarter ended March 31, 2006. There was no associated Series H or Series J preferred stock outstanding.

#### Warrants

In connection with the issuance of the Series H preferred stock during 2001, the Company issued warrants to purchase 132,446 shares of common stock at an exercise of \$10.80 per share. The warrants expire five years from issuance date. The warrants were recorded at their relative fair value of \$169,703 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 637,461 shares of common stock at an exercise price of \$10.80 per share; and concurrently, the Company issued warrants to purchase 529,780 shares of common stock at an exercise price of \$10.80 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 \$1,553,389 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 270,704 shares of common stock at an exercise price of \$10.80 per share. The warrants expire five years from issuance date. The warrants were recorded at their relative fair value of \$149,405 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.

In connection with the issuance of Series J preferred stock, the Company issued warrants to purchase 324,074 shares of common stock at an exercise price of \$0.10 per share; and concurrently, the Company issued warrants to purchase 1,208,880 shares of common stock at an exercise price of \$0.10 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 426,259 shares of common stock at an exercise price of \$10.80 per share. The warrants issued were recorded at their relative fair value of \$1,282,495 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 57,370 shares of common stock at an exercise price of \$0.10 per share; and concurrently, the Company issued warrants to purchase 36,918 shares of common stock at an exercise price of \$0.10 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 \$107,870 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 the lease agreement in 2004, the Company issued the landlord warrants to purchase 5,000 shares of common stock at an exercise price of \$2.70 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, 189,716 warrants to purchase common stock were cancelled resulting in a decrease of additional paid-in capital of \$218,773.

During the three months ended March 31, 2006, 276,836 of the outstanding \$0.10 warrants were exercised (unaudited).

### 10. Common Stock

#### **Common Stock Issuances**

In 1992, the Company issued 300,000 shares of common stock to initial investors at a price of \$0.03 per share or total proceeds of \$9,000.

In November 1993, the Company issued 1,200,000 shares of common stock to new and existing stockholders at a price of \$0.025 per share or total proceeds of \$30,000. Additionally, in November 1993, the Company issued 500,000 shares of Class A common stock to existing stockholders at a price of \$0.20 per share or total proceeds of \$100,000. The outstanding shares of Class A common stock were automatically converted into common stock upon issuance of a preferred series in 1994 and Class A common shares are no longer authorized by the Company.

### 11. Stock Compensation Plans

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" and, together with the 1995 Plan, referred to as the "Plans"). No further grants or awards have been, or may be, made under the 1995 Plan. Options that are outstanding under the 1995 Stock Plan continue to be governed by the 1995 Stock Plan. The 2005 Plan provides 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 is 2,250,000 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. At December 31, 2005, there were 3,000 and 3,250 shares that were subject to outstanding options under the 1995 Plan and the 2005 Plan, respectively, which had been unissued as a result of termination.

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.

A summary of the number of shares of common stock for which outstanding options were exercisable under each of the Plans follows:

#### 1995 Stock Plan 2005 Stock Plan Weighted Weighted Number Average Number Average Exercisable Exercisable **Exercise Price Exercise Price** \$ December 31, 2003 497,613 2.55 December 31, 2004 631,550 2.51 363,121 1.39 December 31, 2005 788,925 3.10 March 31, 2006 (unaudited) 821,206 3.08 446,223 1.39

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

		1995 Stock Plan		2005 Stock Plan						
	Number of Shares	Exercise Price Per Share	Weighted Average Exercise Price	Number of Shares	Exercise Price Per Share	Weighted Average Exercise Price				
Balance at December 31, 2002	599,425	\$0.40 - \$10.80 \$	3.30	_	\$— \$	_				
Granted	264,750	\$2.70	2.70	_	<u> </u>	_				
Exercised	(19,750)	\$0.40 - \$2.70	1.08	_	_	_				
Cancelled	(10,750)	\$2.70	2.70	_	_	_				
Balance at December 31, 2003	833,675	\$1.15 - \$10.80	3.17	_	_	_				
Granted	109,500	\$1.35	1.35	_	_	_				
Exercised	_	_	_	_	_	_				
Cancelled	(10,000)	\$1.35 - \$2.70	2.57	_	_	_				
Balance at December 31, 2004	933,175	\$1.15 - \$10.80	2.97	_	_	_				
Granted		_	_	1,570,610	\$1.35 - \$1.50	1.39				
Exercised	(4,000)	\$1.35 - \$2.70	2.53	(1,125)	1.35	1.35				
Cancelled	(3,000)	\$1.35 - \$2.70	2.03	(3,250)	1.35	1.35				
Balance at December 31, 2005	926,175	\$1.15 - \$10.80 \$	2.97	1,566,235	\$1.35 - \$1.50 \$	1.39				

The weighted average fair value per share of options granted during fiscal years 2003, 2004 and 2005 was approximately \$1.15, \$0.44 and \$0.27, respectively.

A summary of information about the shares of common stock covered by outstanding and exercisable options under the option plans at December 31, 2005 follows:

		Outstanding			Exercisable			
Exercise Prices	Weighted Average Remaining Number of Contractua Shares Life (Years		_	Weighted Average Exercise Price	Number of Shares		Weighted Average Exercise Price	
\$1.15	49,000	1.52	\$	1.15	49,000	\$	1.15	
\$1.35	1,275,500	9.51	\$	1.35	326,062	\$	1.35	
\$1.50	397,235	9.96	\$	1.50	93,809	\$	1.50	
\$2.70	712,675	5.57	\$	2.70	625,175	\$	2.70	
\$10.80	58,000	4.06	\$	10.80	58,000	\$	10.80	
\$1.15 - 10.80	2,492,410	8.17	\$	1.98	1,152,046	\$	2.56	

At December 31, 2005, 685,640 shares were available for future option grants, stock grants, and stock-based awards under the 2005 Plan.

In December 2005, 397,235 options were granted to an officer of the Company of which 154,000 contain performance based vesting conditions. These options were issued at an exercise price of \$1.50 which was below their fair market value of \$1.56 at the time of grant and the related compensation expense was immaterial for the period ended December 31, 2005. The 154,000 options are a variable award and are subject to remeasurement which could result in the recording of compensation expense in the future, depending on the probability of achieving certain performance conditions. All other option grants awards during 2003, 2004 and 2005 were issued at an exercise price equal to the fair market value on the date of issuance.

During 2005 and through March 31, 2006 (unaudited), the Company granted the following options to employees:

Grants Made During Quarter Ended	Number of Options Granted	Weighted-Average Exercise Price	Weighted-Average Fair Value per Share	Weighted- Average Intrinsic Value per Share
3/31/2006 (unaudited)	21,500	\$ 1.50	\$ 1.56	\$ 0.06
12/31/2005	397,235	\$ 1.50	\$ 1.56	\$ 0.06
9/30/2005	798,000	\$ 1.35	\$ 1.35	\$ _
6/30/2005	375,375	\$ 1.35	\$ 1.35	\$ _
3/31/2005	<u> </u>	\$ <u> </u>	\$ <u> </u>	\$ 

During 2003, 2004 and 2005, the Company granted stock options to purchase 92,250, 22,000, and 72,875 shares of common stock, respectively, to nonemployees. The compensation expense related to these options is recognized over a period of four years. The 2005 grants vest quarterly and the 2003 and 2004 grants vest on an annual basis and such vesting is contingent upon future services provided by the consultants to the Company. Relating to these options, the Company recorded stock based compensation expense of \$123,554, \$48,922, and \$27,022 during 2003, 2004 and 2005, respectively. Options remaining unvested for the nonemployee are subject to remeasurement each reporting period prior to vesting in full. Since the fair market value of the options issued to the nonemployee is subject to change in the future, the compensation expense recognized in each year may not be indicative of future compensation charges.

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

Dividend yield	_
Volatility	75-100%
Risk-free interest rate	3.94 - 4.50%
Option term	10 years

### Stock Options under SFAS No. 123(R) for the period ended March 31, 2006 (unaudited)

A summary of stock option activity under the Plans for the three months ended March 31, 2006 (unaudited) is presented below:

		1995 Stock Plan		2005 Stock Plan				
	Number Exercise Price of Shares Per Share		Weighted Average Exercise Price	Number of Shares	Exercise Price Per Share	Weighted Average Exercise Price		
Balance at December 31, 2005	926,175	\$1.15 - \$10.80 \$	2.97	1,566,235	\$1.35 - \$1.50	\$ 1.39		
Granted	_	_	_	21,500	\$1.50	1.50		
Exercised	(3,625)	\$1.35 - \$2.70	2.61	(125)	\$1.35	1.35		
Cancelled	(2,750)	\$1.35 - \$2.70	1.72	(13,969)	\$1.35 - \$1.50	1.40		
Balance at March 31, 2006	919,800	\$1.15 - \$10.80	2.98	1,573,641	\$1.35 - \$1.50	1.39		

A summary of information about the shares of common stock covered by outstanding and exercisable options under the option plans at March 31, 2006 (unaudited) follows:

		Outstanding Weighted Average			Exercisable		
Exercise Prices	Number of Shares	Remaining Contractual Life (Years)		Weighted Average Exercise Price	Number of Shares		Weighted Average Exercise Price
\$1.15	49,000	1.27	\$	1.15	49,000	\$	1.15
\$1.35	1,264,156	9.27	\$	1.35	400,658	\$	1.35
\$1.50	413,735	9.72	\$	1.50	106,690	\$	1.50
\$2.70	708,550	5.32	\$	2.70	653,081	\$	2.70
\$10.80	58,000	3.82	\$	10.80	58,000	\$	10.80
\$1.15-10.80	2,493,441	7.94	\$	1.97	1,267,429	\$	2.48

At March 31, 2006 the aggregate intrinsic value of outstanding and exercisable options was \$310,338 and \$110,581, respectively (unaudited). At March 31, 2006 the weighted average contractual remaining life of exercisable options was 6.71 years.

The weighted average fair value of stock options granted during the three months ended March 31, 2006 was \$1.01 (unaudited).

As of March 31, 2006, the total compensation cost related to nonvested options not yet recognized in the financial statements is approximately \$41,343 (unaudited) and the weighted average period over which it is expected to be recognized in 3.75 years (unaudited).

### 12. 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, 2003, 2004 and 2005 are as follows:

	2003		2004		2005	
Net operating loss carryforwards	\$	8,301,389	\$	9,136,063	\$	9,905,024
Capitalization of research and						
development expenses		3,798,657		3,572,974		4,670,977
Credit carryforwards		1,343,156		1,431,308		1,736,233
Other temporary differences		2,453,955		3,664,049		4,802,220
Total deferred tax assets		15,897,157		17,804,394		21,114,454
					_	
Valuation allowance		(15,897,157)		(17,804,394)		(21,114,454)
					_	
Net deferred tax asset	\$	_	\$	_	\$	_

At December 31, 2005, the Company had net operating loss carryforwards for federal and state income tax purposes of approximately \$26,033,000 and \$16,807,000, respectively. The Company's federal and state net operating loss carryforwards will begin to expire in 2008 and 2006, respectively. The Company also has available research and development credits for federal and state income tax purposes of approximately \$1,075,000 and \$888,000, respectively. The federal and state research and development credit will begin to expire in 2012. The Company also has available investment tax credits for state income tax purposes of approximately \$114,000, which began to expire in 2005. However, changes in the Company's ownership, as defined in the Internal Revenue Code, may limit the Company's ability to utilize the net operating loss and tax credit carryforwards.

Management of the Company has evaluated the positive and negative evidence bearing upon the realizability of its deferred tax assets, which are comprised principally of net operating loss carryforwards and research and development credits. Under the applicable accounting standards, management has considered the Company's history of losses and concluded that it is more likely than not that the Company will not recognize the benefits of federal and state deferred tax assets. Accordingly, a full valuation allowance has been established against the deferred tax assets.

Utilization of the net operating losses and credits may be subject to a substantial annual limitation due to ownership change limitations provided by the Internal Revenue Code of 1986, as well as similar state and foreign provisions. These ownership changes may limit the amount of net operating loss and credit carryforwards that can be utilization annually to offset future taxable income and tax, respectively. Subsequent ownership changes could further affect the limitation in future years. These annual limitation provisions may result in the expiration of certain net operating losses and credits before utilization.

# 13. Employee Benefits

The Company established a 401(k) savings plan in 1995, in which substantially all of its permanent employees are eligible to participate. Participants may contribute up to \$14,000 of their annual compensation to the plan in 2005, subject to certain limitations. The Company has not made any contribution from inception to December 31, 2005.

# 14. Subsequent Events

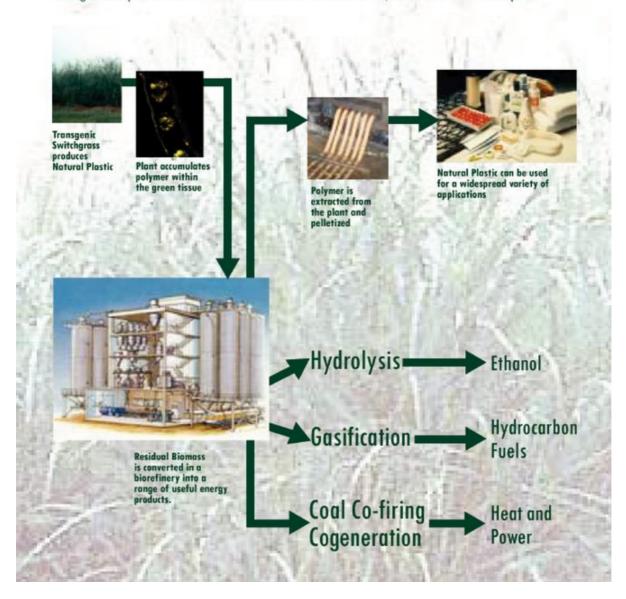
In May 2006, the Company received a \$2,000,000 payment from ADM in recognition of achieving certain milestones under the Technology and Alliance and Option Agreement which was recorded as deferred revenue. The Company and ADM also entered into an extension of the cost sharing agreement through December of 2006.

On July 12, 2006, ADM exercised its option under the Technology Alliance and Option Agreement and entered into the Commercial Alliance Agreement with the Company.



# Metabolix Switchgrass Biorefinery Program

Renewable PHA Natural Plasic producing Switchgrass can potentially supply abundant amounts of biodegradable plastic as well as biomass for conversion to ethanol, other fuels or heat and power.



# **Shares**

# METABOLIX, INC.

**Common Stock** 



# **PROSPECTUS**

No dealer, salesperson or other person is authorized to give any information or to represent anything not contained in this prospectus. You must not rely on any unauthorized information or representations. This prospectus is an offer to sell only the shares offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. The information contained in this prospectus is current only as of its date.

Through and including , 2006 (the 25th day after the date of this prospectus), all dealers effecting transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to a dealer's obligation to deliver a prospectus when acting as an underwriter and with respect to an unsold allotment or subscription.

Sole Book-Running Manager

**Piper Jaffray** 

**Jefferies & Company** 

**Thomas Weisel Partners LLC** 

**Ardour Capital Investments, LLC** 

, 2006

# PART II INFORMATION NOT REQUIRED IN PROSPECTUS

#### Item 13. Other Expenses of Issuance and Distribution.

	Amount	
Securities and Exchange Commission registration fee	\$	9,228.75
NASD registration fee		9,125
NASDAQ listing application fee		*
Blue sky fees and expenses		*
Transfer agent and registrar fee		*
Printing and engraving expenses		*
Accountant fees and expenses		*
Legal fees and expenses		*
Miscellaneous		*
Total		*

To be provided by amendment.

#### Item 14. Indemnification of Directors and Officers.

Section 145(a) of the Delaware General Corporation Law provides, in general, that a corporation may indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation), because he or she is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with such action, suit or proceeding, if he or she acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the corporation and, with respect to any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful.

Section 145(b) of the Delaware General Corporation Law provides, in general, that a corporation may indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor because the person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees) actually and reasonably incurred by the person in connection with the defense or settlement of such action or suit if he or she acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the corporation, except that no indemnification shall be made with respect to any claim, issue or matter as to which he or she shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or other adjudicating court determines that, despite the adjudication of liability but in view of all of the circumstances of the case, he or she is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or other adjudicating court shall deem proper.

Section 145(g) of the Delaware General Corporation Law provides, in general, that a corporation may purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against such person and incurred by such person in any such capacity, or arising out of his or her status as such, whether or not the corporation would have the power to indemnify the person against such liability under Section 145 of the Delaware General Corporation Law.

Article VII of our amended and restated certificate of incorporation (the "Charter"), provides that no director of our company shall be personally liable to us or our stockholders for monetary damages for any breach of fiduciary duty as a director, except for liability (1) for any breach of the director's duty of loyalty to us or our stockholders, (2) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (3) in respect of unlawful dividend payments or stock redemptions or repurchases, or (4) for any transaction from which the director derived an improper personal benefit. In addition, our Charter provides that if the Delaware General Corporation Law is amended to authorize the further elimination or limitation of the liability of directors, then the liability of a director of our company shall be eliminated or limited to the fullest extent permitted by the Delaware General Corporation Law, as so amended.

Article VII of the Charter further provides that any repeal or modification of such article by our stockholders or an amendment to the Delaware General Corporation Law will not adversely affect any right or protection existing at the time of such repeal or modification with respect to any acts or omissions occurring before such repeal or modification of a director serving at the time of such repeal or modification.

Article V of our amended and restated by-laws (the "By-Laws"), provides that we will indemnify each of our directors and officers and, in the discretion of our board of directors, certain employees, to the fullest extent permitted by the Delaware General Corporation Law as the same may be amended (except that in the case of an amendment, only to the extent that the amendment permits us to provide broader indemnification rights than the Delaware General Corporation Law permitted us to provide prior to the amendment) against any and all expenses, judgments, penalties, fines and amounts reasonably paid in settlement that are incurred by the director, officer or such employee or on the director's, officer's or employee's behalf in connection with any threatened, pending or completed proceeding or any claim, issue or matter therein, to which he or she is or is threatened to be made a party because he or she is or was serving as a director, officer or employee of our company, or at our request as a director, partner, trustee, officer, employee or agent of another corporation, partnership, joint venture, trust, employee benefit plan or other enterprise, if he or she acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of our company and, with respect to any criminal proceeding, had no reasonable cause to believe his or her conduct was unlawful. Article V of the By-Laws further provides for the advancement of expenses to each of our directors and, in the discretion of the board of directors, to certain officers and employees.

In addition, Article V of the By-Laws provides that the right of each of our directors and officers to indemnification and advancement of expenses shall be a contract right and shall not be exclusive of any other right now possessed or hereafter acquired under any statute, provision of the Charter or By-Laws, agreement, vote of stockholders or otherwise. Furthermore, Article V of the By-Laws authorizes us to provide insurance for our directors, officers and employees, against any liability, whether or not we would have the power to indemnify such person against such liability under the Delaware General Corporation Law or the provisions of Article V of the By-Laws.

In connection with the sale of common stock being registered hereby, we intend to enter into indemnification agreements with each of our directors and our executive officers. These agreements will provide that we will indemnify each of our directors and such officers to the fullest extent permitted by law and the Charter and By-Laws.

We also intend to obtain a general liability insurance policy which covers certain liabilities of directors and officers of our company arising out of claims based on acts or omissions in their capacities as directors or officers.

In any underwriting agreement we enter into in connection with the sale of common stock being registered hereby, the underwriters will agree to indemnify, under certain conditions, us, our directors, our officers and persons who control us within the meaning of the Securities Act of 1933, as amended, against certain liabilities.

#### Item 15. Recent Sales of Unregistered Securities.

In the three years preceding the filing of this registration statement, we have issued the following securities that were not registered under the Securities Act:

## (a) Issuances of Capital Stock

In June 2003, we issued and sold an aggregate of 270,704 shares of Series I convertible preferred stock to 20 investors for an aggregate purchase price of \$2.923.603.

In November 2003, we issued and sold an aggregate of 324,074 shares of Series J convertible preferred stock to 19 investors for an aggregate purchase price of \$3,499,999.

In November 2003, in conjunction with the issuance of Series J convertible preferred stock, shareholders of 1,208,880 shares of Series I convertible preferred stock for 1,208,880 shares of Series J convertible preferred stock for 1,208,880 shares of Series J convertible preferred stock.

In November 2003, shareholders of 192,147 shares of Series I convertible preferred stock not participating in the Series J convertible preferred stock offering had their 192,147 shares of Series I convertible preferred stock converted into 192,147 shares of Series I-1 redeemable convertible preferred stock in accordance with the preferred stock provisions.

In January 2004, we issued and sold an aggregate of 57,370 shares of Series J convertible preferred stock to 15 investors for an aggregate purchase price of \$619,596.

In January 2004, in conjunction with the issuance of Series J convertible preferred stock, shareholders of 36,918 shares of Series I convertible preferred stock exercised their right to exchange their shares of Series I convertible preferred stock for 36,918 shares of Series J convertible preferred stock.

In April through August 2004, we issued and sold an aggregate of 1,100,766 shares of Series 04 convertible preferred stock to 39 investors for an aggregate purchase price of \$5,944,136. In conjunction with the issuance of Series 04 convertible preferred stock, shareholders of 1,625,242 shares of Series J convertible preferred stock exercised their right to exchange the shares of Series J convertible preferred stock for 3,250,484 shares of Series 04 convertible preferred stock.

Shareholders of 2,000 shares of Series J convertible preferred stock not participating in the Series 04 preferred stock offering had their 2,000 shares of Series J convertible preferred stock converted into 2,000 shares of Series J-1 redeemable convertible preferred stock in accordance with the preferred stock provisions.

From March through May 2005, we issued and sold an aggregate of 893,652 shares of Series 04 convertible preferred stock to 29 investors for an aggregate purchase price of \$4,825,721.

No underwriters were used in the foregoing transactions. All sales of securities described above were made in reliance upon the exemption from registration provided by Section 4(2) of the Securities Act (and/or Regulation D promulgated thereunder) for transactions by an issuer not involving a public offering. All of the foregoing securities are deemed restricted securities for the purposes of the Securities Act.

#### (b) Grants and Exercises of Stock Options.

From May 1, 2003 to June 30, 2006, we granted stock options to purchase an aggregate of 2,165,860 shares of our common stock, with exercise prices ranging from \$2.70 to \$4.20 per share, to employees, directors and consultants pursuant to our stock option plans. Since May 1, 2003, we issued and sold an aggregate of 18,906 shares of our common stock upon exercise of stock options granted pursuant to our stock plans for an aggregate consideration of \$2,194. The issuance of common stock upon exercise of the options were exempt either pursuant to Rule 701, as a transaction pursuant to a compensatory benefit plan, or pursuant to Section 4(2), as a transaction by an issuer not involving a public offering. The common stock issued upon exercise of options and in connection with awards of restricted stock are deemed restricted securities for the purposes of the Securities Act.

#### (c) Issuance of Warrants.

In conjunction with the issuance of the Series I preferred stock during 2003, the Company issued warrants to purchase 270,704 shares of common stock at an exercise price of \$10.80 per share.

In connection with the issuance of Series J preferred stock, the Company issued warrants to purchase 324,074 shares of common stock at an exercise price of \$0.10 per share; and concurrently, the Company issued warrants to purchase 1,208,880 shares of common stock at an exercise price of \$0.10 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 canceled warrants to purchase 426,259 shares of common stock at an exercise price of \$10.80 per share.

In connection with the issuance of the Series J preferred stock during 2004, the Company issued warrants to purchase 57,370 shares of common stock at an exercise price of \$0.10 per share; and concurrently, the Company issued warrants to purchase 36,918 shares of common stock at an exercise price of \$0.10 per share in connection with the exchange of Series I preferred stock for Series J preferred stock.

In connection with signing the lease agreement in 2004, the Company issued the landlord warrants to purchase 5,000 shares of common stock at an exercise price of \$2.70 per share.

During 2004, the Company canceled warrants to purchase 189,716 shares of common stock at an exercise price of \$0.10 per share. The cancellation resulted in a decrease of additional paid-in capital of \$218,774.

This issuance was made in reliance upon the exemption from registration provided by Section 4(2) of the Securities Act (and/or Regulation D promulgated thereunder) for transactions by an issuer not involving a public offering. The common stock issued upon exercise of the warrant are deemed restricted securities for the purposes of the Securities Act.

#### Item 16. Exhibits and Financial Statement Schedules.

- (a) See the Exhibit Index on the page immediately preceding the exhibits for a list of exhibits filed as part of this registration statement on Form S-1, which Exhibit Index is incorporated herein by reference.
- (b) Financial Statement Schedules

None.

#### Item 17. Undertakings.

The undersigned registrant hereby undertakes to provide to the underwriter at the closing specified in the underwriting agreements, certificates in such denominations and registered in such names as required by the underwriter to permit prompt delivery to each purchaser.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act, and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

The undersigned registrant hereby undertakes that:

- (1) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.
- (2) For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and this offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

# **SIGNATURES**

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-1 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Cambridge, Massachusetts, on this 14<sup>th</sup> day of July, 2006.

METABOLIX, INC.

By: /s/ JAMES J. BARBER

Name: James J. Barber

Title: President, Chief Executive Officer and Director

II-6

## POWER OF ATTORNEY

Each of the undersigned officers and directors of Metabolix, Inc. hereby severally constitute and appoint each of James J. Barber and Thomas G. Auchincloss, Jr. as the attorneys-in-fact for the undersigned, in any and all capacities, with full power of substitution, to sign any and all pre- or post-effective amendments to this Registration Statement, any subsequent Registration Statement for the same offering which may be filed pursuant to Rule 462(b) under the Securities Act of 1933, as amended, and any and all pre- or post-effective amendments thereto, and to file the same with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement has been signed by the following persons in the capacities and on the dates indicated:

/s/ JAMES J. BARBER	President, Chief Executive Officer, and Director (Principal Executive Officer)	July 14, 2006
James J. Barber	- Executive Officer)	
/s/ DR. OLIVER P. PEOPLES	Chief Scientific Officer, Vice President Research and Director	July 14, 2006
Dr. Oliver P. Peoples	•	
/s/ THOMAS G. AUCHINCLOSS, JR.	Vice President and Chief Financial Officer (Principal Financial Officer)	July 14, 2006
Thomas G. Auchincloss, Jr.	- Officer)	
/s/ ANINDA KATRAGADDA	Director of Finance and Corporate Controller (Principal Accounting Officer)	July 14, 2006
Aninda Katragadda	Accounting Officer)	
/s/ EDWARD M. MULLER		
Edward M. Muller	Chairman of the Board, Director	July 14, 2006
/s/ EDWARD M. GILES		
Edward M. Giles	Director	July 14, 2006
/s/ DR. JAY KOUBA		
Dr. Jay Kouba	Director	July 14, 2006
	II-7	

/s/ JACK W. LASERSOHN		
Jack W. Lasersohn	Director	July 14, 2006
/s/ DR. ANTHONY J. SINSKEY		
Dr. Anthony J. Sinskey	Director	July 14, 2006
/s/ DR. SIMON F. WILLIAMS		
Dr. Simon F. Williams	Director	July 14, 2006
	II-8	

# EXHIBIT INDEX

Number	Description
1.1*	Form of Underwriting Agreement
3.1*	Form of Amended and Restated Certificate of Incorporation of the Registrant
3.2*	Form of Second Amended and Restated Certificate of Incorporation of the Registrant (to be effective upon the completion of this offering)
3.3*	Amended and Restated By-laws of the Registrant
4.1*	Specimen Stock Certificate for shares of the Registrant's Common Stock
4.2*	Form of Common Stock Purchase Warrant issued in the Series I Financing
4.3*	Form of Common Stock Purchase Warrant issued in the Series J Financing
4.4*	Form of Common Stock Purchase Warrant issued in the Series 04 Financing
5.1*	Opinion of Goodwin Procter LLP
10.1†*	1995 Stock Plan
10.1.1†*	1995 Stock Plan, Form of Incentive Stock Option Agreement
10.1.2†*	1995 Stock Plan, Form of Non-Qualified Stock Option Agreement
10.2†*	2005 Stock Plan
10.2.1†*	2005 Stock Plan, Form of Incentive Stock Option Agreement
10.2.2†*	2005 Stock Plan, Form of Non-Qualified Stock Option Agreement
10.3†*	2006 Stock Option and Incentive Plan
10.3.1†*	2006 Stock Option and Incentive Plan, Form of Incentive Stock Option Agreement
10.3.2†*	2006 Stock Option and Incentive Plan, Form of Non-Qualified Stock Option Agreement
10.4#/*\	License Agreement between the Registrant and Massachusetts Institute of Technology dated July 15, 1993, as amended
10.5#/*\	Commercial Alliance Agreement by and among the Registrant, ADM/Metabolix Sales Company, LLC and ADM Polymer Corporation dated July 12, 2006
10.6#/*\	Operating agreement of ADM/Metabolix Sales Company, LLC by and between the Registrant and ADM Polymer Corporation dated July 12, 2006
10.7/*\	Letter Agreement by and between the Registrant and Archer Daniels Midland Company dated November 3, 2004.
10.8†*	Employment Agreement by and between the Registrant and James J. Barber dated December 14, 2005
10.9†*	Employment Agreement by and between the Registrant and Thomas G. Auchincloss dated January 10, 2006
10.10†*	Employment Agreement by and between the Registrant and Johan van Walsem dated May 1, 2006
10.11†*	Employment Agreement by and between the Registrant and Robert Findlen dated May 24, 2006.

10.12†*	Form of Employee Noncompetition, Nondisclosure and Inventions Agreement with James J. Barber and Johan van Walsem.
10.13†*	Form of Noncompetition, Nondisclosure and Inventions Agreement with Mr. Auchincloss, Dr. Peoples and Mr. Findlen.
10.14†*	Form of Indemnification Agreement
10.15*	Lease Agreement by and 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
10.16*	Fifth Amended and Restated Stockholders Agreement by and among the Registrant and certain of its stockholders dated January 19, 2006.
10.17/*\	Amendment No. 1 to Fifth Amended and Restated Stockholders Agreement by and among the Registrant and certain of its stockholders dated July 12, 2006
10.18/*\	Stock Purchase Agreement between the Registrant and Archer Daniels Midland Company dated July 12, 2006
23.1*	Consent of Goodwin Procter LLP (included in Exhibit 5.1)
23.2/*\	Consent of PricewaterhouseCoopers LLP
24.1/*\	Power of Attorney (included in page II-7)
Indicates a	management contract or any compensatory plan, contract or arrangement.

To be filed by amendment.

Filed herewith.

Confidential treatment requested for portions of this document.

## QuickLinks

**TABLE OF CONTENTS** 

**PROSPECTUS SUMMARY** 

**THE OFFERING** 

**SUMMARY FINANCIAL DATA** 

**RISK FACTORS** 

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

**USE OF PROCEEDS** 

**DIVIDEND POLICY** 

CAPITALIZATION

**DILUTION** 

SELECTED FINANCIAL DATA

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

**BUSINESS** 

**MANAGEMENT** 

**Summary Compensation Table** 

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

PRINCIPAL STOCKHOLDERS

**DESCRIPTION OF CAPITAL STOCK** 

SHARES ELIGIBLE FOR FUTURE SALE

**UNDERWRITING** 

**LEGAL MATTERS** 

**EXPERTS** 

MARKET AND INDUSTRY DATA

WHERE YOU CAN FIND MORE INFORMATION

METABOLIX, INC. INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Metabolix, Inc. Consolidated Balance Sheets

Metabolix, Inc. Consolidated Statements of Operations

Metabolix, Inc. Consolidated Statements of Stockholders' Equity (Deficit)

Metabolix, Inc. Consolidated Statements of Cash Flows

Metabolix, Inc. Notes to Consolidated Financial Statements (Information as of March 31, 2006 and the three months ended March 31, 2006 and 2005 is

unaudited)

PART II INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution.

Item 14. Indemnification of Directors and Officers.

Item 15. Recent Sales of Unregistered Securities.

Item 16. Exhibits and Financial Statement Schedules.

Item 17. Undertakings.

**SIGNATURES** 

POWER OF ATTORNEY

EXHIBIT INDEX

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.

#### MASSACHUSETTS INSTITUTE OF TECHNOLOGY

#### LICENSE AGREEMENT

(EXCLUSIVE)

Date: July 15, 1993

#### TABLE OF CONTENTS

(i)

## PREAMBLE

This Agreement is made and entered into this 15th day July, 1993, (the "Effective Date") by and between MASSACHUSETTS INSTITUTE OF TECHNOLOGY, a corporation duly organized and existing under the laws of the Commonwealth of Massachusetts and having its principal office at 77 Massachusetts Avenue, Cambridge, Massachusetts 02139, U.S.A. (hereinafter referred to as "M.I.T."), and METABOLIX, INC., a corporation duly organized under the laws of the Commonwealth of Massachusetts and having its principal office at 285 Commonwealth Avenue, Boston, Massachusetts 02115, U.S.A. (hereinafter referred to as "LICENSEE").

## WITNESSETH

WHEREAS, M.I.T. is the owner of certain PATENT RIGHTS (as later defined herein) relating to M.I.T. Case No. 4403, "Method for Producing Novel Polyester Biopolymers" by Oliver P. Peoples and Anthony J. Sinskey, USSN 566,535, USSN 700,109 and related technology, and has the right to grant licenses under said PATENT RIGHTS, subject only to a royalty-free, nonexclusive license heretofore granted to the United States Government.

WHEREAS, M.I.T. desires to have the PATENT RIGHTS utilized in the public interest and is willing to grant a license thereunder;

WHEREAS, LICENSEE has represented to M.I.T., to induce M.I.T. to enter into this Agreement, that LICENSEE is knowledgeable with respect to the subject

matter related to the LICENSED PRODUCT(s) (as later defined herein) and/or the use of the LICENSED PROCESS(es) (as later defined herein) and that it shall commit itself to a thorough, vigorous and diligent program of exploiting the PATENT RIGHTS so that public utilization shall result therefrom; and

WHEREAS, LICENSEE desires to obtain a license under the PATENT RIGHTS upon the terms and conditions hereinafter set forth.

NOW, THEREFORE, in consideration of the premises and the mutual covenants contained herein, the parties hereto agree as follows:

#### ARTICLE 1 - DEFINITIONS

For the purposes of this Agreement, the following words and phrases shall have the following meanings:

- 1.1 "LICENSEE" shall include a related company of METABOLIX, INC. the voting stock of which is directly or indirectly at least fifty percent (50%) owned and controlled by METABOLIX, INC., an organization which directly or indirectly controls more than fifty percent
- \* CONFIDENTIAL TREATMENT REQUESTED

(50%) of the voting stock of METABOLIX, INC. and an organization the majority ownership of which is directly or indirectly common to the ownership of METABOLIX, INC.

- 1.2 "PATENT RIGHTS" shall mean all of the following M.I.T. intellectual property:
  - (a) The United States and foreign patents and/or patent applications and invention disclosures listed in Appendix A;
  - (b) United States and foreign patents issued from the application and invention disclosures listed in Appendix A and from divisionals and continuations of these applications and invention disclosures;
  - (c) claims of United States and foreign continuation-in-part applications and of the resulting patents which are directed to subject matter specifically described in the United States and foreign applications and invention disclosures listed in Appendix A;
  - (d) claims of all foreign patent applications and of the resulting patents which are directed to subject matter specifically described in the United States patents and/or patent applications and invention disclosures described in (a), (b), (c) or (d) above; and
  - (e) any reissues of United States patents described in (a), (b), (c) or (d) above.
  - 1.3 A "LICENSED PRODUCT" shall mean any product or part thereof which:
    - (a) is covered in whole or in part by an issued, unexpired valid claim or a pending claim contained in the PATENT RIGHTS in the country in which any such product or part thereof is made, used or sold; or
    - (b) is manufactured by using a process or is employed to practice a process which is covered in whole or in part by an issued, unexpired valid claim or a pending claim contained in the PATENT RIGHTS in the country in which a LICENSED PROCESS is used or in which such product or part thereof is used or sold.
  - 1.4 A "LICENSED PROCESS" shall mean any process which:
    - (a) is covered in whole or in part by an issued, unexpired valid claim or a pending claim contained in the PATENT RIGHTS in the country in which such process is used or in which the LICENSED PRODUCT made thereby is used or sold.
- \* CONFIDENTIAL TREATMENT REQUESTED

LICENSED PRODUCTS and LICENSED PROCESSES produced hereunder less the sum of the following:

- (a) discounts allowed in amounts customary in the trade;
- (b) sales, tariff duties and/or use taxes directly imposed and with reference to particular sales;
- (c) outbound transportation prepaid or allowed; and
- (d) amounts allowed or credited on returns.

No deduction shall be made for commissions paid to individuals whether they be with independent sales agencies or regularly employed by LICENSEE and on its payroll, or for cost of collections. LICENSED PRODUCTS shall be considered "sold" when billed out or invoiced. "NET SALES" shall not include LICENSED PRODUCTS sold for clinical testing, research or development purposes.

Where the LICENSED PRODUCT is a combination product consisting of polymer whose composition or manufacture is covered by the PATENT RIGHTS plus other materials which are not covered by the PATENT RIGHTS, the "NET SALES" shall mean the NET SALES of the full product multiplied by the fully loaded manufacturing cost of the polymer divided by the total fully loaded manufacturing cost of the total combination material. When the LICENSED PRODUCT consists of a combination product consisting of a component made from the polymer, plus other components, then "NET SALES" shall mean NET SALES of the total product multiplied by the fully loaded manufacturing cost of the polymer component divided by the fully loaded manufacturing cost of the total product. By "fully loaded" is meant the cost of goods sold plus overhead allocated to production and the sale thereof.

\* CONFIDENTIAL TREATMENT REQUESTED

3

## ARTICLE 2 - GRANT

- 2.1 M.I.T. hereby grants to LICENSEE the worldwide right and license to make, have made, use, lease and sell the LICENSED PRODUCTS and to practice the LICENSED PROCESSES to the end of the term for which the PATENT RIGHTS are granted unless this Agreement shall be sooner terminated according to the terms hereof.
- 2.2 LICENSEE agrees that to the extent possible LICENSED PRODUCTS leased or sold in the United States shall be manufactured substantially in the United States and that in those cases where domestic manufacture is impractical it will request appropriate waivers from the Department of Commerce pursuant to 37 C.F.R. Sec. 401.14(i).
- 2.3 In order to establish a period of exclusivity for LICENSEE, M.I.T. hereby agrees that it shall not grant any other license to make, have made, use, lease and sell LICENSED PRODUCTS or to utilize LICENSED PROCESSES during the term of this agreement.
- $2.4\,$  M.I.T. reserves the right to practice under the PATENT RIGHTS for its own noncommercial research purposes.
- 2.5 M.I.T. further grants to LICENSEE a ninety (90) day first option to negotiate for an exclusive license to new inventions dominated by the claims of the PATENT RIGHTS as originally licensed which arise from the laboratory of Prof. Anthony Sinskey at M.I.T. within four (4) years of the Effective Date of this Agreement. Such option shall be subject to any rights granted in sponsorship agreements to sponsors of the research from which any such invention arises.
- 2.6 LICENSEE shall have the right to enter into sublicensing agreements for the rights, privileges and licenses granted hereunder. Upon any termination of this Agreement, sublicensees' rights shall also terminate, subject to Paragraph 13.6 hereof.
- \* CONFIDENTIAL TREATMENT REQUESTED

4

2.7 LICENSEE agrees that any sublicenses granted by it shall provide that the obligations to M.I.T. of Articles 2, 5, 7, 8, 9, 10, 12, 13 and 15 of this Agreement shall be binding upon the sublicensee as if it were a party to this Agreement. LICENSEE further agrees to attach copies of these Articles to sublicense agreements.

- 2.8 LICENSEE agrees to forward to M.I.T. a copy of any and all sublicense agreements promptly upon execution by the parties.
- 2.9 The license granted hereunder shall not be construed to confer any rights upon LICENSEE by implication, estoppel or otherwise as to any technology not specifically set forth in Appendix A hereof.

# ARTICLE 3 - DUE DILIGENCE

- 3.1 LICENSEE shall use diligent efforts to bring LICENSED PRODUCTS to market through a thorough, vigorous and diligent program for exploitation of the PATENT RIGHTS and to continue active, diligent development and marketing efforts for LICENSED PRODUCTS throughout the life of this Agreement.
- 3.2 LICENSEE shall raise a cumulative total of investment capital and/or research and development funds of at least:
  - (a) Five Hundred Thousand Dollars (\$500,000) within twelve (12) months from the Effective Date,
  - (b) Two Million Dollars (\$2,000,000) including funds under (a) hereof within twenty-seven (27) months from the Effective Date,
  - (c) Five Million Dollars (\$5,000,000) including funds under (a) and (b) hereof within fifty-one (51) months from the Effective Date.

Included in the cumulative investment capital and/or research and development funds hereunder shall be such funds invested or expanded by a joint venture in which LICENSEE owns

\* CONFIDENTIAL TREATMENT REQUESTED

5

at least a 33% interest provided that such finds are used substantially for the development and marketing of LICENSED PRODUCTS.

3.3 LICENSEE's failure to perform in accordance with Paragraphs 3.1 and 3.2 above shall be grounds for M.I.T. to terminate this Agreement pursuant to Paragraph 13.3 hereof.

#### ARTICLE 4 - ROYALTIES

- 4.1 For the rights, privileges and license granted hereunder, LICENSEE shall pay royalties to M.I.T. in the manner hereinafter provided to the end of the term of the PATENT RIGHTS or until this Agreement shall earlier be terminated:
  - (a) A License Issue Fee of \*, which said License Issue Fee shall be deemed earned and due in two parts:
    - (i) \* due upon the signing of this Agreement; and
    - (ii) \* due upon the raising of Two Million Dollars (\$2,000,000) in investment capital by LICENSEE.
  - (b) License Maintenance Fees of \* per year payable on the second anniversary of the Effective Date and on each subsequent anniversary during the term of this Agreement; provided, however, that Running Royalties subsequently due on NET SALES for each said year, if any, shall be creditable against the License Maintenance Fee for said year. License Maintenance Fees paid in excess of Running Royalties shall not be creditable to Running Royalties for future years.
  - (c)  $^{\star}$  of the NET SALES of LICENSED PRODUCTS and LICENSED PROCESSES by LICENSEE.
  - (d) A share of sublicensing revenue received by LICENSEE equal to:
    - (i) \* if only the PATENT RIGHTS are sublicensed.
    - (ii) Where the sublicensee revenue includes revenue received for PATENT RIGHTS sublicensed in conjunction with products and/or substantial technology developed by LICENSEE, \* up to the time LICENSEE has raised Five Hundred Thousand Dollars (\$500,000) as provided in Section 3.2(a) hereof, thereafter \* up to the time LICENSEE has raised Two Million Dollars (\$2,000,000) as provided in Section 3.2(b) hereof and thereafter \* for the remaining term of this Agreement.

In no case shall the revenue paid to M.I.T. for each sublicense be less than \* of the sales value of the LICENSED PRODUCTS made, used or sold by that sublicensee.

- (e) Shares of common stock of LICENSEE equal to \* of the outstanding common and preferred shares of LICENSEE at the completion of the first round of equity of investment.
- (f) ANTIDILUTION: If, following the first round of equity funding, LICENSEE issues additional shares of stock such that M.I.T.'s total share of outstanding stock falls below \*, then LICENSEE shall grant to M.I.T. additional shares such that M.I.T.'s fraction of total outstanding shares remains at \* until a total of Four Million Dollars (\$4,000,000) is invested in LICENSEE. Thereafter, no additional shares shall be due to M.I.T., provided that in subsequent rounds of financing, M.I.T. shall have the right to invest in additional shares, on a PRO RATA basis, at the same price as is granted to other investors holding common or preferred stock.
- 4.2 All payments due hereunder shall be paid in full, without deduction of taxes or other fees which may be imposed by any government and which shall be paid by LICENSEE.
- 4.3 No multiple royalties shall be payable because any LICENSED PRODUCT, its manufacture, use, lease or sale are or shall be covered by more than one PATENT RIGHTS patent application or PATENT RIGHTS patent licensed under this Agreement.
- 4.4 Royalty payments shall be paid in United States dollars in Cambridge, Massachusetts, or at such other place as M.I.T. may reasonably designate consistent with the laws and regulations controlling in any foreign country. If any currency conversion shall be required in connection with the payment of royalties hereunder, such conversion shall be made by using the exchange rate prevailing at the Chase Manhattan Bank (N.A.) on the last business day of the calendar quarterly reporting period to which such royalty payments relate.

## ARTICLE 5 - REPORTS AND RECORDS

- 5.1 LICENSEE shall keep full, true and accurate books of account containing all particulars that may be necessary for the purpose of showing the amounts payable to M.I.T.
- \* CONFIDENTIAL TREATMENT REQUESTED

7

hereunder. Said books of account shall be kept at LICENSEE's principal place of business or the principal place of business of the appropriate division of LICENSEE to which this Agreement relates. Said books and the supporting data shall be open at all reasonable times for three (3) years following the end of the calendar year to which they pertain, to the inspection of M.I.T. or its agents for the purpose of verifying LICENSEE's royalty statement or compliance in other respects with this Agreement. Should such inspection lead to the discovery of a greater than Ten Percent (10%) discrepancy in reporting, LICENSEE agrees to pay the full cost of such inspection.

- 5.2 LICENSEE, within sixty (60) days after December 31 of each year prior to the first commercial sale of a LICENSED PRODUCT and sixty days after March 31, June 30, September 30 and December 31, of each year after the first commercial sales of a LICENSED PRODUCT, shall deliver to M.I.T. true and accurate reports, giving such particulars of the business conducted by LICENSEE during the preceding three-month period under this Agreement as shall be pertinent to a royalty accounting hereunder. These shall include at least the following:
  - (a) number of LICENSED PRODUCTS manufactured and sold by LICENSEE;
  - (b) total billings for LICENSED PRODUCTS manufactured and sold by LICENSEE;
  - (c) accounting for all LICENSED PROCESSES used or sold by LICENSEE;
  - (d) deductions applicable as provided in Paragraph 1.5;

- (e) total royalties due; and
- (f) names and addresses of all sublicensees of LICENSEE.

LICENSEE shall endeavor to obtain similar information from its sublicensees and will provide such information which is obtained to M.I.T.

- $5.3\,$  With each such report submitted, LICENSEE shall pay to M.I.T. the royalties due and payable under this Agreement. If no royalties shall be due, LICENSEE shall so report.
- \* CONFIDENTIAL TREATMENT REQUESTED

8

- 5.4 On or before the ninetieth (90th) day following the close of LICENSEE's fiscal year, LICENSEE shall provide M.I.T. with LICENSEE's certified financial statements for the preceding fiscal year including, at a minimum, a Balance Sheet and an Operating Statement.
- 5.5 The royalty payments set forth in this Agreement and amounts due under Article 6 shall, if overdue, bear interest until payment at a per annum rate Two Percent (2%) above the prime rate in effect at the Chase Manhattan Bank (N.A.) on the due date. The payment of such interest shall not foreclose M.I.T. from exercising any other rights it may have as a consequence of the lateness of any payment.

## ARTICLE 6 - PATENT PROSECUTION

- 6.1 Throughout the term of this Agreement, LICENSEE, at its own expense, shall have the right, but shall not be obligated, to file such United States and/or foreign patent applications covering any patentable invention included within the Patent Rights; to prosecute and defend such applications against third party oppositions; and upon grant of any Letters Patent covering inventions included within the Patent Rights, to maintain such Letters Patent in force. LICENSEE agrees to seek strong, broad claims in the best interest of M.I.T. and shall not abandon the subject matter of any substantive claim without the permission of M.I.T., such permission not to be unreasonably withheld. If LICENSEE elects not to file or prosecute such applications or maintain such Letters Patent, LICENSEE shall so notify M.I.T., in which event M.I.T. shall have the right to file or prosecute such applications and to maintain such Letters Patent.
- 6.2 Payment of all out-of-pocket fees and costs relating to the filing, prosecution, and maintenance of the PATENT RIGHTS shall be the responsibility of LICENSEE, whether such
- \* CONFIDENTIAL TREATMENT REQUESTED

9

fees and costs were incurred before or after the date of this Agreement. Payment for out-of-pocket costs incurred by M.I.T. prior to the Effective Date shall be made in three parts:

- (a) Twenty-Five Percent (25%) on or before a date three (3) months from the Effective Date of this Agreement;
- (b) Twenty-Five Percent (25%) on or before a date nine (9) months from the Effective Date of this Agreement;
- (c) The remaining Fifty Percent (50%) on or before a date fifteen (15) months from the Effective Date of this Agreement,

Patenting costs incurred by M.I.T. after the Effective Date of this Agreement shall be paid within sixty (60) days of invoicing by M.I.T.

#### ARTICLE 7 - INFRINGEMENT

- 7.1 LICENSEE shall inform M.I.T. promptly in writing of any alleged infringement of the PATENT RIGHTS by a third party and of any available evidence thereof.
- 7.2 During the term of this Agreement, LICENSEE shall have the right, but shall not be obligated, to prosecute at its own expense any such infringements of the PATENT RIGHTS and, in furtherance of such right, M.I.T. hereby agrees that LICENSEE may join M.I.T. as a party plaintiff in any such suit, without expense to M.I.T. The total cost of any such infringement action commenced or

defended solely by LICENSEE shall be borne by LICENSEE, LICENSEE may, for such purposes, use the name of M.I.T. as party plaintiff; provided, however, that such right to bring an infringement action shall remain in effect only for so long as the license granted herein remains exclusive. No settlement, consent judgement or other voluntary final disposition of the suit may be entered into without the consent of M.I.T. which consent shall not unreasonably be withheld. LICENSEE shall indemnify M.I.T. against any order for costs that may be made against M.I.T. in proceedings commenced and defended solely by LICENSEE.

\* CONFIDENTIAL TREATMENT REQUESTED

10

- 7.3 In the event that LICENSEE shall undertake the enforcement and/or defense of the PATENT RIGHTS by litigation, LICENSEE may withhold up to \* of the royalties otherwise thereafter due M.I.T. hereunder and apply the same toward reimbursement of up to \* of LICENSEE's expenses, including reasonable attorneys' fees, in connection therewith. Any recovery of damages by LICENSEE for any such suit shall be applied first in satisfaction of any unreimbursed expenses and legal fees of LICENSEE relating to the suit, and next toward reimbursement of M.I.T. for any royalties past due or withheld and applied pursuant to this Article VII. The balance remaining from any such recovery attributable to damages for lost sales shall be divided according to the royalty percentages set forth in Section 4.1; any remaining balance shall be paid to LICENSEE.
- 7.4 If within six (6) months after having been notified of any alleged infringement, LICENSEE shall have been unsuccessful in persuading the alleged infringer to desist and shall not have brought and shall not be diligently prosecuting an infringement action, or if LICENSEE shall notify M.I.T. at any time prior thereto of its intention not to bring suit against any alleged infringer, then, and in those events only, M.I.T. shall have the right, but shall not be obligated, to prosecute at its own expense any infringement of the PATENT RIGHTS, and, in furtherance of such right, LICENSEE hereby agrees that M.I.T. may include LICENSEE as a party plaintiff in any such suit, without expense to LICENSEE. The total cost of any such infringement action commenced or defended solely by M.I.T. shall be borne by M.I.T., and M.I.T. shall keep any recovery or damages for past infringement derived therefrom.
- 7.5 In the event that a declaratory judgment action alleging invalidity or noninfringement of any of the PATENT RIGHTS shall be brought against LICENSEE, M.I.T., at
- \* CONFIDENTIAL TREATMENT REQUESTED

11

its option, shall have the right, within sixty (60) days after commencement of such action, to join in the defense of the action at its own expense.

- 7.6 In any infringement suit as either party may institute to enforce the PATENT RIGHTS pursuant to this Agreement, the other party hereto shall, at the request and expense of the party initiating such suit, cooperate in all respects and, to the extent possible, have its employees testify when requested and make available relevant records, papers, information, samples, specimens and the like.
- 7.7 LICENSEE, during the period of this Agreement, shall have the sole right in accordance with the terms and conditions herein to sublicense any alleged infringer for future use of the PATENT RIGHTS.

# ARTICLE 8 - PRODUCT LIABILITY

- 8.1 LICENSEE shall at all times during the term of this Agreement and thereafter, indemnify, defend and hold M.I.T., its trustees, officers, employees and affiliates, harmless against all claims and expenses, including legal expenses and reasonable attorneys' fees, arising out of the death of or injury to any person or persons or out of any damage to property and against any other claim, proceeding, demand, expense and liability of any kind whatsoever resulting from the production, manufacture, sale, use, lease, consumption or advertisement of the LICENSED PRODUCT(s) and/or LICENSED PROCESS(es) or arising from any obligation of LICENSEE hereunder.
- 8.2 Prior to the first use of a LICENSED PRODUCT on humans, LICENSEE shall obtain and carry in full force and effect liability insurance which shall protect LICENSEE and M.I.T. in regard to events covered by Paragraph 8.1 above.
- \* CONFIDENTIAL TREATMENT REQUESTED

8.3 EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS AGREEMENT, M.I.T. MAKES NO REPRESENTATIONS AND EXTENDS NO WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND VALIDITY OF PATENT RIGHTS CLAIMS, ISSUED OR PENDING. NOTHING IN THIS AGREEMENT SHALL BE CONSTRUED AS A REPRESENTATION MADE OR WARRANTY GIVEN BY M.I.T. THAT THE PRACTICE BY LICENSEE OF THE LICENSE GRANTED HEREUNDER SHALL NOT INFRINGE THE PATENT RIGHTS OF ANY THIRD PARTY.

#### ARTICLE 9 - EXPORT CONTROLS

It is understood that M.I.T. is subject to United States laws and regulations controlling the export of technical data, computer software, laboratory prototypes and other commodities (including the Arms Export Control Act, as amended and the Export Administration Act of 1979), and that its obligations hereunder are contingent on compliance with applicable United States export laws and regulations. The transfer of certain technical data and commodities may require a license from the cognizant agency of the United States Government and/or written assurances by LICENSEE that LICENSEE shall not export data or commodities to certain foreign countries without prior approval of such agency. M.I.T. neither represents that a license shall not be required not that, if required, it shall be issued.

#### ARTICLE 10 - NON-USE OF NAMES

Except as required by law, LICENSEE shall not use the names or trademarks of the Massachusetts Institute of Technology, nor any adaptation thereof, nor the names of any of its employees, in any advertising, promotional or sales literature without prior written consent

#### \* CONFIDENTIAL TREATMENT REQUESTED

13

obtained from M.I.T., or said employee, in each case, except that LICENSEE may state that it is licensed by M.I.T. under one or more of the patents and/or applications comprising the PATENT RIGHTS. LICENSEE may, however, use the name of Oliver P. Peoples, Anthony J. Sinskey, and/or any other employee of M.I.T. who is a consultant or member of an advisory board of LICENSEE, with their permission, and provided, also, that their affiliation with LICENSEE is identified.

#### ARTICLE 11 - ASSIGNMENT

This Agreement is not assignable, except in the case where LICENSEE transfers its business relating to the subject matter hereof or transfers a subsidiary of LICENSEE, or a joint venture in which LICENSEE is a participant, or all of any other entity in which LICENSEE has a controlling interest, whereupon transferee shall acquire all of LICENSEE's benefits and obligations hereunder. Any other assignment shall be void.

# ARTICLE 12 - DISPUTE RESOLUTION

12.1 Except for the right of either party to apply to a court of competent jurisdiction for a temporary restraining order, a preliminary injunction or other equitable relief to preserve the status quo or prevent irreparable harm, any and all claims, disputes or controversies arising under, out of or in connection with the Agreement, including any dispute relating to patent validity or infringement, which the parties shall be unable to resolve within one hundred and twenty (120) days shall be mediated in good faith. The party raising such dispute shall promptly advise the other party of such claim, dispute or controversy in a writing which describes in reasonable detail the nature of such dispute. By not later than ten (10) business days after the recipient has received such notice of dispute, each party shall have selected for itself a representative who shall have the authority to bind such party, and shall additionally have advised the other party in writing of the

#### \* CONFIDENTIAL TREATMENT REQUESTED

14

name and title of such representative. By not later than twenty (20) business days after the date of such notice of dispute, such representatives shall schedule a date for a mediation hearing with the Cambridge Dispute Settlement Center or Endispute Inc. in Cambridge, Massachusetts. The parties shall enter into good faith mediation and shall share the costs equally. If the representatives of the parties have not been able to resolve the dispute within thirty (30) business days after such mediation hearing, the parties shall have

the right to pursue any other remedies legally available to resolve such dispute in either the Courts of the Commonwealth of Massachusetts or in the United States District Court for the District of Massachusetts, to whose jurisdiction for such purposes M.I.T. and LICENSEE each hereby irrevocably consents and submits.

12.2 Notwithstanding the foregoing, nothing in this Article shall be construed to waive any rights or timely performance of any obligations existing under this Agreement.

#### ARTICLE 13 - TERMINATION

- 13.1 If LICENSEE shall cease to carry on its business, this Agreement shall terminate upon notice by M.I.T., except as provided in Article 11.
- 13.2 Should LICENSEE fail to make any payment whatsoever due and payable to M.I.T. hereunder, M.I.T. shall have the right to terminate this Agreement effective on sixty (60) days' notice, unless LICENSEE shall make all such payments to M.I.T. within said sixty (60) day period. Upon the expiration of the sixty (60) day period, if LICENSEE shall not have made all such payments to M.I.T., the rights, privileges and license granted hereunder shall automatically terminate.
- 13.3 Upon any material breach or default of this Agreement by LICENSEE, other than those occurrences set out in Paragraphs 13.1 and 13.2 hereinabove, which shall always take
- \* CONFIDENTIAL TREATMENT REQUESTED

15

precedence in that order over any material breach or default referred to in this Paragraph 13.3, M.I.T. shall have the right to terminate this Agreement and the rights, privileges and license granted hereunder effective on one hundred and twenty (120) days' notice to LICENSEE. Such termination shall become automatically effective unless LICENSEE shall have cured any such material breach or default prior to the expiration of the one hundred and twenty (120) day period.

- 13.4 LICENSEE shall have the right to terminate this Agreement at any time on six (6) months' notice to M.I.T., and upon payment of all amounts due M.I.T. through the effective date of the termination.
- 13.5 Upon termination of this Agreement for any reason, nothing herein shall be construed to release either party from any obligation that matured prior to the effective date of such termination. LICENSEE and any sublicensee thereof may, however, after the effective date of such termination, sell all LICENSED PRODUCTS, and complete LICENSED PRODUCTS in the process of manufacture at the time of such termination and sell the same, provided that LICENSEE shall pay to M.I.T. the Running Royalties thereon as required by Article 4 of this Agreement and shall submit the reports required by Article 5 hereof on the sales of LICENSED PRODUCTS.
- 13.6 Upon termination of this Agreement for any reason, any sublicensee not then in default shall have the right to seek a license from M.I.T. M.I.T. agrees to negotiate such licenses in good faith under reasonable terms and conditions.

# ARTICLE 14 - PAYMENTS, NOTICES AND OTHER COMMUNICATIONS

Any payment, notice or other communication pursuant to this Agreement shall be sufficiently made or given on the date of mailing if sent to such party by certified first class mail,

\* CONFIDENTIAL TREATMENT REQUESTED

16

postage prepaid, addressed to it at its address below or as it shall designate by written notice given to the other party:

In the case of M.I.T.:

Director Technology Licensing Office Massachusetts Institute of Technology Room E32-300 Cambridge, Massachusetts 02139

In the case of LICENSEE:

President Metabolix, Inc. 285 Commonwealth Ave. Boston, MA 02115

#### ARTICLE 15 - MISCELLANEOUS PROVISIONS

- 15.1 This Agreement shall be construed, governed, interpreted and applied in accordance with the laws of the Commonwealth of Massachusetts, U.S.A., except that questions affecting the construction and effect of any patent shall be determined by the law of the country in which the patent was granted.
- 15.2 The parties hereto acknowledge that this Agreement sets forth the entire Agreement and understanding of the parties hereto as to the subject matter hereof, and shall not be subject to any change or modification except by the execution of a written instrument subscribed to by the parties hereto.
- 15.3 The provisions of this Agreement are severable, and in the event that any provisions of this Agreement shall be determined to be invalid or unenforceable under any controlling body of the law, such invalidity or unenforceability shall not in any way affect the validity or enforceability of the remaining provisions hereof.
- \* CONFIDENTIAL TREATMENT REQUESTED

17

15.4 The failure of either party to assert a right hereunder or to insist upon compliance with any term or condition of this Agreement shall not constitute a waiver of that right or excuse a similar subsequent failure to perform any such term or condition by the other party.

IN WITNESS WHEREOF, the parties have duly executed this Agreement the day and year set forth below.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

By /s/ J.D. Litster

Name J.D. Litster

Title Vice President for Research

-----

Date July 15, 1993

METABOLIX, INC.

By /s/ Edward M. Muller

-----

Name Edward M. Muller

Title Chief Executive Officer

TICLE ONICH EXCOURTS OF THE

Date 7/15/93

-----

\* CONFIDENTIAL TREATMENT REQUESTED

18

## APPENDIX A - PATENT RIGHTS

# UNITED STATES PATENT RIGHTS

M.I.T. Case No. 4403

"Method for Producing Novel Polyester Biopolymers"

By Oliver P. Peoples and Anthony J. Sinskey

USSN 566,535 08/13/90 USSN 700,109 05/08/91 USSN 944,488 09/14/92 USSN 944,839 09/14/92 USSN 944,881 09/14/92 Application Filed 06/03/93

#### FOREIGN PATENT RIGHTS

Japan application filed 07/10/90 EPC SN 88908449.7 filed 07/10/90 CANADA filed 07/10/90

#### INVENTION DISCLOSURES

M.I.T. Case No. 6113

"Polymerase Technology for the Production of Long Chain and Short Chain Polymers"

By: Tillman Gerngross, Oliver P. Peoples, Anthony J. Sinskey and Simon F. Williams

M.I.T. Case No. 5977

"Antibodies to A. eutrophus H16 PHB Synthase" By: Anthony J. Sinskey and Oliver P. Peoples

M.I.T. Case No. 6010

"Use of PHA Polymerases to Detect, Modify or Control Formation PHA's in Plants, Animals or Other Biological Systems"
By: Oliver P. Peoples and Anthony J. Sinskey

M.I.T. Case No. 6086

"Anti-Short-Chain Polyhydroxyalkanoate Monoclonal Antibodies" By: Oliver P. Peoples, Anthony J. Sinskey and Simon F. Williams

\* CONFIDENTIAL TREATMENT REQUESTED

19

MASSACHUSETTS INSTITUTE OF TECHNOLOGY 28 CARLTON STREET, ROOM E32-300 CAMBRIDGE, MA 02142-1324

TECHNOLOGY LICENSING OFFICE

TELEPHONE: (617) 253-8088 FACSIMILE: (617) 258-8790 TELEX: 921473 MIT CAM

August 10, 1993

Mr. Edward M. Muller Metabolix Inc. P.O. Box 695 Cambridge, MA 02142

LETTER OF AMENDMENT (FIRST AMENDMENT)

Dear Ed;

This is in response to your letter of July 21 concerning the M.I.T./Metabolix License Agreement dated July 15, 1993.

We hereby recognize that the following M.I.T. Cases

No. 5977

"Antibodies to A. EUTROPHUS H16 PHB Synthase" By Anthony J. Sinskey and Oliver P. Peoples

No. 6010

"Use of PHA Polymerases to Detect, Modify or Control Formation PHA's in Plants, Animals or Other Biological Systems"
By Oliver P. Peoples and Anthony J. Sinskey

No. 6086

"Anti-Short-Chain Polyhydroxyalkanoate Monoclonal Antibodies" By Oliver P. Peoples, Anthony J. Sinskey, and Simon F. Williams

were waived by M.I.T. to the inventors and are therefore no longer the property of M.I.T.

\* CONFIDENTIAL TREATMENT REQUESTED

20

This letter therefore amends the License Agreement to remove these cases from the PATENT RIGHTS of Appendix A.

Please sign and return one copy of this letter acknowledging this Amendment for Metabolix.

Sincerely,

/s/ Lita L. Nelson

Lita L. Nelsen Director

LLN/ak

5977.6010.6086.Metabolix.agt.810

ACKNOWLEDGED by:

METABOLIX, INC.

By: /s/Edward M. Muller

-----

Name: Edward M. Muller

\_\_\_\_\_

Title: Chief Executive Officer

-----

Date: August 23, 1993

-----

\* CONFIDENTIAL TREATMENT REQUESTED

21

#### SECOND AMENDMENT

This Second Amendment with the effective date of March 6, 1995 is to the License Agreement dated July 15, 1993, between MASSACHUSETTS INSTITUTE OF TECHNOLOGY and METABOLIX, INC.

The parties thereto now further agree as follows:

1. The PATENT RIGHTS of M.I.T. Case 6726 "Overproduction of Soluble PHA Synthase" by Oliver P. Peoples, et al., shall be jointly owned by the parties. Inventor Oliver P. Peoples, an employee of Metabolix, shall assign his rights in the invention jointly to M.I.T. and Metabolix, recognizing that his work on this invention was performed at both institutions. As of the date of this amendment, these PATENT RIGHTS consist of:

U.S.S.N. 290131, Filed 08/12/94

- 2. M.I.T.'s rights in the PATENT RIGHTS of this case shall be added to the PATENT RIGHTS of the License Agreement, thereby granting Metabolix an exclusive license to these PATENT RIGHTS.
- 3. Metabolix shall reimburse M.I.T. for all of its out-of-pocket costs incurred for filing and prosecution of these PATENT RIGHTS.
- 4. After execution of this Amendment, Metabolix shall assume responsibility for prosecution of M.I.T. Case 6726, at its own expense, keeping M.I.T. informed of its actions. M.I.T. agrees that Metabolix may abandon all or a portion of the PATENT RIGHTS at Metabolix's own discretion.

Agreed to for:

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

By: /s/Lita L. Nelson

-----

Name: Lita L. Nelson

-----

Title: Director, Technology Licensing Office

Date: March 31, 1995

-----

METABOLIX, INC.

By: /s/ Edward M. Muller

Name: Edward M. Muller

-----

Title: President

-----

Date: March 14, 1993

------

\* CONFIDENTIAL TREATMENT REQUESTED

22

## THIRD AMENDMENT

This Amendment with the effective date of March 6, 1995 is to the License Agreement dated July 15, 1993 between MASSACHUSETTS INSTITUTE OF TECHNOLOGY and METABOLIX, INC.

The parties thereto now further agree as follows:

- 1. The PATENT RIGHTS of M.I.T. Case 6867 Polyhydroxyalkanoates of Higher Molecular Weight and Control of the Molecular Weight of Polyhydroxyalkanoates by Modulation of Polyhydroxyalkanoate Synthase by Chokyun Rha, Anthony J. Sinskey, and K.D. Snell shall be added to the PATENT RIGHTS of the License Agreement under all the terms and conditions of the License Agreement.
- 2. Metabolix shall reimburse M.I.T. for all costs incurred in the filing, prosecution and maintenance of the PATENT RIGHTS of this case. M.I.T. shall consult with Metabolix on foreign filing of the PATENT RIGHTS of this case and shall file and prosecute foreign patents only upon Matabolix's request.
- 4. Metabolix shall pay to M.I.T. a license issue fee of \* for Case 6867. No additional license maintenance fees or royalties shall be due other than those specified in the License Agreement.

Agreed to for:

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

By: /s/Lita L. Nelson

-----

Name: Lita L. Nelson

-----

Title: Director, Technology Licensing Office

-----

Date: March 31, 1995

-----

METABOLIX, INC.

By: /s/ Edward M. Muller

Name: Edward M. Muller

- - - - - - - - - - - - - - - - - - -

Title: President

-----

Date: March 14, 1993

-----

\* CONFIDENTIAL TREATMENT REQUESTED

#### FOURTH AMENDMENT

This Fourth Amendment, effective as of the date set forth above the signatures of the patties below, amends the License Agreement dated July 15, 1993, as amended ("7/15/93 LICENSE AGREEMENT") between the Massachusetts Institute of Technology ("M.I.T.") and Metabolix, Inc. ("LICENSEE").

WHEREAS, LICENSEE and M.I.T. wish to modify the provisions of the 7/15/93 LICENSE AGREEMENT.

NOW, THEREFORE, in consideration of the premises and mutual covenants contained herein, the parties hereby agree to modify the 7/15/93 LICENSE AGREEMENT as follows:

1. Section 2.6 shall be deleted and replaced with the following:

LICENSEE shall have the right to enter into sublicensing agreements for the rights, privileges and licenses granted hereunder. In addition, LICENSEE may grant any sublicensee the right to sublicense to third parties any or all of the rights, privileges and licenses granted to such sublicensee and such third party sublicenses may also include the right to sublicense.

Upon any termination of this Agreement, the rights of all sublicensees shall also terminate, subject to Paragraph 13.6 hereof.

Section 13.6 shall be deleted and replaced with the following:

Upon termination of this Agreement for any reason, any of LICENSEE's direct sublicensees that are not then in default shall have the right to seek a license from M.I.T. M.I.T. agrees to negotiate such licenses in good faith under reasonable terms and conditions. Notwithstanding the foregoing, should Tepha, Inc. request a license, M.I.T. hereby agrees to grant such a license under terms and conditions no less favorable as a whole than those granted to Tepha, Inc. by LICENSEE.

3. The final paragraph of Section 4.1(d) shall be deleted and replaced with the following:

The royalties due under this Section 4.1(d) shall apply to revenue received by LICENSEE from any and all sublicenses, regardless of whether the sublicense is granted by LICENSEE, or by any sublicensee or any of their sublicensees. In no case shall the revenue paid to M.I.T. for each sublicense be less than \* of the sales value of the LICENSED PRODUCTS made, used or sold by that sublicensee.

\* CONFIDENTIAL TREATMENT REQUESTED

24

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

THE EFFECTIVE DATE OF THIS FOURTH AMENDMENT IS SEPTEMBER 29, 2002.

MASSACHUSETTS INSTITUTE OF

METABOLIX, INC.

TECHNOLOGY

By: /s/Lita L. Nelson By: /s/James J. Barber

Name: Lita L. Nelson Name: James J. Barber

Title: Director, Technology Licensing Office Title: President

\* CONFIDENTIAL TREATMENT REQUESTED

25

## FIFTH AMENDMENT

This Fifth Amendment, effective as of July 6, 2005, pertains to the Exclusive Patent License Agreement, effective on July 15, 1993, by and between the Massachusetts Institute of Technology ("M.I.T.") and Metabolix, Inc. ("COMPANY").

WHEREAS, COMPANY now wishes the License Agreement to include only M.I.T. case numbers 4403 ("Genes Encoding B-Ketothiolase And Acetoacetyl-Coa Reductase,") and 6867 ("Polyhydroxyalkanoates Of Higher Molecular Weight And

Control Of The Molecular Weight Of Polyhydroxyalkanoates By Modulation Of Polyhydroxyalkanoate Synthase Activity");

WHEREAS, COMPANY therefore wishes to remove from the License Agreement M.I.T case numbers 6113, "Polymerase Technology For The Production Of Long Chain And Short Chain Polyesters" and 6726, "Overexpression And Purification Of The Soluble Polyhydroxyalkanoate Synthase From Alcaligenes Eutrophus Evidence For A Required Post-Translational Modification For Catalytic Activity";

NOW, THEREFORE, M.I.T. and COMPANY hereby agree to modify the Exclusive Patent License Agreement as follows:

M.I.T. case numbers 6113 and 6726 are removed from the Agreement, and COMPANY is not responsible for costs incurred on these cases after July 6, 2005.

All other terms and conditions of the Exclusive Patent License Agreement shall remain unchanged.

THE AMENDMENT EFFECTIVE DATE IS JULY 6, 2005.

Agreed to for:

MASSACHUSETTS INSTITUTE OF

**TECHNOLOGY** 

METABOLIX, INC.

By: /s/Lita L. Nelson

By: /s/James J. Barber

Name: Lita L. Nelson

Name: James J. Barber

Title: Director, Technology Licensing Office

Title: President

\* CONFIDENTIAL TREATMENT REQUESTED

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

#### COMMERCIAL ALLIANCE AGREEMENT

This Commercial Alliance Agreement (the "Agreement") dated as of July 12, 2006 (the "Effective Date") is entered into by and among ADM Polymer Corporation, a corporation duly incorporated and validly existing under the laws of the State of Delaware, with headquarters located at 4666 Faries Parkway, Decatur, IL 62526 ("ADM Sub"), Metabolix, Inc., a corporation duly incorporated and validly existing under the laws of the State of Delaware, with headquarters located at 21 Erie Street, Cambridge, MA 02139-4260 ("MBX") and ADM / Metabolix Sales Company, LLC, a limited liability company duly formed and validly existing under the laws of the State of Delaware, with headquarters located at 21 Erie Street, Cambridge, MA 02139-4260 (the "Joint Sales Company") (MBX, ADM Sub, and the Joint Sales Company are each a "Party" and are collectively, the "Parties").

#### **RECITALS**

WHEREAS, ADM Sub is a wholly owned subsidiary of Archer-Daniels-Midland Company ("ADM");

WHEREAS, MBX and ADM Sub are parties to that certain Technology Alliance and Option Agreement dated November 3, 2004 (the "Technology Alliance and Option Agreement") pursuant to which the Parties conducted a mutual assessment of the technical and commercial feasibility of commercializing PHA Material (as defined below);

WHEREAS, MBX granted to ADM Sub the option (the "Commercial Alliance Option"), on the terms and conditions set forth in the Technology Alliance and Option Agreement, to enter into a broader commercial alliance as set forth herein and in the Commercial Alliance Agreements (as defined below) regarding the manufacture, use and sale of PHA Material;

WHEREAS, the conditions to ADM Sub's exercise of the Commercial Alliance Option have been satisfied and ADM Sub has exercised the Commercial Alliance Option in accordance with the Technology Alliance and Option Agreement; and

WHEREAS, as a result of ADM Sub's exercise of the Commercial Alliance Option, MBX and ADM Sub are, as of the date hereof, forming the Joint Sales Company to assist in the commercialization of the PHA Material and PHA Formulations, enter into this Agreement and the remaining Commercial Alliance Agreements in order to establish and begin operation of the broader commercial alliance, all on the terms and conditions set forth herein and in the remaining Commercial Alliance Agreements.

NOW, THEREFORE, in consideration of the recitals and the mutual covenants and promises contained herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereto do hereby agree as follows.

\* CONFIDENTIAL TREATMENT REQUESTED

# ARTICLE 1 DEFINITIONS

"ADM SUB ALLIANCE TECHNOLOGY" means any Technology developed, conceived or reduced to practice during the course of performance of the Commercial Alliance, solely by employees of, or consultants to, ADM Sub or its Affiliates, including without limitation, employees of ADM Sub or its Affiliates who are providing services to the Joint Sales Company under any of the Commercial Alliance Agreements (alone or jointly with a Third Party), with or without the material use of any MBX Technology or Joint Alliance Technology. Technology that is within the meaning of the term "ADM Program Technology" (as that term is defined in the Technology Alliance and Option Agreement) is hereby deemed to be included within the term "ADM Sub Alliance Technology." For the purposes of this definition, employees of or consultants to the Joint Sales Company (other than employees of ADM Sub or its Affiliates who are providing services to the Joint Sales Company under any of the Commercial Alliance Agreements) will be deemed to be employees of both ADM Sub and MBX. Notwithstanding the foregoing, Unfunded Technology shall not be included as part of the ADM Sub Alliance Technology.

"ADM SUB BACKGROUND TECHNOLOGY" means any Technology that is Controlled by ADM Sub: (i) as of the Effective Date or (ii) developed, conceived or reduced to practice solely by employees of, or consultants to, ADM Sub or its Affiliates in the conduct of activities outside of the Commercial Alliance, without the material use of any MBX Technology or Alliance Technology. Technology that is within the meaning of the term "ADM Program Technology" (as that term is defined in the Technology Alliance and Option Agreement) is hereby deemed not to be included within the term "ADM Sub Background Technology."

"ADM SUB CONSTRUCTION MASTER PLAN AND BUDGET" shall have the meaning set forth in the Technology Alliance and Option Agreement.

"ADM SUB FORMULATION ENGINEER" shall have the meaning set forth in Section 4.3.3.

"ADM SUB MANUFACTURING AGREEMENT" shall have the meaning set forth in Section 2.1.1.

"ADM SUB MANUFACTURING FACILITY" shall have the meaning set forth in Section 4.1.

"ADM SUB PATENT RIGHTS" means any Patent Rights Controlled by ADM Sub and claiming or covering the ADM Technology.

"ADM SUB PROPRIETARY MATERIALS" means any Proprietary Materials Controlled by ADM Sub and used by ADM Sub, provided by ADM Sub for use, or necessary or useful in the Commercial Alliance.

"ADM SUB SERVICES AGREEMENT" shall have the meaning set forth in Section 2.1.1.

"ADM TECHNOLOGY" means, collectively, ADM Sub Proprietary Materials, ADM Sub Background Technology and ADM Sub Alliance Technology.

"AFFILIATE" of a Person means any other Person that directly, or indirectly through one or more intermediaries, controls, is controlled by or is under common control with such Person. "Control" and, with correlative meanings, the terms "controlled by" and "under common control

#### \* CONFIDENTIAL TREATMENT REQUESTED

2

with" shall mean the power to direct or cause the direction of the management or policies of a Person, whether through the ownership of voting securities, by contract, resolution, regulation or otherwise. The Joint Sales Company is hereby deemed not to be an Affiliate of ADM, ADM Sub or MBX. Tepha, Inc. is hereby deemed not to be an Affiliate of MBX.

"ALLIANCE TECHNOLOGY" means ADM Sub Alliance Technology, Joint Alliance Technology and MBX Alliance Technology

"BUSINESS DAY" means a day of the year on which banks are not required to be closed in New York, New York.

"CALENDAR QUARTER" shall mean each of the following periods in each year: (i) January 1 through March 31, (ii) April 1 through June 30, (iii) July 1 through September 30 and (iv) October 1 through December 31.

"CAPITAL CONTRIBUTION" shall have the meaning set forth in the Operating Agreement.

"COMMERCIAL ALLIANCE" means the research, development and commercial activities to be conducted by the Parties as set forth herein, including without limitation, the Pilot Activities, the manufacturing, formulation, marketing, distribution and sale of PHA Material and PHA Formulations, the planning, construction and maintenance of the ADM Sub Manufacturing Facility and the MBX Formulation Facility, the establishment and operation of the Joint Sales Company and the evaluation of the Expansion Proposal and potential exercise of the Joint Venture Option.

"COMMERCIAL ALLIANCE AGREEMENTS" means this Agreement and the ADM Sub Manufacturing Agreement, the MBX Formulation Agreement, the Operating Agreement, the ADM Sub Services Agreement, the MBX Services Agreement, the Consolidated Confidentiality Agreement and the Loan and Security Agreement.

"COMMERCIAL ALLIANCE OPTION" shall have the meaning set forth in the above recitals.

"COMMERCIAL PHASE" shall mean the period commencing upon the date of the

First Commercial Sale of a PHA Material, produced in the ADM Sub Manufacturing Facility, to a Third Party by the Joint Sales Company, and expiring upon the expiration or termination of this Agreement.

"COMMERCIALLY REASONABLE EFFORTS" shall mean, with respect to the efforts to be applied by a Party in performing a referenced obligation hereunder, the amount and quality of effort and resources that would be applied by a reasonable manager or management team at a corporation having comparable expertise and assets as such Party, to accomplish a task or to perform an obligation having comparable relative importance to the success or failure of a commercial enterprise that is comparable to the Commercial Alliance. For purposes of this definition, a commercial enterprise would be comparable to the Commercial Alliance if it poses similar anticipated technical and business risks or challenges and similar anticipated financial return to the Parties as measured at the time of the expenditure of the effort. When ADM Sub has an obligation to use "Commercially Reasonable Efforts" herein, the following shall apply: (i) the

\* CONFIDENTIAL TREATMENT REQUESTED

3

term "Commercially Reasonable Efforts" shall be defined as it is in this definition but by reference to ADM Sub and ADM as if they were a single entity, and (ii) in determining whether ADM Sub have satisfied its obligations, the efforts applied by and ADM Sub and ADM shall both be taken fully into account.

"CONFIDENTIAL INFORMATION" means: (a) all tangible embodiments of Technology produced or discovered by either Party or jointly by one or more Parties under the Commercial Alliance Program, and all information concerning the terms of this Agreement, and (b) with respect to a Party (the "Receiving" Party"), all information, Technology and Proprietary Materials which are disclosed by any other Party (the "Disclosing Party") to the Receiving Party hereunder or to any of its employees, consultants, or Affiliates; except to the extent that the information, (i) as of the date of disclosure is demonstrably known to the Receiving Party or its Affiliates, as shown by written documentation, other than by virtue of a prior confidential disclosure to such Party or its Affiliates; (ii) as of the date of disclosure is in, or subsequently enters, the public domain, through no fault or omission of the Receiving Party, or any of its Affiliates; (iii) is obtained from a Third Party having a lawful right to make such disclosure free from any obligation of confidentiality to the Disclosing Party; or (iv) is independently developed by or for the Receiving Party without reference to or reliance upon any Confidential Information of the Disclosing Party as demonstrated by competent written records.

"CONSTRUCTION" AND "CONSTRUCT" shall mean, in respect to a building, the activities, and their performance, that are usual and appropriate to create a completed facility that: (i) is in all material respects in compliance with all material safety, health, zoning, environmental and other regulations and laws applicable to it whether such applicability is based on its location, physical dimensions and attributes, its intended uses or otherwise and (ii) is designed to enable and support state-of-the-art operations pertaining to its intended purpose. The terms "Construction" and "Construct" shall include the following activities and their performance with respect to a facility: planning, designing, engineering, construction, procurement, equipping and acquiring the necessary permits.

"CONSTRUCTION COSTS" are those reasonable costs and expenses that are actually incurred by either ADM or ADM Sub in connection with the Construction of the ADM Sub Manufacturing Facility, or MBX in connection with the Construction or acquisition of the MBX Formulation Facility, in either case, as and to the extent such costs and expenses were: (i) reasonably incurred in Construction consistent with the plans, designs, engineering and budget in the ADM Sub Construction Master Plan and Budget as approved by the TAC as provided in the Technology Alliance and Option Agreement (or as approved by the Steering Committee pursuant to Section 4.2.2), or the MBX Facility Master Plan and Budget (as applicable), (ii) reasonably incurred in Construction consistent with the plans, designs, engineering and budget in any amended ADM Sub Construction Master Plan and Budget or the MBX Facility Master Plan and Budget (as applicable), which amendments were approved by the Steering Committee to the extent required herein; or (iii) were otherwise designated by the Steering Committee as Construction Costs. Without limiting the foregoing, the Steering Committee shall not approve as Construction Costs costs and expenses which it determines are excessive in amount, or costs and expenses that relate to improvements of existing facilities, or features of new facilities, to the extent such improvements or features are not for the benefit for the Commercial Alliance.

"CONSTRUCTION PHASE" means the period commencing upon the Effective Date and expiring upon the first to occur of: (i) the date of the First Commercial Sale of a PHA Material (including, without limitation, PHA Material that is contained within PHA Formulations) produced in the ADM Sub Manufacturing Facility, to a Third Party by the Joint Sales Company and (ii) the termination of this Agreement.

"CONTROL" OR "CONTROLLED" means (a) with respect to Technology (other than Proprietary Materials) or Patent Rights, the possession by a Party of the ability to grant a license or sublicense to such Technology or Patent Rights as provided herein without violating the terms of any agreement or arrangement between such Party and any Third Party, and (b) with respect to Proprietary Materials, the possession by a Party of the ability to supply such Proprietary Materials to the other Party for use as provided herein without violating the terms of any agreement or arrangement between the supplying Party and any Third Party. A Party shall be deemed not to "Control" any Technology, Patent Rights or Proprietary Materials of any other Party solely by virtue of rights therein, or possession thereof, that was granted or acquired solely in accordance with this Agreement or any other Commercial Alliance Agreement.

"DEFENDING PARTY" shall have the meaning set forth in Section 11.3.1.

"EFFECTIVE DATE" means the date first above written.

"EXCLUSIVE PERIOD" shall mean that period of time commencing upon the Effective Date and continuing until the first to occur of: (i) the JV Option expiring without having been exercised by ADM Sub and (ii) the end of the Term.

"EXPANSION PROPOSAL" shall have the meaning set forth in Section 9.1.1.

"FERMENTATION AND RECOVERY PROCESS" means the process used to produce fermentation broth containing PHA Material, to produce PHA Cell Paste from fermentation broth, and to recover PHA Material from such PHA Cell Paste using solvent and aqueous recovery processes.

"FIELD" means the research, development, manufacture, use, sale and importation of PHA Material and PHA Formulations; provided that the Field shall not include any uses that are within the "Field of Use" as that term is defined in the License Agreement by and between MBX and Tepha, Inc. dated October 1, 1999, as amended on December 17, 2002.

"FIRST COMMERCIAL SALE" means the sale of not less than 1,000,000 pounds of PHA Material (including, without limitation, PHA Material that is contained within PHA Formulations) manufactured in the ADM Sub Manufacturing Facility, that meets the then-current specifications for PHA Material, to Third Parties, who are satisfied with the quality, and who purchased the PHA Material in greater than sample quantities for commercial use.

"FUNDED TECHNOLOGY" shall have the meaning set forth in Section 4.4.1.

"INFRINGEMENT" shall have the meaning set forth in Section 11.3.1.

\* CONFIDENTIAL TREATMENT REQUESTED

5

"JOINT ALLIANCE TECHNOLOGY" means Technology developed, conceived or reduced to practice jointly by employees of, or consultants to, ADM Sub on the one hand, and MBX on the other, (in either case, with or without a Third Party) during the course of performance of the Commercial Alliance. Technology that is within the meaning of the term "Joint Program Technology" (as that term is defined in the Technology Alliance and Option Agreement) is hereby deemed to be included within the term "Joint Alliance Technology." For the purposes of this definition, employees of the Joint Sales Company, excluding employees of ADM, ADM Sub or MBX who are providing services to the Joint Sales Company under the ADM Sub Services Agreement or the MBX Services Agreement, will be deemed to be employees of both ADM Sub and MBX. Notwithstanding the foregoing, Unfunded Technology shall not be included as part of Joint Alliance Technology.

"JOINT VENTURE" shall have the meaning set forth in Section 9.1.1.

"JOINT VENTURE ENTITY" shall have the meaning set forth in Section 9.1.1.

"JV OPTION" shall have the meaning set forth in Section 9.1.

"KNOWLEDGE means, with respect to MBX, the actual knowledge and awareness, without the requirement of investigation, of any of the following four (4)

members of MBX management: President and CEO, Chief Scientific Officer, Chief Financial Officer and Director of Manufacturing and Development, without the requirement of investigation, and, with respect to ADM Sub, the actual knowledge and awareness, without the requirement of investigation, of any of the following nine (9) members of ADM management: Senior Vice President (Corn Processing and Food Specialties), President of Natural Health & Nutrition Division, Assistant Controller, Corporate Counsel - Intellectual Property, Senior Attorney, Senior Vice President Venture Research, Vice President Technology Assessment, President of ADM Research Division, and Vice President of Research, Molecular Biology - Fermentation.

"LICENSE FEE" shall have the meaning set forth in Section 7.2.3.

"LIMITED SUBLICENSE RIGHT" means that with respect to a particular license of rights that the licensee shall have no right to sublicense or otherwise enable a Third Party to perform or participate in the performance of the Fermentation and Recovery Process, or any part thereof, but that the licensee shall have the right otherwise to grant sublicenses of such licensed rights, and further that the Joint Sales Company shall have the right to contract with Third Parties to conduct Pilot Sourcing as per Section 4.4.2, and the licensee shall have the right to contract with Third Parties to troubleshoot, consult, or further develop aspects of the Fermentation and Recovery Process, provided that the licensee shall pursuant to a written agreement with such third party own all Technology arising from such contracted activity. Notwithstanding the foregoing, the licensee shall not transfer or convey any cell line constituting part of the MBX Proprietary Materials to any Third Party.

\* CONFIDENTIAL TREATMENT REQUESTED

6

"LOAN AND SECURITY AGREEMENT" shall have the meaning set forth in Section 2.1.1.

"MANUFACTURING COST" shall have the meaning set forth in the ADM Sub Manufacturing Agreement.

"MBX ALLIANCE TECHNOLOGY" means any Technology developed, conceived or reduced to practice during the course of performance of the Commercial Alliance, solely by employees of, or consultants to, MBX or its Affiliates, including without limitation, employees of MBX or its Affiliates who are providing services to the Joint Sales Company under any of the Commercial Alliance Agreements (alone or jointly with a Third Party), with or without the material use of any ADM Technology or Joint Alliance Technology. Technology that is within the meaning of the term "MBX Program Technology" (as that term is defined in the Technology Alliance and Option Agreement) is hereby deemed to be included within the term "MBX Alliance Technology." For the purposes of this definition, employees of or consultants to the Joint Sales Company (other than employees of MBX or its Affiliates who are providing services to the Joint Sales Company under any of the Commercial Alliance Agreements) will be deemed to be employees of both ADM Sub and MBX. Notwithstanding the foregoing, Unfunded Technology shall not be included as part of MBX Alliance Technology.

"MBX APPLICATIONS PATENT RIGHTS" means and Patent Rights Controlled by MBX that claim or cover specific uses, within the Field, of PHA Materials or PHA Formulations.

"MBX BACKGROUND TECHNOLOGY" means any Technology that is Controlled by MBX: (i) as of the Effective Date or (ii) developed, conceived or reduced to practice solely by employees, of, or consultants to, MBX or its Affiliates in the conduct of activities outside of the Commercial Alliance, without the material use of any ADM Technology or Alliance Technology. Technology that is within the meaning of the term "MBX Program Technology" (as that term is defined in the Technology Alliance and Option Agreement) is hereby deemed not to be included within the term "MBX Background Technology."

"MBX FACILITY MASTER PLAN AND BUDGET" shall have the meaning set forth in Section 4.3.2.

"MBX FORMULATION AGREEMENT" shall have the meaning set forth in Section 2.1.1.  $\,$ 

"MBX FORMULATION FACILITY" shall have the meaning set forth in Section 4.1.

"MBX PATENT RIGHTS" means any Patent Rights Controlled by MBX and claiming or covering the MBX Technology, including without limitation, the MBX Applications Patent Rights.

"MBX PROPRIETARY MATERIALS" means any Proprietary Materials Controlled by MBX and used by MBX, provided by MBX for use, or necessary or useful in the Commercial Alliance. MBX Proprietary Materials shall include, without limitation, all PHA Material and PHA Formulations supplied as samples to ADM or ADM Sub, all cell lines (including all master stocks and working stock whether prepared by ADM or ADM Sub or MBX) and all fermentation media, supplied by MBX to ADM or ADM Sub, and all progeny, derivatives and mutated forms developed therefrom.

#### \* CONFIDENTIAL TREATMENT REQUESTED

7

"MBX SERVICES AGREEMENT" shall have the meaning set forth in Section 2.1.1.

"MBX TECHNOLOGY" means, collectively, MBX Proprietary Materials, MBX Background Technology and MBX Alliance Technology.

"MBX TECHNOLOGY MANAGER" shall have the meaning set forth in Section 4.2.3.

"MIT LICENSE" means that certain License Agreement dated July 15, 1993 by and between MBX and Massachusetts Institute of Technology, as amended.

"NEUTRAL PARTY" shall have the meaning set forth in Section 11.3.1.

"NON-EXCLUSIVE PERIOD" means that period of time during the Term following the end of the Exclusive Period.

"OFFEREE PARTY" shall have the meaning set forth in Section 9.7.

"OFFEROR PARTY" shall have the meaning set forth in Section 9.7.

"OPERATING AGREEMENT" shall have the meaning set forth in Section 2.1.1.

"OPERATING PAYMENT" AND "OPERATING PAYMENTS" shall each have the meaning set forth in Section 4.5 hereof.

"PATENT COMMITTEE" shall have the meaning set forth in Section 11.1.

"PATENT RIGHTS" means the rights and interests in and to issued patents and pending patent applications (which for purposes of this Agreement shall be deemed to include certificates of inventions and applications for certificates of invention and priority rights) in any country, including all provisional applications, substitutions, continuations, continuations-in-part, divisionals, and renewals, all letters patent granted thereon, and all reissues, reexaminations and extensions thereof, Controlled by a Party.

"PERMITTED ACTIVITIES" shall have the meaning set forth in Section 8.4.

"PERSON" means any individual, partnership (whether general or limited), limited liability company, corporation, trust, estate, association, nominee or other entity.

"PHA CELL PASTE" means the paste, containing the PHA Material, recovered from whole fermentation broth and meeting the specifications set forth in EXHIBIT H.

"PHA FORMULATIONS" means PHA Material that has been processed by blending different types of PHA Material together with other polymers and/or with other additives, including nucleants, clarifiers, flow modifiers, plasticizers, flame retardants and heat stabilizers.

# \* CONFIDENTIAL TREATMENT REQUESTED

8

"PHA KNOW-HOW MATERIAL" means PHA Material, the manufacture, use, sale or importation of which is accomplished or performed with the use of the MBX Technology or Joint Alliance Technology.

"PHA MATERIAL" means the following forms of polyhydroxyalkanoate: \* when produced by any means other than via Plants, and any other forms of polyhydroxyalkanoate, produced by any means other than via Plants, that are substitutable by any customer with one or more of the above substances, are generally technically and commercially feasible in the marketplace, and have a potential adverse affect on the sales or profitability of the Joint Sales Company in a material way. For avoidance of doubt, any PHB copolymers having at least fifty percent (50%) of the \* when produced by any means other than

via Plants, are hereby deemed to be included in the definition of PHA Material.

"PHA PATENTED MATERIAL" means PHA Material, the manufacture, use, sale or importation of which within or into the United States by a Person other than MBX, absent the licenses granted herein, would infringe a Valid Claim of the MBX Patent Rights or a Valid Claim within Patent Rights claiming or covering any Technology within the Joint Alliance Technology.

"PHA-RELATED MATERIALS" means any polymer material consisting of one or more hydroxyacids of the general formula:

\*

"PHA SUPPLEMENTAL KNOW-HOW MATERIAL" means PHA Material, the manufacture, use, sale or importation of which is accomplished or performed with the use of a cell line Controlled by MBX and delivered by MBX to the Joint Sales Company at any time during the Term.

"PILOT ACTIVITIES" means the activities related to Pilot Sourcing as described in Section 4.4.2, the process development activities described in Section 4.4.1 and the sales activities described in Section 4.4.3.

"PILOT FACILITIES" means the facility, or facilities, at which the Pilot PHA Material is produced, purified, formulated and packaged for sale.

\* CONFIDENTIAL TREATMENT REQUESTED

9

"PILOT PHA MATERIAL" shall have the meaning set forth in Section 4.4.2.

"PILOT SOURCING" shall have the meaning set forth in Section 4.4.2.

"PILOT SOURCING COSTS" shall have the meaning set forth in Section 4.4.2.

"PLANTS" shall mean photosynthetic organisms when not raised through fermentation, but in any case excluding  $^{\star}$ . For avoidance of doubt,  $^{\star}$  is included within the definition of Plants.

"PROJECT TEAMS" shall have the meaning set forth in Section 3.4.

"PROJECTS" shall have the meaning set forth in Section 3.4.

"PROPRIETARY MATERIALS" means any tangible chemical, biological or physical research materials that are furnished by or on behalf of one Party to any other Party in connection with this Agreement, regardless of whether such materials are specifically designated as proprietary by the transferring Party.

"ROFN" shall have the meaning set forth in Section 7.4.

"ROFN RIGHTS" shall have the meaning set forth in Section 7.4.

"ROYALTY TERM" means that period commencing upon \* and continuing until the later of the expiration or termination of \* from the Effective Date.

"SECTION 7 BREACH" shall have the meaning set forth in Section 10.2.1.

"SENIOR EXECUTIVES" shall have the meaning set forth in Section 14.3.1.

"STRATEGIC ALLIANCE" shall have the meaning set forth in Section 3.1.1.

"STRATEGIC ALLIANCE PARTNER" shall have the meaning set forth in Section 3.1.1.

"STEERING COMMITTEE" shall have the meaning set forth in Section 3.1.

"SUPPLEMENTAL ROYALTY TERM" means that period commencing upon the delivery by MBX to ADM, ADM Sub or the Joint Sales Company of a cell line Controlled by MBX used in the production or manufacture of PHA Supplemental Know-How Material and ending upon the \* to occur of (i) the \*, and (ii) \* from the date of such delivery.

"TAC" shall have the meaning set forth in the Technology Alliance and Option Agreement.

\* CONFIDENTIAL TREATMENT REQUESTED

"TECHNOLOGY" means and includes all inventions, discoveries, improvements, trade secrets, know-how, trademarks, servicemarks, tradenames and proprietary methods and Proprietary Materials, whether or not patentable.

"TECHNOLOGY ALLIANCE AND OPTION AGREEMENT" shall have the meaning set forth in the above recitals.

"TECHNOLOGY TRANSFER" shall have the meaning set forth in Section 6.7.

"TERM" shall have the meaning set forth in Section 10.1.

"THIRD PARTY" shall mean any person, corporation, partnership or other entity other than the Parties and their respective Affiliates.

"THIRD PARTY ROYALTY OFFSET" shall have the meaning set forth in Section 9.8.4.

"UNFUNDED TECHNOLOGY" shall have the meaning set forth in Section 4.4.1.

"UNITS" shall have the meaning set forth in the Operating Agreement.

"VALID CLAIM" means a claim within a patent application or patent that has not been abandoned or finally determined to be unenforceable or invalid by a court or administrative agency with competent jurisdiction where all appeal rights have been exhausted or expired.

"50,000 TON ANNUAL DESIGN CAPACITY" shall have the meaning set forth in Section 4.2.1.

# ARTICLE 2 OVERVIEW AND COMMERCIAL ALLIANCE AGREEMENTS

- 2.1 OVERVIEW OF THE COMMERCIAL ALLIANCE. The purpose and goal of the Commercial Alliance is to advance and exploit the research, development and marketing activities undertaken by ADM Sub and MBX in the performance of the Technology Alliance and Option Agreement by combining, on a larger scale and for a longer term, ADM Sub's fermentation capabilities, market knowledge and capital with MBX's technology, formulation expertise, market knowledge and intellectual property rights and to create and establish a commercial outlet for PHA Material and PHA Formulations through the Joint Sales Company in order to create a commercial venture in the Field. The Commercial Alliance shall be conducted by MBX and ADM Sub, each on an individual basis and through their ownership and participation as members in the Joint Sales Company, all in accordance with this Agreement and the other Commercial Alliance Agreements.
- 2.1.1 COMMERCIAL ALLIANCE AGREEMENTS. Unless otherwise indicated below, the Parties, as of the Effective Date, have executed and delivered the following Commercial Alliance Agreements as provided for therein. The following summary description of the Commercial
- \* CONFIDENTIAL TREATMENT REQUESTED

11

Alliance Agreements is provided solely for informational purposes and is not to amend the terms set forth therein or to inform the interpretation of such terms.

- (a) OPERATING AGREEMENT. The operating agreement, executed and delivered by the Parties as of the Effective Date and appended hereto as Exhibit A (the "Operating Agreement"), is the agreement pursuant to which the Joint Sales Company was formed and shall operate and which defines the respective rights and obligations of MBX and ADM Sub as the members of the Joint Sales Company, all as and to the extent set forth therein and subject to the terms and conditions set forth therein.
- (b) ADM SUB MANUFACTURING AGREEMENT. The manufacturing agreement, executed and delivered by ADM Sub and the Joint Sales Company as of the Effective Date and appended hereto as Exhibit B (the "ADM Sub Manufacturing Agreement"), is the agreement pursuant to which ADM Sub shall manufacture PHA Material for the Joint Sales Company.
- (c) MBX FORMULATION AGREEMENT. The formulation agreement, which will be executed and delivered by MBX and the Joint Sales Company if and when MBX commences the Construction of the MBX Formulation Facility or acquires the MBX Formulation Facility, is appended hereto as Exhibit C (the "MBX Formulation Agreement"), and is the agreement pursuant to which MBX shall produce PHA Formulations for the Joint Sales Company from the PHA Material manufactured by ADM Sub.

- (d) ADM SUB SERVICES AGREEMENT. The services agreement, executed and delivered by ADM Sub and the Joint Sales Company as of the Effective Date and appended hereto as Exhibit D (the "ADM Sub Services Agreement"), is the agreement pursuant to which ADM Sub will provide services to the Joint Sales Company.
- (e) MBX SERVICES AGREEMENT. The services agreement, executed and delivered by MBX and the Joint Sales Company as of the Effective Date and appended hereto as Exhibit E (the "MBX Services Agreement"), is the agreement pursuant to which MBX will provide services to the Joint Sales Company.
- (f) LOAN AND SECURITY AGREEMENT. The loan and security agreement, executed and delivered by ADM Sub and the Joint Sales Company as of the Effective Date and appended hereto as Exhibit F (the "Loan and Security Agreement") is the agreement pursuant to which ADM Sub will make available to the Joint Sales Company a credit facility.

# ARTICLE 3 STEERING COMMITTEE; PROJECT TEAMS

- 3.1 STEERING COMMITTEE. MBX and ADM Sub hereby establish a joint steering committee (the "Steering Committee") to plan and oversee the establishment and activities of the Commercial Alliance in such instances where ADM Sub and MBX are acting on an individual basis and in such instances where ADM Sub and MBX are acting as members of the Joint Sales Company, all as further set forth herein.
- 3.1.1 RESPONSIBILITIES AND AUTHORITY OF THE STEERING COMMITTEE. The Steering Committee shall have the rights and obligations provided for herein, in the other Commercial Alliance Agreements and as agreed to by ADM Sub and MBX in writing from time-to-time
- \* CONFIDENTIAL TREATMENT REQUESTED

12

during the Term. Without limiting the foregoing, the Steering Committee shall have the general responsibility of (i) coordinating the planning and execution of the individual activities of ADM Sub and MBX in connection with the Commercial Alliance, including without limitation by controlling or participating (as specifically provided herein or in the other Commercial Alliance Agreements) in decision-making on both a strategic and tactical level, by assisting in setting priorities for performance and resource allocation, and by assisting in avoiding or resolving disputes among ADM Sub, MBX and the Joint Sales Company, and (ii) coordinating the planning and execution of the activities of ADM Sub and MBX as members of the Joint Sales Company, in all cases, subject to the right and authority of ADM Sub, MBX and the Joint Sales Company to make decisions and take actions required to perform their obligations hereunder and under the other Commercial Alliance Agreements in accordance herewith and therewith, including without limitation, those decisions and actions that are specifically identified as reserved to any of them hereunder or thereunder. Without limiting the foregoing, the following actions, designations and documents shall require the prior approval of the Steering Committee before such actions may be taken or before such designations or documents shall be valid and binding commitments:

- (a) the designation of costs and expenses incurred in connection with the Construction of the ADM Sub Manufacturing Facility (pursuant to Section 4.2.5) or the Construction or acquisition of the MBX Formulation Facility (pursuant to Section 4.3.5) as "Construction Costs" to be credited or debited against the Ledger Account, as that term is defined in the Operating Agreement, as and to the extent provided for in the Operating Agreement;
- (b) the appointment of the following key personnel: (i) ADM Sub Project Manager (to be nominated by ADM Sub), (ii) ADM Sub Manufacturing Manager (to be nominated by ADM Sub); (iii) MBX Technology Manager (to be nominated by MBX); (iv) Marketing and Sales Manager of the Joint Sales Company (to be nominated by MBX pursuant to the terms of the Operating Agreement) and (v) Assistant Marketing and Sales Manager of the Joint Sales Company (to be nominated by ADM Sub pursuant to the terms of the Operating Agreement);
- (c) the decision to contract with a Third Party to perform strategic, ongoing research, development or commercial activities with or on behalf of either Party or the Joint Sales Company in connection with the Commercial Alliance as part of a contractual relationship (such Third Party is a "Strategic Alliance Partner" and such contractual relationship is a "Strategic Alliance");

- (d) the establishment of strategic and operational plans for performance hereunder and under the other Commercial Alliance Agreements, the preparation and finalization of budgets for funding such performance, the establishment of high-level procedures and policies, including without limitation, accounting policies and procedures, in connection with such performance;
- (e) any action that requires the consent of the members to the Joint Sales Company, as specified in the Operating Agreement.
- 3.1.2 CERTAIN LIMITATIONS ON THE RESPONSIBILITIES AND AUTHORITY OF THE STEERING COMMITTEE. The Steering Committee shall have no authority to act on behalf of ADM, ADM Sub, MBX or the Joint Sales Company in connection with Third Parties. Without limiting
- \* CONFIDENTIAL TREATMENT REQUESTED

13

the foregoing, the Steering Committee shall have no authority to, and shall not purport to or attempt to: (i) negotiate agreements on behalf of ADM, ADM Sub, MBX or the Joint Sales Company, (ii) make representations or warranties on behalf of ADM, ADM Sub, MBX or the Joint Sales Company, (iii) waive rights of ADM, ADM Sub, MBX or the Joint Sales Company, (iv) extend credit on behalf of ADM, ADM Sub, MBX or the Joint Sales Company, or (v) take or grant licenses of intellectual property on behalf of ADM, ADM Sub, MBX or the Joint Sales Company.

- 3.1.3 DECISION-MAKING STANDARD FOR THE STEERING COMMITTEE. All decisions and other actions of the Steering Committee shall be made in good faith and with due care, after consideration of the information that is reasonably available to the Steering Committee, with the intention that: (i) the resulting decision or actions will conform to, or be consistent with, the provisions and requirements of this Agreement and the other Commercial Alliance Agreements and (ii) the resulting decision or action will maintain or increase the likelihood that ADM Sub, MBX and the Joint Sales Company will achieve the purposes and goal of the Commercial Alliance as set forth in Section 2.1. Without limiting the foregoing, the Steering Committee is expressly prohibited from taking into account interests of a Party, or of any members of the Steering Committee, other than their respective interests in achieving the purposes and goal of the Commercial Alliance as set forth in Section 2.1.
- 3.2 MEMBERSHIP OF STEERING COMMITTEE. ADM Sub and MBX shall each appoint an equal number of members to the Steering Committee (not to exceed five (5) members each), one of whom shall be designated by each of ADM Sub and MBX as its "Co-Chair." ADM Sub and MBX shall have the right at any time to substitute individuals, on a permanent or temporary basis, for any of its previously designated representatives to the Steering Committee, including its Co-Chair, by giving written notice thereof to the other Party. Initial designees to the Steering Committee shall be as follows:

For MBX: James Barber (Co-Chair)

Oliver Peoples

Thomas Auchincloss

Johan van Walsem

Robert Findlen

For ADM Sub: John Rice (Co-Chair)

Terry Stoa

Tom Binder

Kevin Moore

Nick Lawless

### 3.3 MEETINGS.

- 3.3.1 SCHEDULE OF MEETINGS. The Steering Committee shall establish a schedule of times for its meetings, taking into account, without limitation, the planning needs of the Commercial Alliance. The Steering Committee shall meet monthly unless otherwise agreed
- \* CONFIDENTIAL TREATMENT REQUESTED

upon by ADM Sub and MBX. Meetings shall also be convened upon the determination of either or both of the Co-Chairs of the Steering Committee by written notice (including notice via e-mail) thereof to their respective members that a meeting is required to discuss or resolve any matter or matters with respect to the Commercial Alliance. Meetings shall alternate between the respective offices of ADM Sub or MBX or another mutually agreed upon location; PROVIDED, HOWEVER, that the Co-Chairs of the Steering Committee may mutually agree to meet by teleconference or video conference or may act by a written memorandum signed by the Co-Chairs of the Steering Committee.

- 3.3.2 QUORUM; VOTING; DECISIONS. At each meeting of the Steering Committee, the participation of at least one member designated by each of ADM Sub and MBX shall constitute a quorum. Each Steering Committee member shall have one vote on all matters before the Steering Committee; PROVIDED, HOWEVER, that the member or members of each of ADM Sub and MBX present at any meeting shall have the authority to cast the votes of any of such Party's members who are absent from the meeting. All decisions of the Steering Committee shall be made by majority vote of all of the members, except when acting in its capacity as a representative committee of the members of the Joint Sales Company where unanimous consent of the members is required, in which case the decisions of the Steering Committee shall be made by unanimous vote of all of its members. Whenever any action by the Steering Committee is called for hereunder during a time period in which a meeting is not scheduled, the Co-Chairs shall cause the Steering Committee to take the action in the requested time period by calling a special meeting or by action without a formal meeting by written memorandum signed by both Co-Chairs of the Steering Committee. Representatives of each of ADM Sub and MBX, in addition to the members of the Steering Committee, may attend meetings as non-voting observers with prior notice to the other Party. In the event that the Steering Committee is unable to resolve any matter before it, such matter shall be resolved as set forth in Section 14.3 hereof.
- 3.3.3 MINUTES. A secretary shall be appointed to keep accurate minutes of the deliberations of the Steering Committee recording all proposed decisions and all actions recommended or taken. Drafts of such minutes shall be delivered to the Co-Chairs of the Steering Committee within a reasonable period of time not to exceed five (5) days after a Steering Committee meeting. Draft minutes shall be edited by ADM Sub and MBX and shall be issued in final form within a reasonable time not to exceed ten (10) days after the meeting only with their approval and agreement as evidenced by their signatures on the minutes. Responsibility for appointment of the secretary shall rotate annually between MBX and ADM Sub.
- 3.3.4 EXPENSES. MBX and ADM Sub shall each bear all expenses of their respective Steering Committee members related to their participation on the Steering Committee and attendance at Steering Committee meetings.
- 3.4 PROJECT TEAMS. ADM Sub and MBX, either: (i) acting through the Steering Committee, or (ii) as set forth herein or in the other Commercial Alliance Agreements, may, from time-to-time, form project teams to support the activities of the Steering Committee with respect solely to discrete, defined projects ("Projects") that are to be performed in support of, or as part of, the Commercial Alliance ("Project Teams"). Each Project Team shall function in accordance with the terms and conditions set forth herein, as set forth in the other Commercial Agreements or as otherwise agreed to by the Steering Committee in writing.
- \* CONFIDENTIAL TREATMENT REQUESTED

15

- 3.4.1 RESPONSIBILITIES AND AUTHORITY OF THE PROJECT TEAMS. Each Project Team shall have the rights and obligations provided for herein, in the other Commercial Alliance Agreements, or as expressly delegated to it by the Steering Committee in writing from time-to-time during the Term.
- 3.4.2 CERTAIN LIMITATIONS ON THE RESPONSIBILITIES AND AUTHORITY OF THE PROJECT TEAMS. The rights and authority of the Project Teams are derived from and are subordinate to the rights and authority of the Steering Committee. Without limiting the foregoing, no Project Team shall have any rights or authority to make decisions or take actions that are not directly related to the applicable Project and all Project Teams shall be subject to the same limitations as are applicable to the Steering Committee as set forth in Section 3.1.2.
- 3.4.3 DECISION-MAKING STANDARD FOR THE STEERING COMMITTEE. The Project Teams shall make decisions and take actions subject to the same standards as are applicable to the Steering Committee as set forth in Section 3.1.3 hereof.

3.5 MEMBERSHIP OF PROJECT TEAMS. Each Project Team shall be comprised of such number of members as is provided herein, in another Commercial Alliance Agreement or as provided by the Steering Committee. Unless otherwise mutually agreed by ADM Sub and MBX, any Project Team concerning the ADM Sub Manufacturing Facility shall be comprised of a majority of members appointed by ADM Sub, and any Project Team concerning the MBX Formulation Facility shall be comprised of a majority of members appointed by MBX. Project Team members may also be members of the Steering Committee. Each of ADM Sub and MBX shall have the right at any time to substitute individuals, on a permanent or temporary basis, for any of its previously designated representatives to a Project Team by giving written notice thereof to the other Party.

#### 3.6 MEETINGS.

- 3.6.1 SCHEDULE OF MEETINGS. Each Project Team shall establish a schedule of times for its meetings, taking into account, without limitation, the planning needs of the applicable Project. Meetings shall alternate between the respective offices of ADM Sub and MBX or another mutually agreed upon location; provided, however, that ADM Sub and MBX may mutually agree to meet by teleconference or video conference or may act by a written memorandum signed by the Co-Chairs of the Project Team.
- 3.6.2 QUORUM; VOTING; DECISIONS. At each meeting of a Project Team, the participation of at least one member designated by each of ADM Sub and MBX shall constitute a quorum. Each Project Team member shall have one vote on all matters before the Project Team; provided, however, that the member or members of each of ADM Sub and MBX present at any meeting shall have the authority to cast the votes of any of such Party's members who are absent from the meeting. Unless provided otherwise herein or in another Commercial Alliance Agreement, all decisions of the Project Team shall be made by majority vote of all of the members. Representatives of each of ADM Sub and MBX, in addition to the members of the Project Team, may attend meetings as non-voting observers with prior notice to the other Party. In the event that a Project Team is unable to resolve any matter before it, such matter shall be referred to the Steering Committee for resolution.
- 3.6.3 MINUTES. A secretary for each Project Team shall be appointed to keep accurate minutes of the deliberations of such Project Team recording all proposed decisions and
- \* CONFIDENTIAL TREATMENT REQUESTED

16

- all actions recommended or taken. Copies of such minutes shall be made available to the Steering Committee as it shall request.
- 3.6.4 EXPENSES. MBX and ADM Sub shall each bear all expenses of their respective Project Team members related to their participation on Project Teams and attendance at Project Team meetings.
- 3.6.5 REPORTS. Each Project Team shall produce such reports for the Steering Committee as the Steering Committee shall request from time-to-time.
- 3.7 BUSINESS INTEGRATION AND COORDINATION. ADM Sub and MBX, with and through the Commercial Alliance Business Team, subject to the terms and conditions of the Commercial Alliance Agreements, shall coordinate and integrate the efforts of the Parties to plan and execute manufacturing, formulation, marketing and sales activities in such a manner as to establish and maintain an efficient and profitable commercial operation.
- 3.7.1 COMMERCIAL ALLIANCE BUSINESS TEAM. The Parties shall form a Commercial Alliance Business Team (the "Commercial Alliance Business Team") to assist in the integration and coordination of the manufacturing, formulation, marketing and sales activities of the Parties. The Commercial Alliance Business Team shall be a Project Team of the Steering Committee and shall function, and otherwise be subject to, the provisions set forth in Sections 3.4 through 3.6, inclusive, except that decisions shall be made by unanimous agreement. The Commercial Alliance Business Team shall be composed of the Marketing and Sales Manager of the Joint Sales Company, the Assistant Marketing and Sales Manager of the Joint Sales Company, the ADM Sub Manufacturing Manager, the MBX Technology Manager and during the Construction Phase, the ADM Sub Project Manager. The Marketing and Sales Manager of the Joint Sales Company shall be the chair of the Commercial Alliance Business Team. The Commercial Alliance Business Team may be expanded by the Steering Committee in order to add persons with technical knowledge or to ensure the integration of key functional areas within the Commercial Alliance into the planning and coordination process.
- 3.7.2 BUSINESS PLANNING. The Commercial Alliance Business Team will have access to and review the plans and reports prepared by any established

Project Teams, ADM Sub and MBX relating to manufacturing, formulation and marketing the PHA Material and PHA Formulations. The Commercial Alliance Business Team will analyze such input and make reports or recommendations to the Board of the Joint Sales Company, the Steering Committee or other Project Teams, as appropriate, in order to ensure that: (i) complete, current and accurate information is available across relevant Project Teams and functional groups, (ii) the activities of any Project Teams do not conflict, and to the extent they are interdependent, they are appropriately coordinated and (iii) input from Third Parties, such as Strategic Alliance Partners, customer segments and key customers are adequately taken into account in planning, prioritizing and executing manufacturing, formulation, marketing and sales activities.

\* CONFIDENTIAL TREATMENT REQUESTED

17

# ARTICLE 4 CONSTRUCTION PHASE

- 4.1 OVERVIEW AND GOAL OF CONSTRUCTION PHASE. The primary goal of the Construction Phase is to prepare for the commercial launch of PHA Material and PHA Formulations manufactured in facilities owned by the Parties. In order to achieve this goal, the Parties will pursue the following primary objectives: (i) ADM Sub will arrange for and finance the construction of a facility in which it will manufacture PHA Material pursuant to the terms of the ADM Sub Manufacturing Agreement (the "ADM Sub Manufacturing Facility"), (ii) MBX will either arrange for and finance the acquisition or construction of a facility in which it will produce the PHA Formulations pursuant to the terms of the MBX Formulation Agreement (the "MBX Formulation Facility") or it will use Commercially Reasonable Efforts to arrange for other access to a facility in which a Third Party will produce the PHA Formulations pursuant to the terms of an agreement with the Joint Sales Company and (iii) MBX, acting in the name and on behalf of the Joint Sales Company, will establish the market for the PHA Material and PHA Formulations, in each case, with the support and participation of the other Parties and the Steering Committee and as more fully set forth herein and in the other Commercial Alliance Agreements.
- 4.2 CONSTRUCTION OF THE ADM SUB MANUFACTURING FACILITY. ADM Sub shall have primary responsibility for the Construction of the ADM Sub Manufacturing Facility consistent with the ADM Sub Construction Master Plan and Budget to produce PHA Material in accordance with the terms and conditions of the ADM Sub Manufacturing Agreement. MBX will have the right to actively participate in each of these activities, as set forth in more detail below, in order to assist ADM Sub in achieving the foregoing goal.
- 4.2.1 SPECIFICATIONS OF THE ADM SUB MANUFACTURING FACILITY. The ADM Sub Manufacturing Facility will be designed to produce, through microbial fermentation, approximately fifty thousand (50,000) tons of PHA Material, having an acceptable level of purity, during each twelve (12) month period, on an ongoing basis through a stable and robust operation, over a period of years. The Parties acknowledge that the actual production of PHA Material from the ADM Sub Manufacturing Facility will vary from year to year based upon multiple factors and variables. The designed capacity, irrespective of the actual production which may be achieved, is hereinafter defined as the "50,000 Ton Annual Design Capacity". ADM Sub will use Commercially Reasonable Efforts to Construct the ADM Sub Manufacturing Facility to enable and support state-of-the-art PHA Material manufacturing operations, consistent with the ADM Sub Construction Master Plan and Budget. ADM Sub shall proceed with the Construction in a manner intended to complete Construction of the ADM Sub Manufacturing Facility within twenty-four (24) to thirty-six (36) months following the Effective Date.
- 4.2.2 ADM SUB CONSTRUCTION MASTER PLAN AND BUDGET. In the event the ADM Sub Construction Master Plan and Budget was not developed pursuant to the Technology Alliance and Option Agreement, ADM Sub, in consultation with any appointed Project Team and the Metabolix Technology Manager, and with the assistance of such Third Party consultants as shall be approved by the Steering Committee, shall develop the ADM Sub Construction Master Plan and Budget and submit same to the Steering Committee for approval. ADM Sub
- \* CONFIDENTIAL TREATMENT REQUESTED

18

will use Commercially Reasonable Efforts to implement the ADM Sub Construction Master Plan and Budget. The ADM Sub Construction Master Plan and Budget shall be amended, from time to time, in an effort to ensure that it remains sufficiently accurate and complete so that if the activities called for in the ADM Sub Construction Master Plan and Budget were to be executed in accordance with its terms, ADM Sub would have satisfied all of its obligations hereunder with

respect to the Construction of the ADM Sub Manufacturing Facility. The ADM Sub Construction Master Plan and Budget shall also be subject to amendment in the event that ADM Sub reasonably expects that the total amount set forth in the budget within the ADM Sub Construction Master Plan and Budget will not be sufficient to fund the activities remaining to be performed under the ADM Sub Construction Master Plan and Budget. Such amendments will include an updated budget with a description and the amount of all additional costs and expenses that ADM Sub desires to have designated as Construction Costs. All amendments to the ADM Sub Construction Master Plan and Budget will be subject to the approval of the Steering Committee, subject to the standards set forth in Section 3.1.3. For avoidance of doubt, no amendment to the ADM Sub Construction Master Plan and Budget will be required due to a variance in the actual cost of a particular item or service as compared to the budgeted cost of such item or service unless such variance (alone or cumulatively with other such variances) causes ADM Sub to reasonably expect that the total amount set forth in the budget within the ADM Sub Construction Master Plan and Budget will not be sufficient to fund the activities remaining to be performed under the ADM Sub Construction Master Plan and Budget.

- 4.2.3 MBX TECHNOLOGY MANAGER. Metabolix shall appoint, subject to the approval of the Steering Committee, a representative to serve as its technology manager (the "MBX Technology Manager"). The MBX Technology Manager, and up to three (3) MBX employees having varied areas of technical expertise, shall be given a reasonable opportunity to review, consult and sign off on key engineering designs and documents relating to the Construction of the ADM Sub Manufacturing Facility, in accordance with good engineering and process management principles, including, without limitation, piping and instrumentation diagrams, major plant item design calculations and data sheets, purchase contract technical specifications for major plant items, sterile engineering design and operating philosophy, pre-delivery performance and acceptance testing of major plant items, conceptual functional specifications for control and automation, analytical and quality control procedures, hazard and operability studies, fermentation recipe specifications (including without limitation raw material specifications) and change orders during the course of the contract. Notwithstanding the foregoing, after providing the MBX Technology Manager and any appointed Project Team with the requisite opportunities to review and to provide input on decisions relating the Construction of the ADM Sub Manufacturing Facility, and after giving reasonable consideration to such input, ADM Sub shall have the right and responsibility to make final decisions with respect to all such matters.
- 4.2.4 ACCESS TO SITE, BOOKS AND RECORDS. The MBX Technology Manager, and up to three (3) MBX employees, shall have reasonable access, after giving reasonable prior notice, during hours of operation, to: (i) the site on which the ADM Sub Manufacturing Facility is being Constructed, throughout the Construction process, (ii) individuals involved in the Construction process, including without limitation, construction managers, engineers and supervisors, and (iii) all documents relating to the Construction of the ADM Sub Manufacturing
- \* CONFIDENTIAL TREATMENT REQUESTED

19

Facility, including without limitation, the ADM Sub Construction Master Plan and Budget and the various documents and agreements that relate to the preparation and amendment thereof, including without limitation all surveys, blueprints, engineering studies, piping and instrumentation diagrams, equipment design calculations and drawings, piping layouts, purchase contracts, sterile engineering designs and construction details, equipment test reports, automation and control designs, analytical and quality control procedures, hazard and operability studies, fermentation recipe specifications (including without limitation raw material specifications) and change orders during the course of the contract, in each case, whether prepared by ADM Sub or a Third Party. For purposes of the foregoing sentence, the term "reasonable access" means and includes such access as is necessary or convenient for such individuals to fulfill their obligations hereunder in the manner required hereby without unduly burdening the other individuals involved in the Construction process or unnecessarily delaying the Construction process. All site visits or record reviews undertaken at ADM Sub facilities will be conducted in accordance with policies and procedures in force at such facilities, including without limitation, policies designed to promote safety and policies against sexual harassment and discrimination.

4.2.5 ADM SUB FINANCIAL RESPONSIBILITY. ADM Sub shall be solely responsible for all costs incurred in connection with the ADM Sub Manufacturing Facility, subject to application as a credit against the Ledger Account (as such term is defined in the Operating Agreement), as and to the extent provided in the Operating Agreement, of those costs and expenses that were designated as Construction Costs by the TAC as part of the ADM Sub Construction Master Plan

and Budget as provided in the Technology Alliance and Option Agreement or as are designated as Construction Costs as set forth herein and in Section 4.2.2. In addition to the foregoing approval procedures, ADM Sub shall have the right to seek a re-designation of any categories or items of costs and expenses that it believes should be designated and approved as Construction Costs at anytime during the Term. The Steering Committee shall, on a quarterly basis during the Construction Period, or more frequently as reasonably requested by ADM Sub or MBX, review the ADM Sub Construction Master Plan and Budget to evaluate and approve any material additional or changed information concerning the design or Construction of the ADM Sub Manufacturing Facility, subject to the standards set forth in Section 3.1.3.

- 4.3 ACQUISITION, CONSTRUCTION AND ACCESS TO FORMULATION FACILITY. MBX shall have primary responsibility for arranging the acquisition or Construction of the MBX Formulation Facility in a manner reasonably calculated to result in the consistent production of PHA Formulations by MBX for the Joint Sales Company in accordance with terms and conditions of the MBX Formulation Agreement, or to use Commercially Reasonable Efforts to arrange for other access to a formulation facility in a manner reasonably calculated to result in the consistent production of PHA Formulations by a Third Party for the Joint Sales Company in accordance with terms and conditions of an agreement between such Third Party and the Joint Sales Company. ADM Sub will have the right to actively participate in each of these activities, as set forth in more detail below, in order to assist MBX in achieving the foregoing goal. Formulation activities to be conducted at the MBX Formulation Facility or the Third Party formulation facility, as the case may be, will include, without limitation, blending different types of PHA Material together, and with other polymers and/or with other additives, such as nucleants, clarifiers, flow modifiers, plasticizers, flame retardants and heat stabilizers.
- \* CONFIDENTIAL TREATMENT REQUESTED

20

- 4.3.1 SPECIFICATIONS OF THE MBX FORMULATION FACILITY. The MBX Formulation Facility or the Third Party formulation facility, as the case may be, will be sufficient to enable and support state-of-the-art PHA Material formulation operations at a scale reasonably calculated to meet the formulation needs of the Commercial Alliance with respect to the output from the ADM Sub Manufacturing Facility and market demand. MBX shall proceed with the acquisition or Construction of MBX Formulation Facility, or gaining access to a Third Party formulation facility, in sufficient time to meet the formulation needs of the Commercial Alliance with respect to the output from the ADM Sub Manufacturing Facility and market demand.
- 4.3.2 MBX FACILITY MASTER PLAN AND BUDGET. MBX, in consultation with any appointed Project Team, and with the assistance of such Third Party consultants as shall be approved by the Steering Committee, shall develop a plan and budget for the acquisition or Construction of the MBX Formulation Facility or gaining access to a Third Party formulation facility (the "MBX Facility Master Plan and Budget") and submit same to the Steering Committee for approval. MBX will use Commercially Reasonable Efforts to implement the MBX Facility Master Plan and Budget. The MBX Facility Master Plan and Budget shall be amended, from time to time, in an effort to ensure that it remains sufficiently accurate and complete so that if the activities called for in the MBX Facility Master Plan and Budget were to be executed in accordance with its terms, MBX would have satisfied all of its obligations hereunder with respect to the acquisition or Construction of MBX  $\overline{\text{Formulation}}$  Facility or gaining access to a third Party formulation facility. The MBX Facility Master Plan and Budget shall be subject to amendment in the event that MBX reasonably expects that the total amount set forth in the budget within the MBX Facility Master Plan and Budget will not be sufficient to fund the activities remaining to be performed under the MBX Facility Master Plan and Budget. Such amendments to the MBX Facility Master Plan and Budget will include an updated budget with a description and the amount of all additional costs and expenses that MBX desires to have designated as Construction Costs. Such amendments to the MBX Facility Master Plan and Budget will be subject to the approval of the Steering Committee, subject to the standards set forth in Section 3.1.3. For avoidance of doubt, no amendment to the MBX Facility Master Plan and Budget will be required due to a variance in the actual cost of a particular item or service as compared to the budgeted cost of such item or service unless such variance (alone or cumulatively with other such variances) causes MBX to reasonably expect that the total amount set forth in the budget within the MBX Facility Master Plan and Budget will not be sufficient to fund the activities remaining to be performed under the MBX Facility Master Plan and Budget.
- 4.3.3 PROJECT TEAM; FORMULATION ENGINEER. ADM Sub shall appoint, subject to the approval of the Steering Committee, a representative to serve as its formulation engineer (the "ADM Sub Formulation Engineer"). The ADM Sub Formulation Engineer, and up to three (3) employees of ADM Sub, shall be given a

reasonable opportunity to review, consult and sign off on key aspects of the MBX Facility Master Plan and Budget. If the MBX Formulation Facility is to be Constructed by MBX, the ADM Sub Formulation Engineer, and up to three (3) employees of ADM Sub or its Affiliates, shall be given reasonably opportunity to review, consult and sign off on key engineering designs and documents relating to the Construction of the MBX Manufacturing Facility, in accordance with good engineering and process management principles, including without limitation, piping and instrumentation diagrams, major plant item

\* CONFIDENTIAL TREATMENT REQUESTED

21

design calculations and data sheets purchase contract technical specifications for major plant items, sterile engineering design and operating philosophy, pre-delivery performance and acceptance testing of major plant items, conceptual functional specifications for control and automation, analytical and quality control procedures, hazard and operability studies, and change orders during the course of the contract. If the MBX Formulation Facility is to be acquired or in the event MBX is gaining access to a Third Party formulation facility, the ADM Sub Formulation Engineer, and up to three (3) employees of ADM Sub or its Affiliates, shall be given reasonable opportunity to inspect the facilities and review, consult and sign off on key engineering designs and documents relating to the operation of any such facility to produce PHA Formulations. Notwithstanding the foregoing, after providing the ADM Sub Formulation Engineer and any appointed Project Team with the requisite opportunities to review and to provide input on material decisions relating to the MBX Facility Master Plan and Budget, and after giving reasonable consideration to such input, MBX shall have the right and responsibility to make final decisions with respect to all such matters.

4.3.4 ACCESS TO SITE, BOOKS AND RECORDS. If the MBX Formulation Facility is to be Constructed by MBX, then the ADM Sub Formulation Engineer, and up to three (3) employees of ADM Sub, shall have reasonable access, after giving prior notice, during regular business hours, to (i) the site on which the MBX Formulation Facility is being Constructed, throughout the Construction process, (ii) individuals involved in the Construction process, including without limitation, construction managers, engineers and supervisors, and (iii) all documents relating to the Construction of the MBX Formulation Facility, including without limitation, the MBX Facility Master Plan and Budget and the various documents and agreements that relate to the preparation and amendment thereof, including without limitation all surveys, blueprints, engineering studies, piping and instrumentation diagrams, equipment design calculations and drawings, piping layouts, purchase contracts, sterile engineering designs and construction details, equipment test reports, automation and control designs, analytical and quality control procedures, hazard and operability studies, and change orders during the course of the contract, in each case, whether prepared by MBX or a Third Party. If the MBX Formulation Facility is not going to be Constructed by MBX, then the ADM Sub Formulation Engineer shall have reasonable access, during regular business hours, to the site of the MBX Formulation Facility and all documents relating to the potential MBX Formulation Facilities or Third Party formulation facilities that MBX has in its control, including without limitation, the MBX Facility Master Plan and Budget and the various documents and agreements that relate to the preparation and amendment thereof, including without limitation a survey of available facilities, detailed documentation of the capabilities of the most highly-rated facilities, cost, schedule of availability and other relevant information and data, whether prepared by MBX or a Third Party. For purposes of the foregoing sentence, the term "reasonable access" means and includes such access as is necessary or convenient for such individuals to fulfill their obligations hereunder in the manner required hereby without unduly burdening the other individuals involved in the execution of the MBX Facility Master Plan and Budget unnecessarily delaying the execution of the MBX Facility Master Plan and Budget. All site visits or record reviews undertaken at MBX facilities will be conducted in accordance with policies and procedures in force at such facilities, including without limitation, policies designed to promote safety and policies against sexual harassment and discrimination.

\* CONFIDENTIAL TREATMENT REQUESTED

22

4.3.5 MBX FINANCIAL RESPONSIBILITY. MBX shall be solely responsible for all costs incurred in connection with the MBX Formulation Facility, subject to application as a debit against the Ledger Account (as such term is defined in the Operating Agreement), as and to the extent provided in the Operating Agreement, of those costs and expenses that are designated by the Steering Committee as Construction Costs as set forth herein and in Section 4.3.2. The Steering Committee shall conduct a complete review of the MBX Facility Master

Plan and Budget, promptly after the completion of such document, and shall designate and approve those items or categories of costs and expenses provided in such documents as Construction Costs and shall indicate whether and why certain items or categories of costs and expenses do not qualify as Construction Costs, in whole or in part, and whether such costs and expenses could so qualify under other circumstances, for example, if more information were provided as the necessity and reasonableness of the particular costs and expenses or the features or facilities to which such costs and expenses relate. The Steering Committee shall, on a quarterly basis during the Construction Phase, or more frequently as reasonably requested by MBX, review the MBX Facility Master Plan and Budget to evaluate any material additional or changed information concerning the design of the MBX Formulation Facility, subject to the standards set forth in Section 3.1.3. In addition to the foregoing review procedures, MBX shall have the right to seek a re-designation of any categories or items of costs and expenses that it believes should be designated as Construction Costs at anytime during the Term.

4.3.6 PHA FORMULATION FEE. The Joint Sales Company will pay to MBX a formulation fee equal to \* on all sales or other conveyances of PHA Material contained within PHA Formulations, on a one hundred percent (100%) purity basis, that is not formulated for the Joint Sales Company by MBX in the MBX Formulation Facility. The formulation fee shall be due and payable on a monthly basis. The formulation fee for sales or conveyances completed during any month shall be due and payable to MBX on or before the last business day of the succeeding month. Amounts due under this Section 4.3.6 shall be payable by wire transfer of immediately available funds to an MBX bank account in accordance with instructions to be provided to the Joint Sales Company by MBX. Any amounts that are not paid when due hereunder shall accrue interest at the rate of four percent (4%) per annum in excess of the one year London Interbank Offered Rate (LIBOR) then most recently published in THE WALL STREET JOURNAL. The right to demand and receive the interest provided hereunder shall be in addition to any other rights available to MBX hereunder or at law.

### 4.4 PILOT ACTIVITIES.

4.4.1 RESEARCH AND DEVELOPMENT; FUNDED TECHNOLOGY. During the Construction Phase and thereafter during the Term, MBX will continue its research and development efforts, on its own and with Third Parties, provided that MBX shall pursuant to a written agreement with such Third Party own or obtain an option to exclusively license all Technology arising from such activity, aimed at improving the MBX Technology relating to the production of PHA Cell Paste, PHA Material and PHA Formulations, including without limitation, MBX's microbial strains, fermentation processes and recovery technology. The goal of these efforts is for MBX to develop a microbial strain and processes capable of producing PHA Material at a cost of approximately \* at a manufacturing scale of \* per year and to develop related Technology that

### \* CONFIDENTIAL TREATMENT REQUESTED

23

will expand and enhance the commercial potential of the PHA Material for use in the Field. Beginning with the commencement of the Commercial Phase, MBX and ADM Sub shall each, from time to time, have the option of proposing to the Steering Committee certain studies or other research efforts in the Field. The Joint Sales Company shall have the option to fund such studies or research efforts in accordance with a work plan and budget to be prepared by the Party making such proposal. If the Steering Committee approves, and the Joint Sales Company commits to, and in fact does, fund such a study or research effort, any Technology developed, conceived or reduced to practice in the course of such study or research effort shall be deemed to be funded technology ("Funded Technology") and will automatically be subject to the licenses and rights granted herein as part of the Joint Alliance Technology without further action by either Party. Subject to the standards set forth in Section 3.1.3, the Steering Committee shall determine the party best able to perform the work outlined in an approved proposal, considering all relevant factors, including, for example, the availability of particular human or the resources, access to Technology, materials or know-how, or technical experience. If the Steering Committee determines that ADM Sub and MBX are both equally able to perform such work, then the Steering Committee shall request MBX to perform such work. If the Steering Committee does not approve, or if the Joint Sales Company declines to, or in fact fails to, fund such a study or research effort, and the Party which proposes the study or research performs such study or research, any Technology developed, conceived or reduced to practice in the course of such study or research effort shall be deemed to be unfunded technology ("Unfunded Technology") and shall be solely owned by MBX or ADM Sub, as the case may be, and, anything herein to the contrary notwithstanding, shall not be subject to the rights and licenses granted herein, subject to the Parties subsequently

agreeing to a license or similar agreement to the contrary. For the avoidance of doubt, the parties acknowledge that the research and development projects that may be subject to the proposals described above may be performed by Third Parties to be identified in such proposals, and in such cases the Steering Committee shall either accept or reject the proposal on behalf of the Joint Sales Company but shall have no right to require that a different Third Party or any of the Parties shall perform such research and development project.

- 4.4.2 PILOT MANUFACTURING. During the Term, the Parties will use reasonable efforts to obtain access to pilot quantities of PHA Material from a combination of one or more contract manufacturers, ADM Sub personnel and facilities and MBX personnel and facilities, for use solely in research and development efforts and to support or facilitate marketing and sales efforts of PHA Material and/or PHA Formulations, but, after the First Commercial Sale, not to supply all, or a segment, of the commercial market for PHA Material as part of an ongoing commercial sales operation (such activity is "Pilot Sourcing"). To the extent the Pilot Sourcing utilizes the personnel and facilities of Third Party contract manufacturers and/or the personnel and facilities of MBX, MBX shall control the selection and operations of such personnel and facilities. To the extent the Pilot Sourcing utilizes the personnel and facilities of ADM Sub, ADM Sub shall control the selection and operations of such personnel and facilities. During the Construction Phase, MBX will investigate available options for Pilot Sourcing and, if MBX identifies a viable option, then MBX will present a proposal to the Steering Committee for the Steering Committee's consideration and approval. The proposal shall include the identity of the manufacturer(s), the personnel and facilities that ADM Sub and MBX would devote to the efforts, the site(s) of the Pilot Sourcing, the anticipated quantity to be produced under the
- \* CONFIDENTIAL TREATMENT REQUESTED

24

proposal, the anticipated delivery schedule for PHA Material under the proposal and the estimated capital and operating cost to ADM Sub and MBX under the proposal (each such proposal is hereinafter a "Pilot Sourcing Proposal"). MBX will use reasonable efforts to implement any Pilot Sourcing Proposal approved by the Steering Committee. ADM Sub and MBX shall share equally the total cost and expenses incurred by them in connection with any approved Pilot Sourcing Proposal, including the cost of ADM Sub personnel and facilities and MBX personnel and facilities all of which will be accounted for on a cost basis, defined in a manner to be agreed upon as part of any such proposal ("Pilot Sourcing Costs"), and any Technology developed in connection with such activities shall be part of the Joint Alliance Technology. After the Construction Phase, MBX will present any Pilot Sourcing Proposal to the Joint Sales Company for the Joint Sales Company's consideration and approval. MBX will use reasonable efforts to implement any Pilot Sourcing Proposal approved by the Steering Committee. The Joint Sales Company shall bear the Pilot Sourcing Costs in connection with any approved Pilot Sourcing Proposal and any Technology developed in connection with such activities shall be part of the Joint Alliance Technology. In the event that the Steering Committee or the Joint Sales Company, as applicable, do not approve a particular Pilot Sourcing Proposal, MBX may proceed to implement the proposal at its own expense and any Technology developed in connection with such activities shall be part of the MBX Alliance Technology. Any PHA Cell Paste or PHA Material obtained in connection with the Pilot Sourcing ("Pilot PHA Material") shall be used solely for internal research and development purposes or shall be provided to Third Parties as set forth in Section 4.4.3 below.

- 4.4.3 DISPOSITION OF PILOT PHA MATERIAL. During the Construction Phase, MBX will market and sell the Pilot PHA Material in the name of and on behalf of the Joint Sales Company and, during the Construction Phase, the proceeds of such sales will be distributed as set forth in this Section 4.4.3 rather than as set forth in the Operating Agreement. Proceeds from the sale of Pilot PHA Material will be distributed to the Parties on a pro rata basis to reimburse them for the Pilot Sourcing Costs with the remainder, if any, to be distributed to the Parties on a pro rata basis to reimburse them for their respective reasonable costs and expenses incurred in connection with marketing and sales activities carried out by them in furtherance of the Commercial Alliance and approved by the Steering Committee. After the Construction Phase, the Joint Sales Company will market and sell the Pilot PHA Material and the proceeds of sales of Pilot PHA Material will be distributed, if at all, in accordance with the terms and conditions set forth in the Operating Agreement.
- 4.4.4 IN-LICENSE TECHNOLOGY. Beginning with the Effective Date, MBX and ADM Sub shall each, from time to time, have the option of proposing to the Steering Committee certain in-licensing or acquisition of Technology that may be useful in connection with the activities of the Parties hereunder, or under the other Commercial Alliance Agreements. The Joint Sales Company shall have the option to so in-license or acquire such Technology at its expense, in which

case, the Joint Sales Company shall negotiate the terms and conditions of such license or acquisition. If the Steering Committee approves, and the Joint Sales Company commits to, and in fact does, license or acquire such Technology then such Technology shall be deemed part of the Joint Alliance Technology and will automatically be subject to the licenses and rights granted herein without further action by either Party. If the Steering Committee does not approve, or if the Joint Sales Company declines to, or in fact fails to, in-license or acquire

\* CONFIDENTIAL TREATMENT REQUESTED

25

such Technology, then if either Party supported the proposal then such Party shall have the right to in-license or acquire such Technology at its expense, and shall be deemed a part of the Unfunded Technology and shall be solely owned by MBX or ADM Sub, as the case may be, and, anything herein to the contrary notwithstanding, shall not be subject to the rights and licenses granted herein, subject to the Parties subsequently agreeing to a license or similar agreement to the contrary.

4.5 CERTAIN FINANCIAL COMMITMENTS DURING THE CONSTRUCTION PHASE. In partial consideration of the rights and licenses granted herein to the Joint Sales Company, the Joint Sales Company shall make the non-refundable payments described herein to MBX during the Construction Phase. The Joint Sales Company shall pay to MBX: (a) two (2) equal payments of one million, five hundred and seventy-five thousand dollars (\$1,575,000) each, and (b) up to: (i) ten (10) equal, payments of one million, five hundred and seventy-five thousand dollars (\$1,575,000) during each Calendar Quarter during the Construction Phase. Such twelve (12) payments are each an "Operating Payment" and together the "Operating Payments"). The first two Operating Payments totaling three million one hundred fifty thousand dollars (\$3,150,000) shall be due and payable within ten (10) days after the Effective Date and each Operating Payment thereafter shall become due and payable on the first Business Day of each successive Calendar Quarter during the Construction Phase. The Steering Committee shall have the right to increase the amount of the Operating Payments at any time during the Term to support additional work by MBX in support of the Commercial Alliance. If the Construction Phase ends before all twelve (12) Operating Payments become due and payable hereunder, and this Agreement remains in effect, then the Joint Sales Company shall make a final payment to MBX within thirty (30) days of the end of the Construction Phase as determined in accordance with the following formula:

 $X = $250,000 \times (12-Y)$ 

For the purposes of the above formula, "X" equals the amount of the final payment in dollars and "Y" equals the number of Operating Payments that became due and payable during the Construction Phase. Amounts due under this Section 4.5 shall be payable by wire transfer of immediately available funds to an MBX bank account in accordance with instructions to be provided to the Joint Sales Company by MBX. Any amounts that are not paid when due hereunder shall accrue interest at the rate of four percent (4%) per annum in excess of the one year London Interbank Offered Rate (LIBOR) then most recently published in THE WALL STREET JOURNAL. The right to demand and receive the interest provided hereunder shall be in addition to any other rights available to MBX hereunder or at law. For avoidance of doubt, the failure by ADM Sub to provide funds to the Joint Sales Company to make the Operating Payments as and when provided for herein shall be deemed a breach of this Agreement by ADM Sub.

\* CONFIDENTIAL TREATMENT REQUESTED

26

# ARTICLE 5 JOINT SALES COMPANY; MARKETING AND SALES ACTIVITY

## 5.1 FORMATION AND PURPOSE OF JOINT SALES COMPANY.

5.1.1 GENERAL PURPOSES. As is referenced above, the Joint Sales Company is a limited liability company, formed and owned by the Parties, and intended to: (i) serve as the commercial entity to establish and develop the commercial market for the PHA Material and PHA Formulations, and to conduct the marketing and sales of PHA Material and PHA Formulations in furtherance of the goals of the Commercial Alliance, (ii) assist in the coordination and integration of the manufacturing, formulation and marketing activities in such a manner as to establish and maintain an efficient and profitable commercial operation and (iii) administer and account for certain financial matters relating to the investments of the Parties in the Commercial Alliance and the allocation and distribution of losses and profits therefrom to the Parties, as

more fully set forth in the Operating Agreement.

- 5.2 MARKETING AND SALES ROLE. During the Construction Phase, MBX will use Commercially Reasonable Efforts to establish the market for the PHA Material and PHA Formulations in the name of the Joint Sales Company. ADM Sub shall have the right to appoint a representative to participate in such efforts. During the Commercial Phase, the Joint Sales Company will develop, expand and supply the global market for PHA Material and PHA Formulations.
- 5.2.1 STRATEGIC ALLIANCE PARTNERS. During the Construction Phase, MBX will have primary responsibility for determining whether it is advisable to seek a Strategic Alliance Partner to support and participate in the activities described in this Article 5 and for identifying, contacting and negotiating, on behalf of the Joint Sales Company, with potential Strategic Alliance Partners. Notwithstanding the foregoing, MBX shall obtain the approval of the Steering Committee and the Joint Sales Company before entering into any contractual arrangement with a Third Party to assume responsibility for an active and ongoing role in executing a strategic plan to establish the market for the PHA Material or PHA Formulations.
- 5.2.2 FINANCIAL MATTERS RELATING TO MARKETING AND SALES. Subject to reimbursement of certain costs and expenses to the extent available under Section 4.4.2, ADM Sub and MBX shall each be solely responsible for its own costs and expenses incurred in connection with performing marketing and sales activities undertaken during the Construction Phase.
  - 5.3 FUNDING OF JOINT SALES COMPANY.
- 5.3.1 CAPITAL CONTRIBUTIONS. ADM Sub and MBX shall each make an investment of capital in the Joint Sales Company in the amount of \* as set forth herein. ADM Sub shall remit such amount in cash to the Joint Sales Company within ten (10) days after the Effective Date. MBX shall be credited with a capital investment of \* in exchange for foregoing receipt of the payment of the License Fee by the Joint Sales Company to MBX. As is more fully set forth in
- \* CONFIDENTIAL TREATMENT REQUESTED

27

the Operating Agreement, future investments of capital by ADM Sub credited to the Ledger Account pursuant to the Operating Agreement shall not cause ADM Sub to acquire additional Units in the Joint Sales Company or to otherwise effect the Parties' equal ownership of the Joint Sales Company.

5.3.2 LOAN FACILITY. ADM Sub shall, as more fully set forth in the Loan and Security Agreement, make available a loan facility to the Joint Sales Company to fund certain cash requirements of the Joint Sales Company.

# ARTICLE 6 COMMERCIAL PHASE; ANCILLARY SERVICES

- 6.1 OVERVIEW AND GOAL OF THE COMMERCIAL PHASE. The primary goal of the Commercial Phase is to leverage the Parties' assets, including without limitation, assets developed during the Construction Phase, such as the ADM Sub Manufacturing Facility, the MBX Formulation Facility, the market developed through the efforts of the Parties, including the sale of the Pilot PHA Material, and the business relationships established by and on behalf of the Joint Sales Company, in order to manufacture at the 50,000 Ton Annual Design Capacity and sell the resulting PHA Material and PHA Formulations during the Commercial Phase as a profitable, ongoing business venture. In order to achieve this goal, the Parties will pursue the following primary objectives: (i) ADM Sub will, as and to the extent required in the ADM Sub Manufacturing Agreement, dedicate the ADM Sub Manufacturing Facility and its personnel to manufacturing PHA Material for sale to the Joint Sales Company, (ii) MBX will, as and to the extent required in the MBX Formulation Agreement, arrange for formulating PHA Material, whether in a dedicated facility or not, (iii) the Parties will, as and to the extent set forth herein and in the other Commercial Alliance Agreements, participate in and support, financially and otherwise, the efforts of the Joint Sales Company to develop, expand and supply the global market for PHA Material and PHA Formulations.
- 6.2 ADM SUB MANUFACTURING. Throughout the Commercial Phase, ADM Sub shall provide PHA Material to the Joint Sales Company in accordance with the terms and conditions set forth in the ADM Sub Manufacturing Agreement. The ADM Sub manufacturing services will be overseen by a manager appointed for this purpose by ADM Sub with the approval of the Steering Committee (the "ADM Sub Manufacturing Manager"). The performance parameters, including without limitation, the product specifications, and procedures for forecasting, ordering, delivery and payment for such PHA Materials are all as provided in the

ADM Sub Manufacturing Agreement. Distribution of amounts received by the Joint Sales Company upon sale of the PHA Material and PHA Formulations shall be as provided in the Operating Agreement.

- 6.3 MBX FORMULATION. Throughout the Commercial Phase, MBX shall provide formulation services with respect to the PHA Formulations for the Joint Sales Company in accordance with the terms and conditions set forth in the MBX Formulation Agreement. The performance parameters and procedures by which the Joint Sales Company will access those services are all as provided in the MBX Formulation Agreement. The distribution of amounts
- \* CONFIDENTIAL TREATMENT REQUESTED

28

received by the Joint Sales Company upon sale of the PHA Materials and PHA Formulations shall be as provided in the Operating Agreement.

- 6.4 JOINT SALES COMPANY. Unless expressly stated otherwise in this Agreement or the other Commercial Alliance Agreements, or unless the Parties agree otherwise in writing, once the Commercial Phase commences, all PHA Material and PHA Formulations, excepting Pilot PHA Material, to be sold, or otherwise disposed of, by or for the benefit of the Commercial Alliance, shall be purchased solely from ADM Sub by the Joint Sales Company, and, if formulation services for PHA Formulations are required, they shall be purchased solely from MBX by the Joint Sales Company.
- 6.4.1 ANCILLARY SERVICES. The Parties hereby acknowledge that MBX will provide certain ancillary services to the Joint Sales Company as set forth in the MBX Services Agreement. The Parties further acknowledge that ADM Sub will provide certain ancillary services to the Joint Sales Company as set forth in the ADM Sub Services Agreement.

# ARTICLE 7 INTELLECTUAL PROPERTY; LICENSES; TECHNOLOGY TRANSFER; ROFN

#### 7.1 OWNERSHIP.

- 7.1.1 SOLE OWNERSHIP. Subject to the rights and licenses granted herein and in the other Commercial Alliance Agreements, ADM Sub shall own all right, title and interest in and to any: (i) ADM Sub Background Technology, (ii) ADM Sub Alliance Technology and (iii) ADM Sub Proprietary Materials. Subject to the rights and licenses granted herein and in the other Commercial Alliance Agreements, MBX shall own all right, title and interest in and to any: (x) MBX Background Technology, (y) MBX Alliance Technology and (z) MBX Proprietary Materials.
- 7.1.2 JOINT OWNERSHIP. Subject to Section 7.1.1, and subject to the rights and licenses granted herein and in the other Commercial Alliance Agreements, MBX and ADM Sub shall jointly own all Joint Alliance Technology. ADM Sub hereby grants to MBX a perpetual, royalty-free, fully-sublicenseable license to ADM Sub's rights in Joint Alliance Technology for the research, development, manufacture, use, sale and importation of PHA-Related Material produced via Plants. MBX hereby grants to ADM Sub a perpetual, royalty-free, exclusive, fully-sublicenseable license to MBX's rights in Joint Alliance Technology for use in all fields that are part of ADM's and its Affiliates' commercial activities at any time during the Term of the Commercial Alliance, but excluding: (i) uses that are within the Field, (ii) uses that are within the term "Field of Use" as that term is defined in the License Agreement by and between MBX and Tepha, Inc. dated October 1, 1999, as amended on December 17, 2002 and (iii) any and all uses of PHA-Related Material produced via Plants. Subject to the rights and licenses granted herein and in the other Commercial Alliance Agreements, MBX and ADM Sub hereby agree that they shall each have the right to assign, sell, license or otherwise convey their rights in the Joint Alliance Technology without notice to or consent of the other Party and without any obligation to share the proceeds of such activity with the other Party, or otherwise to account to the other
- \* CONFIDENTIAL TREATMENT REQUESTED

29

Party in connection with such activities. In all other respects, the rights of the Parties as joint owners shall be determined by the laws of the United States of America and the State of Delaware. Trademarks that are developed by or on behalf of the Joint Sales Company for use in connection with the marketing and sale of PHA Material or PHA Formulations during the Term shall be included within the Joint Alliance Technology and the Parties agree and covenant not to use any such trademarks, or other trademarks licensed hereunder, in a manner

that would cause a diminution in value of such trademarks, including without limitation, by using such trademarks in connection with other goods, by using such trademarks in a misleading or confusing manner or by using any trademarks that are confusingly similar to any such trademark.

7.1.3 DISCLOSURE; ASSIGNMENTS. MBX shall promptly disclose in writing to ADM Sub the making, conception or reduction to practice of any Alliance Technology. ADM Sub shall promptly disclose in writing to MBX the making, conception or reduction to practice of any Alliance Technology. Each Party hereby assigns all of its right, title and interest in and to any Alliance Technology to the other Party to the extent necessary to conform to the allocation of ownership rights set forth in this Section 7.1. The Parties agree to take such actions, including without limitation, executing and delivering such documents, as the other Party may reasonably request in order to give effect to and to evidence the foregoing assignments of rights.

#### 7.2. LICENSE GRANTS BY MBX.

- 7.2.1 GRANT BY MBX TO ADM SUB. Subject to the terms and conditions set forth herein, MBX hereby grants to ADM Sub a royalty-free, exclusive license, without the right to sublicense, under MBX's right, title and interest in and to the MBX Technology, the MBX Patent Rights and the Joint Alliance Technology, solely to manufacture PHA Material and PHA Formulations in North America during the Construction Phase in the quantities and form requested in writing by MBX, or the Joint Sales Company, and agreed to by ADM Sub, and solely for sale by ADM Sub to MBX and/or the Joint Sales Company for use within the Field, such exclusivity to be subject to MBX's right to conduct the Permitted Activities as set forth in Section 8.4. MBX shall not itself, or grant any license to any third party to, manufacture, have made, offer for sale, sell, have sold or import PHA Cell Paste, PHA Material or PHA Formulations, subject to MBX's right to conduct the Permitted Activities as set forth in Section 8.4.
- 7.2.2 GRANT BY MBX TO THE JOINT SALES COMPANY; GRANT OF SUBLICENSE. Subject to the terms and conditions set forth herein, including without limitation Section 9.8, MBX hereby grants to the Joint Sales Company the following licenses, with Limited Sublicense Right: (i) upon completion of the Construction Phase, a royalty-bearing, exclusive license during the Term, under MBX's right, title and interest in and to the MBX Technology, the MBX Patent Rights and the Joint Alliance Technology, solely to make and have made PHA Material and PHA Formulations in North America, such exclusivity to be subject to MBX's right to conduct the Permitted Activities as set forth in Section 8.4, and (ii) upon the Effective Date, a royalty-bearing, exclusive license under MBX's right, title and interest in and to the MBX Technology, the MBX Patent Rights and the Joint Alliance Technology to offer for sale, sell, have sold and import PHA Material and PHA Formulations for use in the Field worldwide. The foregoing licenses shall, in all instances, be limited such that the Joint Sales Company shall only be
- \* CONFIDENTIAL TREATMENT REQUESTED

30

permitted to make and have made that amount of PHA Material (including, without limitation, PHA Material that is contained within PHA Formulations) that is produced by the ADM Sub Manufacturing Facility, having a 50,000 Ton Annual Design Capacity, during any period of twelve (12) consecutive months during the Term. MBX shall not itself, or grant any license to any third party to, manufacture, have made, offer for sale, sell, have sold or import PHA Cell Paste, PHA Material or PHA Formulations, subject to MBX's right to conduct the Permitted Activities as set forth in Section 8.4. The Joint Sales Company hereby grants an exclusive, royalty free sublicense of its right to make and have made PHA Material to ADM Sub; provided, however, that such sublicense shall be limited solely to permit ADM Sub to make such PHA Material for sale to the Joint Sales Company under the ADM Sub Manufacturing Agreement and solely for delivery directly to, or as directed by, the Joint Sales Company. MBX hereby grants its consent to the foregoing grant of such limited sublicense by the Joint Sales Company to ADM Sub. Notwithstanding anything to the contrary herein, ADM, ADM Sub and the Joint Sales Company shall not transfer or convey any cell line constituting part of the MBX Proprietary Materials to any Third Party.

7.2.3 PAYMENT OF ROYALTIES. In consideration of the grant of the license by MBX under Section 7.2.2, the Joint Sales Company shall pay to MBX an upfront license fee (the "License Fee") equal to \*. Notwithstanding the foregoing, MBX and the Joint Sales Company hereby agree that MBX shall forego receipt of the payment of the License Fee, and the Joint Sales Company shall retain the License Fee and shall treat such amount as a capital contribution by MBX to the Joint Sales Company as further set forth in Section 5.3.1. During the Royalty Term, the Joint Sales Company will pay to MBX a royalty equal to: (i) \* on all sales or other conveyances of PHA Patented Material (including, without limitation, PHA Material that is contained within PHA

Formulations), on a one hundred percent (100%) purity basis; and (ii) \* on all sales or other conveyances of PHA Know-How Material (including, without limitation, PHA Material that is contained within PHA Formulations), on a one hundred percent (100%) purity basis. During the Supplemental Royalty Term, the Joint Sales Company will pay to MBX a royalty equal to \* on all sales or other conveyances of PHA Supplemental Know-How Material (including, without limitation, PHA Material that is contained within PHA Formulations), on a one hundred percent (100%) purity basis. In the event more than one royalty applies to the manufacture, use, sale or importation of a particular product, then the highest royalty shall be the only applicable royalty hereunder. The royalties on sales or conveyances completed during any month shall be due and payable to MBX on or before the last business day of the succeeding month. Amounts due under this Section 7.2.3 shall be payable by wire transfer of immediately available funds to an MBX bank account in accordance with instructions to be provided to the Joint Sales Company by MBX. Any amounts that are not paid when due hereunder shall accrue interest at the rate of four percent (4%) per annum in excess of the one year London Interbank Offered Rate (LIBOR) then most recently published in THE WALL STREET JOURNAL. The right to demand and receive the interest provided hereunder shall be in addition to any other rights available to MBX hereunder or at law.

\* CONFIDENTIAL TREATMENT REQUESTED

31

#### 7.3 LICENSE GRANTS BY ADM SUB.

7.3.1 GRANT BY ADM SUB TO MBX. Subject to the terms and conditions set forth herein, ADM Sub hereby grants to MBX a \*, non-exclusive license, without the right to sublicense (except in connection with the Pilot Activities), under ADM Sub's right, title and interest in and to the ADM Technology and the ADM Sub Patent Rights, solely to use, offer for sale, sell, have sold and import PHA Material and PHA Formulations during the Construction Phase in the quantities and form requested in writing by MBX, or the Joint Sales Company, and agreed to by ADM Sub, in connection with the Commercial Alliance as expressly permitted under this Agreement, including without limitation, in connection with the Pilot Activities.

- 7.3.2 GRANT BY ADM SUB TO THE JOINT SALES COMPANY. Subject to the terms and conditions set forth herein, ADM Sub hereby grants to the Joint Sales Company a \*, exclusive, fully-sublicenseable license during the Term, under ADM Sub's right, title and interest in and to the ADM Technology, the ADM Sub Patent Rights and the Joint Alliance Technology, solely to make and have made PHA Material and PHA Formulations in North America and to offer for sale, sell, have sold and import PHA Material and PHA Formulations worldwide. The foregoing license shall be limited such that the Joint Sales Company shall only be permitted to make and have made that amount of PHA Material (including, without limitation, PHA Material that is contained within PHA Formulations) that is \* during the Term.
- 7.4. RIGHT OF FIRST NEGOTIATION. MBX hereby grants to the Joint Sales Company, a right of first negotiation as set forth in this Section 7.4 (the "ROFN"). If MBX comes to Control Technology or Patent Rights pertaining (the "ROFN Rights"), and MBX decides to offer a Third Party a license or similar rights under the ROFN Rights at anytime during the Term and prior to the expiration of the JV Option (including the expiration of the possibility that the JV Option could reset under Section 9.8.5), then MBX shall first offer to the Joint Sales Company the right to negotiate towards a license under which such ROFN Rights would be licensed by MBX to the Joint Sales Company and, if ADM Sub accepts such offer on behalf of the Joint Sales Company, then ADM Sub, on behalf of the Joint Sales Company, and MBX shall negotiate in good faith towards such a license on such terms as each, in its sole discretion, shall determine to be acceptable. In the event that MBX and the Joint Sales Company have not executed a written agreement including the terms of a license agreed upon by ADM Sub and MBX within one hundred twenty (120) days after the initial offer from MBX to the Joint Sales Company, then MBX shall be free to offer a license or similar rights under the ROFN Rights to a Third Party; provided, however, (i) any such license or similar rights offered to a Third Party shall not include economic terms that are more favorable to such Third Party than the economic terms MBX last proposed to the Joint Sales Company; and (ii) MBX shall remain subject to, and by granting any such license or similar rights to any Third Party shall not breach, the restrictions and obligations set forth in this Agreement (including without limitation Section 8.4, to the extent then-applicable) and the other Commercial Alliance Agreements.
- \* CONFIDENTIAL TREATMENT REQUESTED

- 7.5 NO IMPLIED RIGHTS. The Parties hereby agree and acknowledge that no rights or licenses under their respective intellectual property rights are granted hereunder, by implication, estoppel or otherwise, by any of them.
- 7.6 TECHNOLOGY TRANSFER: LIMITED ACCESS. MBX and ADM Sub hereby acknowledge the technology transfer conducted pursuant to the Technology Alliance and Option Agreement. MBX hereby agrees to use Commercially Reasonable Efforts to conduct an additional transfer of MBX Technology, which technology transfer will be periodically updated during the Construction Phase to include improvements to the MBX Technology, including without limitation, process improvements developed  $% \left( 1\right) =\left( 1\right) \left( 1\right)$ as described under Section 4.4.1, as and to the extent reasonably necessary to enable ADM Sub to perform its obligations under the ADM Sub Manufacturing Agreement (the "Technology Transfer"). MBX and ADM Sub shall each devote such personnel and other resources as are reasonably required to complete the Technology Transfer in an efficient manner. ADM Sub acknowledges that some of the MBX Technology that will be transferred to ADM Sub is in the form of trade secrets. In an effort to ensure the maximum continued protection of MBX's rights in such trade secrets, and in keeping with the confidentiality obligations herein, ADM Sub covenants that it will provide access to the MBX Technology only to employees of ADM and ADM Sub who have a need to have access to such MBX Technology in order to complete the Technology Transfer and perform ADM Sub's obligations under the ADM Sub Manufacturing Agreement.
- 7.7 ACKNOWLEDGEMENT REGARDING MIT LICENSE. The Parties hereby acknowledge that certain of the MBX Patent Rights and MBX Technology are Controlled by MBX pursuant and subject to the MIT License. All licenses granted herein to such MBX Patent Rights and MBX Technology are subject to certain rights retained by MIT in the MIT License and the Parties agree that the obligations to MIT set forth in Articles 2, 5, 7, 8, 9, 10, 12, 13 and 15 (copies of said articles are attached hereto as EXHIBIT G) are binding upon the Joint Sales Company and ADM Sub as if they were parties to the MIT License.

# ARTICLE 8 DUE DILIGENCE; REPRESENTATIONS AND WARRANTIES; EXCLUSIVITY

- 8.1 CONDUCT OF COMMERCIAL ALLIANCE. The Parties shall use Commercially Reasonable Efforts to perform their respective obligations under the Commercial Alliance, in accordance with the provisions herein and the provisions set forth in the other Commercial Alliance Agreements.
- 8.1.1 CERTAIN MUTUAL REPRESENTATIONS. Each Party hereby represents and warrants to the other Parties as follows: (i) it shall use Commercially Reasonable Efforts to perform its obligations in connection with the Commercial Alliance in accordance with high scientific and engineering principles and procedures, and in compliance in all material respects with all requirements of applicable laws, rules, and regulations, (ii) it shall use Commercially Reasonable Efforts to achieve the objectives of the Commercial Alliance efficiently and expeditiously and (iii) it shall proceed diligently with the Commercial Alliance, using
- \* CONFIDENTIAL TREATMENT REQUESTED

33

Commercially Reasonable Efforts, including by allocating time, effort, equipment, and skilled personnel to complete the Commercial Alliance successfully and promptly.

- 8.2 REPRESENTATIONS AND WARRANTIES.
- 8.2.1 MBX REPRESENTATIONS. Except as otherwise disclosed on Schedule 8.2.1 attached hereto and incorporated herein by reference, MBX represents and warrants, as of the Effective Date, that:  $^{\star}$
- \* CONFIDENTIAL TREATMENT REQUESTED

34

- \* MBX DOES NOT MAKE ANY OTHER REPRESENTATION OR
- \* CONFIDENTIAL TREATMENT REQUESTED

35

8.2.2 ADM SUB REPRESENTATIONS. Except as otherwise disclosed on Schedule 8.2.2 attached hereto and incorporated herein by reference, ADM Sub represents and warrants, as of the Effective Date, that: \*

\* CONFIDENTIAL TREATMENT REQUESTED

36

- \* ADM SUB DOES NOT MAKE ANY OTHER REPRESENTATION OR WARRANTY WHATSOEVER CONCERNING THE ADM SUB PATENT RIGHTS, THE ADM SUB TECHNOLOGY OR ITS RIGHTS THEREIN. ADM SUB HEREBY SPECIFICALLY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.
- 8.3 RECORDS. ADM Sub and MBX shall maintain records with respect to the Commercial Alliance in sufficient detail and in a good scientific manner appropriate to support patent filings, which shall be complete and accurate and shall fully and properly reflect all work done and results achieved in the performance of the Commercial Alliance. All such records shall be retained for at least five (5) years after the termination of this Agreement, or for such longer period as may be required by applicable law. Each of MBX and ADM Sub shall have the right, during normal business hours and upon reasonable notice, to inspect and copy any such records that are maintained in accordance with this Section 8.3.
  - \* CONFIDENTIAL TREATMENT REQUESTED

37

- 8.4 EXCLUSIVITY. Except as otherwise provided herein, during the Exclusive Period,  $^{\star}$ .
- 8.5 PROHIBITION ON SOLICITATION. No Party nor any of its Affiliates shall, during the period commencing on the Effective Date and continuing until the expiration or termination of this Agreement and \* thereafter, specifically solicit any person who is employed by the other Party or its Affiliates and who was involved in the Commercial Alliance during the Term of this Agreement, whether such person is solicited to be hired as an employee or consultant, unless authorized in writing by the other Party. The Parties acknowledge that generally listing a position for hire in a newspaper, trade journal or similar publication shall not constitute a specific solicitation in violation of the terms of this provision. The Parties further acknowledge for the avoidance of doubt that this Section only applies to those persons that remain employees of a Party and not to former employees of a Party.

# ARTICLE 9 GRANT OF JV OPTION

- 9.1 GRANT OF JV OPTION. MBX hereby grants to ADM Sub the right and option to enter into a commercial joint venture for the further manufacture and sale of the PHA Material on the terms and conditions set forth in this Article 9 (the "JV Option").
- 9.1.1 JV OPTION MECHANICS. If, at any time during the Term, either ADM Sub or MBX reasonably determines that within two (2) years, the Joint Sales Company would likely be able to sell, on a consistent and on-going basis, more than fifty thousand (50,000) tons of PHA
- \* CONFIDENTIAL TREATMENT REQUESTED

38

Material (including, without limitation, PHA Material that is contained within PHA Formulations) per twelve (12) month period, then either ADM Sub or MBX may prepare and deliver a written proposal (the "Expansion Proposal") to the other such Party to form a separate entity joint venture or to expand the scope of the Joint Sales Company (in either case, the "Joint Venture Entity") with a goal and purpose of expanding the manufacturing capacity and PHA Material sales to in excess of seventy thousand (70,000) tons per year (the "Joint Venture"). The Expansion Proposal shall merely be a proposal to expand manufacturing capacity and PHA Material sales through the Joint Venture Entity as set forth herein; the specific manner and method of accomplishing any such expansion shall be left to the Joint Venture Entity in the event ADM Sub exercises the JV Option. Upon receipt of an Expansion Proposal, ADM Sub shall have a period of one hundred twenty (120) days during which it shall decide whether or not, in its sole discretion, to exercise the JV Option. During such period, ADM Sub and MBX

shall, in good faith, share information relating to the market for PHA Material and other matters relevant to the exercise of the JV Option. If ADM Sub decides to exercise the JV Option, then ADM Sub and MBX shall promptly proceed to prepare, execute and deliver documents, and take such other actions as are reasonably necessary, to form a Joint Venture Entity and commence the Joint Venture on the terms and conditions set forth in this Article 9. If ADM Sub does not exercise the JV Option within such period, then the JV Option shall expire (subject to the revival of the JV Option pursuant to Section 9.8) and the other consequences set forth in Section 9.8 shall be given full force and effect. For avoidance of doubt, at any time during the Term, the Parties shall be permitted to negotiate temporary or permanent increases to the annual capacity limit in the licenses granted in Sections 7.2 and 7.3 above, which increases shall be given effect, if at all, in one or more written amendments to this Agreement.

- 9.2 FORMATION OF JV ENTITY. If ADM Sub exercises the JV Option in accordance with Section 9.1.1 and the Parties determine to form a new separate entity, ADM Sub and MBX shall form a new entity under the laws of the State of Delaware, to serve as the Joint Venture Entity and to own and operate the Joint Venture.
- 9.2.1 JV ASSETS. All assets that are owned by ADM Sub and MBX, that are solely dedicated to the activities of the Commercial Alliance as of the date the JV Option is exercised, and that may reasonably be divested from ADM Sub or MBX, as applicable, without undue liability, including without limitation, tax liability, shall promptly be transferred to the JV Entity as requested by the JV Entity, along with any other assets as MBX and ADM Sub agree shall be transferred to the JV Entity, on terms and conditions to be agreed upon by ADM Sub, MBX and the JV Entity.
- 9.2.2 OTHER ASSETS. Ownership of those assets of ADM Sub and MBX that have been dedicated in part to the activities of the Commercial Alliance, including without limitation, the ADM Sub Manufacturing Facility and the MBX Formulation Facility, shall be retained by ADM Sub or MBX, as applicable, provided however, that such assets shall be dedicated to the Joint Venture, as and to the extent the Joint Venture Entity shall desire, on terms consistent with those established during the Commercial Phase, including without limitation the price payable to ADM Sub or MBX for such manufacturing or formulation services. The Joint Venture Entity shall purchase PHA Material from ADM Sub, in an amount to be determined by ADM Sub and the Joint Venture Entity; provided, however, that the Joint Venture Entity shall not purchase any
- \* CONFIDENTIAL TREATMENT REQUESTED

39

PHA Material from any other source (with the exception of pilot-scale production quantities) without the prior consent of ADM Sub during any period unless and until the Joint Venture Entity has purchased all of ADM Sub's output of the PHA Material from the ADM Sub Manufacturing Facility (and including any amounts then in inventory at the ADM Sub Manufacturing Facility). In addition, the Joint Venture Entity shall determine whether additional supplies of PHA Material in addition to that produced by the ADM Sub Manufacturing Facility shall be acquired from ADM Sub or from a Third Party; provided, however, that ADM Sub shall have the right and option to expand the manufacturing capacity at the ADM Sub Manufacturing Facility to a design capacity of up to \*, and the Joint Venture Entity will purchase such supply from ADM Sub, if the projected profitability of the Joint Venture Entity would be the same or greater than if it acquired such additional supply from another source. If the Joint Venture Entity is to obtain such additional supply from ADM Sub, then \*.

9.3 EXPANSION; FUTURE INVESTMENTS. Except as otherwise expressly provided in this Agreement, the manner of expansion of manufacturing capacity and PHA Material sales shall be determined by the Joint Venture Entity. Subject to the provisions in Section 9.2.1 and 9.2.2, future investments in the Joint Venture activities, including without limitation, the acquisition of additional equipment, facilities and personnel, shall be made by the Joint Venture Entity and not ADM, ADM Sub or MBX on an individual basis, so that the Joint Venture Entity shall become an independently-financeable entity that the owners may sell, sell equity in to Third Parties or otherwise exploit in whatever reasonable fashion they may determine. In the event the Joint Venture Entity is unable to obtain necessary independent financing, then ADM Sub and MBX shall equally finance the Joint Venture Entity subject to certain limits, terms and conditions to be determined upon the formation of the Joint Venture Entity. In the event ADM Sub, on the one hand, or MBX, on the other hand, is financially incapable of committing to provide an equal share of the financing, then none of them shall have an obligation to provide such financing, such failure to finance shall not constitute a breach of any obligation or otherwise alter the respective rights of the Parties and the Parties shall diligently pursue alternative financing or other means to accomplish the goal of the Joint Venture

- 9.4 CONTRACTS; LICENSES. The operations and assets of the Joint Sales Company will be dedicated or transferred to the Joint Venture Entity in accordance with the foregoing requirements of this Article 9, and ADM Sub and MBX hereby consent to the same. In keeping with the foregoing, the Joint Sales Company shall assign such of the Commercial Alliance Agreements to the Joint Venture Entity as are reasonably necessary or useful for the Joint Venture Entity to conduct the Joint Venture. ADM Sub and MBX shall take, or cause the Joint Sales Company to take, such actions as are required to comply with and give effect to this Article 9. ADM Sub and MBX shall also grant such licenses, and provide such services, on commercially reasonable terms in light of the licenses and services that ADM Sub and MBX provided to the Joint Sales Company, as are reasonably necessary to enable the Joint Venture Entity to conduct the business of the Joint Venture on the terms set forth herein. Without limiting the foregoing, ADM Sub and MBX shall grant to the Joint Venture Entity exclusive
- \* CONFIDENTIAL TREATMENT REQUESTED

40

licenses of similar scope as the licenses each granted herein to the Joint Sales Company but without the limitation on production volume.

- 9.5 OWNERSHIP; RETURN ON INVESTMENT. ADM Sub and MBX shall each own fifty percent (50%) of the total equity of the Joint Venture Entity. In keeping with the foregoing, capital contributions, profit distributions and control of management and operations of the Joint Venture Entity shall be shared equally by ADM Sub and MBX; provided, however, the Ledger Account shall continue in the manner set forth in the Operating Agreement, and all profit distributions by the Joint Venture Entity shall be made to ADM Sub until such time as the Ledger Account is reduced to zero. The agreements or other documents governing the distributions of profit from the Joint Venture Entity will provide for periodic preferential distributions in order to maintain equal investments by both ADM Sub and MBX.
- 9.6 MANAGEMENT. ADM Sub and MBX intend for the Joint Venture Entity to be managed by a steering committee or board of directors, on which they have equal representation, in a manner that is similar to that provided herein for management of the Commercial Alliance by the Steering Committee. The overriding principle for such management will be equal representation and cooperative decision-making in the best interest of the long term profitability of the Joint Venture Entity, and not on the basis of ADM Sub's or MBX's separate commercial goals and interests.
- 9.7 TRANSFER OF INTEREST. If either MBX or ADM Sub desires to transfer its ownership interest in the Joint Venture Entity to a Third Party (the Party desiring to so transfer shall be the "Offeror Party" and the other such Party shall be the "Offeree Party"), then the Offeror Party shall first offer to the Offeree Party the opportunity to negotiate towards a purchase of such ownership interest and, if the Offeree Party accepts such offer, then the Offeror Party and the Offeree Party shall negotiate in good faith towards a purchase of such ownership interest on such terms as each, in its sole discretion, shall determine to be acceptable. In the event that the Offeror Party and the Offeree Party have not completed a purchase and sale transaction for such ownership interest within sixty (60) days after the initial offer, then the Offeror Party shall be free to transfer its ownership interest in the Joint Venture Entity to a Third Party without restriction or obligation hereunder; provided, however, any such transfer shall be on terms and conditions no less favorable than the terms and conditions the Offeror Party last proposed to the Offeree Party. Both ADM Sub and MBX shall have the right to transfer their respective ownership interest in the Joint Venture Entity to a Third Party who acquires all or substantially all of the assets or equity interest of ADM Sub or MBX without having to comply with the foregoing right of first negotiation; provided, however, that such Party's successor in interest shall be bound by such right of first negotiation.
- 9.8 ADM SUB DECLINES JV OPTION. If ADM Sub does not exercise the JV Option as set forth herein, MBX shall have a period of twenty four (24) months following the expiration of the JV Option during which it shall be free to commence the establishment of manufacturing capacity for PHA Material outside of the Commercial Alliance that is comparable to or greater than the manufacturing capacity of the ADM Sub Manufacturing Facility, including without limitation, commencing construction of its own manufacturing facility for PHA Material or by entering into a legally binding agreement with a Third Party to jointly manufacture PHA
- \* CONFIDENTIAL TREATMENT REQUESTED

Material with such Third Party; provided however, that MBX shall not be permitted to commence the manufacture or sale of PHA Material outside of the Commercial Alliance unless and until the Ledger Account has been repaid so that the balance thereof is less than \* as further described in Section 9.8.2.

- 9.8.1 SUSPENSION OF EXCLUSIVITY. If ADM Sub does not exercise the JV Option and if MBX is able to commence the establishment of manufacturing capacity for PHA Material outside of the Commercial Alliance within a twenty-four (24) month period as set forth in Section 9.8 above, then, upon that date, this Agreement shall be automatically amended such that Section 8.4 shall be deleted in its entirety. However, if MBX fails to commence the establishment of manufacturing capacity for PHA Material outside of the Commercial Alliance within a twenty-four (24) month period as set forth in Section 9.8 above, then, upon the expiration of that period, the JV Option shall reset, the suspension of Section 8.4 shall terminate and Section 8.4 shall again be binding on the Parties in accordance with its terms, and this Agreement shall continue as if the Expansion Proposal had never been made.
- 9.8.2 PAY-DOWN OF LEDGER ACCOUNT. During the Term, MBX shall not be permitted, directly or through its Affiliates, agents or any Third Party, to manufacture or have made any PHA Material and PHA Formulations, other than in connection with Pilot Activities or through the Joint Sales Company as part of the Commercial Alliance, unless and until the restrictions provided in Section 8.4 have been suspended or terminated in accordance with Section 9.8.1 and the Ledger Account has been repaid (including without limitation, directly by MBX to ADM Sub in one or more payments) so that the balance thereof is less than \* when calculated in the manner provided for in the Operating Agreement. In the event that the restrictions provided in Section 8.4 have been so suspended or terminated and the Ledger Account has been repaid so that the balance is less than \* as described in this Section 9.8.2, this Agreement shall, as of such date, be automatically amended such that the licenses granted under Section 7.2.1, 7.2.2 and 7.3.2 convert from exclusive licenses to non-exclusive licenses.
- 9.8.3 WIND-DOWN OF JOINT SALES COMPANY. Promptly after the Ledger Account is paid down and the licenses are converted to non-exclusive licenses as set forth in Section 9.8.2 above, the Parties will discuss in good faith alternative arrangements for developing and serving the global marketplace for PHA Material and PHA Formulations, including sustaining the operation of the Joint Sales Company. At anytime following the conversion of the licenses, the Parties may mutually agree to trigger, or any one of them may by ninety (90) days prior written notice to the other Parties may trigger, the dissolution and winding down of the Joint Sales Company and the liquidation of its assets, in accordance with the Operating Agreement. Upon such winding-down of the Joint Sales Company, MBX shall grant a license to ADM Sub as described in Section 9.8.4. For avoidance of doubt, once the conversion of the licenses from exclusive to non-exclusive described in Section 9.8.2 occurs, anything herein to the contrary notwithstanding, MBX shall be free to exploit the MBX Technology and MBX Patent Rights in any manner it shall determine in its sole discretion, including without limitation by manufacturing and selling PHA Material and PHA Formulations.

### \* CONFIDENTIAL TREATMENT REQUESTED

42

9.8.4 GRANT OF LICENSE. If, as described in Section 9.8.3, the Parties or any one of them triggers the dissolution and winding down of the Joint Sales Company, then, effective upon such date, MBX shall grant to ADM Sub a royalty-bearing, non-exclusive, perpetual, irrevocable license, with Limited Sublicense Right, under MBX's right, title and interest in and to the MBX Technology and the MBX Patent Rights, solely to make, have made, use, offer for sale, sell, have sold and import PHA Material and PHA Formulations for use in the Field worldwide and this Agreement shall terminate. The foregoing license shall be limited such that ADM Sub shall only be permitted to make and have made the amount of PHA Material (including PHA Material contained within PHA Formulations) permitted under the then-current license under Section 7.2.2 during each consecutive period of twelve (12) months during the term of the license. During the Royalty Term, ADM Sub will pay to MBX a royalty equal to: (i) \* on all sales or other conveyances of PHA Patented Material (including, without limitation, PHA Material that is contained within PHA Formulations), on a one hundred percent (100%) purity basis; and (ii) \* on all sales or other conveyances of PHA Know-How Material (including, without limitation, PHA Material that is contained within PHA Formulations), on a one hundred percent (100%) purity basis. During the Supplemental Royalty Term, ADM Sub will pay to MBX a royalty equal to \* on all sales or other conveyances of PHA Supplemental Know-How Material (including, without limitation, PHA Material that is contained within PHA

Formulations), on a one hundred percent (100%) purity basis. In the event more than one royalty applies to the manufacture, use, sale or importation of a particular product, then the highest royalty shall be the only applicable royalty hereunder. Provided, however, that any such royalty shall be reduced by the amount of royalties payable to any Third Party under a license required to obtain freedom to practice the MBX Technology and/or MBX Patent Rights for the manufacture, use or sale of PHA Material within the Field provided that MBX breached an obligation under Section 8.2.1 to disclose: (i) the existence of such Third Party's intellectual property rights in such Technology, or (ii) claims by such Third Party that any of the MBX Patent Rights are invalid or unenforceable, or that the practice of any of the MBX Patent Rights would constitute an infringement or misappropriation of such Third Party's intellectual property rights (such royalty reduction right is "Third Party IP Royalty Offset"). The royalty shall be payable within thirty (30) days following the end of each Calendar Quarter during the term of the applicable license for sales or other conveyances that occur during such Calendar Quarter. Amounts due under this Section 9.8.3 shall be payable by wire transfer of immediately available funds to an MBX bank account in accordance with instructions to be provided to the ADM Sub by MBX. Any amounts that are not paid when due hereunder shall accrue interest at the rate of four percent (4%) per annum in excess of the one year London Interbank Offered Rate (LIBOR) then most recently published in THE WALL STREET JOURNAL. The right to demand and receive the interest provided hereunder shall be in addition to any other rights available to MBX hereunder or at law.

# ARTICLE 10 TERM AND TERMINATION

- 10.1. TERM. This Agreement shall commence as of the Effective Date and shall expire upon the first to occur of: (i) the expiration or termination of the last Valid Claim within the Patent Rights granted by the United States Patent and Trademark Office and claiming MBX
- \* CONFIDENTIAL TREATMENT REQUESTED

43

Technology or Alliance Technology and (ii) the exercise of the JV Option by ADM Sub and the Parties have taken all necessary actions to implement the Joint Venture pursuant to Article 9, unless terminated in accordance with this Article 10 prior to such date (the "Term").

- 10.2 TERMINATION. This Agreement may be terminated at any time by either Party as follows:
- 10.2.1 TERMINATION FOR BREACH. In the event that MBX materially defaults on any material obligation hereunder or under any other Commercial Alliance Agreement (including an "Adverse Act" as defined in the Operating Agreement), or materially breaches any material term herein or therein to be performed or observed, then ADM Sub shall have the right to terminate this Agreement: (a) by giving thirty (30) days prior written notice to MBX in the case of a breach of any payment term, and (b) by giving ninety (90) days prior written notice to MBX in the case of any other breach; provided, however, that in the case of a default or breach capable of being cured, if MBX shall cure the said default or breach within such notice period after said notice shall have been given, then said notice shall not be effective and the Agreement shall continue in full force and effect. In the event that ADM Sub materially defaults on any material obligation hereunder or under any other Commercial Alliance Agreement (including an "Adverse Act" as defined in the Operating Agreement), or materially breaches any material term herein or therein to be performed or observed, then MBX shall have the right to terminate this Agreement: (a) by giving thirty (30) days prior written notice to ADM Sub in the case of a breach of any payment term, and (b) by giving ninety (90) days prior written notice to ADM Sub in the case of any other breach; provided, however, that in the case of a default or breach capable of being cured, if ADM Sub shall cure the said default or breach within such notice period after said notice shall have been given, then said notice shall not be effective and the Agreement shall continue in full force and effect. In the event that MBX commits a breach of this Agreement by granting a license under the MBX Technology to a Third Party in violation of the terms of the license granted to ADM Sub under Section 7.2.1 or to the Joint Sales Company under Section 7.2.2, and such breach remains uncured for sixty (60) days following notice from ADM Sub, then such breach (a "Section 7 Breach") shall trigger certain additional rights for ADM Sub as set forth in Section 10.5.
- 10.2.2 ADM SUB TERMINATION DUE TO CHANGED CIRCUMSTANCES. In the event that, based upon a change in circumstances beyond the reasonable control of ADM and ADM Sub, the projected financial return from the Commercial Alliance is deemed by ADM Sub to be either too uncertain or inadequate, ADM Sub shall have

the right to terminate this Agreement upon thirty (30) days prior written notice to MBX. The Parties acknowledge that, without limitation, a Third Party challenge to the validity or enforceability of the MBX Patent Rights or MBX Technology, the emergence of a third party's superior technology, an increase in the projected cost required to Construct the ADM Sub Manufacturing Facility or to manufacture PHA Material and/or PHA Formulations, a decrease in the projected sales volume of PHA Material and/or PHA Formulations, and a decrease in the projected sales price of PHA Material and/or PHA Formulations are all examples of a change in circumstances beyond the reasonable control of ADM and ADM Sub.

10.2.3 MUTUAL AGREEMENT. MBX and ADM Sub may, at any time during the Term, terminate this Agreement by written agreement with such consequences as they shall provide therein.

\* CONFIDENTIAL TREATMENT REQUESTED

44

- 10.2.4 MBX TERMINATION DUE TO CHANGED CIRCUMSTANCES. Commencing upon ADM Sub declining the JV Option and continuing unless and until such time as the JV Option resets pursuant to Section 9.8.5, in the event that based upon a change in circumstances during this period beyond the reasonable control of MBX, the projected financial return from the Commercial Alliance is deemed by MBX to be either too uncertain or inadequate, MBX shall have the right to terminate this Agreement upon thirty (30) days prior written notice to ADM Sub.
  - 10.3 GENERAL CONSEQUENCES OF TERMINATION OR EXPIRATION; GRANT OF LICENSES.
- 10.3.1 CONSEQUENCES OF TERMINATION OR EXPIRATION. Upon the termination or expiration of the Agreement, the following shall occur:  $\frac{1}{2}$ 
  - (a) MBX shall immediately cease using, and shall promptly return to ADM Sub, all ADM Technology, except to the extent MBX has a license to practice such Technology under this Article 10;
  - (b) ADM Sub shall immediately cease using, and shall promptly return to MBX all MBX Technology, except to the extent ADM Sub has a license to practice such Technology under this Article 10;
  - (c) the Joint Sales Company shall immediately cease using all MBX Technology and all ADM Technology, and shall promptly return to MBX all MBX Technology and to ADM Sub all ADM Technology;
  - (d) the license granted to MBX pursuant to Section 7.3.1 shall immediately terminate;
  - (e) the license granted to ADM Sub pursuant to Section 7.2.1 shall immediately terminate;
  - (f) the licenses granted to the Joint Sales Company pursuant to Section 7.2.2 and Section 7.3.2 shall immediately terminate;
  - (g) each Party shall promptly pay to the other any amounts due and payable hereunder as of the effective date of termination or expiration;
  - (h) subject to those rights and obligations of the Parties that survive termination or expiration by their terms or pursuant to Section 10.6, this Agreement shall terminate and be of no further force or effect; and
  - (i) the other Commercial Alliance Agreements shall terminate with the effects set forth therein, including without limitation, that the Joint Sales Company shall be dissolved and wind up its operations in accordance with the Operating Agreement.
- \* CONFIDENTIAL TREATMENT REQUESTED

45

10.4 SPECIFIC CONSEQUENCES OF TERMINATION BY MBX.

10.4.1. TERMINATION DUE TO ADM SUB BREACH. Upon a termination of this Agreement by MBX pursuant to Section 10.2.1, the following shall occur as of the

- (a) MANUFACTURING OBLIGATION. In the event the effective date of termination occurred during the Construction Phase, ADM Sub shall provide fermentation services to produce PHA Cell Paste in up to  $^{\star}$  fermentors for a period of  $^{\star}$  at the Manufacturing Cost (as such term is defined in the ADM Sub Manufacturing Agreement), plus depreciation on assets to the extent used to perform such manufacturing calculated on a ten-year straight-line basis, but otherwise pursuant to the terms and conditions set forth in the ADM Sub Manufacturing Agreement. In the event the effective date of termination occurred during the Commercial Phase, ADM Sub would for a period of three and one-half years, at MBX's election, to be exercised once at the time MBX places it first purchase order, (i) provide fermentation services to produce PHA Cell Paste in up to \* fermentors at the Manufacturing Cost, plus depreciation on assets to the extent used to perform such manufacturing calculated on a ten-year straight-line basis; or (ii) manufacture PHA Material in the ADM Sub Manufacturing Facility (subject to the limitations of such facility as of the time of termination) at Manufacturing Cost, plus depreciation on assets to the extent used to perform such manufacturing calculated on a ten-year straight-line basis, in either case, otherwise pursuant to the terms and conditions set forth in the ADM Sub Manufacturing Agreement.
- (b) GRANT OF LICENSES. Upon the effective date of termination by MBX, ADM Sub hereby grants to MBX the following licenses: (i) an exclusive, fully sublicenseable, \*, perpetual, irrevocable license, under all intellectual property rights Controlled by ADM Sub and claiming or covering Alliance Technology to research, develop, make, have made, use, offer for sale, sell, have sold and import PHA-Related Material, produced by any means or methods, for any and all uses and (ii) a non-exclusive, fully sublicenseable, \*, perpetual, irrevocable license, under all intellectual property rights Controlled by ADM Sub and claiming or covering ADM Sub Background Technology to research, develop, make, have made, use, offer for sale, sell, have sold and import PHA-Related Material, produced by any means or methods, for any and all uses.

### 10.4.2 TERMINATION DUE TO CHANGED CIRCUMSTANCES.

(a) GRANT OF LICENSE. Upon a termination of this Agreement by MBX pursuant to Section 10.2.4, MBX hereby grants to ADM Sub a royalty-bearing, non-exclusive, perpetual, irrevocable license, with Limited Sublicense Right, under MBX's right, title and interest in and to the MBX Technology and the MBX Patent Rights, solely to make, have made, use, offer for sale, sell, have sold and import PHA Material and PHA Formulations for use in the Field worldwide. The foregoing license shall be limited such that ADM Sub shall only be permitted to make and have made the amount of PHA Material (including PHA Material contained within PHA Formulations) permitted under the then-current license under Section 7.2.2 during each consecutive period of twelve (12) months during the term of the license.

## \* CONFIDENTIAL TREATMENT REQUESTED

46

During the Royalty Term, ADM Sub will pay to MBX a royalty equal to: (i) \* on all sales or other conveyances of PHA Patented Material (including, without limitation, PHA Material that is contained within PHA Formulations), on a one hundred percent (100%) purity basis; and (ii) \* on all sales or other conveyances of PHA Know-How Material (including, without limitation, PHA Material that is contained within PHA Formulations), on a one hundred percent (100%) purity basis. During the Supplemental Royalty Term, ADM Sub will pay to MBX a royalty equal to \* on all sales or other conveyances of PHA Supplemental Know-How Material (including, without limitation, PHA Material that is contained within PHA Formulations), on a one hundred percent (100%) purity basis. In the event more than one royalty applies to the manufacture, use, sale or importation of a particular product, then the highest royalty shall be the only applicable royalty hereunder. Provided, however, that any such royalty shall be subject to Third Party IP Royalty Offset. The royalty shall be payable within thirty (30) days following the end of each Calendar Quarter during the term of the applicable license for sales or other conveyances that occur during such Calendar Quarter. Amounts due under this Section 10.4.2 shall be payable by wire transfer of immediately available funds to an MBX bank account in accordance with instructions to be provided to the ADM Sub by MBX. Any amounts that are not paid when due hereunder shall accrue interest at the rate of four percent (4%) per annum in excess of the one year London Interbank Offered Rate (LIBOR) then most recently published in THE WALL STREET JOURNAL. The right to demand and receive the interest provided hereunder shall be in addition to any other rights available to  $\ensuremath{\mathsf{MBX}}$ hereunder or at law.

- 10.5.1 TERMINATION DUE TO CHANGED CIRCUMSTANCES. Upon a termination of this Agreement by ADM Sub pursuant to Section 10.2.2, the following shall occur as of the effective date of termination.
- (a) MANUFACTURING OBLIGATION. In the event the effective date of termination occurred during the Construction Phase, ADM Sub shall provide fermentation services to produce PHA Cell Paste in up to \* fermentors for a period of \* at the Manufacturing Cost, plus depreciation on assets in the ADM Sub Manufacturing Facility that are not allocated to other uses calculated on a ten-year straight-line basis, \*, but otherwise pursuant to the terms and conditions of the ADM Sub Manufacturing Agreement. In the event the effective date of termination occurred during the Commercial Phase, ADM Sub would for a period of three and one-half (3.5) years, at MBX's election, to be exercised once at the time MBX places it first purchase order, (i) provide fermentation  ${\bf r}$ services to produce PHA Cell Paste in up to \* fermentors at the Manufacturing Cost, plus depreciation on assets in the ADM Sub Manufacturing Facility that are not allocated to other uses calculated on a ten-year straight-line basis, \*; or (ii) manufacture PHA Material in the ADM Sub Manufacturing Facility (subject to the limitations of such facility as of the time of termination) at Manufacturing Cost, plus depreciation on assets in the ADM Sub Manufacturing Facility that are not allocated to other uses calculated on a ten-year straight-line basis, \*, in either case, otherwise under the terms set forth in the ADM Sub Manufacturing Agreement.
- \* CONFIDENTIAL TREATMENT REQUESTED

47

(b) GRANT OF LICENSE. Upon the effective date of termination by ADM Sub, ADM Sub hereby grants to MBX a fully sublicenseable, \*, perpetual, irrevocable license, under all intellectual property rights Controlled by ADM Sub and claiming or covering Alliance Technology to research, develop, make, have made, use, offer for sale, sell, have sold and import PHA-Related Material, produced by any means or methods, for any and all uses. Such license shall be exclusive in the field of PHA-Related Material for a period of ten (10) years from the date of grant, and non-exclusive thereafter.

## 10.5.2 TERMINATION DUE TO MBX BREACH.

(a) Upon the effective date of termination by ADM Sub for a Section 7 Breach, MBX hereby grants to ADM Sub a non-exclusive, \*, perpetual, irrevocable license, with Limited Sublicense Right, under MBX's right, title and interest in and to the MBX Technology, the MBX Patent Rights and the Joint Alliance Technology, solely to make, have made, use, offer for sale, sell, have sold and import PHA Material and PHA Formulations for use in the Field worldwide, without any limitation on production volume.

(b) Upon the effective date of termination by ADM Sub under Section 10.2.1 for any reason other than a Section 7 Breach, MBX hereby grants to ADM Sub a royalty-bearing, non-exclusive, perpetual, irrevocable license, with Limited Sublicense Right, under MBX's right, title and interest in and to the MBX Technology and the MBX Patent Rights, solely to make, have made, use, offer for sale, sell, have sold and import PHA Material and PHA Formulations for use in the Field worldwide. The foregoing license shall be limited such that ADM Sub shall only be permitted to make and have made a maximum of \* (or such greater amount if the then-current license under Section 7.2.2 has been expanded) of PHA Material (including PHA Material contained within PHA Formulations) during each consecutive period of twelve (12) months during the term of the license. During the Royalty Term, ADM Sub will pay to MBX a royalty equal to: (i) \* on all sales or other conveyances of PHA Patented Material (including, without limitation, PHA Material that is contained within PHA Formulations), on a one hundred percent (100%) purity basis; and (ii) \* on all sales or other conveyances of PHA Know-How Material (including, without limitation, PHA Material that is contained within PHA Formulations), on a one hundred percent (100%) purity basis. During the Supplemental Royalty Term, ADM Sub will pay to MBX a royalty equal to \* on all sales or other conveyances of PHA Supplemental Know-How Material (including, without limitation, PHA Material that is contained within PHA Formulations), on a one hundred percent (100%) purity basis. In the event more than one royalty applies to the manufacture, use, sale or importation of a particular product, then the highest royalty shall be the only applicable royalty hereunder. Provided, however, that any such royalty shall be subject to Third Party IP Royalty Offset. The royalty shall be payable within thirty (30) days following the end of each Calendar Quarter during the term of the applicable license for sales or other conveyances that occur during such Calendar Quarter. Amounts due under this Section 10.5.2 shall be payable by wire transfer of immediately available funds to an MBX bank account in

accordance with instructions to be provided to the ADM Sub by MBX. Any amounts that are not paid when due hereunder shall accrue interest at the rate of four percent (4%) per annum in excess of the one year London Interbank Offered Rate (LIBOR) then most recently published in THE WALL STREET

\* CONFIDENTIAL TREATMENT REQUESTED

48

JOURNAL. The right to demand and receive the interest provided hereunder shall be in addition to any other rights available to MBX hereunder or at law.

#### 10.6 RIGHTS UPON BANKRUPTCY.

- (a) In the event ADM Sub files for protection under Chapter 11 of the U.S. Bankruptcy Code, and ADM Sub, directly or indirectly in connection with such proceedings, rejects this Agreement as an executory contract (or on similar grounds), then ADM Sub shall and hereby does agree to perform the following obligations:
- (i) In the event the effective date of rejection occurred during the Construction Phase, ADM Sub shall provide fermentation services to produce PHA Cell Paste in up to \* fermentors for a period of ' at the Manufacturing Cost (as such term is defined in the ADM Sub Manufacturing Agreement), plus depreciation on assets to the extent used to perform such manufacturing calculated on a ten-year straight-line basis, but otherwise pursuant to the terms and conditions set forth in the ADM Sub Manufacturing Agreement. In the event the effective date of termination occurred during the Commercial Phase, ADM Sub would for a period of three and one-half (3.5) years, at MBX's election, to be exercised once at the time MBX places it first purchase order, (i) provide fermentation services to produce PHA Cell Paste in up to \* fermentors at the Manufacturing Cost, plus depreciation on assets to the extent used to perform such manufacturing calculated on a ten-year straight-line basis; or (ii) manufacture PHA Material in the ADM Sub Manufacturing Facility (subject to the limitations of such facility as of the time of termination) at Manufacturing Cost, plus depreciation on assets to the extent used to perform such manufacturing calculated on a ten-year straight-line basis, in either case, otherwise pursuant to the terms and conditions set forth in the ADM Sub Manufacturing Agreement.
- (ii) Upon the effective date of rejection by MBX, ADM Sub hereby grants to MBX the following licenses: (i) an exclusive, fully sublicenseable, \*, perpetual, irrevocable license, under all intellectual property rights Controlled by ADM Sub and claiming or covering Alliance Technology to research, develop, make, have made, use, offer for sale, sell, have sold and import PHA-Related Material, produced by any means or methods, for any and all uses and (ii) a non-exclusive, fully sublicenseable, fully paid-up, royalty-free, perpetual, irrevocable license, under all intellectual property rights Controlled by ADM Sub and claiming or covering ADM Sub Background Technology to research, develop, make, have made, use, offer for sale, sell, have sold and import PHA-Related Material, produced by any means or methods, for any and all uses.
- (b) In the event MBX files for protection under Chapter 11 of the U.S. Bankruptcy Code, and MBX, directly or indirectly in connection with such proceedings, rejects this Agreement as an executory contract (or on similar grounds), then, effective as of the effective date of such rejection, MBX shall and hereby does grant to ADM Sub a royalty-bearing, non-exclusive, perpetual, irrevocable license, with Limited Sublicense Right, under MBX's right, title and interest in and to the MBX Technology and the MBX Patent Rights, solely to make, have made, use, offer for sale, sell, have sold and import PHA Material and PHA Formulations for use in the Field worldwide. The foregoing license shall be limited such that
- \* CONFIDENTIAL TREATMENT REQUESTED

49

ADM Sub shall only be permitted to make and have made a maximum of one hundred fifty thousand (150,000) tons (or such greater amount if the then-current license under Section 7.2.2 has been expanded) of PHA Material (including PHA Material contained within PHA Formulations) during each consecutive period of twelve (12) months during the term of the license. During the Royalty Term, ADM Sub will pay to MBX a royalty equal to: (i) \* on all sales or other conveyances of PHA Patented Material (including, without limitation, PHA Material that is contained within PHA Formulations), on a one hundred percent (100%) purity basis; and (ii) \* on all sales or other conveyances of PHA Know-How Material (including, without limitation, PHA

Material that is contained within PHA Formulations), on a one hundred percent (100%) purity basis. During the Supplemental Royalty Term, ADM Sub will pay to MBX a royalty equal to \* on all sales or other conveyances of PHA Supplemental Know-How Material (including, without limitation, PHA Material that is contained within PHA Formulations), on a one hundred percent (100%) purity basis. In the event more than one royalty applies to the manufacture, use, sale or importation of a particular product, then the highest royalty shall be the only applicable royalty hereunder. Provided, however, that any such royalty shall be subject to Third Party IP Royalty Offset. The royalty shall be payable within thirty (30) days following the end of each Calendar Quarter during the term of the applicable license for sales or other conveyances that occur during such Calendar Quarter. Amounts due under this Section 10.5.2 shall be payable by wire transfer of immediately available funds to an MBX bank account in accordance with instructions to be provided to the ADM Sub by MBX. Any amounts that are not paid when due hereunder shall accrue interest at the rate of four percent (4%) per annum in excess of the one year London Interbank Offered Rate (LIBOR) then most recently published in THE WALL STREET JOURNAL. The right to demand and receive the interest provided hereunder shall be in addition to any other rights available to MBX hereunder or at law.

- 10.7 SURVIVING PROVISIONS; RESERVATION OF RIGHTS. Termination or expiration of this Agreement for any reason, and the implementation or exercise of the consequences of termination as set forth in Sections 10.3, 10.4, 10.5, or 10.6 shall be without prejudice to any rights and obligations of the Parties that have accrued as of the Effective Date of termination and:
- (a) the rights and obligations of the Parties provided in Articles 1, 8, 11, 12, 13 and 14, Sections 7.1, 7.5, 7.6, 9.8.4, 10.3, 10.4, 10.5, or 10.6 and 10.7 and any other provision which would reasonably be expected to survive termination in accordance with the terms of this Agreement, all of which shall survive such termination; and
- (b) any other rights or remedies provided at law or equity which either Party may otherwise have against the other.

# ARTICLE 11 PATENT MATTERS

- 11.1 PATENT COMMITTEE. ADM Sub and MBX shall each appoint two (2) representatives to serve on a patent committee (the "Patent Committee") to administer and coordinate certain activities described in this Article 11. ADM Sub and MBX may replace their
- \* CONFIDENTIAL TREATMENT REQUESTED

50

respective representatives on the Patent Committee from time to time during the Term, at their sole discretion, by notice to the other Party.

- ${\tt 11.1.1}$  MEETINGS. The Patent Committee shall meet as frequently and at such times as its members shall determine.
- 11.1.2 MINUTES. A secretary for the Patent Committee shall be appointed by its members to keep accurate minutes of the deliberations of the Patent Committee recording all proposed decisions and all actions recommended or taken. Copies of such minutes shall be made available to the Steering Committee as it shall request.
- 11.1.3 EXPENSES. MBX and ADM Sub shall each bear all expenses of their respective representatives to the Patent Committee related to their participation on the Patent Committee and attendance at Patent Committee meetings.
- 11.1.4 REPORTS. The Patent Committee shall produce such reports for the Steering Committee as the Steering Committee shall request from time-to-time.
  - 11.2 PATENT FILING, PROSECUTION AND MAINTENANCE.
- 11.2.1 ADM SUB PATENT RIGHTS. ADM Sub shall have the sole right and authority to file, prosecute and maintain the ADM Sub Patent Rights during the Term at its own expense and using patent counsel of its own choosing. ADM Sub represents that it will continue to file, prosecute and maintain the ADM Sub Patent Rights in accordance with reasonable commercial practices during the Term.
  - 11.2.2 MBX PATENT RIGHTS. MBX shall have the sole right and authority

to file, prosecute and maintain the MBX Patent Rights during the Term at its own expense and using patent counsel of its own choosing. MBX represents that it will continue to file, prosecute and maintain the MBX Patent Rights in accordance with reasonable commercial practices during the Term.

11.2.3 JOINT ALLIANCE TECHNOLOGY. ADM Sub and MBX, acting through the Patent Committee, will file, prosecute and maintain Patent Rights claiming Joint Alliance Technology in accordance with this Section 11.2.3 with the primary goal of maximizing the commercial potential of the PHA Material and PHA Formulations in a commercially reasonable manner. During the Term, the cost of such activities shall be borne by the Joint Sales Company, and thereafter it shall be shared equally by ADM Sub and MBX, except as otherwise set forth herein. ADM Sub and MBX, acting through the Patent Committee and patent attorneys or agents agreed upon by the Patent Committee, shall prepare, file, prosecute and maintain all Patent Rights relating to Joint Alliance Technology. If either ADM Sub or MBX decides to withdraw from the continued prosecution of any Patent Rights on Joint Alliance Technology, such Party shall so inform the other Party at least thirty (30) days prior to the effective date of such decision and the other Party shall have the right, through patent attorneys or agents of its choice, to assume the cost and responsibility for the continued prosecution of such Patent Rights. Promptly after the effective date of the decision to withdraw, the withdrawing Party shall assign its right, title and interest in and to such Patent Rights to the other Party. Notwithstanding such

\* CONFIDENTIAL TREATMENT REQUESTED

51

assignment, such Patent Rights will continue to be subject to the licenses granted herein to the extent applicable.

#### 11.3 INFRINGEMENT AND DEFENSE.

- 11.3.1 ACTUAL OR THREATENED INFRINGEMENT. In the event either ADM Sub or MBX becomes aware of any possible infringement or unauthorized possession, knowledge or use of any Technology, which is the subject matter of this Agreement, in the Field (collectively, an "Infringement"), that Party shall promptly notify the other Party and provide it with available details. ADM Sub hereby reserves the exclusive right (but not obligation) to take whatever action it deems appropriate to prevent or terminate any third party infringement of ADM Sub Patent Rights claiming the ADM Sub Technology. MBX hereby reserves the exclusive right (but not obligation) to take whatever action it deems appropriate to prevent or terminate any third party infringement of MBX Patent Rights claiming the MBX Technology. Notwithstanding the foregoing, during the term, if either ADM Sub or MBX (the "Defending Party") decides to take any action to prevent or terminate any Third Party infringement of its Patent Rights within the Field, it shall first give notice to the other Party (the "Neutral Party") and, if the Neutral Party can produce a written legal opinion of an independent patent attorney concluding that there is a reasonable likelihood that such Third Party could, in good faith, in connection with such action, allege that a claim or claims within Patent Rights Controlled by the Neutral Party are invalid or unenforceable, then the Defending Party shall not take such action against such Third Party without the prior, written consent of the Neutral Party. ADM Sub and MBX, sharing expenses equally and acting through patent attorneys or agents agreed upon by them, shall take whatever action they shall agree upon to prevent or terminate any third party infringement of Patent Rights relating to Joint Alliance Technology; provided, however, that if the Parties cannot agree, MBX shall have the right to make the final determination with respect to third party infringement within the Field. In all cases, all decisions by a Party pursuant to this Section 11.2 shall be made in good faith and in the best interest of the Commercial Alliance.
- 11.3.2 DEFENSE OF CLAIMS. In the event that any action, suit or proceeding is brought against any Party based on its actions in performance of the Commercial Alliance and alleging the infringement of the Technology or intellectual property rights of a Third Party, the Parties shall cooperate with each other in the defense of any such suit, action or proceeding. The Parties will give each other prompt written notice of the commencement of any such suit, action or proceeding or claim of infringement and will furnish each other with a copy of each communication relating to the alleged infringement. Each Party shall cooperate in the defense of such actions. If as a consequence of such action, suit or proceeding by a Third Party, a prohibition, restriction or other condition is imposed upon one or both of the Parties, the Parties shall examine and discuss in good faith the consequences of such prohibition or restriction or other conditions on this Agreement and on possible modifications hereto.

# ARTICLE 12 INDEMNIFICATION

termination of this Agreement for any reason whatsoever, MBX and its Affiliates shall indemnify, defend and hold ADM Sub, its Affiliates and their respective directors, officers and employees (collectively, "ADM Sub Indemnitees") harmless against any claims (including without

\* CONFIDENTIAL TREATMENT REQUESTED

52

limitation claims for product liability, personal injury or death, or property damage), liability, damage, loss, cost or expense (including reasonable attorneys' fees) incurred by any of them, to the extent resulting from: \*.

- 12.2 INDEMNIFICATION BY ADM SUB. During the course of, and upon and after termination of this Agreement for any reason whatsoever, ADM Sub and its Affiliates shall, jointly and severally, indemnify, defend and hold MBX, its Affiliates and their respective directors, officers and employees (collectively, "MBX Indemnitees") harmless against any claims (including without limitation claims for product liability, personal injury or death, or property damage), liability, damage, loss, cost or expense (including reasonable attorneys' fees) incurred by any of them, to the extent resulting from: \*.
- 12.3 CONDITIONS TO INDEMNIFICATION. A Party seeking indemnification under this Article 10 (the "Indemnified Party") shall give prompt notice of the claim to the other Party (the "Indemnifying Party") and, provided that the Indemnifying Party is not contesting the indemnity obligation, shall permit the Indemnifying Party to control any litigation relating to such claim and disposition of any such claim, provided that the Indemnifying Party shall act reasonably and in good faith with respect to all matters relating to the settlement or disposition of any claim as the settlement or disposition relates to Parties being indemnified under this Article 10 and provided, further, that the Indemnifying Party shall not settle or otherwise resolve any claim without prior notice to the Indemnified Party and the consent of the Indemnified Party (which consent shall not be unreasonably withheld, conditioned or delayed) if such settlement involves anything other than the payment of money by the Indemnifying Party. The Indemnified Party shall cooperate with the Indemnifying Party in its defense of any claim for which indemnification is sought under this Article 12 and shall have the right to be present in person or through counsel at all legal proceedings giving rise to the right of indemnification.
- 12.4 ATTRIBUTION. For purposes of this Article 12, except as provided below: (i) none of the Joint Sales Company, MBX or MBX's Affiliates (or their respective employees) shall be deemed to be an employee, agent or representative of ADM or ADM Sub, (ii) none of the Joint Sales Company, ADM Sub or ADM Sub's Affiliates (or their respective employees) shall be deemed to be an employee, agent or representative of MBX, (iii) none of MBX or ADM Sub or their respective Affiliates (or their respective employees) shall be deemed to be an employee, agent or representative of the Joint Sales Company; and, notwithstanding (i), (ii) and (iii) above, an employee of ADM, ADM Sub or MBX providing services to the Joint Sales Company on substantially a full-time basis, pursuant either to the ADM Sub Services Agreement or the MBX
- \* CONFIDENTIAL TREATMENT REQUESTED

53

Services Agreement, shall be deemed to be an agent or representative of the Joint Sales Company.

# ARTICLE 13 CONFIDENTIALITY

- 13.1 CONFIDENTIALITY OBLIGATIONS. MBX, ADM Sub and the Joint Sales Company each recognize that the other Party's Confidential Information and Proprietary Materials constitute highly valuable and proprietary confidential information. Each of MBX, ADM Sub and the Joint Sales Company agrees that it will keep confidential, and will cause its employees, consultants, agents and Affiliates to keep confidential, all Confidential Information and Proprietary Materials of the other Parties. MBX, ADM Sub, the Joint Sales Company and their respective employees, consultants, agents or Affiliates shall not use Confidential Information or Proprietary Materials of any other Party for any purpose whatsoever except as expressly permitted in this Agreement. MBX and Joint Sales Company acknowledge that the corn costs that constitute a portion of the Manufacturing Cost shall constitute ADM Sub Confidential Information.
- 13.2 LIMITED DISCLOSURE. MBX, ADM Sub and the Joint Sales Company each agree that any disclosure of another Party's Confidential Information or any

transfer of another Party's Proprietary Materials to any employee, consultants or agents of MBX, ADM Sub, or the Joint Sales Company or any of their respective Affiliates, shall be made only if and to the extent necessary to carry out its rights and responsibilities under this Agreement and shall be limited to the maximum extent possible consistent with such rights and responsibilities. MBX, ADM Sub and the Joint Sales Company each further agree that any disclosure of another Party's Confidential Information or any transfer of another Party's Proprietary Materials as permitted by the preceding sentence shall only be made to such of the recipient Party's employees, consultants, agents and Affiliates who are bound by written confidentiality obligations to maintain the confidentiality thereof and not to use such Confidential Information or Proprietary Materials except as expressly permitted by this Agreement. MBX, ADM Sub and the Joint Sales Company each further agree not to disclose or transfer the other Party's Confidential Information or Proprietary Materials to any third parties under any circumstance without the prior written approval from the relevant other Party (such approval not to be unreasonably withheld), except as otherwise required by law, or except as otherwise expressly permitted by this Agreement. Each Party shall take such action, and shall cause its Affiliates to take such action, to preserve the confidentiality of the other Party's Confidential Information and Proprietary Materials as it would customarily take to preserve the confidentiality of its own Confidential Information and Proprietary Materials, and in no event, less than reasonable care. Each Party, upon the request of another Party, will return all of such other Party's Proprietary Information and Confidential Materials disclosed or transferred to it pursuant to this Agreement which does not constitute Joint Program Technology, including all copies and extracts of documents and all manifestations in whatever form, within two (2) months of the request or, within two (2) weeks of the termination or expiration of this Agreement; provided, however, that a Party may retain Confidential Information and Proprietary Materials of the other Party relating to any license which survives such termination and one copy of all other Confidential

\* CONFIDENTIAL TREATMENT REQUESTED

54

Information may be retained in its legal files solely for the purpose of monitoring compliance with this Article 13.

- 13.3 EMPLOYEES AND CONSULTANTS. MBX, ADM Sub, and the Joint Sales Company each hereby represent that all of its employees, consultants and agents to such Party or its Affiliates, participating in the activities of the Commercial Alliance who shall have access to the Confidential Information or Proprietary Materials of the other Party are bound by written obligations to maintain such information in confidence and not to use such information except as expressly permitted herein and to assign any inventions or discoveries made in connection with such activities to MBX, ADM Sub or the Joint Sales Company as applicable. Each Party agrees to be held responsible for the confidentiality obligations to which its employees, consultants and agents (and those of its Affiliates) are obligated.
- 13.4 PUBLICITY. No Party may publicly disclose the existence or terms of this Agreement without the prior written consent of the other Parties; provided, however, that any Party may make such a disclosure: (a) to the extent required by law (including the filing of a redacted copy of the Agreement as an exhibit to a legally required filing) or by the requirements of any nationally recognized securities exchange, quotation system or over-the-counter market on which such Party has its securities listed or traded, and (b) to any investors (including without limitation, entities interested in acquiring the stock or assets of such Party or merging with or into such Party), prospective investors, lenders, other potential financing sources, prospective customers and prospective strategic marketing partners who are obligated to keep such information confidential. In the event that such disclosure is required as aforesaid, the disclosing Party shall make reasonable efforts to provide the other Party with reasonable notice prior to such disclosure and to coordinate with the other Party with respect to the wording and timing of any such disclosure. The Parties will from time to time mutually agree on the wording of press releases publicizing the Commercial Alliance. Once such press release or any other written statement is approved for disclosure by both Parties, either Party may make subsequent public disclosure of the contents of such statement, but no more than the contents of such statement, without the further approval of the other Party.
- 13.6 TERM. The obligations and restrictions set forth in this Article 13 shall survive the termination or expiration of this Agreement for a period of twenty (20) years.

- 14.1 NO ASSIGNMENT; CHANGE OF CONTROL. No Party shall sell, transfer or permit any transfer of, in whole or in part, this Agreement without prior written consent of the other Parties, which consent may be withheld for any reason. The merger or acquisition of MBX by, with or into a third party shall not be deemed to effect an assignment of this Agreement by MBX and this Agreement shall be binding upon and inure to the benefit of such third party, or new entity, in the case of a merger or similar transaction in which MBX does not continue as the same corporate entity and shall continue to bind and inure to the benefit of MBX in the case of an acquisition or similar transaction in which MBX survives as the same corporate entity. ADM Sub shall not enter into any merger, acquisition or similar transaction without the prior, written consent of MBX. Nothing herein shall restrict ADM from entering into a merger or acquisition of ADM by, with or into a Third Party and no such transaction shall be deemed to effect an
- \* CONFIDENTIAL TREATMENT REQUESTED

55

assignment of this Agreement by ADM Sub and this Agreement shall be binding upon and inure to the benefit of such Third Party, or new entity, in the case of a merger or similar transaction in which ADM does not continue as the same corporate entity and shall continue to bind and inure to the benefit of ADM Sub in the case of an acquisition or similar transaction in which ADM survives as a the same corporate entity. Any purported assignment or transfer in violation of this provision shall be null and void\*.

- 14.2 SUCCESSORS. In the event of a permitted assignment, this Agreement shall be binding upon, and inure to the benefit of, all the Parties and their respective successors and legal assigns.
- 14.3 DISPUTE RESOLUTION. Any dispute or claim arising out of or relating to this Agreement or any other Commercial Alliance Agreement, or a breach hereof or thereof, shall be resolved in accordance with this Section 14.3. Except with respect to any dispute as to whether ADM Sub properly exercised its rights to terminate pursuant to Section 10.2.2, during the course of resolving any such dispute, the Parties shall continue to perform their obligations hereunder and under the other Commercial Alliance Agreements (including by making payment of any undisputed portion of any payment obligation that is the subject of a dispute hereunder or thereunder). Notwithstanding the foregoing, the obligation of the Parties to continue to perform
- \* CONFIDENTIAL TREATMENT REQUESTED

56

hereunder and under the other Commercial Alliance Agreements during the resolution of disputes shall not require a Party to perform obligations (other any undisputed portion of any payment obligation) where such performance is rendered impossible, or would otherwise not maintain or increase the likelihood that the Parties will achieve the purpose and goal of the Commercial Alliance as set forth in Section 2.1, because of circumstances created by or directly related to the dispute itself.

- 14.3.1 GOOD FAITH CONSULTATION. In the event of a dispute between the Parties, the Parties shall attempt in good faith to settle such dispute through mutual consultation. If, after such consultation, the dispute cannot be resolved, the Parties shall wait for not less than sixty (60) days after the dispute arises and at the end of such period meet for a second consultation. If the dispute is not resolved after the second consultation, the matter shall be referred to the President of ADM Sub and the Chief Executive Officer of MBX (together, the "Senior Executives") for resolution in accordance with Section 14.4.2.
- 14.3.2 SENIOR EXECUTIVES. The Senior Executives shall diligently attempt to resolve the dispute, including, if they deem it necessary, meeting directly in order to provide full consideration of the dispute. If the Senior Executives are unable to resolve the dispute within sixty (60) additional days after the second consultation then the dispute shall be referred to arbitration.
- 14.3.3 ARBITRATION. Any arbitration to be conducted hereunder shall be brought and conducted in accordance with the following provisions:
  - (1) The arbitration shall be held in Chicago, Illinois if initiated by MBX and in Boston, Massachusetts if initiated by ADM Sub.
  - (2) The arbitration shall be conducted by three (3) arbitrators in accordance with the commercial arbitration rules of the

American Arbitration Association. Each of ADM Sub and MBX, upon notice to the other Party, shall appoint one arbitrator. The two arbitrators appointed by such Parties shall appoint a third arbitrator. The arbitrators shall be lawyers who will have substantial patent law or patent litigation experience and substantial commercial law or commercial litigation experience. The arbitrators shall be instructed to follow federal precedents, laws and evidentiary rules that would be applicable to litigation in the Federal Court of the jurisdiction in which the arbitration is held, except for those issues which involve patent issues, in which case the arbitrators shall be instructed to follow federal precedents, laws and evidentiary rules that would be applicable to litigation in the Federal Circuit Court of Appeals.

- (3) The arbitration shall be conducted in English, and all written submissions shall be in English.
- \* CONFIDENTIAL TREATMENT REQUESTED

57

- (4) ADM Sub and MBX agree that the decision of the arbitrators shall be final and binding on the Parties. The decision of the arbitrators shall be carried out voluntarily and without delay.
- (5) The fees and expenses of the arbitrators shall be shared equally by ADM Sub and MBX. ADM Sub and MBX will bear its own costs and expenses, including without limitation, its own legal fees and expert witness fees. Notwithstanding the foregoing, ADM Sub and MBX agree to be bound by and obey any order of the arbitrators relating to either Party being liable for any such costs, including without limitation, the legal fees of the other Party.
- 14.3.4 EQUITABLE RELIEF. Nothing in this Agreement shall prevent or limit ADM Sub's or MBX's right to file and prosecute in any court of competent jurisdiction an action to seek injunctive relief to prevent or stay a breach of this Agreement or any action necessary to enforce the award of the arbitrators.
- 14.3.5 BUSINESS ISSUE DEADLOCKS. In the event an issue relating to the conduct of the business of the Commercial Alliance comes before the Steering Committee or the conduct of the business of the Joint Sales Company comes before the Board of the Joint Sales Company, and such business decision is not governed by the terms of the Commercial Alliance Agreements, but rather is specifically or by omission left to the business judgment of the Steering Committee or the Board, and the Steering Committee or Board, acting in accordance with Section 3.1.3 in the case of the Steering Committee, and acting in accordance with the Operating Agreement in the case of the Board, is unable to reach a decision on how (or whether) to address or resolve such business issue, then provisions set forth in Sections 14.3.1 and 14.3.2 shall apply, but the provisions set forth in Section 14.3.3 shall not apply. During such time as the Ledger Account is less than ten million dollars (\$10,000,000), in the event that the Parties do not reach a resolution of such a business dispute as provided in Section 14.3.1 or 14.3.2, then the provisions set forth in Section 14.3.3 shall apply, but the arbitrators' decision shall be rendered as follows: At the conclusion of the arbitration hearings, each party shall submit a proposed resolution of the business dispute to the arbitrators. The arbitrators shall choose among the proposed resolutions and adopt one as the arbitrators' decision, and shall render that decision as the arbitrators' final determination. The arbitrators do not have discretion to render any decision other than one submitted by one of the Parties. For the avoidance of doubt, whether a Party has met the decision making standards set forth in 3.1.3 shall not be subject to this Section, but shall be treated as a dispute subject to the provisions of Sections 14.3.1, 14.3.2 and 14.3.3.
- 14.4 GOVERNING LAW. Except as specifically otherwise provided herein, this Agreement shall be governed by and construed in accordance with the laws of the State of Delaware.
- 14.5 FORCE MAJEURE. In the event of the intervention of a force majeure, which term shall include, without limitation, acts of God, strikes, labor disturbances, lockouts, riots, epidemics, quarantines, wars or conditions of war, actions, inactions or regulations of any government, fires, acts of terrorists, insurrections, embargoes or trade restrictions, or any other

reasons beyond a Party's reasonable control, the Party affected by the force majeure shall use Commercially Reasonable Efforts to comply with the Agreement. In the case that such Commercially Reasonable Efforts fail or are futile, such Party shall not be responsible for delays or a failure to perform under this Agreement caused by a force majeure. Provided, however, that any payment obligations of a Party shall not be affected or excused by such force majeure. If a Party's delay or failure to perform continues for more than one hundred twenty (120) days, the other Party may terminate this Agreement. In the event that either Party shall incur a delay in delivery or performance for a reason permitted by this Article, that Party shall notify the other Party within five (5) days from the date of the actual occurrence of the cause for such delay

14.6 NOTICES. All notices, requests and other communication hereunder shall be in writing and sent by facsimile with confirmation sent by courier requiring acknowledgment of receipt by the respective Parties as follows:

To MBX: Metabolix Corporation

21 Erie Street

Cambridge, MA 02139-4260 Attn: President and CEO

With copy to: Goodwin Procter

Exchange Place 53 State Street Boston, MA 02109

Attn: Christopher J. Denn, Esq.

To ADM Sub: ADM Polymer Corporation

4666 Faries Parkway Decatur, IL 62526 Attn: President

With copy to: Archer-Daniels-Midland Company

4666 Faries Parkway Decatur, IL 62526 Attn: General Counsel

To JSC: ADM / Metabolix Sales Company, LLC

21 Erie Street

Cambridge, MA 02139-4260

With a copy to: ADM Sub, at the address set forth above, and

MBX, at the address set forth above

Either Party may change the registered address to which such notice should be sent by giving written notice to the other Party.

\* CONFIDENTIAL TREATMENT REQUESTED

59

- 14.7 INTEGRATION; ENTIRE AGREEMENT. This Agreement contains the entire agreement of the Parties with regard to the subject matter contained herein and supersedes all prior written and oral agreements, understandings and negotiations, with regard to such subject matter.
- 14.8 AMENDMENTS. This Agreement, including this provision, may not be amended without a written instrument signed by duly authorized representatives of all Parties.
- 14.9 SEVERABILITY. In the event that any part of this Agreement is adjudicated to be invalid or unenforceable because it contravenes any applicable law or regulation, the Parties shall perform this Agreement in accordance with their original intentions as set forth herein, corresponding as closely as possible to the invalid or unenforceable part insofar as it is still valid under such law or regulation and reflects the original intention of the Parties. The validity of the remaining permissible portions of this Agreement shall remain unaffected thereby.
- 14.10 WAIVER/CUMULATIVE RIGHTS. No failure by any Party to insist upon the strict performance of any covenant, duty, agreement or condition of this Agreement or to exercise any right or remedy upon a breach thereof shall constitute a waiver of any such breach or any other covenant, duty, agreement or condition. All rights and remedies which a Party may have hereunder or by operation of law are cumulative, and the pursuit of one right or remedy shall not be deemed an election to waive or renounce any other right or remedy.

- 14.11 NO JOINT VENTURE OR PARTNERSHIP RELATIONSHIP. Nothing contained in or relating to this Agreement is or shall be deemed to constitute a joint venture, partnership or agency relationship between any of the Parties hereto and no Party shall have any authority to act for or to assume any obligation or responsibility on behalf of the other Party
- 14.12 FURTHER ASSURANCES. Each Party shall duly execute and deliver, or cause to be duly executed and delivered, such further instruments and do and cause to be done such further acts and things, including without limitation the filing of such assignments, agreements, documents and instruments, as may be necessary or as the other Party may reasonably request in connection with this Agreement or to carry out more effectively the provisions and purposes hereof, or to better assure and confirm unto such other Party its rights and remedies under this Agreement.
- 14.13 CONSTRUCTION. Except where the context otherwise requires, wherever used the singular shall include the plural, the plural the singular, the use of any gender shall be applicable to all genders, the word "or" is used in the inclusive sense and the word "any" shall mean any one item, or all items, in a referenced category. The captions of this Agreement are for convenience of reference only and in no way define, describe, extend, or limit the scope or intent of this Agreement or the intent of any provision contained in this Agreement. The language of this Agreement shall be deemed to be the language mutually chosen by the Parties and no rule of strict construction shall be applied against either Party hereto.
- \* CONFIDENTIAL TREATMENT REQUESTED

60

- 14.14 ACKNOWLEDGMENT. The Parties hereby acknowledge that all licenses granted herein are, for the purposes of Section 365(n) of Title 11 of the U.S. Code, licenses of rights to intellectual property as defined in said Title 11.
- 14.14 COUNTERPARTS. This Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original, and all of which, taken together, shall constitute one and the same instrument.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed by their duly authorized representatives as of the day and year above written.

ADM POLYMER CORPORATION

By: /s/ John D. Rice
Name: John D. Rice
Title: President
METABOLIX, INC.
By: /s/ James J. Barber
Name: James J. Barber
Title: President and CEO
ADM/ METABOLIX SALES COMPANY, LLC
By: /s/ John D. Rice
Name: John D. Rice
Title: Director

By: /s/ James J. Barber

-----

Name: James J. Barber

Title: Director

-----

\* CONFIDENTIAL TREATMENT REQUESTED

#### **EXECUTION COPY**

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.

### OPERATING AGREEMENT

0F

## ADM / METABOLIX SALES COMPANY, LLC

BY AND BETWEEN

### ADM POLYMER CORPORATION

&

### METABOLIX INC.

## TABLE OF CONTENTS

OPERATING	G AGREEMENT
BY AND BE	TWEEN
ADM POLYM	MER CORPORATION
METABOLIX	( INC1
TABLE OF	CONTENTS
OPERATING	G AGREEMENT1
SECTION 1	: THE JOINT SALES COMPANY1
1.2 N 1.3 P 1.4 P 1.5 T 1.6 F 1.7 T 1.8 P 1.9 I 1.10 D	FORMATION  JAME  PURPOSE; POWERS  PRINCIPAL PLACE OF BUSINESS  FERM  FILINGS; AGENT FOR SERVICE OF PROCESS  TILE TO PROPERTY  PAYMENTS OF INDIVIDUAL OBLIGATIONS  INDEPENDENT ACTIVITIES; TRANSACTIONS WITH AFFILIATES  DEFINITIONS  1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
SECTION 2	2: MEMBERS' CAPITAL CONTRIBUTIONS
2.2 C	ORIGINAL CAPITAL CONTRIBUTIONS
SECTION 3	3: ALLOCATIONS
3.2 L 3.3 S 3.4 C 3.5 L 3.6 0	PROFITS       18         .OSSES       18         SPECIAL ALLOCATIONS       18         CURATIVE ALLOCATIONS       20         .OSS LIMITATION       20         OTHER ALLOCATION RULES       20         TAX ALLOCATIONS: CODE SECTION 704(C)       21
SECTION 4	: DISTRIBUTIONS
	IET CASH FLOW
SECTION 5	5: MANAGEMENT22
	DIRECTORS; BOARD OF DIRECTORS

5.3 5.4 5.5	BOARD OF DIRECTORS POWERS
5.6 5.7	INDEMNIFICATION OF THE DIRECTORS AND OFFICERS
SECTION	6: ROLE OF MEMBERS
6.1	RIGHTS OR POWERS
6.2	VOTING RIGHTS
6.3	REQUIRED MEMBER CONSENTS31
	i
	1
0.5	NATION NAME (PROTONATION
6.5 6.6	WITHDRAWAL/RESIGNATION
6.7	MEMBERS LIABILITY
6.8	PARTITION
6.9	CONFIDENTIALITY34
6.10	TRANSACTIONS BETWEEN A MEMBER AND THE JOINT SALES COMPANY
6.11	OTHER INSTRUMENTS
6.12	NUMBER OF MEMBERS
6.13	EQUALIZATION PAYMENTS35
SECTION	7: REPRESENTATIONS AND WARRANTIES
7.1	IN GENERAL35
7.2	REPRESENTATIONS AND WARRANTIES
SECTION	8: ACCOUNTING, BOOKS AND RECORDS
8.1	ACCOUNTING, BOOKS AND RECORDS
8.2	REPORTS
8.3	TAX MATTERS39
SECTION	9: AMENDMENTS
9.1	AMENDMENTS
SECTION	10: TRANSFERS
10.1 10.2	RESTRICTIONS ON TRANSFERS
10.2	CONDITIONS TO PERMITTED TRANSFERS
10.4	[RESERVED]
10.5	PROHIBITED TRANSFERS41
10.6	TAX TERMINATION RESTRICTIONS42
10.7	RIGHTS OF UNADMITTED ASSIGNEES
10.8 10.9	ADMISSION OF SUBSTITUTED MEMBERS
	DISTRIBUTIONS AND ALLOCATIONS IN RESPECT OF TRANSFERRED UNITS
SECTION	11: ADVERSE ACT
11.1	REMEDIES45
SECTION	12: DISSOLUTION AND WINDING UP
12.1	DISSOLUTION EVENTS
12.2 12.3	WINDING UP
12.3	DEEMED DISTRIBUTION AND RECONTRIBUTION48
12.5	RIGHTS OF MEMBERS
12.6	NOTICE OF DISSOLUTION/TERMINATION49
12.7	ALLOCATIONS DURING PERIOD OF LIQUIDATION49
12.8	CHARACTER OF LIQUIDATING DISTRIBUTIONS
12.9	THE LIQUIDATOR
1∠.10	FORM OF LIQUIDATING DISTRIBUTIONS50
SECTION	13: MISCELLANEOUS
13.1	NOTICES
13.2 13.3	BINDING EFFECT
13.3	TIME
13.5	HEADINGS
13.6	SEVERABILITY52

13.7	INCORPORATION BY REFERENCE	53
13.8	VARIATION OF TERMS	53
13.9	GOVERNING LAW	53
13.10	COUNTERPART EXECUTION	53

iii

#### OPERATING AGREEMENT

0F

## ADM / METABOLIX SALES COMPANY, LLC

This OPERATING AGREEMENT is entered into and shall be effective as of the 12th day of July, 2006, by and between the Persons who are identified as Members on Exhibit A attached hereto and who have executed a counterpart of this Agreement as Members pursuant to the provisions of the Act, on the following terms and conditions:

#### SECTION 1: THE JOINT SALES COMPANY

#### 1.1 FORMATION.

The Members hereby agree to form the Joint Sales Company as a limited liability company under and pursuant to the provisions of the Act and upon the terms and conditions set forth in this Agreement. The fact that the Certificate is on file in the office of the Secretary of State, State of Delaware, shall constitute notice that the Joint Sales Company is a limited liability company. Simultaneously with the execution of this Agreement and the formation of the Joint Sales Company, each of the Members shall be admitted as a member of the Joint Sales Company. The rights and liabilities of the Members shall be as provided under the Act, the Certificate and this Operating Agreement.

## 1.2 NAME.

The name of the Joint Sales Company shall be ADM / Metabolix Sales Company, LLC and all business of the Joint Sales Company shall be conducted in such name. The Board of Directors may change the name of the Joint Sales Company upon ten (10) Business Days' notice to the Members.

## 1.3 PURPOSE; POWERS.

- (a) The purposes of the Joint Sales Company are (i) to operate the Business, (ii) to make such additional investments and engage in such additional activities as the Members may approve pursuant to the terms and conditions of this Operating Agreement, and (iii) to engage in any and all activities related or incidental to the purposes set forth in clauses (i) and (ii).
- (b) The Joint Sales Company has the power to do any and all acts necessary, appropriate, proper, advisable, incidental or convenient to or in furtherance of the purposes of the Joint Sales Company set forth in this Section 1.3 and has, without limitation, any and all

## \* CONFIDENTIAL TREATMENT REQUESTED

powers that may be exercised on behalf of the Joint Sales Company by the Board of Directors pursuant to Section 5 hereof.

## 1.4 PRINCIPAL PLACE OF BUSINESS.

The principal place of business of the Joint Sales Company shall be at 21 Erie Street, Cambridge, MA 02139. The Board of Directors may change the principal place of business of the Joint Sales Company to any other place within or without the State of Delaware upon ten (10) Business Days notice to the Members. The registered office of the Joint Sales Company in the State of Delaware initially is located at c/o The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, Delaware 19801.

The term of the Joint Sales Company shall commence on the date the certificate of formation of the Joint Sales Company as such term is described in the Act (the "Certificate") is filed in the office of the Secretary of State of the State of Delaware in accordance with the Act and shall continue until the winding up and liquidation of the Joint Sales Company and its business is completed following a Dissolution Event, as provided in Section 12 hereof. Prior to the time that the Certificate is filed, no Person shall represent to third parties the existence of the Joint Sales Company or hold himself out as a Member or Director.

#### 1.6 FILINGS; AGENT FOR SERVICE OF PROCESS.

- (a) The Directors are hereby severally authorized to and at least one of them shall cause the Certificate to be filed in the office of the Secretary of State of the State of Delaware in accordance with the Act. The Board of Directors shall take any and all other actions reasonably necessary to perfect and maintain the status of the Joint Sales Company as a limited liability company under the laws of the State of Delaware, including the preparation and filing of such amendments to the Certificate and such other assumed name certificates, documents, instruments and publications as may be required by law, including, without limitation, action to reflect:
  - (i) a change in the Joint Sales Company name; or
  - (ii) a correction of false or erroneous statements in the Certificate or the desire of the Members to make a change in any statement therein in order that it shall accurately represent the agreement among the Members.
- (b) The Members and the Board of Directors shall execute and cause to be filed original or amended certificates and shall take any and all other actions as may be reasonably necessary to perfect and maintain the status of the Joint Sales Company as a limited liability company or similar type of entity under the laws of any other jurisdictions in which the Joint Sales Company engages in business.
- \* CONFIDENTIAL TREATMENT REQUESTED

2

- (c) The registered agent for service of process on the Joint Sales Company in the State of Delaware shall be The Corporation Trust Company, or any successor as appointed by the Members in accordance with the Act.
- (d) Upon the dissolution and completion of the winding up and liquidation of the Joint Sales Company in accordance with Section 12, the Board of Directors shall promptly execute and cause to be filed a certificate of cancellation in accordance with the Act and the laws of any other jurisdictions in which the Board of Directors deems such filing necessary or advisable.

## 1.7 TITLE TO PROPERTY.

All Property owned by the Joint Sales Company shall be owned by the Joint Sales Company as an entity and no Member shall have any ownership interest in such Property in its individual name, and each Member's interest in the Joint Sales Company shall be personal property for all purposes. At all times after the Effective Date, the Joint Sales Company shall hold title to all of its Property in the name of the Joint Sales Company and not in the name of any Member.

#### 1.8 PAYMENTS OF INDIVIDUAL OBLIGATIONS.

Except as expressly set forth in the Commercial Alliance Agreements, the Joint Sales Company's credit and assets shall be used solely for the benefit of the Joint Sales Company, and no asset of the Joint Sales Company shall be Transferred or encumbered for, or in payment of, any individual obligation of any Member without the unanimous consent of the Members.

## 1.9 INDEPENDENT ACTIVITIES; TRANSACTIONS WITH AFFILIATES.

- (a) Each Director shall be required to devote such time to the affairs of the Joint Sales Company as may be necessary to manage and operate the Joint Sales Company, and shall be free to serve any other Person or enterprise in any capacity that such Director may deem appropriate in his, her or its discretion.
- (b) Insofar as permitted by applicable law and except as otherwise provided in the Commercial Alliance Agreements, neither this Agreement nor any activity undertaken pursuant hereto shall prevent any Member or Director or their Affiliates from engaging in whatever activities they choose, whether the same are competitive with the Joint Sales Company or otherwise, and any such

activities may be undertaken without having or incurring any obligation to offer any interest in such activities to the Joint Sales Company or any Member, or require any Member or Director to permit the Joint Sales Company or any other Director or Member or its Affiliates to participate in any such activities, and as a material part of the consideration for the execution of this Agreement by each Member, each Member hereby waives, relinquishes, and renounces any such right or claim of participation.

- (c) To the extent permitted by applicable law and subject to the provisions of the Commercial Alliance Agreements, the Board of Directors is hereby authorized to cause the
- \* CONFIDENTIAL TREATMENT REQUESTED

3

Joint Sales Company to purchase Property from, sell Property to or otherwise deal with any Member or Director, acting on its own behalf, or any Affiliate of any Member or Director; PROVIDED that, except as set forth in Section 6.10 hereof, any such purchase, sale or other transaction shall be made on terms and conditions which are no less favorable to the Joint Sales Company than if the sale, purchase or other transaction had been made with an independent third party.

#### 1.10 DEFINITIONS.

"ACT" means the Delaware Limited Liability Company Act, 6 Del. C. Section 18-101, et seq., as amended from time to time (or any corresponding provisions of succeeding law).

"ADDITIONAL CAPITAL CONTRIBUTIONS" means, with respect to each Member, the Capital Contributions made by such Member pursuant to Section 2.3 hereof. In the event Units are Transferred in accordance with the terms of this Agreement, the transferee shall succeed to the Additional Capital Contributions of the transferor to the extent they relate to the Transferred Units.

"ADJUSTED CAPITAL ACCOUNT DEFICIT" means, with respect to any Member, the deficit balance, if any, in such Member's Capital Account as of the end of the relevant Allocation Year, after giving effect to the following adjustments:

- (i) Credit to such Capital Account any amounts which such Member is deemed to be obligated to restore pursuant to the penultimate sentences in Sections 1.704-2(g)(1) and 1.704-2(i)(5) of the Regulations; and
- (ii) Debit to such Capital Account the items described in Sections 1.704-1(b)(2)(ii)(d)(4), 1.704-1(b)(2)(ii)(d)(5) and 1.704-1(b)(2)(ii)(d)(6) of the Regulations.

The foregoing definition of Adjusted Capital Account Deficit is intended to comply with the provisions of Section 1.704-1(b)(2)(ii)(d) of the Regulations and shall be interpreted consistently therewith.

"ADM POLYMER CORPORATION" means ADM Polymer Corporation.

"ADM POLYMER CORPORATION MANUFACTURING AGREEMENT" means the Manufacturing Agreement by and between ADM Polymer Corporation and the Joint Sales Company entered into simultaneously herewith.

"ADM POLYMER CORPORATION MANUFACTURING FACILITY" means the facility to be constructed by ADM Polymer Corporation, pursuant to the Commercial Alliance Agreement, to manufacture PHA Material pursuant to the ADM Polymer Corporation Manufacturing Agreement.

\* CONFIDENTIAL TREATMENT REQUESTED

4

"ADM POLYMER CORPORATION MARGIN" has the meaning assigned to the term "Manufacturing Margin" in the ADM Polymer Corporation Manufacturing Agreement.

"ADM POLYMER CORPORATION SERVICES AGREEMENT" means the agreement entitled ADM Polymer Corporation Services Agreement entered into simultaneously herewith between ADM Polymer Corporation and the Joint Sales Company pursuant to which ADM Polymer Corporation shall provide the Joint Sales Company with certain specified services, all for the Joint Sales Company's Business.

"ADVERSE ACT" means, with respect to any Member, any of the following:

- (i) A failure of such Member to make any Capital Contribution required pursuant to any provision of this Agreement;
- (ii) A material breach of any Commercial Alliance Agreement by such Member resulting in the termination of such Commercial Alliance Agreement by another party thereto;
- (iii) A Transfer of all or any portion of such Member's Units except as expressly permitted or required by this Agreement; and
- (iv) Any dissolution or liquidation of a Member, unless substantially all assets of the Member (including, without limitation, this Agreement and all rights hereunder) are transferred or are to be transferred to a Wholly Owned Affiliate of such Member.

An "ADVERSE MEMBER" is any Member with respect to whom an Adverse  $\operatorname{Act}$  has occurred.

"AFFILIATE" of a Person means any other Person that, directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such Person. "Control" and, with correlative meanings, the terms "controlled by" and "under common control with" shall mean the power to direct or cause the direction of the management or policies of a Person, whether through the ownership of voting securities, by contract, resolution, regulation, or otherwise.

"AGREEMENT" or "OPERATING AGREEMENT" means this Operating Agreement including all Exhibits and Schedules attached hereto, as amended from time to time. Words such as "herein," "hereinafter," "hereof," "hereto" and "hereunder" refer to this Agreement as a whole, unless the context otherwise requires.

"ALLOCATION YEAR" means (i) the period commencing on the Effective Date and ending on December 31, 2006, (ii) any subsequent twelve (12) month period commencing on January 1 and ending on December 31 or (iii) any portion of the period described in clauses (i)

## \* CONFIDENTIAL TREATMENT REQUESTED

5

or (ii) for which the Joint Sales Company is required to allocate Profits, Losses and other items of Joint Sales Company income, gain, loss or deduction pursuant to Section 3 hereof.

"AVAILABLE CASH" means on any date the amount of cash held by the Joint Sales Company less all expenses of the Joint Sales Company less all other cash requirements of the Joint Sales Company, as reasonably determined by the unanimous decision of the Board of Directors.

"BOARD OF DIRECTORS" has the meaning set forth in Section 5.1(a) hereof.

"BUSINESS" means (i) the business of operating, managing, and/or developing the manufacture, marketing and sale of PHA Material and PHA Formulations worldwide, consistent with the terms of the Commercial Alliance Agreements, and (ii) any other business that the Members may unanimously approve.

"BUSINESS DAY" means a day of the year on which banks are not required or authorized to close in New York, New York.

"CAPITAL ACCOUNT" means, with respect to any Member, the Capital Account maintained for such Member in accordance with the following provisions:

(i) To each Member's Capital Account there shall be credited (A) such Member's Capital Contributions, (B) such Member's distributive share of Profits and any items in the nature of income or gain which are specially allocated pursuant to Section 3.3 or Section 3.4 hereof, and (C) the amount of any Joint Sales Company liabilities assumed by such Member or which are secured by any Property distributed to such Member. The principal amount of a promissory note which is not readily traded on an established securities market and which is contributed to the Joint Sales Company by the maker of the note (or a Member related to the maker of the note within the meaning of Regulations Section 1.704-1(b)(2)(ii)(c)) shall not be included in the Capital Account

of any Member until the Joint Sales Company makes a taxable disposition of the note or until (and to the extent) principal payments are made on the note, all in accordance with Regulations Section 1.704-1(b)(2)(iv)(d)(2);

- (ii) To each Member's Capital Account there shall be debited (A) the amount of money and the Gross Asset Value of any Property distributed to such Member pursuant to any provision of this Agreement, (B) such Member's distributive share of Losses and any items in the nature of expenses or losses which are specially allocated pursuant to Section 3.3 or Section 3.4 hereof, and (C) the amount of any liabilities of such Member assumed by the Joint Sales Company or which are secured by any Property contributed by such Member to the Joint Sales Company;
- \* CONFIDENTIAL TREATMENT REQUESTED

6

- (iii) In the event Units are Transferred in accordance with the terms of this Agreement, the transferee shall succeed to the Capital Account of the transferor to the extent it relates to the Transferred Units; and
- (iv) In determining the amount of any liability for purposes of subparagraphs (i) and (ii) above there shall be taken into account Code Section 752(c) and any other applicable provisions of the Code and Regulations.

The foregoing provisions and the other provisions of this Agreement relating to the maintenance of Capital Accounts are intended to comply with Regulations Section 1.704-1(b), and shall be interpreted and applied in a manner consistent with such Regulations. In the event the Board of Directors shall determine that it is prudent to modify the manner in which the Capital Accounts, or any debits or credits thereto (including, without limitation, debits or credits relating to liabilities which are secured by contributed or distributed property or which are assumed by the Joint Sales Company or any Members), are computed in order to comply with such Regulations, the Board of Directors by a unanimous decision may make such modification, provided that it is not likely to have a material effect on the amounts distributed to any Person pursuant to Section 12 hereof upon the dissolution of the Joint Sales Company. The Board of Directors by a unanimous decision also shall (i) make any adjustments that are necessary or appropriate to maintain equality between the Capital Accounts of the Members and the amount of capital reflected on the Joint Sales Company's balance sheet, as computed for book purposes, in accordance with Regulations Section 1.704-1(b)(2)(iv)(q), and (ii) make any appropriate modifications in the event unanticipated events might otherwise cause this Agreement not to comply with Regulations Section 1.704-1(b).

"CAPITAL CONTRIBUTIONS" means, with respect to any Member, the amount of money and the initial Gross Asset Value of any Property (other than money) contributed to the Joint Sales Company with respect to the Units in the Joint Sales Company held or purchased by such Member, including Additional Capital Contributions.

"CERTIFICATE" means the certificate of formation filed with the Secretary of State of the State of Delaware on the date hereof pursuant to the Act to form the Company, as originally executed and amended, modified, supplemented or restated from time to time, as the context requires.

"CERTIFICATE OF CANCELLATION" means a certificate filed in accordance with 6 Del. C. Section 18-203.

"CHAIRMAN" means the Chairman of the Board of Directors of the Company.

"CODE" means the United States Internal Revenue Code of 1986, as amended from time to time.

"COMMERCIAL ALLIANCE AGREEMENT" means the Commercial Alliance Agreement by and between ADM Polymer Corporation, MBX and the Joint Sales Company, entered into simultaneously herewith.

\* CONFIDENTIAL TREATMENT REQUESTED

Service Agreement and the Loan and Security Agreement.

"COMPANY MINIMUM GAIN" has the same meaning as the term "Company Minimum Gain" in Section 1.704-2(d) of the Regulations.

"CONSTRUCT" shall have the meaning set forth in the Commercial Alliance Agreement.

"DAMAGES" shall have the meaning set forth in Section 11.1 hereof.

"DEBT" means (i) any indebtedness for borrowed money or the deferred purchase price of property as evidenced by a note, bonds, or other instruments, (ii) obligations as lessee under capital leases, (iii) obligations secured by any mortgage, pledge, security interest, encumbrance, lien or charge of any kind existing on any asset owned or held by the Company whether or not the Company has assumed or become liable for the obligations secured thereby, (iv) any obligation under any interest rate swap agreement, (v) accounts payable and (vi) obligations under direct or indirect guarantees of (including obligations (contingent or otherwise) to assure a creditor against loss in respect of) indebtedness or obligations of the kinds referred to in clauses (i), (ii), (iii), (iv) and (v), above provided that Debt shall not include obligations in respect of any accounts payable that are incurred in the ordinary course of the Company's business and are not delinquent or are being contested in good faith by appropriate proceedings.

"DEFENDANT" shall have the meaning set forth in Section 12.11(b)(ii) hereof.

"DEPRECIATION" means, for each Allocation Year, an amount equal to the depreciation, amortization, or other cost recovery deduction allowable for federal income tax purposes with respect to an asset for such Allocation Year, except that (x) with respect to any asset whose Gross Asset Value differs from its adjusted tax basis for United States federal income tax purposes and which difference is being eliminated by use of the "remedial method" defined by Section 1.704-3(d) of the Regulations, Depreciation for such Allocation Year shall be the amount of book basis recovered for such Allocation Year under the rules prescribed by Section 1.704-3(d)(2) of the Regulations and (y) with respect to any other asset whose Gross Asset Value differs from its adjusted basis for federal income tax purposes at the beginning of such Allocation Year, Depreciation shall be an amount which bears the same ratio to such beginning Gross Asset Value as the federal income tax depreciation, amortization, or other cost recovery deduction for such Allocation Year bears to such beginning adjusted tax basis; PROVIDED, HOWEVER, that if the adjusted basis for federal income tax purposes of an asset at the beginning of such Allocation Year is zero, Depreciation shall be determined with reference to such beginning Gross Asset Value using any reasonable method selected by the Board of Directors.

## \* CONFIDENTIAL TREATMENT REQUESTED

8

"DIRECTOR" means any of the individuals elected by the Members to serve on the Board of Directors and "DIRECTORS" means all of such individuals. Directors shall be "managers" within the meaning of the Act.

"DISSOLUTION EVENT" shall have the meaning set forth in Section 12.1 hereof.

"EFFECTIVE DATE" means the date first set forth above as the effective date hereof.  $\ensuremath{\mathsf{E}}$ 

"ELECTION NOTICE" shall have the meaning set forth in Section 11.2(a) hereof.

"ELECTION PERIOD" shall have the meaning set forth in Section 11.2(b) hereof.

"EQUALIZATION DATE" means the first Business Day after the First Commercial Sale that the Ledger Account is reduced to zero.

"EQUALIZATION DISTRIBUTION DATE" means a date not more than thirty (30) days following the end of each Fiscal Quarter during the Equalization Period.

"EQUALIZATION PAYMENT" means on any Equalization Distribution Date on which both MBX and ADM Polymer Corporation (or a Wholly Owned Affiliate of MBX or ADM Polymer Corporation) are Members of the Joint Sales Company, an amount equal to the following (without duplication):

(i) with respect to MBX, the sum of (a) the amount, if any, by which payments to ADM Polymer Corporation of ADM Polymer Corporation Margin under the ADM Polymer Corporation Manufacturing Agreement during the Equalization Period exceed the sum of royalty payments to MBX under the Commercial Alliance Agreement, payments to MBX pursuant to Section 4.3.6 of the Commercial Alliance Agreement, and MBX Margin under the MBX Formulation Agreement, plus (b) MBX Equalization Payments relating to prior Equalization Periods that were not paid on account of insufficient Available Cash, if any; and

(ii) with respect to ADM Polymer Corporation, the sum of (a) the amount, if any, by which the sum of royalty payments to MBX under the Commercial Alliance Agreement, payments to MBX pursuant to Section 4.3.6 of the Commercial Alliance Agreement, and MBX Margin under the MBX Formulation Agreement exceed payments to ADM Polymer Corporation of ADM Polymer Corporation Margin under the ADM Polymer Corporation Manufacturing Agreement during the Equalization Period, plus (b) ADM Polymer Corporation's Equalization Payments relating to prior Equalization Periods that were not paid on account of insufficient Available Cash, if any.

## \* CONFIDENTIAL TREATMENT REQUESTED

9

Amounts payable as Equalization Payments shall be treated as guaranteed payments within the meaning of Code Section 707(c), shall be considered an expense of the Joint Sales Company for income tax purposes and an expense or capital item for financial reporting purposes, as the case may be, and shall not be considered a distribution of money that would reduce the Capital Account of the Member to which such distribution is made. In the event Equalization Payments are due and owing to MBX and ADM Polymer Corporation on any Equalization Payment Date that there is insufficient Available Cash to pay all then owing Equalization Payments, Equalization Payments shall be made to MBX and ADM Polymer Corporation pro rata based on the amount each is owed, respectively, as a percentage of the total amount owed to both of MBX and ADM Polymer Corporation.

"EQUALIZATION PERIOD" means in the case of (i) the first Equalization Payment, the period from the Equalization Date to the Business Day immediately preceding the first Equalization Distribution Date, or (ii) in the case of any subsequent Equalization Payment, the period from the last Equalization Distribution Date through the Business Day immediately preceding the pending Equalization Distribution Date.

"FIRM OFFER" shall have the meaning set forth in Section 10.4(a) hereof.

"FIRST COMMERCIAL SALE" shall have the meaning set forth in the Commercial Alliance Agreement.

"FISCAL QUARTER" means (i) the period commencing on the Effective Date and ending on September 30, 2006, (ii) any subsequent three-month period commencing on each of July 1, October 1, January 1 and April 1 and ending on the last date before the next such date and (iii) the period commencing on the immediately preceding January 1, April 1, July 1, or October 1, as the case may be, and ending on the date on which all Property is distributed to the Members pursuant to Section 12 hereof.

"FISCAL YEAR" means (i) the period commencing on the Effective Date and ending on December 31, 2006, (ii) any subsequent twelve-month period commencing on January 1st and ending on December 31st and (iii) the period commencing on the immediately preceding January 1st and ending on the date on which all Property is distributed to the Members pursuant to Section 12 hereof; provided, however, that the Fiscal Year shall meet the requirements of Code Section 706.

"GAAP" means generally accepted accounting principles in effect in the United States of America from time to time.

"GROSS ASSET VALUE" means with respect to any asset, the asset's adjusted basis for federal income tax purposes, except as follows:

(i) The initial Gross Asset Value of any asset contributed by a Member to the Company shall be the gross fair market value of such asset, as determined by the Board of Directors PROVIDED that the initial Gross Asset

Values of the assets contributed to the Company pursuant to Section 2.1 hereof shall be as set forth in such section;

- (ii) The Gross Asset Values of all Company assets shall be adjusted to equal their respective gross fair market values (taking Code Section 7701(g) into account), as determined by the Board of Directors as of the following times: (A) the acquisition of an additional interest in the Company by any new or existing Member in exchange for more than a DE MINIMIS Capital Contribution; (B) the distribution by the Company to a Member of more than a DE MINIMIS amount of Company property as consideration for an interest in the Company; and (C) the liquidation of the Company within the meaning of Regulations Section 1.704-1(b)(2)(ii)(g), PROVIDED that an adjustment described in clauses (A) and (B) of this paragraph shall be made only if the Board of Directors reasonably determines that such adjustment is necessary to reflect the relative economic interests of the Members in the Company;
- (iii) The Gross Asset Value of any item of Company assets distributed to any Member shall be adjusted to equal the gross fair market value (taking Code Section 7701(g) into account) of such asset on the date of distribution as determined by the Board of Directors; and
- (iv) The Gross Asset Values of Company assets shall be increased (or decreased) to reflect any adjustments to the adjusted basis of such assets pursuant to Code Section 734(b) or Code Section 743(b), but only to the extent that such adjustments are taken into account in determining Capital Accounts pursuant to Regulations Section 1.704-1(b)(2)(iv)(m) and subparagraph (vi) of the definition of "PROFITS" and "LOSSES" or Section 3.3(c) hereof; provided, however, that Gross Asset Values shall not be adjusted pursuant to this subparagraph (iv) to the extent that an adjustment pursuant to subparagraph (ii) is required in connection with a transaction that would otherwise result in an adjustment pursuant to this subparagraph (iv).

If the Gross Asset Value of an asset has been determined or adjusted pursuant to subparagraph (ii) or (iv), such Gross Asset Value shall thereafter be adjusted by the Depreciation taken into account with respect to such asset, for purposes of computing Profits and Losses.

"JOINT SALES COMPANY" means the limited liability company formed pursuant to this Agreement and the Certificate and the limited liability company continuing the business of this Joint Sales Company in the event of dissolution of the Joint Sales Company as herein provided.

"LEDGER ACCOUNT" means with respect to ADM Polymer Corporation, the Ledger Account maintained for the purpose of determining certain rights and obligations of ADM Polymer Corporation, MBX and the Joint Sales Company pursuant to this Agreement and the other Commercial Alliance Agreements, all in accordance with the following provisions:

## \* CONFIDENTIAL TREATMENT REQUESTED

- (i) To ADM Polymer Corporation's Ledger Account there shall be credited (A) the cost incurred by ADM Polymer Corporation to Construct the ADM Polymer Corporation Manufacturing Facility, as approved by the Steering Committee pursuant to Section 4.2.5 of the Commercial Alliance Agreement, (B) other capital expenditures funded by ADM Polymer Corporation and approved for application as a credit against the Ledger Account by the Steering Committee, and (C) any negative Net Cash Flow funded by ADM Polymer Corporation;
- (ii) To ADM Polymer Corporation's Ledger Account there shall be debited (A) the cost incurred by MBX to Construct the MBX Formulation Facility, as approved by the Steering Committee pursuant to Section 4.3.5 of the Commercial Alliance Agreement, (B) other capital expenditures funded by MBX and approved for application as a debit against the Ledger Account by the Steering Committee, and (C) Net Cash Flow distributed to ADM Polymer Corporation pursuant to Section 4.1.

"LETTER OF INTENT" means a binding or non-binding letter of intent between a Seller and a Third-Party Transferee regarding the sale of Offered Units entered into after the Offer Period.

"LICENSE FEE" has the meaning assigned to the term "License Fee" in the Commercial Alliance Agreement.

"LIQUIDATION PERIOD" has the meaning set forth in Section 12.7 hereof.

"LIQUIDATOR" has the meaning set forth in Section 12.9(a) hereof.

"LOAN AND SECURITY AGREEMENT" means the Loan and Security Agreement by and between ADM Polymer Corporation and the Joint Sales Company entered into simultaneously herewith.

"LOSSES" has the meaning set forth in the definition of "PROFITS" and "LOSSES."  $\,$ 

"MARKETING AND SALES MANAGER" means the Marketing and Sales Manager of the Joint Sales Company.

"MBX FORMULATION AGREEMENT" means the Formulation Agreement by and between MBX and the Joint Sales Company entered into simultaneously herewith.

"MBX FORMULATION FACILITY" means the facility constructed by MBX, pursuant to the Commercial Alliance Agreement, to produce PHA Formulations pursuant to the MBX Formulation Agreement

"MBX MARGIN" has the meaning assigned to the term "Formulation Margin" in the MBX Formulation Agreement.

\* CONFIDENTIAL TREATMENT REQUESTED

12

"MEMBER" means any Person (i) who is referred to as such on Exhibit A to this Agreement, or who has become a substituted Member pursuant to the terms of this Agreement and (ii) who has not ceased to be a Member. "Members" means all such Persons.

"MEMBER NONRECOURSE DEBT" has the same meaning as the term "Member nonrecourse debt" in Section 1.704-2(b)(4) of the Regulations.

"MEMBER NONRECOURSE DEBT MINIMUM GAIN" means an amount, with respect to each Member Nonrecourse Debt, equal to the Company Minimum Gain that would result if such Member Nonrecourse Debt were treated as a Nonrecourse Liability, determined in accordance with Section 1.704-2(i)(3) of the Regulations.

"MEMBER NONRECOURSE DEDUCTIONS" has the same meaning as the term "Member nonrecourse deductions" in Sections 1.704-2(i)(1) and 1.704-2(i)(2) of the Regulations.

"MBX" means Metabolix, Inc.

"MBX SERVICES AGREEMENT" means an agreement entitled MBX Services Agreement between MBX and the Joint Sales Company entered into simultaneously herewith.

"NET CASH FLOW" means the gross cash proceeds of the Joint Sales Company less the portion thereof used to pay or establish reserves for all Joint Sales Company expenses, debt payments, capital improvements, replacements, and contingencies, all as determined by a unanimous vote of the Board of Directors. "NET CASH FLOW" shall not be reduced by depreciation, amortization, cost recovery deductions, or similar allowances, but shall be increased by any reductions of reserves previously established pursuant to the first sentence of this definition.

"NONRECOURSE DEDUCTIONS" has the meaning set forth in Section 1.704-2(b)(1) of the Regulations.

"NONRECOURSE LIABILITY" has the meaning set forth in Section 1.704-2(b)(3) of the Regulations.

"OFFEREE" shall have the meaning set forth in Section 10.4 hereof.

"OFFEROR" shall have the meaning set forth in Section 10.4(b) hereof.

"OFFER NOTICE" shall have the meaning set forth in Section 10.4(a) hereof.

"OFFER PERIOD" shall have the meaning set forth in Section 10.4(d) hereof.

"OFFER PRICE" shall have the meaning set forth in Section 10.4(c) hereof.

"OFFERED UNITS" shall have the meaning set forth in Section 10.4 hereof.

\* CONFIDENTIAL TREATMENT REQUESTED

13

"OFFICERS" means the Marketing and Sales Manager, the Assistant Marketing and Sales Manager, the Treasurer and the Secretary together with such other officers of the Joint Sales Company the Board of Directors may designate. An "Officer" means one of the above.

"PARENT" means with respect to a Member, any Person "controlling" such Member and not "controlled" by any other Person, as such terms within quotation marks are defined within the definition of Affiliate herein.

"PERCENTAGE INTEREST" means, with respect to any Member as of any date, the ratio (expressed as a percentage) of the number of Units held by such Member on such date to the aggregate Units held by all Members on such date. The Percentage Interest of each Member immediately after the Effective Date is set forth in Section 2.1 hereof.

"PERMITTED TRANSFER" has the meaning set forth in Section 10.2 hereof.

"PERSON" means any individual, partnership (whether general or limited), limited liability company, corporation, trust, estate, association, nominee or other entity.

"PHA FORMULATIONS" shall have the meaning set forth in the Commercial Alliance Agreement.

"PRELIMINARY NEGOTIATIONS" shall mean all negotiations between a Seller and a Third-Party Transferee occurring prior to the time that the Seller and Third-Party Transferee have entered into a Letter of Intent.

"PROFITS" and "LOSSES" mean, for each Allocation Year, an amount equal to the Joint Sales Company's taxable income or loss, as the case may be, for such Allocation Year, determined in accordance with Code Section 703(a) (for this purpose, all items of income, gain, loss, or deduction required to be stated separately pursuant to Code Section 703(a)(1) shall be included in taxable income or loss), with the following adjustments (without duplication):

- (i) Any income of the Joint Sales Company that is exempt from federal income tax and not otherwise taken into account in computing Profits or Losses pursuant to this definition of "PROFITS" and "LOSSES" shall be added to such taxable income or loss;
- (ii) Any expenditures of the Joint Sales Company
  described in Code Section 705(a)(2)(B) or treated as Code Section
  705(a)(2)(B) expenditures pursuant to Regulations Section
  1.704-1(b)(2)(iv)(i), and not otherwise taken into account in
  computing Profits or Losses pursuant to this definition of
  "Profits" and "Losses" shall be subtracted from such taxable
  income or loss;
- \* CONFIDENTIAL TREATMENT REQUESTED

- (iii) In the event the Gross Asset Value of any Joint Sales Company asset is adjusted pursuant to subparagraphs (ii) or (iii) of the definition of Gross Asset Value, the amount of such adjustment shall be treated as an item of gain (if the adjustment increases the Gross Asset Value of the asset) or an item of loss (if the adjustment decreases the Gross Asset Value of the asset) from the disposition of such asset and shall be taken into account for purposes of computing Profits or Losses;
- (iv) Gain or loss resulting from any disposition of Property with respect to which gain or loss is recognized for

federal income tax purposes shall be computed by reference to the Gross Asset Value of the Property disposed of, notwithstanding that the adjusted tax basis of such Property differs from its Gross Asset Value;

- (v) In lieu of the depreciation, amortization, and other cost recovery deductions taken into account in computing such taxable income or loss, there shall be taken into account Depreciation for such Allocation Year, computed in accordance with the definition of Depreciation;
- (vi) To the extent an adjustment to the adjusted tax basis of any Joint Sales Company asset pursuant to Code Section 734(b) is required, pursuant to Regulations Section 1.704-1(b)(2)(iv)(m)(4), to be taken into account in determining Capital Accounts as a result of a distribution other than in liquidation of a Member's interest in the Joint Sales Company, the amount of such adjustment shall be treated as an item of gain (if the adjustment increases the basis of the asset) or loss (if the adjustment decreases such basis) from the disposition of such asset and shall be taken into account for purposes of computing Profits or Losses; and
- (vii) Notwithstanding any other provision of this definition, any items which are specially allocated pursuant to Section 3.3 or Section 3.4 hereof shall not be taken into account in computing Profits or Losses.

The amounts of the items of Joint Sales Company income, gain, loss or deduction available to be specially allocated pursuant to Sections 3.3 and 3.4 hereof shall be determined by applying rules analogous to those set forth in subparagraphs (i) through (vi) above.

"PROMISSORY NOTE" means the Promissory Note made by the Joint Sales Company to the order of ADM Polymer Corporation entered into simultaneously herewith.

"PROPERTY" means all real and personal property acquired by the Joint Sales Company, including cash, and any improvements thereto, and shall include both tangible and intangible property.

"PURCHASE OFFER" shall have the meaning set forth in Section 10.4(b) hereof.

\* CONFIDENTIAL TREATMENT REQUESTED

15

"PURCHASER" shall have the meaning set forth in Section 10.4(a) hereof.

"RECONSTITUTION PERIOD" has the meaning set forth in Section 12.1(b) hereof.

"REGULATIONS" means the Income Tax Regulations, including Temporary Regulations, promulgated under the Code, as such regulations are amended from time to time.

"REGULATORY ALLOCATIONS" has the meaning set forth in Section 3.4 hereof.

"SECRETARY" means the Secretary of the Joint Sales Company.

"SELLER" shall have the meaning set forth in Section 10.4 hereof.

"SECURITIES ACT" means the Securities Act of 1933, as amended.

"STEERING COMMITTEE" shall have the meaning set forth in the Commercial Alliance Agreement.

"TAX MATTERS MEMBER" has the meaning set forth in Section 8.3(a) hereof.

"TECHNOLOGY ALLIANCE AGREEMENT" means the Technology Alliance Agreement by and between ADM Polymer Corporation and MBX entered into November 3, 2004.

"TECHNOLOGY MANAGER" means the Technology Manager of the Joint Sales Company.

"THIRD-PARTY TRANSFEREE" shall have the meaning set forth in Section 10.4(i) hereof.

"TRANSFER" means, as a noun, any voluntary or involuntary transfer, sale,

pledge or hypothecation or other disposition and, as a verb, voluntarily or involuntarily to transfer, sell, pledge or hypothecate or otherwise dispose of.

"TRANSFER OFFER" shall have the meaning set forth in Section 10.4(c) hereof.

"TREASURER" means the Treasurer of the Joint Sales Company.

"UNITS" or "UNIT" means an ownership interest in the Joint Sales Company represented by a certificate in the form of Exhibit B attached hereto and bearing the legend required by Section 10.9 hereof, representing a Capital Contribution of \*, including the Voting Percentage noted on the certificate therefor as well as any and all benefits to which the holder of such Units may be entitled as provided in this Agreement, together with all obligations of such Person to comply with the terms and provisions of this Agreement.

"UNSOLICITED OFFER" shall have the meaning set forth in Section 10.4(b) hereof.

"VOTING PERCENTAGE" means the percentage set opposite each Member's name in Section 2.1, and unless otherwise explicitly set forth herein to the contrary, any matters

\* CONFIDENTIAL TREATMENT REQUESTED

16

requiring the Members to vote, approve, or take any other action shall be determined by a majority in Voting Percentage of the Members.

"WHOLLY OWNED AFFILIATE" of any Person means (i) an Affiliate of such Person, one hundred percent (100%) of the voting stock or beneficial ownership of which is owned by such Person, either directly or indirectly; (ii) an Affiliate of such Person, and such Affiliate owns one hundred percent (100%) of the voting stock or beneficial ownership of such Person, either directly or indirectly; or (iii) an Affiliate of such Person, where a Person owns one hundred percent (100%) of the voting stock or beneficial ownership of such Affiliate and such Person, either directly or indirectly.

SECTION 2: MEMBERS' CAPITAL CONTRIBUTIONS

## 2.1 ORIGINAL CAPITAL CONTRIBUTIONS.

The name, address, original Capital Contribution, and initial Percentage Interest of each of the Members is as follows:

Capital Percentage Voting Names and Address Contribution Interest Percentage ----------Metabolix Inc. The property described 50% 50% 21 Erie Street in Exhibit A attached hereto Cambridge, MA 02139 ADM Polymer Corporation The property described

50% 50% 4666 Faries Parkway in

**Original** 

Exhibit A attached hereto Decatur, Illinois 62526

## 2.2 CONTRIBUTIONS.

Pursuant to Section 2.1 hereof, each Member agrees to contribute to the Joint Sales Company on the date hereof, the amount of money or the property set opposite such Member's name on the attached Exhibit A.

#### 2.3 ADDITIONAL CAPITAL CONTRIBUTIONS.

A Member may make Additional Capital Contributions only with the written consent of all Members, in which event the Joint Sales Company shall issue to the contributing Member additional Units of an amount to be unanimously agreed by the Members.

## \* CONFIDENTIAL TREATMENT REQUESTED

17

#### SECTION 3: ALLOCATIONS

#### 3.1 PROFITS.

After giving effect to the special allocations set forth in Sections 3.3 and 3.4, Profits for any Allocation Year on or prior to the Equalization Date shall be allocated to ADM Polymer Corporation, and Profits for any Allocation Year after the Equalization Date shall be allocated to the Members in proportion to their Percentage Interests.

## 3.2 LOSSES.

After giving effect to the special allocations set forth in Sections 3.3 and 3.4 and subject to Section 3.5, Losses for any Allocation Year on or prior to the Equalization Date shall be allocated to ADM Polymer Corporation, and Losses for any Allocation Year after the Equalization Date shall be allocated to the Members in proportion to their Percentage Interests.

## 3.3 SPECIAL ALLOCATIONS.

- (a) MINIMUM GAIN CHARGEBACK. Except as otherwise provided in Section 1.704-2(f) of the Regulations, notwithstanding any other provision of this Section 3, if there is a net decrease in Company Minimum Gain during any Allocation Year, each Member shall be specially allocated items of Joint Sales Company income and gain for such Allocation Year (and, if necessary, subsequent Allocation Years) in an amount equal to such Member's share of the net decrease in Company Minimum Gain, determined in accordance with Regulations Section 1.704-2(g). Allocations pursuant to the previous sentence shall be made in proportion to the respective amounts required to be allocated to each Member pursuant thereto. The items to be so allocated shall be determined in accordance with sections 1.704-2(f) (6) and 1.704-2(j) (2) of the Regulations. This Section 3.3(a) is intended to comply with the minimum gain chargeback requirement in Section 1.704-2(f) of the Regulations and shall be interpreted consistently therewith.
- MEMBER MINIMUM GAIN CHARGEBACK. Except as otherwise (b) provided in Section 1.704-2(i) (4) of the Regulations, notwithstanding any other provision of this Section 3, if there is a net decrease in Member Nonrecourse Debt Minimum Gain attributable to a Member Nonrecourse Debt during any Allocation Year, each Member who has a share of the Member Nonrecourse Debt Minimum Gain attributable to such Member Nonrecourse Debt, determined in accordance with Section 1.704-2(i) (5) of the Regulations, shall be specially allocated items of Joint Sales Company income and gain for such Allocation Year (and, if necessary, subsequent Allocation Years) in an amount equal to such Member's share of the net decrease in Member Nonrecourse Debt, determined in accordance with Regulations Section 1.704-2(i) (4). Allocations pursuant to the previous sentence shall be made in proportion to the respective amounts required to be allocated to each Member pursuant thereto. The items to be so allocated shall be determined in accordance with Sections 1.704-2(i) (4) and 1.704-2(j) (2) of the Regulations. This Section 3.3(b) is intended to comply with the minimum gain

chargeback requirement in Section 1.704-2(i) (4) of the Regulations and shall be interpreted consistently therewith.

- (c) QUALIFIED INCOME OFFSET. In the event any Member unexpectedly receives any adjustments, allocations, or distributions described in Sections 1.704-1(b)(2)(ii)(d)(4), 1.704-1(b)(2)(ii)(d)(5), or 1.704-1(b)(2)(ii)(d)(6) of the Regulations, items of Joint Sales Company income and gain shall be specially allocated to such Member in an amount and manner sufficient to eliminate, to the extent required by the Regulations, the Adjusted Capital Account Deficit of the Member as quickly as possible, provided that an allocation pursuant to this Section 3.3(c) shall be made only if and to the extent that the Member would have an Adjusted Capital Account Deficit after all other allocations provided for in this Section 3 have been tentatively made as if this Section 3.3(c) were not in the Agreement.
- (d) GROSS INCOME ALLOCATION. In the event any Member has a deficit Capital Account at the end of any Allocation Year which is in excess of the sum of (i) the amount such Member is obligated to restore pursuant to the penultimate sentences of Regulations Sections 1.704-2(g)(1) and 1.704-2(i)(5), each such Member shall be specially allocated items of Joint Sales Company income and gain in the amount of such excess as quickly as possible, provided that an allocation pursuant to this Section 3.3(d) shall be made only if and to the extent that such Member would have a deficit Capital Account in excess of such sum after all other allocations provided for in this Section 3 have been made as if Section 3.3(c) and this Section 3.3(d) were not in the Agreement.
- (e) NONRECOURSE DEDUCTIONS. Nonrecourse Deductions for any Allocation Year shall be specially allocated to the Members in proportion to their respective Percentage Interests.
- (f) MEMBER NONRECOURSE DEDUCTIONS. Any Member Nonrecourse Deductions for any Allocation Year shall be specially allocated to the Member who bears the economic risk of loss with respect to the Member Nonrecourse Debt to which such Member Nonrecourse Deductions are attributable in accordance with Regulations Section 1.704-2(i) (1).
- (g) SECTION 754 ADJUSTMENTS. To the extent an adjustment to the adjusted tax basis of any Joint Sales Company asset, pursuant to Code Section 734(b) or Code Section 743(b) is required, pursuant to Regulations Section 1.704-1(b)(2)(iv)(m)(2) or 1.704-1(b)(2)(iv)(m)(4), to be taken into account in determining Capital Accounts as the result of a distribution to a Member in complete liquidation of such Member's interest in the Joint Sales Company, the amount of such adjustment to Capital Accounts shall be treated as an item of gain (if the adjustment increases the basis of the asset) or loss (if the adjustment decreases such basis) and such gain or loss shall be specially allocated to the Members in accordance with their interests in the Joint Sales Company in the event Regulations Section 1.704-1(b)(2)(iv)(m)(2) applies, or to the Member to whom such distribution was made in the event Regulations Section 1.704-1(b)(2)(iv)(m)(4) applies.
- \* CONFIDENTIAL TREATMENT REQUESTED

19

#### 3.4 CURATIVE ALLOCATIONS.

The allocations set forth in Sections 3.3(a), 3.3(b), 3.3(c), 3.3(d), 3.3(e), 3.3(f), 3.3(g) and 3.5 (the "REGULATORY ALLOCATIONS") are intended to comply with certain requirements of the Regulations. It is the intent of the Members that, to the extent possible, all Regulatory Allocations shall be offset either with other Regulatory Allocations or with special allocations of other items of Joint Sales Company income, gain, loss or deduction pursuant to this Section 3.4. Therefore, notwithstanding any other provision of this Section 3 (other than the Regulatory Allocations), the Board of Directors may make with the unanimous approval of the Board of Directors such offsetting special allocations of Joint Sales Company income, gain, loss or deduction in whatever manner it determines appropriate so that, after such offsetting allocations are made, each Member's Capital Account balance is, to the extent possible, equal to the Capital Account balance such Member would have had if the Regulatory Allocations were not part of the Agreement and all Joint Sales Company items were allocated pursuant to Sections 3.1 and 3.2.

## 3.5 LOSS LIMITATION.

the maximum amount of Losses that can be allocated without causing any Member to have an Adjusted Capital Account Deficit at the end of any Allocation Year. In the event some but not all of the Members would have Adjusted Capital Account Deficits as a consequence of an allocation of Losses pursuant to Section 3.2 hereof, the limitation set forth in this Section 3.5 shall be applied on a Member by Member basis and Losses not allocable to any Member as a result of such limitation shall be allocated to the other Members in accordance with the positive balances in such Member's Capital Accounts so as to allocate the maximum permissible Losses to each Member under Section 1.704-1(b)(2)(ii)(d) of the Regulations.

#### 3.6 OTHER ALLOCATION RULES.

- (a) For purposes of determining the Profits, Losses, or any other items allocable to any period, Profits, Losses, and any such other items shall be determined on a daily, monthly, or other basis, as determined by the Board of Directors using any permissible method under Code Section 706 and the Regulations thereunder.
- (b) The Members are aware of the income tax consequences of the allocations made by this Section 3 and hereby agree to be bound by the provisions of this Section 3 in reporting their shares of Joint Sales Company income and loss for income tax purposes.
- (c) Solely for purposes of determining a Member's proportionate share of the "excess nonrecourse liabilities" of the Joint Sales Company within the meaning of Regulations Section 1.752-3(a) (3), the Members' interests in Joint Sales Company profits are in proportion to their Percentage Interests.

#### \* CONFIDENTIAL TREATMENT REQUESTED

20

To the extent permitted by Section 1.704-2(h) (3) of the Regulations, the Directors shall endeavor to treat distributions of Net Cash Flow as having been made from the proceeds of a Nonrecourse Liability or a Member Nonrecourse Debt only to the extent that such distributions would not cause or increase an Adjusted Capital Account Deficit for any Member.

## 3.7 TAX ALLOCATIONS: CODE SECTION 704(c).

In accordance with Code Section 704(c) and the Regulations thereunder, income, gain, loss, and deduction with respect to any Property contributed to the capital of the Joint Sales Company shall, solely for tax purposes, be allocated among the Members so as to take account of any variation between the adjusted basis of such Property to the Joint Sales Company for federal income tax purposes and its initial Gross Asset Value (computed in accordance with the definition of Gross Asset Value) using the remedial method to the Regulations under Code Section 704(c).

In the event the Gross Asset Value of any Joint Sales Company asset is adjusted pursuant to subparagraph (ii) of the definition of Gross Asset Value, subsequent allocations of income, gain, loss, and deduction with respect to such asset shall take account of any variation between the adjusted basis of such asset for federal income tax purposes and its Gross Asset Value in the same manner as under Code Section 704(c) and the Regulations thereunder.

Any elections or other decisions relating to such allocations shall be made by the Board of Directors in any manner that reasonably reflects the purpose and intention of this Agreement. Allocations pursuant to this Section 3.6 are solely for purposes of federal, state, and local taxes and shall not affect, or in any way be taken into account in computing, any Member's Capital Account or share of Profits, Losses, other items, or distributions pursuant to any provision of this Agreement.

## SECTION 4: DISTRIBUTIONS

## 4.1 NET CASH FLOW.

Except as otherwise provided in Section 12 hereof, on or prior to the Equalization Date, Net Cash Flow, if any, shall be distributed not later than the thirtieth day after the end of each Fiscal Quarter to ADM Polymer Corporation. Except as otherwise provided in Section 12 hereof or by the Board of Directors, after the Equalization Date, Net Cash Flow, if any, shall be distributed not later than the thirtieth day after the end of each Fiscal Quarter to the Members following the Equalization Payments, if any, described in Section 6.13 hereof, in proportion to their Percentage Interests.

## 4.2 AMOUNTS WITHHELD.

All amounts withheld pursuant to the Code or any provision of any state, local or foreign tax law with respect to any payment, distribution or allocation to the Joint Sales Company or the Members shall be treated as amounts paid or distributed, as the case may be,

#### \* CONFIDENTIAL TREATMENT REQUESTED

21

to the Members with respect to which such amount was withheld pursuant to this Section 4.2 for all purposes under this Agreement. The Joint Sales Company is authorized to withhold from payments and distributions, or with respect to allocations to the Members, and to pay over to any federal, state and local government or any foreign government, any amounts required to be so withheld pursuant to the Code or any provisions of any other federal, state or local law or any foreign law, and shall allocate any such amounts to the Members with respect to which such amount was withheld.

## 4.3 [RESERVED]

## 4.4 LIMITATIONS ON DISTRIBUTIONS.

- (a) The Joint Sales Company shall make no distributions to the Members except (i) as provided in this Section 4 and Section 12 hereof, or (ii) as agreed to by all of the Members.
- (b) A Member may not receive a distribution from the Joint Sales Company to the extent that, such distribution would violate Sections 18-607 or 18-804 of the Act.

#### **SECTION 5: MANAGEMENT**

- 5.1 DIRECTORS; BOARD OF DIRECTORS.
- (a) The management of the Joint Sales Company shall be vested in the Board of Directors (the "BOARD OF DIRECTORS") designated by the Members as provided in Section 5.1(c) hereof.
- (b) The number of Directors on the Board of Directors shall be four (4). The initial Directors of the Joint Sales Company shall be as set forth on Exhibit C hereto.
- (c) A Director shall remain in office until removed by the Member designating such Director. MBX shall designate two (2) Directors, and ADM Polymer Corporation shall designate two (2) Directors. Members shall designate Directors with respect to any Director other than the initial Directors listed on Exhibit C hereto, by delivering to the Joint Sales Company their written statement designating their Director or Directors and setting forth such Director's or Directors' business address and telephone number. The Members, by signing this Agreement, hereby designate the Persons identified on Exhibit C hereto as Directors of the Joint Sales Company until their successors are designated, each such Director being deemed designated by the Member set forth opposite such Director indicated on Exhibit C hereto.
- (d) A Director may be removed at any time, with or without cause, by the written notice of the Member that designated such Director, delivered to the Joint Sales Company, demanding such removal and designating the Person who shall fill the position of the removed Director.
- \* CONFIDENTIAL TREATMENT REQUESTED

- (e) If any Director dies, resigns or is otherwise unable to serve as such or is removed from office by the Member that designated such Director, the appropriate Member shall promptly designate a successor to such Director. A Director chosen to fill a vacancy shall be designated by the Member whose previously designated Director shall have been removed or shall have resigned.
- (f) Each Director shall have one (1) vote. Except as otherwise provided in this Agreement, the Board of Directors shall act by the affirmative vote of a majority of a quorum.
- (g) Each Director shall perform his duties as a Director in good faith, in a manner he reasonably believes to be in the best interests of the Joint Sales Company, and with such care as an ordinarily prudent person in a like position would use under similar circumstances. A person who so performs his duties shall not have any liability by reason of being or having been a

Director of the Joint Sales Company.

- (h) The Board of Directors shall have the power to delegate authority to such committees of Directors, Officers, employees, agents and representatives of the Joint Sales Company as it may from time to time deem appropriate in accordance with Section 5.7 below. Any delegation of authority to take any action must be approved in the same manner as would be required for the Board of Directors to approve such action directly.
- (i) A Director shall not be liable under a judgment, decree or order of court, or in any other manner, for a debt, obligation or liability of the Joint Sales Company.
- (j) The Chairman shall be a Director and shall hold office for a period of one Fiscal Year. The Chairman shall be appointed on an alternating basis, first as directed in writing by ADM Polymer Corporation, and then as directed in writing by MBX. The Chairman may be removed at any time, with or without cause, by the written notice of the Member that designated such Chairman, delivered to the Joint Sales Company, demanding such removal and designating the Person who shall fill the position of the removed Chairman. The duties of the Chairman shall be to direct meetings of the Board of Directors. The initial Chairman shall be as indicated on Exhibit C hereto.

#### 5.2 MEETINGS OF THE BOARD OF DIRECTORS.

- (a) The Board of Directors shall hold regular meetings no less frequently than once every Fiscal Quarter and shall establish meeting times, dates and places and requisite notice requirements (not shorter than those provided in Section 5.2(b)) and adopt rules or procedures consistent with the terms of this Agreement. Unless otherwise approved by the Board of Directors, each regular meeting of the Board of Directors will be held at a location specified on an alternating basis first, by those Directors designated by ADM Polymer Corporation, next by those Directors designated by MBX, etc. for the convenience of the Directors specifying the location. If the Directors designated by a Member and having the right to specify the location do not so specify, the meeting will be held at the Joint Sales Company's principal place of business. At such meetings the Board of Directors shall transact
- \* CONFIDENTIAL TREATMENT REQUESTED

23

such business as may properly be brought before the meeting, whether or not notice of such meeting referenced the action taken at such meeting. At all meetings of the Board of Directors, the participation of at least one Director appointed by each of ADM Polymer Corporation and MBX shall constitute a quorum. Each Director shall have one vote on all matters before the Board of Directors; provided, however, that the Director appointed by each of ADM Polymer Corporation and MBX present at any meeting shall have the authority to cast the votes of any of such Party's appointed Directors who are absent from the meeting. The act of a majority of the Directors present at any meeting at which a quorum is present shall be the act of the Board of Directors, unless by express provision of the Act, or of this Agreement, a different vote is required, in which case such express provision shall govern and control. In the absence of a quorum, a majority of the Directors present at any meeting may, without notice other than announcement at the meeting, adjourn such meeting from time to time until a quorum is present. A Director may appoint in writing an alternate to act in such Director's absence at any meetings of the Board of Directors.

- Special meetings of the Board of Directors may be called by (b) any Director. Notice of each such meeting shall be given to each Director on the Board of Directors by telephone, telecopy, telegram, or similar method, or sent by first-class mail (in each case, notice shall be given at least three (3) weeks before the time of the meeting, unless a longer notice period is established by the Board of Directors). Each such notice shall state (i) the time, date, place (which shall be at the principal office of a Member other than the Member who designated the Director calling such meeting unless otherwise agreed to by all Directors) or other means of conducting such meeting and (ii) the purpose of the meeting to be so held. No actions other than those specified in the notice may be considered at any special meeting unless unanimously approved by the Directors. Any Director may waive notice of any meeting in writing before, at, or after such meeting. The attendance of a Director at a meeting shall constitute a waiver of notice of such meeting, except when a Director attends a meeting for the express purpose of objecting, and does in fact object, to the transaction of any business on grounds that the meeting was not properly called.
- (c) Any action required to be taken at a meeting of the Board of Directors, or any action that may be taken at a meeting of the Board of

Directors, may be taken at a meeting held by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other. Participation in such a meeting shall constitute presence in person at such meeting.

(d) Notwithstanding anything to the contrary in this Section 5.2, the Board of Directors may take without a meeting any action that may be taken by the Board of Directors under this Agreement if such action is approved by the unanimous written consent of the Directors.

#### 5.3 BOARD OF DIRECTORS POWERS.

- (a) Except as otherwise provided in this Agreement, all powers to control and manage the Business and affairs of the Joint Sales Company shall be exclusively vested in the Board of Directors and the Board of Directors may exercise all powers of the Joint Sales
- \* CONFIDENTIAL TREATMENT REQUESTED

24

Company and do all such lawful acts as are not by statute, the Certificate or this Agreement directed or required to be exercised or done by the Members and in so doing shall have the right and authority to take all actions which the Board of Directors deems necessary, useful or appropriate for the management and conduct of the Business, including exercising the following specific rights and powers:

- (i) Conduct its business, carry on its operations and have and exercise the powers granted by the Act in any state, territory, district or possession of the United States, or in any foreign country which may be necessary or convenient to effect any or all of the purposes for which it is organized;
- (ii) Acquire by purchase, lease, or otherwise any real or personal property which may be necessary, convenient, or incidental to the accomplishment of the purposes of the Joint Sales Company;
- (iii) Operate, maintain, finance, improve, construct, own, grant operations with respect to, sell, convey, assign, mortgage, and lease any real estate and any personal property necessary, convenient, or incidental to the accomplishment of the purposes of the Joint Sales Company;
- (iv) Execute (but not to the exclusion of any Officer having such power) any and all agreements, contracts, documents, certifications, and instruments necessary or convenient in connection with the management, maintenance, and operation of the Business, or in connection with managing the affairs of the Joint Sales Company, including, executing amendments to this Agreement and the Certificate in accordance with the terms of this Agreement, both as Directors and, if required, as attorney-in-fact for the Members pursuant to any power of attorney granted by the Members to the Directors. Simultaneously with the execution of this Agreement, one or more of the Directors shall execute the Commercial Alliance Agreements on behalf of the Joint Sales Company;
- (v) Borrow money and issue evidences of indebtedness necessary, convenient, or incidental to the accomplishment of the purposes of the Joint Sales Company, and secure the same by mortgage, pledge, or other lien on any Joint Sales Company assets;
- (vi) Execute, in furtherance of any or all of the purposes of the Joint Sales Company, any deed, lease, mortgage, deed of trust, mortgage note, promissory note, bill of sale, contract, or other instrument purporting to convey or encumber any or all of the Joint Sales Company assets;
- (vii) Prepay in whole or in part, refinance, recast, increase, modify, or extend any liabilities affecting the assets of the Joint Sales Company and in connection therewith execute any extensions or renewals of encumbrances on any or all of such assets;
- \* CONFIDENTIAL TREATMENT REQUESTED

- (ix) Contract on behalf of the Joint Sales Company for the employment and services or employees and/or independent contractors, such as lawyers and accountants, and delegate to such Persons the duty to manage or supervise any of the assets or operations of the Joint Sales Company;
- (x) Engage in any kind of activity and perform and carry out contracts of any kind (including contracts of insurance covering risks to Joint Sales Company assets and Director liability) necessary or incidental to, or in connection with, the accomplishment of the purposes of the Joint Sales Company, as may be lawfully carried on or performed by a limited liability company under the laws of each state in which the Joint Sales Company is then formed or qualified;
- (xi) Take, or refrain from taking, all actions, not expressly proscribed or limited by this Agreement, as may be necessary or appropriate to accomplish the purposes of the Joint Sales Company;
- (xii) Institute, prosecute, defend, settle, compromise, and dismiss lawsuits or other judicial or administrative proceedings brought on or in behalf of, or against, the Joint Sales Company, the Members or any Director in connection with activities arising out of, connected with, or incidental to this Agreement, and to engage counsel or others in connection therewith;
- (xiii) Purchase, take, receive, subscribe for or otherwise acquire, own, hold, vote, use, employ, sell, mortgage, lend, pledge, or otherwise dispose of, and otherwise use and deal in and with, shares or other interests in or obligations of domestic or foreign corporations, associations, general or limited partnerships, other limited liability companies, or individuals or direct or indirect obligations of the United States or of any government, state, territory, government district or municipality or of any instrumentality of any of them;
- (xiv) Indemnify a Member or Director or former Member or Director, and to make any other indemnification that is authorized by this Agreement in accordance with the Act; provided the Board of Directors unanimously agrees on such indemnification.
- (b) The Board of Directors shall appoint and/or approve the Officers in accordance with Section 5.7 and will establish policies and guidelines for the hiring of employees to permit the Joint Sales Company to act as an operating company with respect to its Business. The Board of Directors may adopt appropriate management incentive plans and
- \* CONFIDENTIAL TREATMENT REQUESTED

26

employee benefit plans. The Officers of the Joint Sales Company shall be responsible for conducting, in the name of, and on behalf of, the Joint Sales Company, the day-to-day business and affairs of the Joint Sales Company.

## 5.4 DUTIES AND OBLIGATIONS OF THE BOARD OF DIRECTORS.

- Company to conduct its business and operations separate and apart from that of any Member or Director or any of its Affiliates, including, without limitation, (i) segregating Joint Sales Company assets and not allowing funds or other assets of the Joint Sales Company to be commingled with the funds or other assets of, held by, or registered in the name of, any Member or Director or any of its Affiliates, (ii) maintaining books and financial records of the Joint Sales Company separate from the books and financial records of any Member or Director and its Affiliates, and observing all Joint Sales Company procedures and formalities, including, without limitation, maintaining minutes of Joint Sales Company meetings and acting on behalf of the Joint Sales Company only pursuant to due authorization of the Members, (iii) causing the Joint Sales Company, and (iv) causing the Joint Sales Company to conduct its dealings with third parties in its own name and as a separate and independent entity.
- (b) The Board of Directors shall take all actions which may be necessary or appropriate (i) for the continuation of the Joint Sales Company's valid existence as a limited liability company under the laws of the State of Delaware and of each other jurisdiction in which such existence is necessary to

protect the limited liability of the Members or to enable the Joint Sales Company to conduct the business in which it is engaged and (ii) for the accomplishment of the Joint Sales Company's purposes, including the acquisition, development, maintenance, preservation, and operation of Property in accordance with the provisions of this Agreement and applicable laws and regulations.

(c) It is expressly agreed by the Members that no Director shall be liable to the Joint Sales Company or any Member for such Director's good faith reliance on any provision of this Agreement.

#### 5.5 REIMBURSEMENTS.

Except as otherwise provided in a Commercial Alliance Agreement, the Members and Directors shall be reimbursed for certain expenditures as provided herein. The Joint Sales Company shall reimburse the Members and Directors for all expenses incurred and paid by any of them in the organization of the Joint Sales Company and as authorized by the Joint Sales Company, in the conduct of the Business, including, but not limited to, expenses of maintaining an office, telephones, travel, office equipment and secretarial and other personnel as may reasonably be attributable to the Joint Sales Company. Each Member that is party to any contract or agreement with the Joint Sales Company (including but not limited to the Commercial Alliance Agreements) shall be reimbursed amounts specified or reimbursable thereunder pursuant to the terms thereof. Such expenses shall not include any expenses incurred in connection with a Member's or Directors' exercise of its rights as a Member or a

\* CONFIDENTIAL TREATMENT REQUESTED

27

Director apart from the authorized conduct of the Business. The unanimous determination of the Board of Directors as to which expenses are allocated to and reimbursed as a result of the Joint Sales Company's activities or business and the amount of such expenses shall be conclusive. Except as otherwise expressly provided herein, such reimbursement shall be treated as expenses of the Joint Sales Company and shall not be deemed to constitute distributions to any Member of profit, loss or capital of the Joint Sales Company.

## 5.6 INDEMNIFICATION OF THE DIRECTORS AND OFFICERS.

- (a) Unless otherwise provided in Section 5.6(d) hereof, the Joint Sales Company, its receiver, or its trustee (in the case of its receiver or trustee, to the extent of the Property) shall indemnify, save harmless, and pay all judgments and claims against any Director or Officer relating to any liability or damage incurred by reason \*
- (b) Unless otherwise provided in Section 5.6(d) hereof, in the event of any  $^{\ast}$
- (c) Unless otherwise provided in Section 5.6(d) hereof, the Joint Sales Company shall  $^{\star}$
- (d) Notwithstanding the provisions of Sections 5.6(a), 5.6(b) and 5.6(c) above, such Sections shall be enforced only to the maximum extent permitted by law and no Director or Officer shall be indemnified from any liability for the fraud, intentional misconduct, gross negligence or a knowing violation of the law which was material to the cause of action.
- (e) The obligations of the Joint Sales Company set forth in this Section 5.6 are expressly intended to create third party beneficiary rights of each of the Directors or Officers and any Member is authorized, on behalf of the Joint Sales Company, to give written confirmation to any Director or Officer of the existence and extent of the Joint Sales Company's obligations to such Director or Officer hereunder.
- \* CONFIDENTIAL TREATMENT REQUESTED

28

## 5.7 APPOINTMENT OF OFFICERS, AGENTS AND REPRESENTATIVES:

- - (i) The Marketing and Sales Manager. The Marketing and Sales Manager shall be appointed as directed by MBX, subject to the approval of the Board of Directors. The Marketing and Sales Manager may be removed by the Board of Directors, only at the

direction of MBX, and may be removed with or without cause. The duties of the Marketing and Sales Manager shall be to coordinate and manage the day to day Business of the Joint Sales Company as it relates to the marketing and sale of the Products. He shall consult frequently and work closely with the Board of Directors to ensure that the Board of Directors is aware and approves of all significant actions taken by the Marketing and Sales Manager. The Marketing and Sales Manager shall not be a "manager" within the meaning of the Act;

- (ii) The Assistant Marketing and Sales Manager. The Assistant Marketing and Sales Manager shall be appointed as directed by ADM Polymer Corporation, subject to the approval of the Board of Directors. The Assistant Marketing and Sales manager may be removed by the Board of Directors, only at the direction of ADM Polymer Corporation, and may be removed with or without cause. The duties of the Assistant Marketing and Sales manager shall be to assist the Marketing and Sales Manager in coordinating and managing the day to day Business of the Joint Sales Company as it relates to the marketing and sales of the Products. The Assistant Marketing and Sales Manager shall not be a "manager" within the meaning of the Act.
- The Treasurer. The Treasurer shall be (iii) appointed as directed by ADM Polymer Corporation, subject to the approval of the Board of Directors. The Treasurer may be removed by the Board of Directors, only at the direction of ADM Polymer Corporation, and may be removed with or without cause. The Treasurer shall have custody of the Joint Sales Company's funds and shall keep full and accurate accounts of receipts and disbursements in books belonging to the Joint Sales Company and shall deposit or cause to be deposited moneys or other valuable effects in the name and to the credit of the Joint Sales Company in such depositories as may be designated by the Board of Directors. The Treasurer shall also maintain adequate records of all assets, liabilities, and transactions of the  $\dot{\mbox{\it Joint Sales}}$ Company and shall see that adequate audits thereof are currently and regularly made. The Treasurer shall have such other powers and perform such other duties that generally are incident to the position of a treasurer of a corporation or as may from time to time be assigned to him or her by the Board of Directors.

## \* CONFIDENTIAL TREATMENT REQUESTED

- The Secretary. The Secretary shall be appointed as directed first by ADM, subject to the approval of the Board of Directors, to serve commencing on the Effective Date and continuing to and including December 31 of the year of appointment. The Secretary shall thereafter be appointed to serve for a calendar year on an alternating basis as directed by MBX or ADM, commencing with MBX, subject to the approval of the Board of Directors. The Secretary may be removed by the Board of Directors, only at the direction of the Member making the appointment, and may be removed with or without cause. The Secretary shall attend meetings of the Board of Directors and meetings of the Members and record all votes and minutes of all such proceedings in a book kept for such purpose. He or she shall have all such further powers and duties as generally are incident to the position of a secretary of a corporation or as may from time to time be assigned to him or her by the Board of Directors.
- (v) Such other Officers as the Board of Directors deems necessary or desirable, upon such terms as the Board of Directors deems appropriate; provided, however, that such Officers may only be removed by the Board of Directors.
- (b) The Board of Directors or the Officers may appoint such agents and representatives as they deem necessary or desirable, upon such terms as they deem appropriate.
- (c) Except with respect to any matter as to which the Board of Directors has authorized or directed an Officer, each Officer shall be under a fiduciary duty to conduct the affairs of the Joint Sales Company in the best interests of the Joint Sales Company, including the safekeeping and use of all of the Property and the use thereof for the exclusive benefit of the Joint Sales Company.
  - (d) Except as otherwise provided in a Commercial Alliance

Agreement, the Joint Sales Company shall not enter into any contract without having the written approval of both an Officer appointed by ADM Polymer Corporation and an Officer appointed by MBX. Notwithstanding any other provision of this Agreement, except as set forth in the Commercial Alliance Agreements, no action may be taken by the Joint Sales Company (whether by the Officers, or otherwise) in connection with any of the following matters without the unanimous approval of the Board of Directors:

- (i) Any grant or conveyance of any exclusive rights to any third party;
- (ii) Any agreement to a voluntary restriction on the Joint Sales Company's Business;
- (iii) Any contract to sell the Products or purchase materials for a term in excess of one (1) year;
- \* CONFIDENTIAL TREATMENT REQUESTED

30

- (iv) Any activity that is inconsistent with a budget or business plan that has been adopted by the Board of Directors; or
- (v) Any price incentives or rebates offered in connection with the sale of Products.
- (e) Each Member hereby agrees that the Joint Sales Company shall be permitted to use any counsel regularly employed by any Member (including without limitation the inside counsel of a Member) with respect to any issue arising under any Transaction Document and the transactions contemplated hereby and thereby; provided, however, that such issue does not involve any actual or potential conflict of interest (i) between, the Members or their respective Affiliates, a Member or its Affiliates and the Joint Sales Company, or any Member and an Affiliate of a Member, or (ii) for the proposed counsel. Such counsel will certify in writing as to the absence of such conflict for such proposed counsel if requested to do so by any Member; and provided, further that this Section 5.7(e) shall not, without the written consent of a Member, constitute a prospective waiver by such Member of its right to allege the existence of an actual or potential ethical conflict of interest with respect to such proposed counsel.

## SECTION 6: ROLE OF MEMBERS

## 6.1 RIGHTS OR POWERS.

The Members shall not have any right or power directly to take part in the management or control of the Joint Sales Company or its business and affairs or to act for or bind the Joint Sales Company in any way. Notwithstanding the foregoing, the Members have all the rights and powers specifically set forth in this Agreement and, to the extent not inconsistent with this Agreement, in the Act. The Members shall exercise such rights and powers through the Steering Committee subject to the terms and conditions set forth in the Commercial Alliance Agreements.

#### 6.2 VOTING RIGHTS.

No Member has any voting right except with respect to those matters specifically reserved for a Member vote which are set forth in this Agreement and as required in the Act.

# 6.3 REQUIRED MEMBER CONSENTS.

Notwithstanding any other provision of this Agreement, except as set forth in the Commercial Alliance Agreements, no action may be taken by the Joint Sales Company (whether by the Board of Directors, the Officers or otherwise) in connection with any of the following matters without the unanimous consent of the Members, acting through the Steering Committee:

## \* CONFIDENTIAL TREATMENT REQUESTED

- (a) Any activity that is not consistent with the purposes of the Joint Sales Company as set forth in Section 1.3 hereof;
- (b) Any act in contravention of this Agreement or any Commercial Alliance Agreement to which the Joint Sales Company is a party;

- (c) Confession of a judgment against the Joint Sales Company in an amount in excess of \$200,000;
  - (d) A material change in the Business;
- (e) Any sale of assets by the Joint Sales Company, other than sales of inventory in the ordinary course of business, involving total consideration in excess of \$200,000;
- (f) Any transaction by the Joint Sales Company involving the incurrence, creation, assumption, guarantee or suffering by the Joint Sales Company of any indebtedness in excess of \$200,000 in principal amount, or the issuance of any equity or any equity-based security by the Joint Sales Company;
- (g) Any expenditure, investment or acquisition involving total consideration in excess of \$200,000, other than the acquisition of raw materials or products for sale in the ordinary course of business;
- (h) Any transaction between the Joint Sales Company and any Member, Director or Affiliate of a Member;
- $\hbox{(i)} \quad \hbox{Any transaction to liquidate or dissolve the Joint Sales} \\$
- $\mbox{(j)}$  Any transaction by the Joint Sales Company to merge or consolidate with another entity;
- (k) Any transaction to sell or license any intellectual property owned or licensed by the Joint Sales Company;
- (1) Adopting or implementing any business plan or budget intended to represent a detailed statement of expected income, expenses and other expenditures or receipts on behalf of the Joint Sales Company or any Wholly-Owned Affiliate;
- (m) Any amendment and/or restatement of this Agreement or the Certificate and/or any amendment and/or restatement of the governing documents of any Wholly-Owned Affiliate of the Joint Sales Company;
- (n) The formation, dissolution, liquidation, merger or consolidation of any Wholly-Owned Affiliate of the Joint Sales Company;
- \* CONFIDENTIAL TREATMENT REQUESTED

32

- (o) Issuing or committing to issue, or repurchasing or redeeming of or committing to repurchase or redeem any Units or other equity interest that may hereafter be created (collectively, "Equity Interests"), options to acquire Equity Interests or any other rights relative to or in any way related to any Equity Interests of the Joint Sales Company or any Wholly-Owned Affiliate of the Joint Sales Company;
- (p) Causing the Joint Sales Company or any Wholly Owned Affiliate of the Joint Sales Company to distribute any cash or property to any Member, provided, however, that the distributions required by Sections 4.1 and 6.13 shall be made in accordance with such Sections;
- (q) Any action requiring the unanimous consent of the Steering Committee in the Commercial Alliance Agreements.

The restrictions above shall not apply to actions or transactions specifically contemplated by an agreement that is entered into on, as of or prior to the Effective Date, by MBX or ADM Polymer Corporation, or their respective Affiliates, with the Joint Sales Company, including but not limited to the Commercial Alliance Agreements, or is entered into by both MBX and ADM Polymer Corporation or their respective Affiliates at any time.

- 6.4 [RESERVED]
- 6.5 WITHDRAWAL/RESIGNATION.

Except as otherwise provided in Sections 4 and 12 hereof, no Member shall demand or receive a return on or of its Capital Contributions or withdraw from the Joint Sales Company without the consent of all Members. Except as otherwise provided in the Act or this Agreement, upon resignation, any resigning Member is entitled to receive only the distribution to which it is entitled under this Agreement, and if no specific provision of this Agreement calls for a distribution or payment upon such resignation, then no payment or

distribution shall be due or owing. Under circumstances requiring a return of any Capital Contributions, no Member has the right to receive Property other than cash except as may be specifically provided herein.

#### 6.6 MEMBER COMPENSATION.

No Member shall receive any interest, salary or drawing with respect to its Capital Contributions or its Capital Account or for services rendered on behalf of the Joint Sales Company, or otherwise, in its capacity as a Member, except as otherwise provided in this Agreement.

#### 6.7 MEMBERS LIABILITY.

No Member shall be liable under a judgment, decree or order of a court, or in any other manner for the Debts or any other obligations or liabilities of the Joint Sales

\* CONFIDENTIAL TREATMENT REQUESTED

33

Company. A Member shall be liable only to make its Capital Contributions and shall not be required to restore a deficit balance in its Capital Account or to lend any funds to the Joint Sales Company or, after its Capital Contributions have been made, to make any additional contributions, assessments or payments to the Joint Sales Company, provided that a Member may be required to repay distributions made to it as provided in Section 18-607 of the Act. The Directors shall not have any personal liability for the repayment of any Capital Contributions of any Member.

#### 6.8 PARTITION.

While the Joint Sales Company remains in existence or is continued, each Member agrees and waives its rights to have any Property partitioned, or to file a complaint or to institute any suit, action or proceeding at law or in equity to have any Property partitioned, and each Member, on behalf of itself, its successors and its assigns hereby waives any such right.

#### 6.9 CONFIDENTIALITY.

Each Member covenants to comply with the terms and conditions of all confidentiality agreements between and among ADM Polymer Corporation, MBX and their respective Affiliates whether presently in existence or entered into after the Effective Date and a breach of any such confidentiality agreement shall constitute a breach of this Agreement.

## 6.10 TRANSACTIONS BETWEEN A MEMBER AND THE JOINT SALES COMPANY.

Except as otherwise provided by applicable law, any Member may, but shall not be obligated to, lend money to the Joint Sales Company, act as surety for the Joint Sales Company and transact other business with the Joint Sales Company and has the same rights and obligations when transacting business with the Joint Sales Company as a person or entity who is not a Member. A Member, any Affiliate thereof or an employee, stockholder, agent, director or officer of a Member or any Affiliate thereof, may also be an employee or be retained as an agent of the Joint Sales Company. The existence of these relationships and acting in such capacities will not result in the Member being deemed to be participating in the control of the business of the Joint Sales Company or otherwise affect the limited liability of the Member.

## 6.11 OTHER INSTRUMENTS.

Each Member hereby agrees to execute and deliver to the Joint Sales Company within five (5) days after receipt of a written request therefor, such other and further documents and instruments, statements of interest and holdings, designations, powers of attorney and other instruments and to take such other action as the Board of Directors deems necessary, useful or appropriate to comply with any laws, rules or regulations as may be necessary to enable the Joint Sales Company to fulfill its responsibilities under this Agreement.

# \* CONFIDENTIAL TREATMENT REQUESTED

34

## 6.12 NUMBER OF MEMBERS.

shall at no time be more than two (2) Members of the Joint Sales Company.

#### 6.13 EQUALIZATION PAYMENTS.

On each Equalization Distribution Date, the Joint Sales Company shall pay to each Member, to the extent of all Available Cash, an amount equal to each such Member's Equalization Payment, if any. Equalization Payments shall be treated for income tax purposes as "guaranteed payments" within the meaning of Code Section 707(c) and, whether or not paid, shall not affect any Member's Capital Account balance.

#### SECTION 7: REPRESENTATIONS AND WARRANTIES

#### 7.1 IN GENERAL.

As of the date hereof, each of the Members hereby makes each of the representations and warranties applicable to such Member as set forth in Section 7.2 hereof, and such warranties and representations shall survive the execution of this Agreement.

#### 7.2 REPRESENTATIONS AND WARRANTIES.

Each Member hereby represents and warrants that:

- (a) Due Incorporation or Formation; Authorization of Agreement. Such Member is a corporation duly organized or a partnership or limited liability company duly formed, validly existing, and in good standing under the laws of the jurisdiction of its incorporation or formation and has the corporate, partnership, or company power and authority to own its property and carry on its business as owned and carried on at the date hereof and as contemplated hereby. Such Member is duly licensed or qualified to do business and in good standing in each of the jurisdictions in which the failure to be so licensed or qualified would have a material adverse effect on its financial condition or its ability to perform its obligations hereunder. Such Member has the corporate, partnership or company power and authority to execute and deliver this Agreement and to perform its obligations hereunder and the execution, delivery, and performance of this Agreement has been duly authorized by all necessary corporate, partnership, or company action. This Agreement constitutes the legal, valid, and binding obligation of such Member.
- (b) No Conflict with Restrictions; No Default. Neither the execution, delivery, and performance of this Agreement nor the consummation by such Member of the transactions contemplated hereby (i) will conflict with, violate, or result in a breach of any of the terms, conditions, or provisions of any law, regulation, order, writ, injunction, decree, determination, or award of any court, any governmental department, board, agency, or instrumentality, domestic or foreign, or any arbitrator, applicable to such Member, its Parent, or any of its Affiliates, (ii) will conflict with, violate, result in a breach of, or constitute a

## \* CONFIDENTIAL TREATMENT REQUESTED

35

default under any of the terms, conditions, or provisions of the articles of incorporation, bylaws, partnership agreement or operating agreement of such Member, its Parent, or any of its Affiliates or of any material agreement or instrument to which such Member, its Parent, or any of its Affiliates is a party or by which such Member, its Parent, or any of its Affiliates is or may be bound or to which any of its material properties or assets is subject, (iii) will conflict with, violate, result in a breach of, constitute a default under (whether with notice or lapse of time or both), accelerate or permit the acceleration of the performance required by, give to others any material interests or rights, or require any consent, authorization, or approval under any indenture, mortgage, lease agreement, or instrument to which such Member, its Parent, or any of its Affiliates is a party or by which such Member, its Parent, or any of its Affiliates is or may be bound, or (iv) will result in the creation or imposition of any lien upon any of the material properties or assets of such Member, its Parent, or any of its Affiliates.

- (c) Governmental Authorizations. Any registration, declaration, or filing with, or consent, approval, license, permit, or other authorization or order by, any governmental or regulatory authority, domestic or foreign, that is required in connection with the valid execution, delivery, acceptance and performance by such Member under this Agreement or the consummation by such Member of any transaction contemplated hereby has been completed, made, or obtained on or before the Effective Date.
- (d) Litigation. There are no actions, suits, proceedings, or investigations pending or, to the knowledge of such Member or any of its

Affiliates, threatened against or affecting such Member or any of its Affiliates or any of their properties, assets, or businesses in any court or before or by any governmental department, board, agency, or instrumentality, domestic or foreign, or any arbitrator which could, if adversely determined (or, in the case of an investigation could lead to any action, suit, or proceeding, which if adversely determined could) reasonably be expected to materially impair such Member's ability to perform its obligations under this Agreement or to have a material adverse effect on the consolidated financial condition of such Member; and such Member or any of its Affiliates has not received any currently effective notice of any default, and such Member or any of its Affiliates is not in default, under any applicable order, writ, injunction, decree, permit, determination, or award of any court, any governmental department, board, agency, or instrumentality, domestic or foreign, or any arbitrator which could reasonably be expected to materially impair such Member's ability to perform its obligations under this Agreement or to have a material adverse effect on the consolidated financial condition of such Member.

(e) Investment Company Act; Public Utility Holding Company Act. Neither such Member nor any of its Affiliates is, nor will the Joint Sales Company as a result of such Member holding an interest therein be, an "investment company" as defined in, or subject to regulation under, the Investment Company Act of 1940. Neither such Member nor any of its Affiliates is, nor will the Joint Sales Company as a result of such Member holding an Interest therein be, a "holding company," "an affiliate of a holding company," or a "subsidiary of a holding company" as defined in, or subject to regulation under, the Public Utility Holding Company Act of 1935.

#### \* CONFIDENTIAL TREATMENT REQUESTED

36

(f) Investigation. Such Member is acquiring its Units based upon its own investigation, and the exercise by such Member of its rights and the performance of its obligations under this Agreement will be based upon its own investigation, analysis, and expertise. Such Member's acquisition of its Units is being made for its own account for investment, and not with a view to the sale or distribution thereof. Such Member is a sophisticated investor possessing an expertise in analyzing the benefits and risks associated with acquiring investments that are similar to the acquisition of its Units.

## SECTION 8: ACCOUNTING, BOOKS AND RECORDS

## 8.1 ACCOUNTING, BOOKS AND RECORDS.

- (a) The Joint Sales Company shall keep on site at its principal place of business each of the following:
  - (i) Separate books of account for the Joint Sales Company which shall show a true and accurate record of all costs and expenses incurred, all charges made, all credits made and received, and all income derived in connection with the conduct of the Joint Sales Company and the operation of the Business in accordance with this Agreement;
  - (ii) current list of the full name and last known business, residence, or mailing address of each Member, Director, and Officer, both past and present;
  - (iii) copy of the Certificate and all amendments thereto, together with executed copies of any powers of attorney pursuant to which any amendment has been executed;
  - (iv) Copies of the Joint Sales Company's federal, state, and local income tax returns and reports, if any, for the three (3) most recent years;
    - (v) Copies of this Agreement;
  - (vi) Any written consents obtained from Members
    pursuant to Section 6.3(e) hereof regarding action taken by
    Members without a meeting; and
  - (vii) Any written consents obtained from the Directors pursuant to Section 5.2(d) hereof regarding action taken by the Directors without a meeting, and minutes of meetings of the Board of Directors.
- (b) The Joint Sales Company shall use the accrual method of accounting in preparation of its financial reports and for tax purposes and shall keep its books and records accordingly. Any Member or its designated

representative has the right to have reasonable access to and inspect and copy the contents of such books or records and shall also have

\* CONFIDENTIAL TREATMENT REQUESTED

37

reasonable access during normal business hours to such additional financial information, documents, books and records. The rights granted to a Member pursuant to this Section 8.1 are expressly subject to compliance by such Member with the safety, security and confidentiality procedures and guidelines of the Joint Sales Company, as such procedures and guidelines may be established from time to time.

#### 8.2 REPORTS.

- (a) IN GENERAL. The Treasurer shall be responsible for causing the preparation of financial reports of the Joint Sales Company and the coordination of financial matters of the Joint Sales Company with the Joint Sales Company's accountants.
- (b) PERIODIC AND OTHER REPORTS. The Joint Sales Company shall cause to be delivered to each Member the financial statements listed in clauses (i) and (ii) below, prepared, in each case (other than with respect to Member's Capital Accounts, which shall be prepared in accordance with this Agreement) in accordance with GAAP consistently applied (and, if required by any Member or its Affiliates for purposes of reporting under the Securities Exchange Act of 1934, Regulation S-X), and such other reports as any Member may reasonably request from time to time; PROVIDED that, if the Board of Directors so determines within thirty (30) days thereof, such other reports shall be provided at such requesting Member's sole cost and expense. The monthly and quarterly financial statements referred to in clause (ii) below may be subject to normal year-end audit adjustments.
  - As soon as practicable following the end of (i)each Fiscal Year (and in any event not later than ninety (90) days after the end of such Fiscal Year) and at such time as distributions are made to the Members pursuant to Section 12 hereof following the occurrence of a Dissolution Event, a balance sheet of the Joint Sales Company as of the end of such Fiscal Year and the related statements of operations, Members' Capital Accounts and changes therein, and cash flows for such Fiscal Year, together with appropriate notes to such financial statements and supporting schedules, all of which shall be audited and certified by the Joint Sales Company's accountants, and in each case, to the extent the Joint Sales Company was in existence, setting forth in comparative form the corresponding figures for the immediately preceding Fiscal Year end (in the case of the balance sheet) and the two (2) immediately preceding Fiscal Years (in the case of the statements).
  - (ii) As soon as practicable following the end of each of the first three Fiscal Quarters of each Fiscal Year (and in any event not later than forty five (45) days after the end of each such Fiscal Quarter), a balance sheet of the Joint Sales Company as of the end of such Fiscal Quarter and the related statements of operations and cash flows for such Fiscal Quarter and for the Fiscal Year to date, in each case, to the extent the Joint Sales Company was in existence, setting forth in comparative form the corresponding figures for the prior Fiscal Year's Fiscal Quarter and the interim period corresponding to the Fiscal Quarter and the interim period just completed.

# \* CONFIDENTIAL TREATMENT REQUESTED

38

The quarterly or monthly statements described in clause (ii) above shall be accompanied by a written certification of the Treasurer of the Joint Sales Company that such statements have been prepared in accordance with GAAP consistently applied or this Agreement, as the case may be.

## 8.3 TAX MATTERS.

(a) TAX ELECTIONS. It is the intention of the parties hereto that the relationships created by this Agreement will, for federal, state, and local income tax purposes, be treated as a partnership and no Member nor the Tax Matters Member shall take any action inconsistent with the Joint Sales Company's status as a partnership for federal, state, or local income tax purposes without

the consent of all Members. The Board of Directors by a unanimous vote shall, without any further consent of the Members being required (except as specifically required herein), make any and all elections for federal, state, local, and foreign tax purposes including, without limitation, any election, if permitted by applicable law: (i) to adjust the basis of Property pursuant to Code Sections 754, 734(b) and 743(b), or comparable provisions of state, local or foreign law, in connection with Transfers of Units and Joint Sales Company distributions; (ii) with the consent of all of the Members, to extend the statute of limitations for assessment of tax deficiencies against the Members with respect to adjustments to the Joint Sales Company's federal, state, local or foreign tax returns; and (iii) to the extent provided in Code Sections 6221 through 6231 and similar provisions of federal, state, local, or foreign law, to represent the Joint Sales Company and the Members before taxing authorities or courts of competent jurisdiction in tax matters affecting the Joint Sales Company or the Members in their capacities as Members, and to file any tax returns and execute any agreements or other documents relating to or affecting such tax matters, including agreements or other documents that bind the Members with respect to such tax matters or otherwise affect the rights of the Joint Sales Company and the Members. ADM Polymer Corporation is specifically authorized to act as the "TAX MATTERS MEMBER" under Section 6231 of the Code and in any similar capacity under state or local law.

- (b) TAX INFORMATION. Necessary tax information shall be delivered to each Member as soon as practicable after the end of each Fiscal Year of the Joint Sales Company but not later than five (5) months after the end of each Fiscal Year.
- (c) REIMBURSEMENTS. Notwithstanding anything to the contrary in this Agreement, the Tax Matters Member shall be reimbursed for all reasonable expenses incurred by it in connection with its service as Tax Matters Member. Such reimbursements shall not affect the Capital Account of the Tax Matters Member.

**SECTION 9: AMENDMENTS** 

#### 9.1 AMENDMENTS.

(a) Amendments to this Agreement may be proposed by any Director or any Member. Following such proposal, the Board of Directors shall submit to the Members a

## \* CONFIDENTIAL TREATMENT REQUESTED

39

verbatim statement of any proposed amendment, providing that counsel for the Joint Sales Company shall have approved of the same in writing as to form, and the Board of Directors shall include in any such submission a recommendation as to the proposed amendment. The Board of Directors shall seek the written vote of the Members on the proposed amendment or shall call a meeting to vote thereon and to transact any other business that it may deem appropriate. A proposed amendment shall be adopted and be effective as an amendment hereto if it receives the unanimous approval of the Members in accordance with Section 6.4 hereof.

(b) Notwithstanding Section 9.1(a) hereof, this Agreement shall not be amended without the consent of each Member adversely affected if such amendment would (i) modify the limited liability of a Member, or (ii) alter the interest of such Member in Profits, Losses, other items, or any Joint Sales Company distributions.

SECTION 10: TRANSFERS

## 10.1 RESTRICTIONS ON TRANSFERS.

Except as otherwise permitted by this Agreement, no Member shall (i) Transfer directly or indirectly all or any portion of its Units, or (ii) pledge or otherwise encumber all or any part of its Units as security for the payment of a Debt.

## 10.2 PERMITTED TRANSFERS.

Subject to the conditions and restrictions set forth in Sections 10.3 and 10.6 hereof, a Member may at any time Transfer all (but not less than all) of its Units to (a) the other Member or an Affiliate of the other Member, or (b) the transferor's trustee to whom such Units are transferred involuntarily by operation of law, (any such Transfer being referred to in this Agreement as a "Permitted Transfer").

# 10.3 CONDITIONS TO PERMITTED TRANSFERS.

A Transfer shall not be treated as a Permitted Transfer under Section 10.2 hereof unless and until the following conditions are satisfied:

- (a) Except in the case of a Transfer involuntarily by operation of law, the transferor and transferee shall execute and deliver to the Joint Sales Company such documents and instruments of conveyance as may be necessary or appropriate in the opinion of counsel to the Joint Sales Company to effect such Transfer. In the case of a Transfer of Units involuntarily by operation of law, the Transfer shall be confirmed by presentation to the Joint Sales Company of legal evidence of such Transfer, in form and substance satisfactory to counsel to the Joint Sales Company. In all cases, the Joint Sales Company shall be reimbursed by the transferor and/or transferee for all costs and expenses that it reasonably incurs in connection with such Transfer.
- \* CONFIDENTIAL TREATMENT REQUESTED

40

- (b) The transferor and transferee shall furnish the Joint Sales Company with the transferee's taxpayer identification number, sufficient information to determine the transferee's initial tax basis in the Units transferred, and any other information reasonably necessary to permit the Joint Sales Company to file all required federal and state tax returns and other legally required information statements or returns. Without limiting the generality of the foregoing, the Joint Sales Company shall not be required to make any distribution otherwise provided for in this Agreement with respect to any transferred Units until it has received such information.
- (c) Except in the case of a Transfer of Units involuntarily by operation of law, either (a) such Units shall be registered under the Securities Act, and any applicable state securities laws, or (b) the transferor shall provide to the Joint Sales Company and the other Member an opinion of counsel, which opinion and counsel shall be reasonably satisfactory to the Board of Directors, to the effect that such Transfer is exempt from all applicable registration requirements and that such Transfer will not violate any applicable laws regulating the Transfer of securities.
- (d) Except in the case of a Transfer of Units involuntarily by operation of law, the transferor shall provide to the Joint Sales Company and the other Member an opinion of counsel, which opinion and counsel shall be reasonably satisfactory to the Board of Directors, to the effect that such Transfer will not cause the Joint Sales Company to be deemed to be an "investment company" under the Investment Company Act of 1940.
  - 10.4 [RESERVED]
  - 10.5 PROHIBITED TRANSFERS.

Any purported Transfer of Units that is not a Permitted Transfer shall be null and void and of no force or effect whatever; provided that, if the Joint Sales Company is required to recognize a Transfer that is not a Permitted Transfer (or if the Members, in their sole discretion, unanimously agree to recognize a Transfer that is not a Permitted Transfer), the Units Transferred shall be strictly limited to the transferor's rights to allocations and distributions as provided by this Agreement with respect to the transferred Units, which allocations and distributions may be applied (without limiting any other legal or equitable rights of the Joint Sales Company) to satisfy any debts, obligations, or liabilities for damages that the transferor or transferee of such Interest may have to the Joint Sales Company.

In the case of a Transfer or attempted Transfer of Units that is not a Permitted Transfer, the parties engaging or attempting to engage in such Transfer shall be liable to indemnify and hold harmless the Joint Sales Company and the other Members from all cost, liability, and damage that any of such indemnified Members may incur (including, without limitation, incremental tax liabilities, lawyers' fees and expenses) as a result of such Transfer or attempted Transfer and efforts to enforce the indemnity granted hereby.

\* CONFIDENTIAL TREATMENT REQUESTED

41

## 10.6 TAX TERMINATION RESTRICTIONS.

(a) Notwithstanding any other provision of this Section 10, except in the case of a Transfer of Units involuntarily by operation of law and except as otherwise provided in this Section 10.6, no Transfer of Units shall be

permitted if, in the opinion of the Joint Sales Company's tax counsel, (i) such Transfer would more likely than not terminate the Joint Sales Company for federal income tax purposes under Section 708(b)(1)(B) of the Code (a "Technical Termination") and (ii) any Technical Termination caused by such Transfer would be disadvantageous to the Joint Sales Company.

- (b) Prior to the effective date of any Transfer, the Joint Sales Company may obtain and deliver to the transferor a written opinion from the Joint Sales Company's tax counsel stating that the proposed Transfer would cause a Technical Termination and explaining how such Technical Termination would be disadvantageous to the Joint Sales Company (a "Termination Opinion"). If the Joint Sales Company fails to provide a Termination Opinion prior to the effective date, the Transfer of such Offered Units will not be prohibited by this Section 10.6, but shall remain subject to any and all requirements of the remaining provisions of this Section 10.
- (c) If the Joint Sales Company provides a Termination Opinion to the transferor prior to such effective date, the Board of Directors by a unanimous decision shall have the right to restructure the proposed Transfer so that a Technical Termination will not result therefrom. To restructure the Transfer, the Board of Directors shall prior to the effective date of the transfer, provide a written explanation to the transferor explaining any and all necessary changes required by the Board of Directors so that a Technical Termination will be avoided if the proposed Transfer is ultimately consummated. For the avoidance of doubt, the Board of Directors shall only be entitled to make changes necessary to avoid a Technical Termination, and shall not have the right to restructure any proposed Transfer in any other way or for any other purpose.

#### 10.7 RIGHTS OF UNADMITTED ASSIGNEES.

A Person who acquires Units but who is not admitted as a substituted Member pursuant to Section 10.8 hereof shall be entitled only to allocations and distributions with respect to such Units in accordance with this Agreement, and shall have no right to any information or accounting of the affairs of the Joint Sales Company, shall not be entitled to inspect the books or records of the Joint Sales Company, shall not be entitled to designate any Directors and shall not have any of the other rights of a Member under the Act or this Agreement.

## 10.8 ADMISSION OF SUBSTITUTED MEMBERS.

Subject to the other provisions of this Section 10, a transferee of Units may be admitted to the Joint Sales Company as a substituted Member only upon satisfaction of the conditions set forth in this Section 10.8:

## \* CONFIDENTIAL TREATMENT REQUESTED

- (a) The Units with respect to which the transferee is being admitted were acquired by means of a Permitted Transfer;
- (i) The transferee of Units (other than, with respect to clauses (i) and (ii) below, a transferee that was a Member prior to the Transfer) shall, by written instrument in form and substance reasonably satisfactory to the Board of Directors (and, in the case of clause (iii) below, the transferor Member), (i) make representations and warranties to the nontransferring Member equivalent to those set forth in Section 7, (ii) accept and adopt the terms and provisions of this Agreement, including this Section 10, and (iii) assume the obligations of the transferor Member under this Agreement with respect to the transferred Units. The transferor Member shall be released from all such assumed obligations except (x) those obligations or liabilities of the transferor Member arising out of a breach of this Agreement, (y) in the case of a Transfer to any Person other than a Member or any of its Affiliates, those obligations or liabilities of the transferor Member based on events occurring, arising or maturing prior to the date of Transfer, and (z) in the case of a Transfer to any of its Affiliates, any Capital Contribution of the transferor Member under this Agreement;
- (c) The transferee pays or reimburses the Joint Sales Company for all reasonable legal, filing, accounting and publication costs that the Joint Sales Company incurs in connection with the admission of the transferee as a Member with respect to the Transferred Units; and
- (d) Except in the case of a Transfer involuntarily by operation of law, if required by the Board of Directors, the transferee (other than a transferee that was a Member prior to the Transfer) shall deliver to the Joint Sales Company evidence of the authority of such Person to become a Member and to be bound by all of the terms and conditions of this Agreement, and the transferee and transferor shall each execute and deliver such other instruments

as the Board of Directors reasonably deems necessary or appropriate to effect, and as a condition to, such Transfer, including amendments to the Certificate or any other instrument filed with the State of Delaware or any other state or governmental authority.

#### 10.9 REPRESENTATIONS REGARDING TRANSFERS; LEGEND.

(a) Each Member hereby covenants and agrees with the Joint Sales Company for the benefit of the Joint Sales Company and all Members, that (i) it is not currently making a market in Units and will not in the future make a market in Units, (ii) it will not Transfer its Units on an established securities market, a secondary market (or the substantial equivalent thereof) within the meaning of Code Section 7704(b) (and any Regulations, proposed Regulations, revenue rulings, or other official pronouncements of the Internal Revenue Service or Treasury Department that may be promulgated or published thereunder), and (iii) in the event such Regulations, revenue rulings, or other pronouncements treat any or all arrangements which facilitate the selling of Joint Sales Company interests and which are commonly referred to as "matching services" as being a secondary market or substantial equivalent thereof, it will not Transfer any Units through a matching service that is not approved in advance by the Joint Sales Company. Each Member further agrees that it will

## \* CONFIDENTIAL TREATMENT REQUESTED

43

not Transfer any Units to any Person unless such Person agrees to be bound by this Section 10.9(a) and to Transfer such Units only to Persons who agree to be similarly bound.

(b) Each Member hereby represents and warrants to the Joint Sales Company and the Members that such Member's acquisition of Units hereunder is made as principal for such Member's own account and not for resale or distribution of such Units. Each Member further hereby agrees that the following legend may be placed upon any counterpart of this Agreement, the Certificate, or any other document or instrument evidencing ownership of Units:

The Company Units represented by this document have not been registered under any securities laws and the transferability of such Units is restricted. Such Units may not be sold, assigned, or transferred, nor will any assignee, vendee, transferee, or endorsee thereof be recognized as having acquired any such Units by the issuer for any purposes, unless (1) a registration statement under the Securities Act of 1933, as amended, with respect to such Units shall then be in effect and such transfer has been qualified under all applicable state securities laws, or (2) the availability of an exemption from such registration and qualification shall be established to the satisfaction of counsel to the Joint Sales Company.

The Units represented by this document are subject to further restriction as to their sale, transfer, hypothecation, or assignment as set forth in the Operating Agreement of the issuer and agreed to by each Member. Said restriction provides, among other things, that no Units may be transferred without first offering such Units to the other Member.

## 10.10 DISTRIBUTIONS AND ALLOCATIONS IN RESPECT OF TRANSFERRED UNITS.

If any Units are Transferred during any Allocation Year in compliance with the provisions of this Section 10, Profits, Losses, each item thereof, and all other items attributable to the Transferred Units for such Allocation Year shall be divided and allocated between the transferor and the transferee by taking into account their varying Percentage Interests during the Fiscal Year in accordance with Code Section 706(d), using any conventions permitted by law and selected by the Board of Directors. All distributions on or before the date of such Transfer shall be made to the transferor, and all distributions thereafter shall be made to the transferee. Solely for purposes of making such allocations and distributions, the Joint Sales Company shall recognize such Transfer not later than the end of the calendar month during which it is given notice of such Transfer, provided that, if the Joint Sales Company is given notice of a Transfer at least ten (10) Business Days prior to the Transfer, the Joint Sales Company shall recognize such Transfer as of the date of such Transfer, and provided further that if the Joint Sales Company does not receive a notice stating the date such Units were

<sup>\*</sup> CONFIDENTIAL TREATMENT REQUESTED

transferred and such other information as the Board of Directors may reasonably require within thirty (30) days after the end of the Allocation Year during which the Transfer occurs, then all such items shall be allocated, and all distributions shall be made to the Person who, according to the books and records of the Joint Sales Company, was the owner of the Units on the last day of such Allocation Year. Neither the Joint Sales Company nor any Director shall incur any liability for making allocations and distributions in accordance with the provisions of this Section 10.10, whether or not any Director or the Joint Sales Company has knowledge of any Transfer of ownership of any Units.

#### SECTION 11: ADVERSE ACT

#### 11.1 REMEDIES.

(a) If an Adverse Act has occurred or is continuing with respect to any Member, the non-Adverse Member may elect to cause the dissolution, winding up and liquidation of the Joint Sales Company pursuant to Section 12.

The foregoing remedy shall not be deemed to be exclusive, and, subject to the requirements of this Section 11.1(a) regarding the timing of the election of such remedies, selection or resort to any thereof shall not preclude selection or resort to the others.

The election of a remedy specified above may be exercised by notice given to the Adverse Member (A) in case of an Adverse Act specified in clause (i) of the definition of the term "Adverse Act" in Section 1.10, within ninety (90) days after the occurrence of such Adverse Act or (B) in the case of any other Adverse Act with respect to which such remedy is available, within ninety (90) days after the Member making such election obtains actual knowledge of the occurrence of such Adverse Act, including, if applicable, that any cure period has expired.

Except as provided in Section 11.1(b), the failure to elect the remedy with respect to the subject Adverse Act within the time periods provided in the preceding paragraph shall be conclusively presumed to be a waiver of the remedies provided in this Section 11 with respect to the subject Adverse Act.

The resort to any remedy pursuant to this Section 11.1(a) shall not for any purpose be deemed to be a waiver of any remedy not described in this Section 11.1(a) and otherwise available hereunder or under applicable law.

(b) If the Joint Sales Company is dissolved pursuant to Section 12.1(a) at any time as a result of a Dissolution Event that occurs prior to a remedy having been elected pursuant to Section 11.1(a) with respect to any Adverse Member, the time periods for such election shall thereupon expire and the Board of Directors shall deduct from any amounts to be paid to such Adverse Member pursuant to Section 12.2 that amount which it unanimously estimates to be reasonably sufficient to compensate the Joint Sales Company and the non-

## \* CONFIDENTIAL TREATMENT REQUESTED

45

Adverse Member for Damages incurred as a result of the Adverse Act (subject to the limitations of Section 11.1(a)) and shall pay the same to the non-Adverse Member on behalf of the Adverse Member.

#### SECTION 12: DISSOLUTION AND WINDING UP

## 12.1 DISSOLUTION EVENTS.

- (a) DISSOLUTION. The Joint Sales Company shall dissolve and shall commence winding up and liquidating upon the first to occur of any of the following (each a "DISSOLUTION EVENT"):
  - (i) The unanimous vote of the Members to dissolve, wind up, and liquidate the Joint Sales Company;
  - (ii) A judicial determination that an event has occurred that makes it unlawful, impossible or impractical to carry on the Business;
  - (iii) The election of the non-Adverse Member
    pursuant to Section 11.1(a);
  - $% \left( \frac{1}{2}\right) =0$  (iv) The termination or expiration of the Commercial Alliance Agreement;

(v) The election of a Member to dissolve the Joint Sales Company pursuant to Section 9.8.3 of the Commercial Alliance Agreement.

The Members hereby agree that, notwithstanding any provision of the Act, the Joint Sales Company shall not dissolve prior to the occurrence of a Dissolution Event.

- (b) RECONSTITUTION. If it is determined, by a court of competent jurisdiction, that the Joint Sales Company has dissolved prior to the occurrence of a Dissolution Event, then within an additional ninety (90) days after such determination (the "RECONSTITUTION PERIOD"), either Member may elect to reconstitute the Joint Sales Company and continue its business on the same terms and conditions set forth in this Agreement by forming a new limited liability company on terms identical to those set forth in this Agreement. Unless such an election is made within the Reconstitution Period, the Joint Sales Company shall liquidate and wind up its affairs in accordance with Section 12.2 hereof. If such an election is made within the Reconstitution Period, then:
  - (i) The reconstituted limited liability company shall continue until the occurrence of a Dissolution Event as provided in this Section 12.1(a);
- \* CONFIDENTIAL TREATMENT REQUESTED

46

(ii) Unless otherwise agreed to by a majority in Percentage Interests of the Members, the Certificate and this Agreement shall automatically constitute the Certificate and Agreement of such new Joint Sales Company. All of the assets and liabilities of the dissolved Joint Sales Company shall be deemed to have been automatically assigned, assumed, conveyed and transferred to the new Joint Sales Company. No bond, collateral, assumption or release of any Member's or the Joint Sales Company's liabilities shall be required;

PROVIDED that the right of the Members to select successor Directors and to reconstitute and continue the Business shall not exist and may not be exercised unless the Joint Sales Company has received an opinion of counsel that the exercise of the right would not result in the loss of limited liability of any Member and neither the Joint Sales Company nor the reconstituted limited liability company would cease to be treated as a partnership for federal income tax purposes upon the exercise of such right to continue.

## 12.2 WINDING UP.

Upon the occurrence of (i) a Dissolution Event or (ii) the determination by a court of competent jurisdiction that the Joint Sales Company has dissolved prior to the occurrence of a Dissolution Event (unless the Joint Sales Company is reconstituted pursuant to Section 12.1(b) hereof), the Joint Sales Company shall continue solely for the purposes of winding up its affairs in an orderly manner, liquidating its assets, and satisfying the claims of its creditors and Members, and no Member shall take any action that is inconsistent with, or not necessary to or appropriate for, the winding up of the Joint Sales Company's business and affairs, PROVIDED that all covenants contained in this Agreement and obligations provided for in this Agreement shall continue to be fully binding upon the Members until such time as the Property has been distributed pursuant to this Section 12.2 and the Certificate has been canceled pursuant to the Act. The Liquidator shall be responsible for overseeing the winding up and dissolution of the Joint Sales Company, which winding up and dissolution shall be completed within ninety (90) days of the occurrence of the Dissolution Event and within ninety (90) days after the last day on which the Joint Sales Company may be reconstituted pursuant to Section 12.1(b) hereof, as applicable. The Liquidator shall take full account of the Joint Sales Company's liabilities and Property and shall cause the Property or the proceeds from the sale thereof (as determined pursuant to Section 12.10 hereof), to the extent sufficient therefor, to be applied and distributed, to the maximum extent permitted by law, in the following order:

- (a) First, to creditors (including Members and Directors who are creditors, to the extent otherwise permitted by law) in satisfaction of all of the Joint Sales Company's Debts and other liabilities (whether by payment or the making of reasonable provision for payment thereof), other than liabilities for which reasonable provision for payment has been made and liabilities for distribution to members under Section 18-601 or 18-604 of the Act;
  - (b) Second, to ADM Polymer Corporation until the Ledger Account:

- (c) Third, to the Members in amounts equal to any Equalization Payments then due and owing to the Members;
- (d) Fourth, to the Members in accordance with the positive balance in their Capital Accounts, after giving effect to all contributions, distributions and allocations for all periods;
- (e) The balance, if any, to the Members in accordance with their respective Percentage Interests.

No Member or Director shall receive additional compensation for any services performed pursuant to this Section 12.

# 12.3 COMPLIANCE WITH CERTAIN REQUIREMENTS OF REGULATIONS; DEFICIT CAPITAL ACCOUNTS.

In the event the Joint Sales Company is "liquidated" within the meaning of Regulations Section 1.704-1(b) (2) (ii) (g), distributions shall be made pursuant to this Section 12 to the Members who have positive Capital Accounts in compliance with Regulations Section 1.704-1(b) (2) (ii) (b) (2). If any Member has a deficit balance in his Capital Account (after giving effect to all contributions, distributions and allocations for all Allocation Years, including the Allocation Year during which such liquidation occurs), such Member shall have no obligation to make any contribution to the capital of the Joint Sales Company with respect to such deficit, and such deficit shall not be considered a debt owed to the Joint Sales Company or to any other Person for any purpose whatsoever. In the discretion of the Liquidator, a pro rata portion of the distributions that would otherwise be made to the Members pursuant to this Section 12 may be:

- (a) Distributed to a trust established for the benefit of the Members for the purposes of liquidating Joint Sales Company assets, collecting amounts owed to the Joint Sales Company, and paying any contingent or unforeseen liabilities or obligations of the Joint Sales Company. The assets of any such trust shall be distributed to the Members from time to time, in the reasonable discretion of the Liquidator, in the same proportions as the amount distributed to such trust by the Joint Sales Company would otherwise have been distributed to the Members pursuant to Section 12.2 hereof; or
- (b) Withheld to provide a reasonable reserve for Joint Sales Company liabilities (contingent or otherwise) and to reflect the unrealized portion of any installment obligations owed to the Joint Sales Company, provided that such withheld amounts shall be distributed to the Members as soon as practicable.

## 12.4 DEEMED DISTRIBUTION AND RECONTRIBUTION.

Notwithstanding any other provision of this Section 12, in the event the Joint Sales Company is liquidated within the meaning of Regulations Section 1.704-1(b)(2)(ii)(g) but no Dissolution Event has occurred, the Property shall not be liquidated, the Joint Sales

#### \* CONFIDENTIAL TREATMENT REQUESTED

48

Company's Debts and other Liabilities shall not be paid or discharged, and the Joint Sales Company's affairs shall not be wound up. Instead, solely for federal income tax purposes, the Joint Sales Company shall be deemed to have contributed all its Property and liabilities to a new limited liability company in exchange for an interest in such new company and, and immediately thereafter, the Joint Sales Company will be deemed to liquidate by distributing interests in the new company to the Members.

## 12.5 RIGHTS OF MEMBERS.

Except as otherwise provided in this Agreement, each Member shall look solely to the Joint Sales Company's Property for the return of its Capital Contribution and has no right or power to demand or receive Property other than cash from the Joint Sales Company. If the assets of the Joint Sales Company remaining after payment or discharge of the debts or liabilities of the Joint Sales Company are insufficient to return such Capital Contribution, the Members shall have no recourse against the Joint Sales Company or any other Member or Director.

#### 12.6 NOTICE OF DISSOLUTION/TERMINATION.

- (a) In the event a Dissolution Event occurs or an event occurs that would, but for provisions of Section 12.1, result in a dissolution of the Joint Sales Company, the Board of Directors shall, within thirty (30) days thereafter, provide written notice thereof to each of the Members and to all other parties with whom the Joint Sales Company regularly conducts business (as determined in the discretion of the Board of Directors) and shall publish notice thereof in a newspaper of general circulation in each place in which the Joint Sales Company regularly conducts business (as determined in the discretion of the Board of Directors).
- (b) Upon completion of the distribution of the Joint Sales Company's Property as provided in this Section 12, the Joint Sales Company shall be terminated, and the Liquidator shall cause the filing of the Certificate of Cancellation pursuant to Section 18-203 of the Act and shall take all such other actions as may be necessary to terminate the Joint Sales Company.

#### 12.7 ALLOCATIONS DURING PERIOD OF LIQUIDATION.

During the period commencing on the first day of the Fiscal Year during which a Dissolution Event occurs and ending on the date on which all of the assets of the Joint Sales Company have been distributed to the Members pursuant to Section 12.2 hereof (the "LIQUIDATION PERIOD"), the Members shall continue to share Profits, Losses, gain, loss and other items of Joint Sales Company income, gain, loss or deduction in the manner provided in Section 3 hereof, but no distributions shall be made pursuant to Section 4 hereof.

#### 12.8 CHARACTER OF LIQUIDATING DISTRIBUTIONS.

All payments made in liquidation of the interest of a Member in the Joint Sales Company shall be made in exchange for the interest of such Member in Property pursuant to

\* CONFIDENTIAL TREATMENT REQUESTED

49

Section 736(b)(1) of the Code, including the interest of such Member in Joint Sales Company goodwill.

# 12.9 THE LIQUIDATOR.

- (a) DEFINITION. The "LIQUIDATOR" shall mean a Person appointed by the unanimous decision of the Board of Directors to oversee the liquidation of the Joint Sales Company.
- (b) FEES. The Joint Sales Company is authorized to pay a reasonable fee to the Liquidator for its services performed pursuant to this Section 12 and to reimburse the Liquidator for its reasonable costs and expenses incurred in performing those services.
- (c) INDEMNIFICATION. The Joint Sales Company shall indemnify, save harmless, and pay all judgments and claims against such Liquidator or any officers, directors, agents or employees of the Liquidator relating to any liability or damage incurred by reason of any act performed or omitted to be performed by the Liquidator, or any officers, directors, agents or employees of the Liquidator in connection with the liquidation of the Joint Sales Company, including reasonable attorneys' fees incurred by the Liquidator, officer, director, agent or employee in connection with the defense of any action based on any such act or omission, which attorneys' fees may be paid as incurred, except to the extent such liability or damage is caused by the fraud, intentional misconduct of, or a knowing violation of the laws by the Liquidator which was material to the cause of action.

## 12.10 FORM OF LIQUIDATING DISTRIBUTIONS.

For purposes of making distributions required by Section 12.2 hereof, the Liquidator shall abide by any resolutions, plan or decision approved by the unanimous vote of the Board of Directors as to whether to distribute all or any portion of the Property in-kind or to sell all or any portion of the Property and distribute the proceeds therefrom. In the absence of any such resolutions, plan or decision, the Liquidator may determine in its reasonable discretion whether to distribute all or any portion of the Property in-kind or to sell all or any portion of the Property and distribute the proceeds therefrom.

SECTION 13: MISCELLANEOUS

Any notice, payment, demand, or communication required or permitted to be given by any provision of this Agreement shall be in writing and shall be deemed to have been delivered, given, and received for all purposes (i) if delivered personally to the Person or to an officer of the Person to whom the same is directed, or (ii) when the same is actually received, if sent either by registered or certified mail, postage and charges prepaid, or by facsimile, if such facsimile is followed by a hard copy of the facsimile communication sent promptly thereafter by registered or certified mail, postage and charges prepaid, addressed as follows, or to such

\* CONFIDENTIAL TREATMENT REQUESTED

50

other address as such Person may from time to time specify by notice to the Members and Directors:

> If to the Joint Sales Company: (a)

> > ADM / Metabolix Sales Company, LLC 21 Erie Street Cambridge, MA 02139-4260

With a copy to:

ADM Polymer Corporation, at the address set forth below, and MBX, at the address set forth below

- If to the Directors, to the address set forth in Exhibit  ${\bf C}$ (b) hereto with respect to the initial Directors, and thereafter in the notices provided to the Joint Sales Company by the Members designating substitute Directors;
  - If to ADM Polymer Corporation: (c)

Archer-Daniels-Midland Company 4666 Faries Parkway Decatur, Illinois 62526 Attn: President

Telephone: (217) 451-5200 Facsimile: (217) 451-4181

With a copy to:

Archer-Daniels-Midland Company 4666 Faries Parkway Decatur, Illinois 62526 Attn: General Counsel Telephone: (217) 424-6183 Facsimile: (217) 424-6196

If to MBX: (d)

> Metabolix Inc. 21 Erie Street Cambridge, Massachusetts 02139-4260 Attn: President and CEO Telephone: (617) 492-0505 Facsimile: 617) 4921996

\* CONFIDENTIAL TREATMENT REQUESTED

51

With a copy to:

Goodwin Procter Exchange Place 53 State Street Boston, MA 02109

Attn: Christopher J. Denn, Esq

#### BINDING EFFECT. 13.2

Except as otherwise provided in this Agreement, every covenant, term, and provision of this Agreement shall be binding upon and inure to the benefit of the Members and their respective successors, transferees, and assigns.

#### 13.3 CONSTRUCTION.

Every covenant, term, and provision of this Agreement shall be construed simply according to its fair meaning and not strictly for or against any Member.

## 13.4 TIME.

In computing any period of time pursuant to this Agreement, the day of the act, event or default from which the designated period of time begins to run shall not be included, but the time shall begin to run on the next succeeding day. The last day of the period so computed shall be included, unless it is a Saturday, Sunday or legal holiday, in which event the period shall run until the end of the next day which is not a Saturday, Sunday or legal holiday.

#### 13.5 HEADINGS.

Section and other headings contained in this Agreement are for reference purposes only and are not intended to describe, interpret, define, or limit the scope, extent, or intent of this Agreement or any provision hereof.

## 13.6 SEVERABILITY.

Except as otherwise provided in the succeeding sentence, every provision of this Agreement is intended to be severable, and, if any term or provision of this Agreement is illegal or invalid for any reason whatsoever, such illegality or invalidity shall not affect the validity or legality of the remainder of this Agreement. The preceding sentence of this Section 13.6 shall be of no force or effect if the consequence of enforcing the remainder of this Agreement without such illegal or invalid term or provision would be to cause any Member to lose the material benefit of its economic bargain.

## \* CONFIDENTIAL TREATMENT REQUESTED

52

#### 13.7 INCORPORATION BY REFERENCE.

Every exhibit, schedule, and other appendix attached to this Agreement and referred to herein is not incorporated in this Agreement by reference unless this Agreement expressly otherwise provides.

#### 13.8 VARIATION OF TERMS.

All terms and any variations thereof shall be deemed to refer to masculine, feminine, or neuter, singular or plural, as the identity of the Person or Persons may require.

#### 13.9 GOVERNING LAW.

The laws of the State of Delaware shall govern the validity of this Agreement, the construction of its terms, and the interpretation of the rights and duties arising hereunder.

## 13.10 COUNTERPART EXECUTION.

This Agreement may be executed in any number of counterparts with the same effect as if all of the Members had signed the same document. All counterparts shall be construed together and shall constitute one agreement.

[SIGNATURES FOLLOW ON SEPARATE PAGES]

# \* CONFIDENTIAL TREATMENT REQUESTED

53

IN WITNESS WHEREOF, the parties have executed and entered into this Operating Agreement of the Joint Sales Company as of the day first above set forth.

METABOLIX INC.

By: /s/ James J. Barber

-----

Name: James J. Barber

Title: President and CEO

ADM POLYMER CORPORATION

By: /s/ John D. Rice

Name: John D. Rice

-----

Title: President

\* CONFIDENTIAL TREATMENT REQUESTED

## [METABOLIX, Inc. Letterhead]

November 3, 2004

Archer-Daniels-Midland-Company 4666 Faries Parkway Decatur, IL 62526

Ladies and Gentlemen:

This letter is intended to set forth certain understandings between the undersigned Metabolix, Inc. ("MBX") and Archer-Daniels-Midland Company ("ADM") in connection with the Technology Alliance Agreement (the "Technology Alliance Agreement") entered into by and between MBX and ADM Polymer Corporation, a Delaware corporation and wholly-owned subsidiary of ADM ("ADM Sub") and the Commercial Alliance Agreements to be entered into, if at all, by and among MBX, ADM Sub and the Joint Sales Company upon completion of the activities described in the Technology Alliance Agreement. Capitalized terms used but not defined herein shall have the definitions provided in the Commercial Alliance Agreement.

Under the Technology Alliance Agreement, ADM Sub has certain obligations to MBX (the "Technology Alliance Obligations"), including without limitation, the following obligations (which are set forth for informational purposes and are not to amend the terms set forth in the Technology Alliance Agreement or to inform the interpretation of such terms): (i) to pay the amounts indicated in Article 5 and (ii) to provide indemnification as set forth in Article 10. Under the Commercial Alliance Agreements, ADM Sub has certain obligations to MBX and/or the Joint Sales Company (the "Commercial Alliance Obligations" and together with the Technology Alliance Obligations, the "Obligations"), including without limitation, the following obligations (which are set forth for informational purposes and are not to amend the terms set forth in the Commercial Alliance Agreements or to inform the interpretation of such terms): (i) to provide certain licenses to MBX and the Joint Sales Company to ADM Technology, which is defined to include Technology Controlled by ADM, (ii) to construct the ADM Sub Manufacturing Facility, (iii) to make an investment of capital in the Joint Sales Company; (iv) to provide indemnification as set forth in Article 12 of the Commercial Alliance Agreement, (v) to manufacture PHA Material for sale to the Joint Sales Company during the Term, and under certain circumstances, after the Term for sale to MBX, pursuant to the Manufacturing Agreement, and (vi) to finance certain cash requirements of the Joint Sales Company pursuant to the Loan and Security Agreement.

As a condition to the execution and delivery by MBX of the Technology Alliance Agreement and the Commercial Alliance Agreements, ADM, by signing a copy of this letter agrees to the following:

- 1. If ADM Sub materially defaults on any material Obligation, ADM shall be directly liable to MBX for the performance of such Obligations, and shall perform such Obligations, upon demand by MBX.
- 2. The obligations of ADM set forth in this letter are independent of the Obligations of ADM Sub, and a separate action or actions may be brought and prosecuted against ADM, whether action is brought against any ADM Sub or whether such ADM Sub be joined in any such action or actions.
- 3. ADM waives any right to require MBX to proceed against ADM Sub for performance of any Obligation after a failure to perform as provided in the Technology Alliance Agreement or the relevant Commercial Alliance Agreement, as applicable. With respect only to MBX and its successors and assigns, ADM waives any defense arising out of the absence, impairment or loss of any right of reimbursement or subrogation or any other rights against ADM Sub.
- 4. If ADM Sub is adjudicated bankrupt or files a petition for reorganization, arrangement, composition or similar relief under any present or future provision of the United States Bankruptcy Code, or if such a petition is filed against ADM Sub, and in any such proceeding some or all of any indebtedness or Obligations are terminated or rejected or any Obligation is modified or abrogated, or if the Obligations are otherwise avoided for any reason, ADM agrees that ADM's liability hereunder shall not thereby be affected or modified and such liability shall continue in full force and effect as if no such action or proceeding had occurred. This letter agreement shall continue to be effective or be reinstated, as the case may be, if any payment must be returned by MBX upon the insolvency, bankruptcy or reorganization of ADM Sub, as though such payment had not been made.

- 5. ADM hereby agrees that any breach by it of its obligations under this letter agreement shall constitute a material breach by ADM Sub of a material obligation under the Technology Alliance Agreement and Commercial Alliance Agreements, subject to all applicable cure provisions.
- 6. ADM agrees to pay reasonable attorneys' fees and all other costs and expenses which may be incurred by MBX in the enforcement of this letter agreement except those costs and expenses that may be incurred by MBX in an action arising out of the breach by ADM Sub of an Obligation, which action MBX brings directly against ADM, without having first taken action against ADM Sub and obtained a final judgment where all appeal rights have been exhausted or expired. No terms or provisions of this letter agreement may be changed, waived, revoked or amended without ADM's and MBX's prior written consent. Should any provision of this letter agreement be determined by a court of competent jurisdiction to be unenforceable, all of the other provisions shall remain effective. This letter agreement embodies the entire agreement among the parties hereto with respect to the matters set forth herein, and supersedes all prior agreements among the parties with respect to the matters set forth herein. No course of prior dealing among the parties, no usage of trade, and no parol or extrinsic evidence of any nature shall be used to supplement, modify or vary any of the terms hereof.

2

ADM represents and warrants to MBX that (i) ADM has taken all necessary and appropriate action to authorize the execution, delivery and performance of this letter agreement, and (ii) this letter agreement constitutes a valid and binding obligation, enforceable against ADM in accordance with its terms. ADM further hereby represents, warrants and covenants that it shall not convey or transfer any of its ownership interest in ADM Sub, or allow ADM Sub to issue any securities of ADM Sub, including without limitation, equity securities, securities that are convertible into equity securities, or any option or right to purchase or receive any of the foregoing, to any other person or entity, such that ADM would own less than: (i) fifty one percent (51%) of the total equity interest of ADM Sub or (ii) fifty one percent (51%) of the total voting rights of each class of equity securities of ADM Sub. ADM acknowledges that it is an Affiliate of ADM Sub for the purposes of the Technology Alliance Agreement and the Commercial Alliance Agreements and it agrees to be bound by those restrictions and obligations that are imposed upon Affiliates of ADM Sub under those agreements, including without limitation, the obligations and restrictions set forth in Articles 6 and 7 of the Technology Alliance Agreement and Articles 8 and 13 of the Commercial Alliance Agreement.

Except as expressly provided in this Agreement with respect to the Joint Sales Company: (i) the provisions of this letter are for the benefit of the parties hereto and not for any other person; and (ii) this letter shall not provide any third person with any remedy, claim, reimbursement, claim of action or other right in excess of those existing without reference to this letter.

[Intentionally Blank]

3

Please sign below to evidence ADM's agreement that we intend for this letter agreement to be a binding contract between us governed by the laws of the State of Delaware.

Very truly yours, METABOLIX, INC.

By: /s/ James J. Barber

James J. Barber

President and CEO

Agreed:

Archer-Daniels-Midland Company

By: /s/ John D. Rice

Name: John D. Rice

Title: Senior Vice President
duly authorized

#### AMENDMENT NO. 1 TO FIFTH AMENDED AND RESTATED STOCKHOLDERS' AGREEMENT

This Amendment No. 1 to the Fifth Amended and Restated Stockholders' Agreement (this "Amendment") is made and entered into as of July 12, 2006, by and among Metabolix, Inc., a corporation organized under the laws of the State of Delaware (the "Company"), the "Investor" identified on the signature page hereto (the "Investor") and certain other stockholders of the Company set forth on the signature page hereto (the "Stockholders").

WHEREAS, the Company and the Stockholders are parties to that certain Fifth Amended and Restated Stockholders' Agreement dated as of January 19, 2006 (the "Fifth Amended Stockholders' Agreement");

WHEREAS, the Investor is acquiring shares of the Company's common stock, \$.01 par value per share (the "Common Stock") pursuant to that certain Stock Purchase Agreement of even date herewith (the "Purchase Agreement") by and between the Company and the Investor;

WHEREAS, pursuant to Section 6.4 of the Fifth Amended Stockholders' Agreement, the Fifth Amended Stockholders' Agreement may be amended upon the written consent of the Company and each of Edward M. Giles, State Farm Mutual Automobile Insurance Company, Vertical Fund I, L.P. and Vertical Fund II, L.P.; and

WHEREAS, the parties hereto desire to amend the Fifth Amended Stockholders' Agreement on the terms and conditions set forth herein.

NOW, THEREFORE, in consideration of the premises and of the mutual promises hereinafter set forth, the parties hereby agree as follows:

1. DEFINITIONS. Capitalized terms used in this Amendment and not otherwise defined shall have the meanings ascribed to them in the Fifth Amended Stockholders' Agreement.

## 2. REGISTRATION RIGHTS.

- (a) PIGGYBACK REGISTRATION RIGHTS. The shares of Common Stock acquired by the Investor pursuant to the Purchase Agreement (the "ADM Shares") shall be deemed to be "Registrable Securities" under the Fifth Amended Stockholders' Agreement, entitled to all of the rights and benefits thereunder.
- (b) DEMAND REGISTRATION RIGHTS. The Investor may make one (and only one) Demand Registration with respect to all or part of the ADM Shares. Such Demand Registration shall be made pursuant to and subject to all of the terms and conditions set forth in Article II of

the Fifth Amended Stockholders' Agreement. Notwithstanding the foregoing, the following provisions shall supercede the terms and conditions set forth in Article II of the Fifth Amended Stockholders' Agreement as such provisions apply to the ADM Shares:

- (i) The Investor may make the demand on its own, without the involvement of any other entity, notwithstanding the provisions of Section 2.2 that require the holders of at least 30% of the Registrable Securities to make such demand;
- (ii) The fourth sentence of Section 2.2 (which contains the provisions regarding the 180 day filing delay) shall be deleted and replaced with the following sentence:

"However, the Company will be entitled to postpone, for a reasonable period of time, but in no event more than 60 days after the date of its receipt of such a request pursuant to this

Section 2.2, the filing of any registration statement or offering and sale, if the Company determines, in its reasonable business judgment, that the proposed registration statement or the offering would be materially detrimental to the Company and gives the Investor written notice of such determination."

- (iii) Notwithstanding the provisions of Section 2.3, the Company shall not reduce the number of ADM Shares requested to be registered by the Investor pursuant to the exercise of its demand registration right granted under Section 2(b) hereof; and
  - (iv) Any reference to a "registration statement" in Article II shall be deemed to mean a Form S-3 Registration Statement if the Company is eligible to use such form. If the Company is not eligible to use Form S-3, then such references shall be to a Form S-1 Registration Statement. In either case, the Company shall keep such registration statement effective until the ADM Shares cease to be Registrable Securities pursuant to the proviso contained in the first sentence of Section 2.4 or pursuant to the last sentence of Section 2.4 (in each instance, free of the volume limitations of Rule 144 of the 1933 Act).
- 3. PRE-EMPTIVE RIGHTS WAIVER. The parties hereto acknowledge and agree that the Investor's purchase of the ADM Shares shall be deemed an "Excluded Offering" under Article III of the Fifth Amended Stockholders' Agreement and shall not entitle the Holders to exercise any pre-emptive rights thereunder.
- 4. NO OTHER AMENDMENTS. Except as amended by the terms set forth in this Amendment, all other provisions of the Fifth Amended Stockholders' Agreement shall remain in full force and effect.

[SIGNATURE PAGES FOLLOW.]

IN WITNESS WHEREOF, the parties have executed this Amendment as of the date first set forth above.

METABOLIX INC.

By: /s/ James J. Barber

Name: James J. Barber

Title: President and CEO

INVESTOR:

ARCHER-DANIELS-MIDLAND COMPANY

By: /s/ John D. Rice
Name: John D. Rice

Title: Executive Vice President

 ${\tt STOCKHOLDERS:}$ 

/s/ Edward M. Giles
------Edward M. Giles

STATE FARM MUTUAL AUTOMOBILE INSURANCE CO.

By: /s/ John Concklin Name: John Concklin

Title: Vice President - Common Stocks

By: /s/ Larry Rottunda

Name: Larry Rottunda Title: Assistant Secretary

# VERTICAL FUND II, L.P.

By: The Vertical Group, L.P. Its General Partner

By: /s/ Jack W. Lasersohn
Name: Jack W. Lasersohn
Title: General Partner

# VERTICAL FUND I, L.P.

By: The Vertical Group, L.P. Its General Partner

By: /s/ Jack W. Lasersohn
Name: Jack W. Lasersohn
Title: General Partner

#### STOCK PURCHASE AGREEMENT

This STOCK PURCHASE AGREEMENT is entered into as of July 12, 2006, by and among Metabolix, Inc., a Delaware corporation (the "COMPANY"), and Archer-Daniels-Midland Company, a Delaware corporation ("INVESTOR").

WHEREAS, the Company has determined to raise \$7,500,000 (the "FINANCING") through the sale of shares of its common stock, par value \$.01 per share (the "COMMON STOCK") to the Investor simultaneously with, and at a price per share equal to the price per share (the "IPO PRICE") that the Common Stock is being sold in, the Company's initial public offering ("IPO"); and

WHEREAS, the Investor, wishes to purchase shares of Common Stock on the terms and subject to the conditions set forth in this Agreement.

NOW, THEREFORE, in consideration of the foregoing and the mutual promises and covenants set forth below, the Investor and the Company hereby agree as follows:

#### 1. SALE OF COMMON STOCK.

- (a) PURCHASE AND SALE CLOSING. The Company agrees to issue and sell to the Investor, and the Investor hereby agrees to purchase from the Company, \$7,500,000 of Common Stock at the IPO Price.
- (b) CLOSING. The closing of the sale and purchase of the shares of Common Stock (the "CLOSING") shall take place at the offices of Goodwin Procter, LLP, Exchange Place, Boston, MA 02109, simultaneously with the closing of the Company's IPO. At the Closing, the Company shall direct its transfer agent to promptly deliver to the Investor a stock certificate, registered in the name of such Investor, representing the number of shares of Common Stock being purchased hereby by such Investor at the Closing. Delivery to the Investor shall be made against payment to the Company of the full amount of the purchase price for the shares of Common Stock being purchased by the Investor at the Closing.
- (c) PAYMENT OF PURCHASE PRICE. Payment by the Investor of the purchase price for the shares of Common Stock shall be made by wire transfer of immediately available funds to an account specified in writing by the Company.

## 2. REPRESENTATIONS AND WARRANTIES.

2.1 REPRESENTATIONS AND WARRANTIES OF THE COMPANY. Except as set forth on the disclosure schedules attached hereto (the "DISCLOSURE SCHEDULES") and except as contemplated in connection with the Company's IPO, the Company hereby represents and warrants to the Investor as follows:

1

- (a) ORGANIZATION AND GOOD STANDING. The Company is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware and has all requisite corporate power and authority to carry on its business as now conducted and as proposed to be conducted, and is qualified to do business as a foreign corporation and is in good standing under the laws of each state or other jurisdiction in which either the ownership or use of the properties owned or used by it, or the nature of the activities conducted by it, requires such qualification.
- (b) CAPITALIZATION. The authorized capital stock of the Company and the outstanding shares of each class and series thereof and of the securities convertible, exercisable or exchangeable therefor as of the date hereof are as set forth on SCHEDULE 2.1(b) attached hereto. Except as set forth on SCHEDULE 2.1(b), there are no (i) outstanding warrants, options, agreements, convertible securities or other commitments or instruments pursuant to which the Company is or may become obligated to issue or sell any shares of its capital stock or other securities or (ii) preemptive or similar rights to purchase or otherwise acquire shares of the capital stock or other securities of the Company (such as a right of first refusal, right of first offer, proxy, voting trust, voting agreement, etc.) with respect to the sale or voting of shares of capital or securities of the Company (whether outstanding or issuable) except to the extent

- (c) AUTHORIZATION. The Company has all requisite corporate power and authority to execute and deliver this Agreement and any and all instruments necessary or appropriate in order to effectuate fully the terms and conditions contained herein and all related transactions and to perform its obligations hereunder. This Agreement has been duly authorized by all necessary action on the part of the Company, and has been duly executed and delivered by the Company and constitutes the valid and legally binding obligation of the Company enforceable in accordance with its terms and conditions. The authorization, issuance, sale and delivery of the Common Stock have been duly authorized by all requisite action of the Company's board of directors and stockholders.
- (d) VALID ISSUANCE OF THE STOCK. When issued in accordance with this Agreement, the shares of Common Stock, will be (i) duly and validly issued, fully paid and nonassessable, free of any liens, options, encumbrances, proxies, adverse claims or restrictions imposed by the Company except as set forth in the Company's Amended and Restated Certificate of Incorporation, as amended (the "RESTATED CERTIFICATE OF INCORPORATION"), and (iii) assuming the accuracy of the Investor's representations in this Agreement at the time of such issuance, issued in compliance with all applicable federal and state securities laws.
- (e) NON-CONTRAVENTION. No consent, approval, order or authorization of, or registration, qualification, designation, declaration or filing with, any federal, state, or local governmental authority (other than filings required to be made under applicable federal and state securities laws) on the part of the Company is required in connection with (i) the authorization, execution and delivery of this Agreement or (ii) the authorization, issuance and delivery of the Common Stock pursuant to this Agreement. The Company is not in violation or default of any provisions of the Company's Restated Certificate of Incorporation or By-Laws, each as amended to date (collectively, the "CHARTER DOCUMENTS") or of any instrument, judgment, order, writ,

2

decree or contract to which the Company is a party or by which the Company is bound or of any provision of any statute, rule or regulation applicable to the Company, which violation or default would materially and adversely affect the business of the Company. The execution, delivery and performance of this Agreement will not result in any violation of, be in conflict with, or constitute a default under, with or without the passage of time or the giving of notice of (w) any provision of the Charter Documents, (x) any provision of any judgment, decree or order to which the Company is a party or by which the Company is bound, (y) any material contract, obligation or commitment to which the Company is a party or by which the Company is bound; or (z) any statute, rule or regulation applicable to the Company which would materially and adversely affect the business of the Company.

(f) COMPLIANCE WITH SECURITIES LAWS. Assuming the accuracy of the Investors' representations, the offer, grant, sale, and/or issuance of the Common Stock will not be in violation of the Securities Act of 1933, as amended (the "1933 ACT"), the Securities Exchange Act of 1934, as amended (the "1934 ACT"), any state securities or "blue sky" law, or the Charter Documents, when offered, sold and issued in accordance with this Agreement.

#### 2.2 INVESTOR REPRESENTATIONS

- (a) The Investor represents and warrants to the Company that: (i) it is an "accredited investor" as defined in Rule 501(a) promulgated under the 1933 Act; (ii) it has sufficient knowledge and experience in investing in companies similar to the Company in terms of the Company's stage of development, so as to be able to evaluate the risks and merits of its investment in the Company and it is able financially to bear the risks thereof; (iii) it has had an opportunity to discuss the Company's business, management and financial affairs with the Company's management; and (iv) its financial condition is such that it is able to bear the risk of holding the Common Stock for an indefinite period of time and can bear the loss of the entire investment in such securities.
- (b) This Agreement is made in reliance upon the Investor's express representations that (i) the Common Stock being purchased by such Investor is being acquired for such Investor's own account (and not on behalf of any other person or entity) for the purpose of investment and not with a view to, or for sale in connection with, the distribution thereof, nor with any present intention of distributing or selling the Common Stock or any portion thereof, (ii) the Investor was not organized for the specific purpose of acquiring the Common Stock and (iii) the Common Stock will not be sold by the Investor without

registration under the 1933  $\,$  Act or applicable state securities laws, or an exemption therefrom.

(c) The Investor understands that until such time as the Common Stock shall have been registered under the 1933 Act and applicable state securities laws or shall have been transferred in accordance with an opinion of counsel reasonably satisfactory to the Company that such registration is not required, stop transfer instructions shall be issued to the Company's transfer agent, if any, or, if the Company transfers its own securities, a notation shall be made in the appropriate records of the Company with respect to such securities, and the certificate or certificates representing such securities shall bear a restrictive legend stating that such securities

3

have not been registered under the 1933 Act and applicable state securities laws and referring to restrictions on the transferability and sale thereof.

The Investor further understands that his, her or its representations and warranties hereunder will not preclude disposition of the Common Stock without registration thereof, in compliance with Rule 144 promulgated under the 1933 Act ("RULE 144"). The Investor understands and acknowledges, however, that (i) there is not now available, and may not be available when he, she or it wishes to sell the Common Stock, or any portion thereof, the adequate current public information with respect to the Company which would permit offers or sales of such securities pursuant to Rule 144, and, therefore, compliance with the 1933 Act or some other exemption from the registration and prospectus delivery requirements of the 1933 Act will be required for any such offer or sale, and (ii) except as set forth in Amendment No. 1 to the Fifth Amended and Restated Stockholders' Agreement of even date herewith (the "Amendment to Stockholders' Agreement"), the Company is under no obligation to register such securities or to make Rule 144 available.

- (d) RECEIPT OF INFORMATION. The Investor has been furnished access to the business records of the Company and such additional information and documents as the Investor has requested and has been afforded an opportunity to ask questions of and receive answers from representatives of the Company concerning the terms and conditions of this Agreement, the purchase of the Common Stock, the Company's business, operations, market potential, capitalization, financial condition and prospects, and all other matters deemed relevant by the Investor.
- (e) BROKERAGE. There are no claims for brokerage commissions or finder's fees or similar compensation in connection with the transactions contemplated by this Agreement based on any arrangement or agreement made by or on behalf of the Investor, and the Investor agrees to indemnify and hold the Company harmless against any damages incurred as a result of any such claims.
- (f) AUTHORIZATION. The Investor has all requisite power and authority to execute and deliver this Agreement. This Agreement constitutes the valid and legally binding obligation of the Investor, enforceable against the Investor in accordance with its terms.

# 4. CONDITIONS TO THE CLOSING.

- (a) CONDITIONS TO INVESTORS' OBLIGATION TO PURCHASE THE COMMON STOCK AT THE CLOSING. The Investor's obligation to purchase the shares of Common Stock to be purchased by it at the Closing is subject to the satisfaction of the following conditions:
  - (i) REPRESENTATIONS AND WARRANTIES TRUE. The representations and warranties made by the Company shall be true and correct as of the Closing in all material respects.

4

(ii) CONSENTS, PERMITS, AND WAIVERS. The Company shall have obtained any and all consents, permits and waivers necessary or appropriate for consummation of the transactions contemplated by this Agreement (except as may be properly obtained subsequent to the Closing).

- (iii) INITIAL PUBLIC OFFERING. The Company shall be simultaneously closing its  $\ensuremath{\mathsf{IP0}}$  .
- (iv) AMENDMENT TO STOCKHOLDERS' AGREEMENT. The Amendment to Stockholders' Agreement shall be in full force and effect.
- (b) CONDITIONS TO OBLIGATIONS OF THE COMPANY AT THE CLOSING. The Company's obligation to issue and sell shares of Common Stock at the Closing is subject to the satisfaction of the following conditions:
  - (i) REPRESENTATIONS AND WARRANTIES TRUE. The representations and warranties made by the Investor shall be true and correct as of the Closing in all material respects.
  - (ii) CONSENTS, PERMITS, AND WAIVERS. The Company shall have obtained any and all consents, permits and waivers necessary or appropriate for consummation of the transactions contemplated by this Agreement (except as may be properly obtained subsequent to the Closing).
  - (iii) INITIAL PUBLIC OFFERING. The Company shall be simultaneously closing its  $\ensuremath{\mathsf{IP0}}\xspace.$
- 5. NOTICES. Notices given hereunder shall be deemed to have been duly given on (i) the date of personal delivery, or (ii) on the date one day after delivered to a reputable overnight courier with proper delivery instructions, to the party being notified at his, her, or its address specified on the applicable signature page hereto or such other address as the addressee may subsequently notify the other party of in writing.
- 6. ENTIRE AGREEMENT AND AMENDMENTS. This Agreement constitutes the entire agreement of the parties with respect to the subject matter hereof. Neither this Agreement nor any provision hereof may be waived, modified, amended or terminated except by a written agreement signed by the Company and the Investor. To the extent any other indenture, agreement or instrument by which any party hereto is bound conflicts with this Agreement, this Agreement shall have precedence over such conflicting term or provision.
- 7. GOVERNING LAW; SUCCESSORS AND ASSIGNS. This Agreement shall be governed by the laws of the Commonwealth of Massachusetts and shall be binding upon the heirs, personal representatives, executors, administrators, successors and assigns of the parties without regard to the conflict of laws principles therein.

5

- 8. WAIVERS. No waiver of any breach or default hereunder shall be considered valid unless in writing, and no such waiver shall be deemed a waiver of any subsequent breach or default of the same or similar nature.
- 9. SEVERABILITY. The invalidity or unenforceability of any particular provision of this Agreement shall not affect the other provisions hereof, and this Agreement shall be construed in all respects as if such invalid or unenforceable provision were omitted, provided that such construction shall not substantially impair the bargained-for rights of any party hereto.
- 10. BENEFIT AND BURDEN; ASSIGNS. This Agreement may not be assigned by either party without the consent of the other party.
- 11. CAPTIONS. Captions are for convenience only and are not deemed to be part of this  $\mbox{\sc Agreement}.$
- 12. COUNTERPARTS. This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, this Stock Purchase Agreement has been executed as of the date and year first above written.

COMPANY:

METABOLIX, INC.

By: /s/ James Barber

Name: Dr. James Barber

Title: President

Address: 21 Erie Street

Cambridge, MA 02139-4260

INVESTOR:

ARCHER-DANIELS-MIDLAND COMPANY

By: /s/ John D. Rice

Name: John D. Rice Title: Executive Vice President

Address: 4666 Faries Parkway

Decatur, Illinois 62526

Exhibit 23.2

# CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the use in this Registration Statement on Form S-1 of our report dated June 26, 2006, except for the information presented in footnote 14 for which the date is July 13, 2006, relating to the financial statements of Metabolix, Inc., which appears in such Registration Statement. We also consent to the references to us under the headings "Experts" and "Selected Financial Data" in such Registration Statement.

/s/ PricewaterhouseCoopers LLP Boston, Massachusetts July 14, 2006

# QuickLinks

Exhibit 23.2 CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM