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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549  
**FORM 10-Q**

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

For the quarterly period ended **June 30, 2015**

OR

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

For the transition period from                      to

Commission file number **001-33133**

**METABOLIX, INC.**

**Delaware**

(State or other jurisdiction of  
incorporation or organization)

**21 Erie Street  
Cambridge, MA**

(Address of principal executive offices)

**04-3158289**

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

**02139**

(Zip Code)

**(617) 583-1700**

(Registrant's telephone number, including area code)

(Former name, former address and former fiscal year, if changed since last report.)

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

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

(Do not check if a smaller reporting company)

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

The number of shares outstanding of the registrant's common stock as of August 7, 2015 was 26,981,214.

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**Metabolix, Inc.**  
**Form 10-Q**  
**For the Quarter Ended June 30, 2015**

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## PART I. FINANCIAL INFORMATION

## ITEM 1. CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

**METABOLIX, INC.**  
**CONDENSED CONSOLIDATED BALANCE SHEETS**  
**UNAUDITED**

(in thousands, except share and per share data)

	June 30, 2015	December 31, 2014
<b>Assets</b>		
Current Assets:		
Cash and cash equivalents	\$ 22,707	\$ 20,046
Accounts receivable	139	45
Due from related parties	90	112
Unbilled receivables	346	420
Inventory	555	586
Prepaid expenses and other current assets	1,631	756
Total current assets	25,468	21,965
Restricted cash	619	619
Property and equipment, net	743	456
Other assets	95	95
Total assets	\$ 26,925	\$ 23,135
<b>Liabilities and Stockholders' Equity</b>		
Current Liabilities:		
Accounts payable	\$ 384	\$ 333
Accrued expenses	3,184	3,709
Deferred revenue	246	147
Total current liabilities	3,814	4,189
Other long-term liabilities	150	150
Total liabilities	3,964	4,339
Commitments and contingencies (Note 9)		
Stockholders' Equity:		
Preferred stock (\$0.01 par value per share); 5,000,000 shares authorized; no shares issued or outstanding	—	—
Common stock (\$0.01 par value per share); 250,000,000 shares authorized at June 30, 2015 and December 31, 2014; 26,959,980 and 22,530,322 shares issued and outstanding at June 30, 2015 and December 31, 2014, respectively	270	225
Additional paid-in capital	336,749	320,707
Accumulated other comprehensive loss	(70)	(64)
Accumulated deficit	(313,988)	(302,072)
Total stockholders' equity	22,961	18,796
Total liabilities and stockholders' equity	\$ 26,925	\$ 23,135

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

**METABOLIX, INC.**  
**CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS**  
**UNAUDITED**  
(in thousands, except share and per share data)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2015	2014	2015	2014
<b>Revenue:</b>				
Product revenue	\$ 113	\$ 211	\$ 185	\$ 313
Grant revenue	470	463	922	911
License fee and royalty revenue	161	25	282	88
Total revenue	744	699	1,389	1,312
<b>Costs and expenses:</b>				
Cost of product revenue	90	420	174	586
Research and development	4,319	4,380	8,244	9,192
Selling, general, and administrative	2,464	2,665	4,930	5,797
Total costs and expenses	6,873	7,465	13,348	15,575
Loss from continuing operations	(6,129)	(6,766)	(11,959)	(14,263)
<b>Other income (expense):</b>				
Interest income, net	1	(3)	2	2
Other income (expense), net	55	7	41	8
Total other income (expense), net	56	4	43	10
Net loss from continuing operations	(6,073)	(6,762)	(11,916)	(14,253)
<b>Discontinued operations:</b>				
Loss from discontinued operations	—	(473)	—	(1,136)
Total loss from discontinued operations	—	(473)	—	(1,136)
Net loss	\$ (6,073)	\$ (7,235)	\$ (11,916)	\$ (15,389)
<b>Basic and diluted net loss per share:</b>				
Net loss from continuing operations	\$ (0.26)	\$ (1.16)	\$ (0.52)	\$ (2.45)
Net loss from discontinued operations	—	(0.08)	—	(0.20)
Net loss per share	\$ (0.26)	\$ (1.24)	\$ (0.52)	\$ (2.65)
<b>Number of shares used in per share calculations:</b>				
Basic & Diluted	23,117,539	5,831,490	22,838,511	5,816,379

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

**METABOLIX, INC.**  
**CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS**  
**UNAUDITED**  
**(in thousands)**

	<b>Three Months Ended June 30,</b>		<b>Six Months Ended June 30,</b>	
	<b>2015</b>	<b>2014</b>	<b>2015</b>	<b>2014</b>
Net loss:	\$ (6,073)	\$ (7,235)	\$ (11,916)	\$ (15,389)
Other comprehensive loss				
Change in unrealized loss on investments	—	(1)	—	(2)
Change in foreign currency translation adjustment	(1)	(4)	(6)	(30)
Total other comprehensive loss	(1)	(5)	(6)	(32)
Comprehensive loss	<u>\$ (6,074)</u>	<u>\$ (7,240)</u>	<u>\$ (11,922)</u>	<u>\$ (15,421)</u>

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

**METABOLIX, INC.**  
**CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS**  
**UNAUDITED**  
**(in thousands)**

	<b>Six Months Ended</b>	<b>June 30,</b>
	<b>2015</b>	<b>2014</b>
<b>Cash flows from operating activities</b>		
Net loss	\$ (11,916)	\$ (15,389)
Less:		
Loss from discontinued operation	—	(1,136)
Loss from continuing operations	(11,916)	(14,253)
Adjustments to reconcile net loss to cash used in operating activities:		
Depreciation	100	333
Charge for 401(k) company common stock match	218	259
Stock-based compensation	894	1,379
Inventory impairment	—	228
Changes in operating assets and liabilities:		
Accounts receivables	(94)	424
Due from related party	22	51
Unbilled receivables	74	48
Inventory	31	28
Prepaid expenses and other assets	(875)	17
Accounts payable	(165)	(147)
Accrued expenses	(517)	(1,741)
Deferred rent and other long-term liabilities	—	(50)
Deferred revenue	99	58
Net cash used by continuing operations for operating activities	(12,129)	(13,366)
Net cash used by discontinued operations for operating activities	—	(480)
Net cash used in operating activities	(12,129)	(13,846)
<b>Cash flows from investing activities</b>		
Purchase of property and equipment	(209)	(100)
Purchase of short-term investments	—	(1,508)
Proceeds from the sale and maturity of short-term investments	—	13,019
Net cash (used by) provided by investing activities	(209)	11,411
<b>Cash flows from financing activities</b>		
Proceeds from options exercised	—	300
Proceeds from private placement offering	15,000	—
Net cash provided by financing activities	15,000	300
Effect of exchange rate changes on cash and cash equivalents	(1)	(32)
Net increase (decrease) in cash and cash equivalents	2,661	(2,167)
Cash and cash equivalents at beginning of period	20,046	7,698
Cash and cash equivalents at end of period	\$ 22,707	\$ 5,531
Supplemental disclosure of non-cash information:		
Purchase of property and equipment included in accrued expenses	\$ 178	\$ —
Private placement offering costs included in accounts payable and accrued expenses	\$ 297	\$ —
Restricted stock units issued to settle incentive compensation obligation	\$ 305	\$ —

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

**METABOLIX, INC.**  
**NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS**  
**UNAUDITED**

*(All dollar amounts, except share and per share amounts, are stated in thousands)*

**1. BASIS OF PRESENTATION**

The accompanying condensed consolidated financial statements are unaudited and have been prepared by Metabolix, Inc. (the “Company”) in accordance with accounting principles generally accepted in the United States of America (“GAAP”) and pursuant to the rules and regulations of the U.S. Securities and Exchange Commission (“SEC”). Certain information and footnote disclosures normally included in the Company’s annual consolidated financial statements have been condensed or omitted. The year-end condensed consolidated balance sheet data was derived from audited financial statements, but does not include all disclosures required by GAAP. The consolidated financial statements, in the opinion of management, reflect all adjustments (consisting only of normal recurring adjustments) necessary for a fair statement of the financial position and results of operations for the interim periods ended June 30, 2015 and 2014.

The results of operations for the interim periods are not necessarily indicative of the results of operations to be expected for any future period or the entire fiscal year. These interim consolidated financial statements should be read in conjunction with the audited consolidated financial statements for the year ended December 31, 2014, which are contained in the Company’s Annual Report on Form 10-K filed with the SEC on March 25, 2015.

The condensed consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries. All intercompany transactions have been eliminated. During 2014, the Company completed the sale of substantially all of the assets of Metabolix GmbH. The consolidated condensed financial statements for the three and six month periods ended June 30, 2014, have been presented to reflect the operations of Metabolix GmbH as a discontinued operation. See Note 13 for additional information.

On May 26, 2015, the Company effected a 1-for-6 reverse stock split of its common stock, as determined by the Company’s board of directors under authorization approved at a special meeting of stockholders held on October 30, 2014. Unless otherwise indicated, all share amounts, per share data, share prices, exercise prices, and conversion rates set forth in these notes and the accompanying condensed consolidated financial statements have, where applicable, been adjusted retroactively to reflect this reverse stock split.

The accompanying condensed consolidated financial statements have been prepared on a basis which assumes that the Company will continue as a going concern and which contemplates the realization of assets and satisfaction of liabilities and commitments in the normal course of business. However, with the exception of 2012, when the Company recognized \$38,885 of deferred revenue from a terminated joint venture, it has recorded losses since its inception, including for the fiscal quarter ended June 30, 2015. As of June 30, 2015, the Company held unrestricted cash and cash equivalents of \$22,707. The Company’s present capital resources are not sufficient to fund its planned operations for a twelve month period and, therefore, raise substantial doubt about its ability to continue as a going concern.

The Company was successful during its fiscal quarters ending June 30, 2015 and September 30, 2014, in raising \$14,703 and \$24,913, net of offering costs, respectively, through private equity offerings. It will, however, require additional funding during the next twelve months to continue its operations and support its capital needs. The timing, structure and vehicles for obtaining future financing are under consideration, but there can be no assurance that such financing efforts will be successful. The Company intends to use the proceeds of its recent and any future financings to continue developing its specialty biopolymers business as the foundation for its longer range commercial scale plans and the future growth of its business.

The Company continues to face significant challenges and uncertainties and, as a result, its available capital resources may be consumed more rapidly than currently expected due to (a) lower than expected sales of its biopolymer products as a result of slow market adoption; (b) increases in capital costs or operating expenses related to the Company’s establishment, start-up, and operation of biopolymer manufacturing either on its own or with third parties; (c) changes the Company may make to the business that affect ongoing operating expenses; (d) changes the Company may make to its business strategy; (e) changes in the Company’s research and development spending plans; and (f) other items affecting the Company’s forecasted level of expenditures and use of cash resources.

If the Company issues equity or debt securities to raise additional funds, (i) the Company may incur fees associated with such issuance, (ii) its existing stockholders may experience dilution from the issuance of new equity securities, (iii) the

Company may incur ongoing interest expense and be required to grant a security interest in Company assets in connection with any debt issuance, and (iv) the new equity or debt securities may have rights, preferences and privileges senior to those of the Company's existing stockholders. In addition, utilization of the Company's net operating loss and research and development credit carryforwards may be subject to significant annual limitations under Section 382 of the Internal Revenue Code of 1986 due to ownership changes resulting from equity financing transactions. If the Company raises additional funds through collaboration, licensing or other similar arrangements, it may be necessary to relinquish valuable rights to its potential products or proprietary technologies, or grant licenses on terms that are not favorable to the Company.

Failure to receive additional funding during the next twelve months may force the Company to delay, scale back or otherwise modify its business and manufacturing plans, sales and marketing efforts, research and development activities and other operations, and/or seek strategic alternatives. The condensed consolidated financial statements do not include any adjustments that may result from the outcome of these uncertainties.

## **2. ACCOUNTING POLICIES**

There have been no material changes in accounting policies since the Company's fiscal year ended December 31, 2014, as described in Note 2 to the consolidated financial statements included in its Annual Report on Form 10-K for the year then ended.

### **Principles of Consolidation**

The Company's consolidated financial statements are prepared in accordance with accounting principles generally accepted in the United States of America. The consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries. All intercompany transactions were eliminated, including transactions with its German subsidiary, Metabolix GmbH, and its Canadian subsidiary, Metabolix Oilseeds, Inc. On October 20, 2014, the Company completed the sale of substantially all of the assets of Metabolix GmbH to AKRO-PLASTIC GmbH, a German manufacturer of engineering plastics compounds. The condensed consolidated financial statements for the three months and six months ended June 30, 2014, have been presented to reflect the operations of Metabolix GmbH as a discontinued operation.

### **Use of Estimates**

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

### **Foreign Currency Translation**

Foreign denominated assets and liabilities of the Company's wholly-owned foreign subsidiaries are translated into U.S. dollars at the prevailing exchange rates in effect on the balance sheet date. Revenues and expenses are translated at average exchange rates prevailing during the period. Any resulting translation gains or losses are recorded in accumulated other comprehensive income (loss) in the consolidated balance sheet. When the Company dissolves, sells or substantially sells all of the assets of a consolidated foreign subsidiary, the cumulative translation gain or loss of that subsidiary is released from comprehensive income (loss) and included within its consolidated statement of operations during the fiscal period when the dissolution or sale occurs.

### **Concentration of Credit Risk**

Financial instruments that potentially subject the Company to concentrations of credit risk primarily consist of cash and cash equivalents. The Company has historically invested its cash equivalents in highly rated money market funds, corporate debt, federal agency notes and U.S. treasury notes. Investments, when purchased, are acquired in accordance with the Company's investment policy which establishes a concentration limit per issuer. At June 30, 2015, the Company's cash equivalents are invested solely in money market funds.

The Company provides credit to customers in the normal course of business. The Company performs ongoing credit evaluations of its customers' financial condition and limits the amount of credit extended when deemed necessary. At June 30, 2015, the Company's accounts and unbilled receivables include \$420 or 73% from U.S. and Canadian government grants. At June 30, 2015, the Company's Renewable Enhanced Feedstocks for Advanced Biofuels and Bioproducts ("REFABB") grant from the Department of Energy represented 51% of total government grant receivables. At December 31, 2014, the Company's

worldwide accounts and unbilled receivables include \$429 or 74% from government grants. At December 31, 2014, the Company's REFABB grant from the Department of Energy represented 63% of total government grant receivables.

### 3. RECENT ACCOUNTING PRONOUNCEMENTS

In April 2014, the Financial Accounting Standards Board ("FASB") issued ASU No. 2014-8, *Reporting Discontinued Operations and Disclosures of Disposals of Components of an Entity*, which changes the criteria for determining which disposals can be presented as discontinued operations and modifies the related disclosure requirements. Under the new guidance, a disposal of a component of an entity or a group of components of an entity is required to be reported in discontinued operations if the disposal represents a strategic shift that has (or will have) a major effect on an entity's operations and financial results and is disposed of or classified as held for sale. The standard also introduces several new disclosures. The guidance applies prospectively to new disposals and new classifications of disposal groups as held for sale after the effective date. ASU 2014-8 is effective for annual and interim periods beginning after December 15, 2014, with early adoption permitted. The Company elected early adoption of ASU 2014-8 and applied the new guidance in connection with the discontinuation of its wholly-owned subsidiary, Metabolix GmbH, in 2014. See Note 13, Discontinued Operation.

In May 2014, the FASB issued ASU No. 2014-09, *Revenue from Contracts with Customers* (Topic 606), which supersedes all existing revenue recognition requirements, including most industry-specific guidance. The new standard requires a company to recognize revenue when it transfers goods or services to customers in an amount that reflects the consideration that the company expects to receive for those goods or services. In July 2015, the FASB delayed the effective date of the new revenue standard by one year. The new standard will be effective for us on January 1, 2018. The FASB also agreed to allow entities to choose to adopt the standard as of the original effective date. We are currently evaluating the method of adoption and the potential impact that Topic 606 may have on our financial position and results of operations.

In August 2014, the FASB issued an amendment that requires management to assess an entity's ability to continue as a going concern by incorporating and expanding upon certain principles that are currently in U.S. auditing standards. The amendments in this update provide guidance about management's responsibility to evaluate whether there is substantial doubt about an entity's ability to continue as a going concern for one year after the date that the financial statements are issued and to provide related footnote disclosures. In doing so, the amendments should reduce diversity in the timing and content of footnote disclosures. The amendments in this update apply to all entities and are effective for the annual period ending after December 15, 2016, and for annual periods and interim periods thereafter. Early application is permitted. The Company is currently reviewing the potential impact of adopting the new guidance.

### 4. BASIC AND DILUTED NET INCOME (LOSS) PER SHARE

Basic net income (loss) per share is computed by dividing net income (loss) by the weighted-average number of common shares outstanding. Diluted net loss per share is computed by dividing net income by the weighted-average number of dilutive common shares outstanding during the period. Diluted shares outstanding is calculated by adding to the weighted shares outstanding any potential (unissued) shares of common stock from outstanding stock options and warrants based on the treasury stock method, as well as weighted shares outstanding of any potential (unissued) shares of common stock from restricted stock units. In periods when a net loss is reported, all common stock equivalents are excluded from the calculation because they would have an anti-dilutive effect, meaning the loss per share would be reduced. Therefore, in periods when a loss is reported, there is no difference in basic and dilutive loss per share. Common stock equivalents include stock options, restricted stock awards and warrants.

The Company follows the two-class method when computing net loss per share, when it has issued shares that meet the definition of participating securities. The two-class method determines net loss per share for each class of common and participating securities according to dividends declared or accumulated and participating rights in undistributed earnings. The two-class method requires income available to common stockholders for the period to be allocated between common and participating securities based on their respective rights to receive dividends, as if all income for the period has been distributed or losses to be allocated if they are contractually required to fund losses. There were no amounts allocated to participating securities as the Company had no outstanding shares that met the definition of participating securities at June 30, 2015.

On May 26, 2015, the Company effected a 1-for-6 reverse stock split of its common stock. The calculation of basic and diluted net loss per share, as presented in the accompanying Condensed Consolidated Statements of Operations, have been determined based on retroactive adjustment of weighted average shares outstanding for all periods presented.

The number of shares of potentially dilutive common stock presented on a weighted average basis, related to options, restricted stock units and warrants (prior to consideration of the treasury stock method) that were excluded from the calculation of dilutive shares since the inclusion of such shares would be anti-dilutive for the three and six months ended June 30, 2015 and 2014, respectively, are shown below:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2015	2014	2015	2014
Options	937,121	1,227,400	970,460	1,242,710
Restricted stock units	1,180,773	100,000	643,372	99,448
Warrants	648,297	—	325,939	—
Total	2,766,191	1,327,400	1,939,771	1,342,158

## 5. INVENTORY

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

	June 30, 2015	December 31, 2014
Raw materials	\$ 9	\$ 2
Finished goods	546	584
Total inventory	\$ 555	\$ 586

On a quarterly basis, the Company uses consistent methodologies to evaluate inventory for net realizable value, reducing the value of inventory for excess and obsolete inventory based upon certain assumptions made about future customer demand, quality and possible alternative uses. The Company did not record any inventory impairment charges during the three and six months ended June 30, 2015. During the three and six months ended June 30, 2014, the Company recorded a \$228 charge to cost of product revenue for raw material and finished goods inventory that it determined was unlikely to be sold.

## 6. FAIR VALUE MEASUREMENTS

The Company has certain financial assets recorded at fair value which have been classified as Level 1 within the fair value hierarchy as described in the accounting standards for fair value measurements. Fair value is the price that would be received from the sale of an asset or the price paid to transfer a liability in an orderly transaction between independent market participants at the measurement date. Fair values determined by Level 1 inputs utilize observable data such as quoted prices in active markets. Fair values determined by Level 2 inputs utilize data points other than quoted prices in active markets that are observable either directly or indirectly. Fair values determined by Level 3 inputs utilize unobservable data points in which there is little or no market data, which require the reporting entity to develop its own assumptions. The fair value hierarchy level is determined by the lowest level of significant input. At June 30, 2015 and December 31, 2014, the Company did not own any Level 2 or Level 3 financial assets and there were no transfers between classification levels.

The tables below present information about the Company's assets that are measured at fair value on a recurring basis as of June 30, 2015 and December 31, 2014 and indicate the fair value hierarchy of the valuation techniques utilized to determine such fair value.

Description	Fair value measurements at reporting date using			Balance as of June 30, 2015
	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	
Cash equivalents:				
Money market funds	\$ 20,512	\$ —	\$ —	\$ 20,512
Total	\$ 20,512	\$ —	\$ —	\$ 20,512

Description	Fair value measurements at reporting date using			Balance as of December 31, 2014
	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	
Cash equivalents:				
Money market funds	\$ 19,011	\$ —	\$ —	\$ 19,011
Total	\$ 19,011	\$ —	\$ —	\$ 19,011

## 7. ACCRUED EXPENSES

Accrued expenses consisted of the following at:

	June 30, 2015	December 31, 2014
Employee compensation and benefits	\$ 1,754	\$ 2,621
Professional services	755	564
Commercial manufacturing	270	77
Other	405	447
Total accrued expenses	\$ 3,184	\$ 3,709

## 8. STOCK-BASED COMPENSATION

At June 30, 2015, there was approximately \$4,534 of pre-tax stock-based compensation expense, net of estimated forfeitures, related to unvested awards not yet recognized.

### *Employee and Director Stock Options*

The Company recognized stock-based compensation expense related to employee stock option awards of \$578 and \$891 for the three and six months ended June 30, 2015, respectively. Stock-based compensation expense related to employee stock option awards was \$594 and \$1,379 for the three and six months ended June 30, 2014, respectively. The compensation expense related to unvested stock options is expected to be recognized over a remaining weighted average period of 2.37 years.

A summary of option activity for the six months ended June 30, 2015 is as follows:

	Number of Shares	Weighted Average Exercise Price
Outstanding at December 31, 2014	1,110,721	\$ 28.22
Granted	31,208	3.72
Exercised	—	—
Forfeited	(863)	7.85
Expired	(209,728)	33.79
Outstanding at June 30, 2015	931,338	\$ 26.16
Options exercisable at June 30, 2015	597,740	\$ 36.09
Weighted average grant date fair value of options granted during the six months ended June 30, 2015		\$ 2.68

### *Restricted Stock Units*

On January 2, 2014, the Company awarded 100,000 restricted stock units ("RSUs") to its Chief Executive Officer. These RSUs contain both market and performance conditions which are based on the achievement of certain stock price and revenue targets, respectively. The RSUs vest in various percentages over three years (subject to certain accelerated and continued vesting events) once the agreed-upon stock price and/or revenue based targets are achieved. To the extent that the market or performance conditions are not met by January 2, 2016, the RSUs will be forfeited. The Company estimated the fair value and

derived service period of the awards using a Monte Carlo valuation model. The Company is recognizing compensation expense for this award over its requisite service period, which is equal to the cumulative time expected to achieve one of the triggering conditions followed by a three year post-triggering event vesting period.

On April 1, 2015, the Company awarded 203,967 RSUs to members of senior management pursuant to elections previously made by the grantees to convert a portion of their 2014 performance bonuses from cash to equity. These RSUs will vest one year from the date of grant, subject to service conditions. On April 1, 2015, the Company also awarded 876,806 long-term incentive RSUs to employees. These RSUs will vest in four equal annual installments beginning one year after the date of grant, subject to service conditions. The Company records stock compensation expense for RSUs on a straight line basis over their vesting period based on the RSU's award date market value. The Company will pay required minimum income tax withholding associated with RSUs as they vest and will withhold from the common stock issuable on vesting of the RSUs a number of shares with an aggregate fair market value equal to the tax withholding amount unless the employee makes other arrangements for payment of the tax withholding.

A summary of RSU activity for the six months ended June 30, 2015 is as follows:

	Number of RSUs	Weighted Average Remaining Contractual Life (years)
Outstanding at December 31, 2014	100,000	
Awarded	1,080,773	
Released	—	
Forfeited	—	
Outstanding at June 30, 2015	1,180,773	1.84
Vested and expected to vest as of June 30, 2015	997,606	1.71
Weighted average remaining recognition period		2.96
Weighted average grant date fair value of RSUs granted during the six months ended June 30, 2015	\$	3.78

## 9. COMMITMENTS AND CONTINGENCIES

### Litigation

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

### New Contractual Commitments

In connection with the Company's plan to increase pilot production of its PHA biopolymers, during May 2015 the Company entered into a two-year agreement with a U.S. supplier of toll fermentation services and another two-year agreement with the owner/operator of the Company's U.S. pilot resin recovery facility. Under these manufacturing agreements, which became effective July 1, 2015, the Company estimates that it will be obligated to pay quarterly fixed service fees of approximately \$1,100 after the commencement of full scale production and continuing through at least December 31, 2016. The Company made a \$1,000 prepayment against future fixed service fees in May 2015. In addition to these fixed charges, the Company is obligated to pay certain variable production costs as incurred.

## 10. GEOGRAPHIC INFORMATION

The geographic distribution of the Company's revenues and long-lived assets from continuing operations are summarized in the tables below:

	U.S.	Canada	Eliminations	Total
<b>Three Months Ended June 30, 2015:</b>				
Net revenues from unaffiliated customers	\$ 744	\$ —	\$ —	\$ 744
Inter-geographic revenues	—	203	(203)	—
Net revenues	<u>\$ 744</u>	<u>\$ 203</u>	<u>\$ (203)</u>	<u>\$ 744</u>
<b>Three Months Ended June 30, 2014:</b>				
Net revenues from unaffiliated customers	\$ 655	\$ 44	\$ —	\$ 699
Inter-geographic revenues	—	183	(183)	—
Net revenues	<u>\$ 655</u>	<u>\$ 227</u>	<u>\$ (183)</u>	<u>\$ 699</u>
<b>Six Months Ended June 30, 2015:</b>				
Net revenues from unaffiliated customers	\$ 1,388	\$ 1	\$ —	\$ 1,389
Inter-geographic revenues	—	402	(402)	—
Net revenues	<u>\$ 1,388</u>	<u>\$ 403</u>	<u>\$ (402)</u>	<u>\$ 1,389</u>
<b>Six Months Ended June 30, 2014:</b>				
Net revenues from unaffiliated customers	\$ 1,231	\$ 81	\$ —	\$ 1,312
Inter-geographic revenues	—	361	(361)	—
Net revenues	<u>\$ 1,231</u>	<u>\$ 442</u>	<u>\$ (361)</u>	<u>\$ 1,312</u>

Foreign revenue is based on the country in which the Company's subsidiary that earned the revenue is domiciled. During the three and six months ended June 30, 2015, revenue earned from the Company's REFABB grant with the U.S. Department of Energy totaled \$347 and \$677, respectively, and represented 47% and 49% of total revenue. During the three and six months ended June 30, 2014, revenue earned from the Company's REFABB grant totaled \$307 and \$608, respectively, and represented 44% and 46% of total revenue. During the six months ended June 30, 2015, no product customers represented 10% or more of the Company's total revenues. During the six months ended June 30, 2014, one customer represented 10% of the Company's total revenues.

The geographic distribution of the Company's long-lived assets is summarized as follows:

	U.S.	Canada	Eliminations	Total
June 30, 2015	\$ 735	\$ 8	\$ —	\$ 743
December 31, 2014	\$ 441	\$ 15	\$ —	\$ 456

## 11. INCOME TAXES

Deferred tax assets and deferred tax liabilities are recognized based on temporary differences between the financial reporting and tax basis of assets and liabilities using future enacted tax rates. A valuation allowance is recorded against deferred tax assets if it is more likely than not that some or all of the deferred tax assets will not be realized.

For the three and six months ended June 30, 2015 and 2014, the Company did not recognize any tax expense or benefit due to its continued net operating loss position. Due to the uncertainty surrounding the realization of favorable tax attributes in future tax returns, the Company has recorded a full valuation allowance against its otherwise recognizable net deferred tax assets.

The Company follows the accounting guidance related to income taxes including guidance which addresses accounting for uncertainty in income taxes. This guidance prescribes a threshold for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. It also provides guidance on derecognition, classification, interest

and penalties, accounting in interim periods, disclosures and transitions. The Company had no amounts recorded for any unrecognized tax benefits as of June 30, 2015 or December 31, 2014.

## 12. RELATED PARTIES

The Company engaged in various transactions with Tepha, Inc., a related party, and recorded \$115 and \$235 of license and royalty revenue during the three months and six months ended June 30, 2015, respectively. During the three and six months ended June 30, 2014, the Company recorded license and royalty revenue from Tepha of \$25 and \$68, respectively. As of June 30, 2015 and December 31, 2014, the Company had \$90 and \$112, respectively, of outstanding receivables due from Tepha for royalties.

## 13. DISCONTINUED OPERATION

The Company decided in September 2014 to discontinue its operations in Germany and sold substantially all of the assets of its wholly-owned German subsidiary, Metabolix GmbH. The Company does not expect to have significant ongoing involvement in the operations formerly conducted by Metabolix GmbH. The consolidated financial statements for the three and six months ending June 30, 2014, have been presented to reflect the operations of Metabolix GmbH as a discontinued operation. The following represent the major items comprising loss from discontinued operations for the three and six months ended June 30, 2014.

	Three Months Ended June 30, 2014	Six Months Ended June 30, 2014
Total revenue	\$ 471	\$ 927
Costs and expenses:		
Cost of product revenue	354	883
Research and development	99	187
Selling, general and administrative	491	993
Total costs and expenses	944	2,063
Net loss	\$ (473)	\$ (1,136)

## 14. CAPITAL STOCK

### Common and Preferred Stock Issuances

On May 26, 2015, the Company effected a 1-for-6 reverse split of its common stock, as determined by the Company's board of directors under authorization approved at a special meeting of stockholders held on October 30, 2014. The reverse stock split reduced the number of shares of the Company's common stock currently outstanding at the time the reverse split was made effective from approximately 135.5 million shares to approximately 22.6 million shares. Proportional adjustments were made to the Company's outstanding stock options and restricted stock units and to the number of shares issued and issuable under the Company's equity compensation plans. The number of authorized shares of the Company's common stock remained at 250 million shares.

On June 19, 2015, the Company completed a private placement of its securities. Proceeds received from the transaction were \$14,703, net of issuance costs of \$297. Investors participating in the transaction purchased a total of 4,370,000 shares of common stock at a price of \$3.32 per share and warrants with a purchase price of \$0.125 per warrant to purchase up to an aggregate of 3,933,000 additional shares of common stock. The warrants have a four-year term and are immediately exercisable at a price of \$3.98 per share. The Company reviewed the accounting guidance for warrants and has determined that the warrants should be recorded as equity within additional paid-in capital at June 30, 2015.

On August 22, 2014, the Company completed a private placement of its securities. Proceeds received from the transaction were \$24,914, net of issuance costs of \$86. Investors participating in the transaction purchased a total of 8,333,333 units of the Company's securities at a price of \$3.00 per unit. Each unit consisted of one share of the Company's common stock and one thousandth of a share of the Company's Series B Convertible Preferred Stock, for a total of 8,333,333 shares of common stock and 50,000 shares of Series B Convertible Preferred Stock. Each share of the preferred stock issued in the transaction was non-voting, was not redeemable, had no liquidation preference and the only conversion rights were that each share was automatically convertible into 166.67 shares of common stock upon the effectiveness of the filing by the Company of a charter amendment to increase the number of shares of authorized common stock to not less than 150,000,000. On October 30, 2014, following stockholder approval of a charter amendment to increase the number of authorized shares of the Company's common stock to 250,000,000 and the effectiveness of such charter amendment, each share of preferred stock issued in the private placement automatically converted into 166.67 shares of common stock, for a total of 8,333,333 additional shares of common stock.

## 15. RESTRUCTURING

In October 2014, the Company initiated a restructuring of its U.S. organization to reflect its more narrow strategic focus on PHA performance biopolymers and to modify staffing to the level the Company believed necessary to support successful implementation of its current business strategy. The scope of the restructuring also reflected the Company's decision, consistent with its business strategy, to suspend work in its chemicals program. The Company has recognized a total of \$659 in restructuring charges related to post-employment benefits. At June 30, 2015, \$209 of the restructuring charges remain to be paid during 2015.

	Original Charges and Amounts Accrued	Adjustments to Charges	Amounts Paid through June 30, 2015	Amounts Accrued at June 30, 2015
Employee severance, benefits and related costs	\$ 624	\$ 35	\$ (450)	\$ 209
	\$ 624	\$ 35	\$ (450)	\$ 209

## ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS.

*(All dollar amounts are stated in thousands)*

### Forward Looking Statements

This quarterly report on Form 10-Q contains "forward-looking statements" within the meaning of 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. These statements relate to our future plans, objectives, expectations and intentions and may be identified by words such as "may," "will," "should," "expects," "plans," "anticipate," "intends," "target," "projects," "contemplates," "believe," "estimates," "predicts," "potential," and "continue," or similar words.

Although we believe that our expectations are based on reasonable assumptions within the limits of our knowledge of our business and operations, the forward-looking statements contained in this document are neither promises nor guarantees. Our business is subject to significant risk and uncertainties and there can be no assurance that our actual results will not differ materially from our expectations. These forward looking statements include, but are not limited to, statements concerning the Company's business plans and strategies; expectations for establishing pilot and commercial scale PHA biopolymer manufacturing; expected market demand and commercialization plans for the Company's PHA biopolymer products; expected future financial results and cash requirements; plans for obtaining additional funding; plans and expectations that depend on the Company's ability to continue as a going concern; and expectations for future research, product development and collaborations. Such forward-looking statements are subject to a number of risks and uncertainties that could cause actual results to differ materially from those anticipated including, without limitation, risks related to our limited cash resources, uncertainty about our ability to secure additional funding, dependence on establishing a manufacturing source for our PHA performance biopolymers, risks related to the execution of our business plans and strategies, risks associated with the protection and enforcement of our intellectual property rights, as well as other risks and uncertainties set forth under the caption "Risk Factors" in Part I, Item 1A, of our Annual Report on Form 10-K for the year ended December 31, 2014.

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

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

## Overview

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

Metabolix was formed to leverage the ability of natural systems to produce complex biopolymers from renewable resources. We have focused on a family of biopolymers found in nature called polyhydroxyalkanoates ("PHAs"), which occur naturally in living organisms and are chemically similar to polyesters. We have demonstrated the production of our PHAs from pilot to industrial scale and we have sold our PHA products commercially since 2012.

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

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

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

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

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

biopolymers. We have now completed the capital expansion of our pilot recovery facility for Mirel PHA biopolymers and have begun biopolymer recovery operations with fermentation broth produced earlier this year.

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

### Government Grants

As of June 30, 2015, expected gross proceeds of \$729 remain to be received under our U.S. government grants, which includes amounts for reimbursement to our subcontractors, as well as reimbursement for our employees' time, benefits and other expenses related to future performance.

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

Program Title	Funding Agency	Total Government Funds	Total received through June 30, 2015	Remaining amount available as of June 30, 2015	Contract/Grant Expiration
Renewable Enhanced Feedstocks For Advanced Biofuels And Bioproducts ("REFABB")	Department of Energy	\$ 6,000	\$ 5,431	\$ 569	September 2015
Subcontract from University of California (Los Angeles) project funded by ARPA-E entitled "Plants Engineered to Replace Oil: Energy Plant Design"	Department of Energy	819	715	104	September 2015
Capacity Building for Commercial-Scale PHB Camelina Development	National Research Council Canada	269	269	—	September 2014
Subcontract from University of Massachusetts (Amherst) project funded by ARPA-E entitled "Development of a Dedicated High Value Biofuels Crop"	Department of Energy	663	607	56	December 2015
Development of a Sustainable Value Added Fish Feed Using PHB Producing Camelina	National Research Council Canada	96	83	—	January 2015
Total		\$ 7,847	\$ 7,105	\$ 729	

## Critical Accounting Estimates and Judgments

The discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America (“GAAP”) for interim financial information. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. On an ongoing basis, we evaluate our estimates, including those related to revenue recognition, inventory valuation and stock-based compensation. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates. The critical accounting policies and the significant judgments and estimates used in the preparation of our consolidated financial statements for the six months ended June 30, 2015, are consistent with those discussed in our Annual Report on Form 10-K for the year ended December 31, 2014, in the section captioned “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Estimates and Judgments.”

## Results of Operations

### Comparison of the Three Months Ended June 30, 2015 and 2014

#### Revenue

	Three Months Ended June 30,		Change
	2015	2014	
Product revenue	\$ 113	\$ 211	\$ (98)
Grant revenue	470	463	7
License fee and royalty revenue	161	25	136
Total revenue	<u>\$ 744</u>	<u>\$ 699</u>	<u>\$ 45</u>

Total revenue from continuing operations was \$744 and \$699 for the three months ended June 30, 2015 and 2014, respectively. During the three months ended June 30, 2015 and 2014, we recognized \$113 and \$211, respectively, of revenue related to the sale of biopolymer products. The decrease of \$98 was primarily related to our decision in 2014 to shift our business strategy to one focused on commercializing our Mirel PHA biopolymers as specialty materials and we expect to continue to see variations in quarterly sales as we execute this shift and new customers begin to place commercial orders. Product revenue recognized during the three months ended June 30, 2015 and 2014 includes \$99 and \$211, respectively, of previously deferred revenue from shipments to customers made during prior periods. Our product revenue recognition policy is to defer product revenue recognition until the later of sixty days following shipment or cash receipt. At June 30, 2015, short-term deferred revenue of \$246 shown on our condensed consolidated balance sheet includes \$113 of deferred product revenue, nearly all of which is expected to be recognized during the quarter ended September 30, 2015. During the three months ended June 30, 2015, we recognized \$470 of government grant revenue compared to \$463 for the same period in 2014. Grant revenue for the three months ended June 30, 2015 and 2014 primarily consisted of \$307 and \$347, respectively, in revenue earned from the REFABB grant. During the three months ended June 30, 2015 and 2014, we also recognized \$161 and \$25, respectively, of license and royalty revenue related to licensing of our technology. The \$136 increase is primarily related to an increase in revenues from Tephra, a related party that licenses our technology for use in certain medical applications.

We anticipate that product revenue will increase over the next twelve months as we increase pilot production of our PHA biopolymers and gain market acceptance for our products.

**Costs and Expenses**

	Three Months Ended June 30,		
	2015	2014	Change
Cost of product revenue	\$ 90	\$ 420	\$ (330)
Research and development expenses	4,319	4,380	(61)
Selling, general, and administrative expenses	2,464	2,665	(201)
Total costs and expenses	<u>\$ 6,873</u>	<u>\$ 7,465</u>	<u>\$ (592)</u>

**Cost of Product Revenue**

Cost of product revenue from continuing operations was \$90 and \$420 for the three months ended June 30, 2015 and 2014, respectively. These costs primarily include the cost of inventory associated with product revenue recognized during the respective periods. The decrease of \$330 is primarily attributable to a decrease in inventory impairment expense, with no inventory impairment charges recognized during the three months ended June 30, 2015, as compared to \$228 for the three months ended June 30, 2014. The decrease in cost of product revenue was also a result of the decrease in product sales recognized during the three months ended June 30, 2015, in comparison to the same period of the prior year. Cost of product revenue for each period also includes the cost of sample inventory shipped to prospective customers, warehousing and certain freight charges.

Although there may be fluctuations from period to period, we expect our overall cost of product revenue for continuing operations will increase over the next twelve months, as product sales increase.

**Research and Development Expenses**

Research and development expenses from continuing operations were \$4,319 and \$4,380 for the three months ended June 30, 2015 and 2014, respectively. The decrease of \$61 was primarily due to a decrease in employee compensation and related benefit expenses. Employee compensation and related benefit expenses were \$2,251 and \$2,484 for the three months ended June 30, 2015 and 2014, respectively. The decrease of \$233 is primarily attributable to decreases in headcount and employee stock compensation expense related to the October 2014 restructuring of our U.S. organization. Depreciation expense was \$40 and \$127 for the three months ended June 30, 2015 and 2014, respectively. The decrease of \$87 was due to a combination of existing equipment reaching full depreciation and the relatively low value of new capital equipment acquired and put into operation during the quarter. The decreases in employee compensation and depreciation were partially offset by a pilot material production expense of \$955 during the three months ended June 30, 2015, compared to \$700 for the comparable period in 2014, as we expanded pilot production capacity for our biopolymer.

We expect research and development expenses for the next twelve months to increase as we incur higher fermentation and recovery costs associated with the scale-up of our biopolymer pilot production capacity.

**Selling, General and Administrative Expenses**

Selling, general and administrative expenses from continuing operations were \$2,464 and \$2,665 for the three months ended June 30, 2015 and 2014, respectively. The decrease of \$201 was primarily due to a \$267 decrease in employee compensation and related benefit expenses as a result of restructuring our U.S. organization in October 2014. Employee compensation and related benefit expenses were \$1,226 and \$1,493 for the three months ended June 30, 2015 and 2014, respectively.

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

**Other Income (Expense), Net**

	Three Months Ended June 30,		Change
	2015	2014	
Interest income, net	\$ 1	\$ (3)	\$ 4
Other income (expense), net	55	7	48
Total other income (expense), net	<u>\$ 56</u>	<u>\$ 4</u>	<u>\$ 52</u>

Other income (expense), net reflects income of \$56 and \$4 for the three months ended June 30, 2015 and 2014, respectively. Other income (expense), net, during both periods consisted primarily of income earned from our short-term investments in money market funds, net of custodial fees, and realized foreign currency transaction gains or losses.

**Comparison of the Six Months Ended June 30, 2015 and 2014****Revenue**

	Six Months Ended June 30,		Change
	2015	2014	
Product revenue	\$ 185	\$ 313	\$ (128)
Grant revenue	922	911	11
License fee and royalty revenue	282	88	194
Total revenue	<u>\$ 1,389</u>	<u>\$ 1,312</u>	<u>\$ 77</u>

Total revenue from continuing operations was \$1,389 and \$1,312 for the six months ended June 30, 2015 and 2014, respectively. During the six months ended June 30, 2015 and 2014, we recognized \$185 and \$313, respectively, of revenue from sales of biopolymer products. The decrease of \$128 was primarily related to a decision in 2014 to shift our business strategy to one focused on commercializing our Mirel PHA biopolymers as specialty materials and we expect to continue to see variations in quarterly sales as we execute this shift. Product revenue recognized during the six months ended June 30, 2015 and 2014 includes \$57 and \$91, respectively, of previously deferred revenue from shipments to customers made during prior periods. Our product revenue recognition policy is to defer product revenue recognition until the later of sixty days following shipment or cash receipt. At June 30, 2015, short-term deferred revenue of \$246 shown on our condensed consolidated balance sheet includes \$113 of deferred product revenue, nearly all of which is expected to be recognized during the quarter ended September 30, 2015. During the six months ended June 30, 2015, we recognized \$922 of government grant revenue compared to \$911 for the same period in 2014. Grant revenue for the six months ended June 30, 2015 and 2014, primarily consisted of \$608 and \$677, respectively, in revenue earned from the REFABB grant. During the six months ended June 30, 2015 and 2014, we recognized \$282 and \$88, respectively, of license and royalty revenue related to licensing of our technology. The \$194 increase is primarily related to revenues from at Tepha, a related party that licenses our technology for use in certain medical applications.

**Costs and Expenses**

	Six Months Ended June 30,		Change
	2015	2014	
Cost of product revenue	\$ 174	\$ 586	\$ (412)
Research and development expenses	8,244	9,192	(948)
Selling, general, and administrative expenses	4,930	5,797	(867)
Total costs and expenses	<u>\$ 13,348</u>	<u>\$ 15,575</u>	<u>\$ (2,227)</u>

**Cost of Product Revenue**

Cost of product revenue from continuing operations was \$174 and \$586 for the six months ended June 30, 2015 and 2014, respectively. These costs primarily include the cost of inventory associated with product revenue recognized during the respective periods. The decrease of \$412 is primarily attributable to a decrease in inventory impairment expense. There were no write-offs of inventory due to impairment during the six months ended June 30, 2015 as compared to \$228 for the six months ended June 30, 2014. The decrease in cost of product revenue was also a result of the decrease in product sales recognized during the six months ended June 30, 2015 in comparison to the same period of the prior year. Cost of product revenue for each period also includes the cost of sample inventory shipped to prospective customers, warehousing and certain freight charges.

**Research and Development Expenses**

Research and development expenses from continuing operations were \$8,244 and \$9,192 for the six months ended June 30, 2015 and 2014, respectively. The decrease of \$948 was primarily due to a decrease in employee compensation and related benefit expenses. Employee compensation and related benefit expenses were \$4,510 and \$5,387 for the six months ended June 30, 2015 and 2014, respectively. The decrease of \$877 is primarily attributable to decreases in headcount and employee stock compensation expense related to our October 2014 restructuring of our U.S. organization to reflect a more narrow strategic focus on PHA performance polymers. Depreciation expense was \$86 and \$299 for the six months ended June 30, 2015 and 2014, respectively. The decrease of \$213 was due to a combination of existing equipment reaching full depreciation and the relatively low value of new capital equipment acquired and put into operation during the first six months. The decreases in employee compensation and depreciation were partially offset by increases in pilot manufacturing and facility expenses of \$150 and \$182, respectively. The increase in pilot material production expenses during the six months ended June 30, 2015, as we expanded pilot production capacity for our biopolymer. In addition, facility expenses have increased at our Cambridge, Massachusetts location primarily as a result of increased rent under the terms of a lease extension entered into in 2013 that became effective May 2014.

**Selling, General and Administrative Expenses**

Selling, general and administrative expenses from continuing operations were \$4,930 and \$5,797 for the six months ended June 30, 2015 and 2014, respectively. The decrease of \$867 was primarily due to a decrease in employee compensation and related benefits expenses. Employee compensation and related benefit expenses were \$2,333 and \$3,354 for the six months ended June 30, 2015 and 2014, respectively. The decrease of \$1,021 was primarily attributable to decreases in headcount and employee stock compensation expense as a result of restructuring our U.S. organization. In addition, the Company has seen overall reductions in expenses across many categories, including travel, consulting and investor relations, as a result of the reduced headcount and cost containment measures. The expense reductions were partially offset by a one-time technology license payment of \$300 made and recognized during the first quarter of 2015.

**Other Income (Expense), Net**

	Six Months Ended June 30,		Change
	2015	2014	
Interest income, net	\$ 2	\$ 2	\$ —
Other income (expense), net	41	8	33
Total other income (expense), net	<u>\$ 43</u>	<u>\$ 10</u>	<u>\$ 33</u>

Other income (expense), net reflects income of \$43 and \$10 for the six months ended June 30, 2015 and 2014, respectively. Other income (expense), net, during both periods consisted primarily of income earned from our short-term investments in money market funds, net of custodial fees, and realized foreign currency transaction gains or losses.

**Liquidity and Capital Resources**

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

The primary sources of our liquidity have been:

- equity financing;
- our former strategic alliance with Archer Daniels Midland Company ("ADM");
- government grants;
- other funded research and development arrangements;
- licensing revenues;
- product revenues; and
- interest earned on cash and short-term investments.

We have incurred significant expenses relating to our research and development efforts. As a result, we have incurred net losses since our inception. As of June 30, 2015, we had an accumulated deficit of \$313,988. Our total unrestricted cash and cash equivalents as of June 30, 2015, were \$22,707 as compared to \$20,046 at December 31, 2014. As of June 30, 2015, we had no outstanding debt.

Our cash and cash equivalents at June 30, 2015 were held for working capital purposes. As of June 30, 2015, we had restricted cash of \$619. Restricted cash consists of \$494 held in connection with the lease agreement for our Cambridge, Massachusetts facility and \$125 held in connection with our corporate credit card program. Investments are made in accordance with our corporate investment policy, as approved by our Board of Directors. The primary objective of this policy is to preserve principal and investments are limited to high quality corporate debt, U.S. Treasury bills and notes, money market funds, bank debt obligations, municipal debt obligations and asset-backed securities. The policy establishes maturity limits, concentration limits, and liquidity requirements. As of June 30, 2015, we were in compliance with this policy.

With the exception of 2012, when the Company recognized \$38,885 of deferred revenue from the terminated joint venture with ADM, it has recorded losses since its inception, including its fiscal quarter ended June 30, 2015. As of June 30, 2015, the Company held unrestricted cash and cash equivalents of \$22,707. Our present capital resources are not sufficient to fund our planned operations for a twelve month period, and therefore, raise substantial doubt about our ability to continue as a going concern. We expect that reductions in cash usage in 2015 due to the discontinuation of our German operations, restructuring of our U.S. organization and other cost containment measures taken in 2014 will be largely offset by increased biopolymer pilot production costs. As a result, we anticipate total cash usage during 2015 of approximately \$23,000. This estimate includes the \$12,129 of total cash used in operating activities during the first six months of 2015 and assumes continued funding of the Company's crop science program for the full year.

We were successful during our fiscal quarters ending June 30, 2015 and September 30, 2014, in raising \$14,703 and \$24,913, net of offering costs, through private placements of equity securities. We will, however, require additional funding during the next twelve months to continue our operations and support our capital needs. The timing, structure and vehicles for obtaining future financing are under consideration, but there can be no assurance that such financing efforts will be successful. We intend to use the proceeds of our recent and any future financings to continue developing our specialty biopolymers business as the foundation for our longer range commercial scale plans and the future growth of our business.

We continue to face significant challenges and uncertainties and, as a result, our available capital resources may be consumed more rapidly than currently expected due to (a) lower than expected sales of our biopolymer products as a result of slow market adoption; (b) increases in capital costs or operating expenses related to the Company's establishment, start-up, expansion or operation of biopolymer manufacturing either on our own or with third parties; (c) changes we may make to the business that affect ongoing operating expenses; (d) changes we may make to our business strategy; (e) changes in our research and development spending plans; and (f) other items affecting our forecasted level of expenditures and use of cash resources.

If we issue equity or debt securities to raise additional funds, (i) the Company may incur fees associated with such issuance, (ii) our existing stockholders may experience dilution from the issuance of new equity securities, (iii) the Company may incur ongoing interest expense and be required to grant a security interest in Company assets in connection with any debt issuance, and (iv) the new equity or debt securities may have rights, preferences and privileges senior to those of our existing stockholders. In addition, utilization of our net operating loss and research and development credit carryforwards may be subject to significant annual limitations under Section 382 of the Internal Revenue Code of 1986 due to ownership changes resulting from equity financing transactions. If we raise additional funds through collaboration, licensing or other similar arrangements, it may be necessary to relinquish valuable rights to our potential products or proprietary technologies, or grant licenses on terms that are not favorable to the Company.

Failure to receive additional funding during the next 12 months may force the Company to delay, scale back or otherwise modify its business and manufacturing plans, sales and marketing efforts, research and development activities and

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

Net cash used by continuing operations for operating activities was \$12,129 for the six months ended June 30, 2015, compared to net cash used of \$13,366 during the six months ended June 30, 2014. The cash used during the six months ended June 30, 2015 primarily reflects the net loss of \$11,916 for the period, partially offset by non-cash expenses, including stock-based compensation expense of \$894, depreciation expense of \$100, and the Company's 401(k) stock matching contribution expense of \$218. During the six months ended June 30, 2014, an additional \$480 of net cash was used by discontinued operations for operating activities.

Net cash of \$209 was used by continuing operations for investing activities during the six months ended June 30, 2015, compared to net cash provided by investing activities during the six months ended June 30, 2014 of \$11,411. Net cash used by investing activities during the six months ended June 30, 2015 is the result of funds expended for the purchase of property and equipment, primarily to expand the Company's pilot manufacturing capacity. Net cash provided by investing activities during the six months ended June 30, 2014 included \$13,019 provided by the sale and maturity of investments, partially offset by \$1,508 used to purchase investments.

Cash of \$15,000 was provided by financing activities, excluding issuance costs of \$297, during the six months ended June 30, 2015 and was derived from the Company's private placement of equity securities completed during the second quarter. During the six months ended June 30, 2014, net cash of \$300 was provided by financing activities and was attributable to the purchase of shares by our Chief Executive Officer pursuant to his employment agreement.

### Contractual Obligations

The following table summarizes our contractual obligations at June 30, 2015:

	Payments Due by Period				
	Total	Less than 1 year	2-3 years	4-5 years	More than 5 years
Purchase obligation	\$ 25	\$ 25	\$ —	\$ —	\$ —
Operating lease obligations	7,164	1,419	2,907	2,838	—
Total	\$ 7,189	\$ 1,444	\$ 2,907	\$ 2,838	\$ —

In connection with our plan to increase biopolymer pilot production capacity, during May 2015 we entered into a two-year agreement with a U.S. supplier of toll fermentation services and another two-year agreement with the owner/operator of our pilot recovery facility. Under these agreements, which became effective July 1, 2015, we estimate that the Company will be obligated to pay quarterly fixed service fees of approximately \$1,100 after the commencement of full scale production and continuing through at least December 31, 2016. The Company made a \$1,000 prepayment against future fixed service fees in May 2015. In addition to these fixed charges, the Company is obligated to pay certain variable production costs as incurred.

### Off-Balance Sheet Arrangements

As of June 30, 2015, we had no off-balance sheet arrangements as defined in Item 303(a)(4) of the Securities and Exchange Commission's Regulation S-K.

### Related Party Transactions

See Note 12 to our consolidated financial statements for a full description of our related party transactions.

### Recent Accounting Pronouncements

In April 2014, the FASB issued ASU No. 2014-8, *Reporting Discontinued Operations and Disclosures of Disposals of Components of an Entity*, which changes the criteria for determining which disposals can be presented as discontinued operations and modifies the related disclosure requirements. Under the new guidance, a disposal of a component of an entity or a group of components of an entity is required to be reported in discontinued operations if the disposal represents a strategic shift that has (or will have) a major effect on an entity's operations and financial results and is disposed of or classified as held for sale. The standard also introduces several new disclosures. The guidance applies prospectively to new disposals and new classifications of disposal groups as held for sale after the effective date. ASU 2014-8 is effective for annual and interim

periods beginning after December 15, 2014, with early adoption permitted. We elected early adoption of ASU 2014-8 and applied the new guidance in connection with the discontinuation of its wholly-owned subsidiary, Metabolix GmbH, in 2014. See Note 13, Discontinued Operation.

In May 2014, the FASB issued ASU No. 2014-09, *Revenue from Contracts with Customers* (Topic 606), which supersedes all existing revenue recognition requirements, including most industry-specific guidance. The new standard requires a company to recognize revenue when it transfers goods or services to customers in an amount that reflects the consideration that the company expects to receive for those goods or services. In July 2015, the FASB delayed the effective date of the new revenue standard by one year. The new standard will be effective for us on January 1, 2018. The FASB also agreed to allow entities to choose to adopt the standard as of the original effective date. We are currently evaluating the method of adoption and the potential impact that Topic 606 may have on our financial position and results of operations.

In August 2014, the FASB issued an amendment that requires management to assess an entity's ability to continue as a going concern by incorporating and expanding upon certain principles that are currently in U.S. auditing standards. The amendments in this update provide guidance about management's responsibility to evaluate whether there is substantial doubt about an entity's ability to continue as a going concern for one year after the date that the financial statements are issued and to provide related footnote disclosures. In doing so, the amendments should reduce diversity in the timing and content of footnote disclosures. The amendments in this update apply to all entities and are effective for the annual period ending after December 15, 2016, and for annual periods and interim periods thereafter. Early application is permitted. We are currently reviewing the potential impact of adopting the new guidance.

### **ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.**

There have been no material changes in information regarding our exposure to market risk, as described in Item 7A of our Annual Report on Form 10-K for the year ended December 31, 2014.

### **ITEM 4. CONTROLS AND PROCEDURES.**

#### **Evaluation of Disclosure Controls and Procedures**

Our management (with the participation of our Principal Executive Officer and Principal Accounting Officer) evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act")), as of June 30, 2015. Disclosure controls and procedures are designed to ensure that information required to be disclosed by the Company in the reports it files or submits under the Exchange Act is recorded, processed, summarized and reported on a timely basis and that such information is accumulated and communicated to management, including the Principal Executive Officer and Principal Accounting Officer, as appropriate, to allow timely decisions regarding required disclosure. Based on this evaluation, our Principal Executive Officer and Principal Accounting Officer concluded that these disclosure controls and procedures are effective.

#### **Changes in Internal Control over Financial Reporting**

There was no change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) during the quarter ended June 30, 2015 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

## **PART II — OTHER INFORMATION**

### **ITEM 1. LEGAL PROCEEDINGS.**

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

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

There have been no material changes in information regarding our risk factors as described in Part 1, Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2014.

**ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS.**

**Recent Sales of Unregistered Securities**

On April 7, 2015, the Company issued 31,054 shares of common stock to participants in its Metabolix, Inc. 401(k) Plan as a matching contribution. The issuance of these securities is exempt from registration pursuant to Section 3(a)(2) of the Securities Act of 1933 as exempted securities.

On June 19, 2015, the Company completed a private placement of Company securities. Proceeds received from the transaction were \$14,703, net of issuance costs of \$297 and will be used to support the Company's operations and capital needs. Investors participating in the transaction, including Jack W. Schuler, Birchview Capital, Hong Kong Sino-Science Oil & Gas Co., Ltd, certain members of the Company's board of directors and executive management team and certain other investors, purchased a total of 4,370,000 shares of common stock at a price of \$3.32 per share and warrants with a purchase price of \$0.125 per warrant to purchase up to an aggregate of 3,933,000 additional shares of common stock. The warrants have a four-year term and are immediately exercisable at a price of \$3.98 per share. The issuance of these securities was not registered under the Securities Act as such issuance was exempt from registration under Section 4(a)(2) of the Securities Act.

**Issuer Purchases of Equity Securities**

During the three months ended June 30, 2015, there were no repurchases made by us or on our behalf, or by any "affiliated purchasers," of shares of our common stock.

**ITEM 3. DEFAULTS UPON SENIOR SECURITIES.**

None.

**ITEM 4. MINE SAFETY DISCLOSURES.**

Not applicable.

**ITEM 5. OTHER INFORMATION.**

None.

**ITEM 6. EXHIBITS.**

- 3.1 Amended and Restated Certificate of Incorporation (filed herewith).
- 10.1 2014 Stock Option and Incentive Plan (revised and restated solely to reflect the effect of the Company's reverse stock split on May 26, 2015) (furnished herewith).
- 10.2 Securities Purchase Agreement dated June 15, 2015 among the Company and the investors named therein (Incorporated by reference herein to Exhibit 10.1 to the Company's Report on Form 8-K filed June 17, 2015 (File No. 001-33133)).
- 31.1 Certification Pursuant to Rule 13a-14(a)/15d-14(a) of the Securities Exchange Act of 1934 of the Principal Executive Officer (filed herewith).
- 31.2 Certification Pursuant to Rule 13a-14(a)/15d-14(a) of the Securities Exchange Act of 1934 of the Principal Financial Officer (filed herewith).
- 32.1 Section 1350 Certification (furnished herewith).
- 101.1 The following financial information from the Metabolix Inc. Quarterly Report on Form 10-Q for the quarter ended June 30, 2015 formatted in XBRL: (i) Consolidated Balance Sheets, June 30, 2015 and December 31, 2014; (ii) Consolidated Statements of Operations, Three and Six Months Ended June 30, 2015 and 2014; (iii) Consolidated Statements of Comprehensive Loss, Three and Six Months Ended June 30, 2015 and 2014; (iv) Consolidated Statements of Cash Flows, Six Months Ended June 30, 2015 and 2014; and (v) Notes to Consolidated Financial Statements.

**SIGNATURES**

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

METABOLIX, INC.

August 13, 2015

By: /s/ JOSEPH SHAULSON  
Joseph Shaulson  
*President and Chief Executive Officer*  
*(Principal Executive Officer)*

August 13, 2015

By: /s/ CHARLES B. HAASER  
Charles B. Haaser  
*Chief Accounting Officer*  
*(Principal Financial and Accounting Officer)*

**AMENDED AND RESTATED**  
**CERTIFICATE OF INCORPORATION**  
**OF**  
**METABOLIX, INC.**

Metabolix, Inc., a corporation organized and existing under the laws of the State of Delaware (the “Corporation”), hereby certifies as follows:

1. The name of the Corporation is Metabolix, Inc. The original certificate of incorporation of Metabolix, Inc. was filed with the Secretary of State of the State of Delaware on September 1, 1998.
2. This Amended and Restated Certificate of Incorporation was duly adopted in accordance with the provisions of Sections 242 and 245 of the Delaware General Corporation Law (the “DGCL”).
3. The text of the Certificate of Incorporation of this corporation be hereby amended and restated in its entirety to provide as herein set forth in full.

**ARTICLE I**

The name of the Corporation is Metabolix, Inc.

**ARTICLE II**

The address of the Corporation’s registered office in the State of Delaware is c/o The Corporation Trust Company, 1209 Orange Street in the City of Wilmington, County of New Castle. The name of its registered agent at such address is The Corporation Trust Company.

**ARTICLE III**

The purpose of the Corporation is to engage in any lawful act or activity for which corporations may be organized under the DGCL.

**ARTICLE IV**

**CAPITAL STOCK**

The total number of shares of capital stock which the Corporation shall have authority to issue is One Hundred Five Million (105,000,000) shares, of which (i) One Hundred Million (100,000,000) shares shall be a class designated as common stock, par value \$.01 per share (the “Common Stock”), and (ii) Five Million (5,000,000) shares shall be a class designated as undesignated preferred stock, par value \$.01 per share (the “Undesignated Preferred Stock”).

The number of authorized shares of the class of Undesignated Preferred Stock may from time to time be increased or decreased (but not below the number of shares outstanding) by the affirmative vote of the holders of a majority of the outstanding shares of Common Stock entitled to vote, without a vote of the holders of the Undesignated Preferred Stock (except as otherwise provided in any certificate of designations of any series of Undesignated Preferred Stock).

The powers, preferences and rights of, and the qualifications, limitations and restrictions upon, each class or series of stock shall be determined in accordance with, or as set forth below in, this Article IV.

**A. COMMON STOCK**

Subject to all the rights, powers and preferences of the Undesignated Preferred Stock and except as provided by law or in this Article IV (or in any certificate of designations of any series of Undesignated Preferred Stock):

(a) the holders of the Common Stock shall have the exclusive right to vote for the election of directors of the Corporation (the “Directors”) and on all other matters requiring stockholder action, each outstanding share entitling the holder thereof to one vote on each matter properly submitted to the stockholders of the Corporation for their vote; provided, however, that, except as otherwise required by law, holders of Common Stock, as such, shall not be entitled to vote on any amendment to this Certificate (or on any amendment to a certificate of designations of any series of Undesignated Preferred Stock) that alters or

changes the powers, preferences, rights or other terms of one or more outstanding series of Undesignated Preferred Stock if the holders of such affected series are entitled to vote, either separately or together with the holders of one or more other such series, on such amendment pursuant to this Certificate (or pursuant to a certificate of designations of any series of Undesignated Preferred Stock) or pursuant to the DGCL;

(b) dividends may be declared and paid or set apart for payment upon the Common Stock out of any assets or funds of the Corporation legally available for the payment of dividends, but only when and as declared by the Board or any authorized committee thereof; and

(c) upon the voluntary or involuntary liquidation, dissolution or winding up of the Corporation, the net assets of the Corporation shall be distributed pro rata to the holders of the Common Stock.

#### B. UNDESIGNATED PREFERRED STOCK

The Board of Directors or any authorized committee thereof is expressly authorized, to the fullest extent permitted by law, to provide for the issuance of the shares of Undesignated Preferred Stock in one or more series of such stock, and by filing a certificate pursuant to applicable law of the State of Delaware, to establish or change from time to time the number of shares of each such series, and to fix the designations, powers, including voting powers, full or limited, or no voting powers, preferences and the relative, participating, optional or other special rights of the shares of each series and any qualifications, limitations and restrictions thereof.

### ARTICLE V

#### STOCKHOLDER ACTION

1. Action without Meeting. Except as otherwise provided herein, any action required or permitted to be taken by the stockholders of the Corporation at any annual or special meeting of stockholders of the Corporation must be effected at a duly called annual or special meeting of stockholders and may not be taken or effected by a written consent of stockholders in lieu thereof.

2. Special Meetings. Except as otherwise required by statute and subject to the rights, if any, of the holders of any series of Undesignated Preferred Stock, special meetings of the stockholders of the Corporation may be called only by the Board of Directors acting pursuant to a resolution approved by the affirmative vote of a majority of the Directors then in office. Only those matters set forth in the notice of the special meeting may be considered or acted upon at a special meeting of stockholders of the Corporation.

### ARTICLE VI

#### DIRECTORS

1. General. The business and affairs of the Corporation shall be managed by or under the direction of the Board of Directors except as otherwise provided herein or required by law.

2. Election of Directors. Election of Directors need not be by written ballot unless the By-laws of the Corporation (the "By-laws") shall so provide.

3. Number of Directors; Term of Office. The number of Directors of the Corporation shall be fixed solely and exclusively by resolution duly adopted from time to time by the Board of Directors. The Directors, other than those who may be elected by the holders of any series of Undesignated Preferred Stock, shall be classified, with respect to the term for which they severally hold office, into three classes, as nearly equal in number as reasonably possible. The initial Class I Directors of the Corporation shall be Edward M. Muller, Matthew Strobeck, Ph.D., and Robert L. Van Nostrand; the initial Class II Directors of the Corporation shall be Jack W. Lasersohn, Jay Kouba, Ph.D., and Oliver P. Peoples, Ph.D.; and the initial Class III Directors of the Corporation shall be Edward M. Giles, Anthony J. Sinskey, Sc.D., and James J. Barber, Ph.D. The initial Class I Directors shall serve for a term expiring at the annual meeting of stockholders to be held in 2007, the initial Class II Directors shall serve for a term expiring at the annual meeting of stockholders to be held in 2008, and the initial Class III Directors shall serve for a term expiring at the annual meeting of stockholders to be held in 2009. At each annual meeting of stockholders, Directors elected to succeed those Directors whose terms expire shall be elected for a term of office to expire at the third succeeding annual meeting of stockholders after their election. Notwithstanding the foregoing, the Directors elected to each class shall hold office until their successors are duly elected and qualified or until their earlier resignation or removal.

Notwithstanding the foregoing, whenever, pursuant to the provisions of Article IV of this Certificate, the holders of any one or more series of Undesignated Preferred Stock shall have the right, voting separately as a series or together with holders of other such series, to elect Directors at an annual or special meeting of stockholders, the election, term of office, filling of vacancies and

other features of such directorships shall be governed by the terms of this Certificate and any certificate of designations applicable thereto.

4. Vacancies. Subject to the rights, if any, of the holders of any series of Undesignated Preferred Stock to elect Directors and to fill vacancies in the Board of Directors relating thereto, any and all vacancies in the Board of Directors, however occurring, including, without limitation, by reason of an increase in size of the Board of Directors, or the death, resignation, disqualification or removal of a Director, shall be filled solely and exclusively by the affirmative vote of a majority of the remaining Directors then in office, even if less than a quorum of the Board of Directors, and not by the stockholders. Any Director appointed in accordance with the preceding sentence shall hold office for the remainder of the full term of the class of Directors in which the new directorship was created or the vacancy occurred and until such Director's successor shall have been duly elected and qualified or until his or her earlier resignation or removal. Subject to the rights, if any, of the holders of any series of Undesignated Preferred Stock to elect Directors, when the number of Directors is increased or decreased, the Board of Directors shall, subject to Article VI.3 hereof, determine the class or classes to which the increased or decreased number of Directors shall be apportioned; provided, however, that no decrease in the number of Directors shall shorten the term of any incumbent Director. In the event of a vacancy in the Board of Directors, the remaining Directors, except as otherwise provided by law, shall exercise the powers of the full Board of Directors until the vacancy is filled.

5. Removal. Subject to the rights, if any, of any series of Undesignated Preferred Stock to elect Directors and to remove any Director whom the holders of any such stock have the right to elect, any Director (including persons elected by Directors to fill vacancies in the Board of Directors) may be removed from office (i) only with cause and (ii) only by the affirmative vote of the holders of 75% or more of the shares then entitled to vote at an election of Directors. At least forty-five (45) days prior to any meeting of stockholders at which it is proposed that any Director be removed from office, written notice of such proposed removal and the alleged grounds thereof shall be sent to the Director whose removal will be considered at the meeting.

## ARTICLE VII

### LIMITATION OF LIABILITY

A Director of the Corporation shall not be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a Director, except for liability (a) for any breach of the Director's duty of loyalty to the Corporation or its stockholders, (b) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (c) under Section 174 of the DGCL or (d) for any transaction from which the Director derived an improper personal benefit. If the DGCL is amended after the effective date of this Certificate to authorize corporate action further eliminating or limiting the personal liability of Directors, then the liability of a Director of the Corporation shall be eliminated or limited to the fullest extent permitted by the DGCL, as so amended.

Any repeal or modification of this Article VII by either of (i) the stockholders of the Corporation or (ii) an amendment to the DGCL, shall 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 person serving as a Director at the time of such repeal or modification.

## ARTICLE VIII

### AMENDMENT OF BY-LAWS

1. Amendment by Directors. Except as otherwise provided by law, the By-laws of the Corporation may be amended or repealed by the Board of Directors by the affirmative vote of a majority of the Directors then in office.

2. Amendment by Stockholders. The By-laws of the Corporation may be amended or repealed at any annual meeting of stockholders, or special meeting of stockholders called for such purpose as provided in the By-laws, by the affirmative vote of at least 75% of the outstanding shares entitled to vote on such amendment or repeal, voting together as a single class; provided, however, that if the Board of Directors recommends that stockholders approve such amendment or repeal at such meeting of stockholders, such amendment or repeal shall only require the affirmative vote of the majority of the outstanding shares entitled to vote on such amendment or repeal, voting together as a single class.

## ARTICLE IX

### AMENDMENT OF CERTIFICATE OF INCORPORATION

The Corporation reserves the right to amend or repeal this Certificate in the manner now or hereafter prescribed by statute and this Certificate, and all rights conferred upon stockholders herein are granted subject to this reservation. Whenever any vote of the holders of voting stock is required to amend or repeal any provision of this Certificate, and in addition to any other vote of holders of voting stock that is required by this Certificate or by law, such amendment or repeal shall require the affirmative vote of the majority of the outstanding shares entitled to vote on such amendment or repeal, and the affirmative vote of the majority of the

outstanding shares of each class entitled to vote thereon as a class, at a duly constituted meeting of stockholders called expressly for such purpose; provided, however, that the affirmative vote of not less than 75% of the outstanding shares entitled to vote on such amendment or repeal, and the affirmative vote of not less than 75% of the outstanding shares of each class entitled to vote thereon as a class, shall be required to amend or repeal any provision of Article V, Article VI, Article VII, Article VIII or Article IX of this Certificate.

[End of Text]

THIS AMENDED AND RESTATED CERTIFICATE OF INCORPORATION is executed as of this 15th day of November, 2006.

METABOLIX, INC.

/s/ James Barber  
By: James Barber  
Its: Chief Executive Officer and President

**METABOLIX, INC.**

**CERTIFICATE OF DESIGNATION OF PREFERENCES,  
RIGHTS AND LIMITATIONS  
OF  
SERIES B CONVERTIBLE PREFERRED STOCK**

PURSUANT TO SECTION 151 OF THE  
DELAWARE GENERAL CORPORATION LAW

The undersigned, Joseph Shaulson and Sarah P. Cecil, do hereby certify that:

1. They are the President and Secretary, respectively, of Metabolix, Inc., a Delaware corporation (the "Corporation").
2. The Corporation is authorized to issue Five Million shares of preferred stock, \$0.01 par value, none of which have been issued.
3. The following resolutions were duly adopted by the board of directors of the Corporation (the "Board of Directors"):

WHEREAS, the certificate of incorporation of the Corporation provides for a class of its authorized stock known as preferred stock, consisting of Five Million shares, \$0.01 par value per share, issuable from time to time in one or more series;

WHEREAS, the Board of Directors is authorized to fix the dividend rights, dividend rate, voting rights, conversion rights, rights and terms of redemption and liquidation preferences of any wholly unissued series of preferred stock and the number of shares constituting any series and the designation thereof, of any of them; and

WHEREAS, it is the desire of the Board of Directors, pursuant to its authority as aforesaid, to fix the rights, preferences, restrictions and other matters relating to a series of the preferred stock, which shall consist of up to 50,000 shares of the preferred stock which the Corporation has the authority to issue, as follows:

NOW, THEREFORE, BE IT RESOLVED, that the Board of Directors does hereby provide for the issuance of a series of preferred stock for cash or exchange of other securities, rights or property and does hereby fix and determine the rights, preferences, restrictions and other matters relating to such series of preferred stock as follows:

**TERMS OF PREFERRED STOCK**

Section 1. Definitions. For the purposes hereof, the following terms shall have the following meanings:

“Affiliate” means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person, as such terms are used in and construed under Rule 405 of the Securities Act.

“Alternate Consideration” shall have the meaning set forth in Section 7(d).

“Business Day” means any day except any Saturday, any Sunday, any day which is a federal legal holiday in the United States or any day on which banking institutions in the State of New York are authorized or required by law or other governmental action to close.

“Charter Amendment” means the amendment of the Corporation’s Amended and Restated Certificate of Incorporation, as amended, to increase the authorized number of shares of Common Stock to not less than 150,000,000.

“Commission” means the United States Securities and Exchange Commission.

“Common Stock” means the Corporation’s common stock, par value \$0.01 per share, and stock of any other class of securities into which such securities may hereafter be reclassified or changed.

“Common Stock Equivalents” means any securities of the Corporation which would entitle the holder thereof to acquire at any time Common Stock, including, without limitation, any debt, preferred stock, rights, options, warrants or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock.

“Conversion Price” shall have the meaning set forth in Section 6(b).

“Conversion Shares” means, collectively, the shares of Common Stock issuable upon conversion of the shares of Series B Preferred Stock in accordance with the terms hereof.

“Conversion Shares Registration Statement” means a registration statement that registers the resale of all Conversion Shares of the Holders, who shall be named as “selling stockholders” therein and meets the requirements of Section 9 of the Purchase Agreement.

“Delaware Courts” shall have the meaning set forth in Section 8(c).

“Fundamental Transaction” shall have the meaning set forth in Section 7(d).

“Holder” shall have the meaning given such term in Section 2.

“Issue Date Price” shall have the meaning set forth in Section 7(f).

“Liquidation” shall have the meaning set forth in Section 5.

“Person” means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

“Purchase Agreement” means the Securities Purchase Agreement, dated as of August 4, 2014, among the Corporation and the original Holders, as amended, modified or supplemented from time to time in accordance with its terms.

“Purchase Rights” shall have the meaning set forth in Section 7(b).

“Securities” means the Series B Preferred Stock and the Underlying Shares.

“Securities Act” means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

“Series B Preferred Stock” shall have the meaning set forth in Section 2.

“Stated Value” shall have the meaning set forth in Section 2, as the same may be increased pursuant to Section 3.

“Stockholder Approval” means the approval of the Charter Amendment by the requisite stockholders of the Corporation.

“Successor Entity” shall have the meaning set forth in Section 7(d).

“Trading Day” means a day on which the principal Trading Market is open for business.

“Trading Market” means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the NYSE MKT, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market, or the New York Stock Exchange (or any successors to any of the foregoing).

“Transaction Documents” means this Certificate of Designation, the Purchase Agreement, and all exhibits and schedules hereto and thereto.

“Transfer Agent” means American Stock Transfer and Trust Company, the current transfer agent of the Corporation, and any successor transfer agent of the Corporation.

“Underlying Shares” means the shares of Common Stock issued and issuable upon conversion of the Series B Preferred Stock.

Section 2. Designation, Amount and Par Value. The series of preferred stock shall be designated as its Series B Convertible Preferred Stock (the “Series B Preferred Stock”) and the number of shares so designated shall be up to 50,000 (which shall not be subject to increase without the written consent of all of the holders of the Series B Preferred Stock (each, a “Holder” and collectively, the “Holders”). Each share of Series B Preferred Stock shall have a par value of \$.01 per share and a stated value equal to \$1,000 (the “Stated Value”).

Section 3. Dividends. Except for stock dividends or distributions for which adjustments are to be made pursuant to Section 7, Holders shall be entitled to receive, and the Corporation shall pay, dividends or distributions on shares of Series B Preferred Stock equal (on an as-if-converted-to-Common Stock basis) to and in the same form as dividends or distributions actually paid on shares of the Common Stock when, as and if such dividends or distributions are paid on shares of the Common Stock. No other dividends or distributions shall be paid on shares of Series B Preferred Stock.

Section 4. Voting Rights. Except as otherwise provided herein or as otherwise required by law, the Series B Preferred Stock shall have no voting rights. However, as long as any shares of Series B Preferred Stock are outstanding, the Corporation shall not, without the affirmative vote of the Holders of a majority of the then outstanding shares of the Series B Preferred Stock, alter or change adversely the powers, preferences or rights given to the Series B Preferred Stock or alter or amend this Certificate of Designation in a manner that adversely affects the powers, preferences or rights given to the Series B Preferred Stock.

Section 5. Liquidation. Upon any liquidation, dissolution or winding-up of the Corporation, whether voluntary or involuntary (a “Liquidation”), the Holders shall be entitled to receive out of the assets, whether capital or surplus, of the Corporation an amount equal (on an as-if-converted-to-Common Stock basis) to and in the same form as amounts actually paid on shares of the Common Stock. The Corporation shall mail written notice of any such Liquidation, not less than 45 days prior to the payment date stated therein, to each Holder.

Section 6. Conversion.

a) Mandatory, Automatic Conversion. Upon the filing and acceptance of the Charter Amendment with the Secretary of State of the State of Delaware, each share of Series B Preferred Stock shall automatically convert into that number of shares of Common Stock determined by dividing the Stated Value of such share of Series B Preferred Stock by the Conversion Price. Any conversion pursuant to this Section 6(a) shall occur automatically and without any further action by the Holders and whether or not the certificates representing such shares of Series B Preferred Stock are surrendered to the Corporation or its Transfer Agent. Upon the occurrence of such automatic conversion, the Corporation shall provide written notice to the Holders, and the Holders shall, a reasonable time thereafter, surrender the certificates representing such shares at the office of the Corporation or any Transfer Agent for the Series B Preferred Stock. Thereupon, there shall be issued and delivered to such Holder promptly at such office and in its name as shown on the Corporation’s stock records, a certificate or certificates for the number of shares of Common Stock into which the shares of Series B Preferred Stock surrendered were convertible on the date on which such automatic conversion occurred. All Shares of Series B Preferred Stock converted into Common Stock in accordance with the terms hereof shall be deemed to have been retired and canceled and shall not be reissued.

b) Conversion Price. The conversion price for the Series B Preferred Stock (the “Conversion Price”) shall equal \$1.00, subject to adjustment as provided in Section 7.

c) Fractional Shares. No fractional shares or scrip representing fractional shares shall be issued upon the conversion of the Series B Preferred Stock. As to any fraction of a share which the Holder would otherwise be entitled to purchase upon such conversion, the Corporation shall, at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Conversion Price or round up to the next whole share.

d) Transfer Taxes and Expenses. The issuance of certificates for shares of the Common Stock on conversion of Series B Preferred Stock shall be made without charge to any Holder for any documentary stamp or similar taxes that may be payable in respect of the issue or delivery of such certificates; provided that the Corporation shall not be required to pay any tax that may be payable in respect of any transfer involved in the issuance and delivery of any such certificate upon conversion in a name other than that of the Holders of such shares of Series B Preferred Stock and the Corporation shall not be required to issue or deliver such certificates unless or until the Person or Persons requesting the issuance thereof shall have paid to the Corporation the amount of such tax or shall have established to the satisfaction of the Corporation that such tax has been paid.

e) Issuance Limitations. Notwithstanding anything herein to the contrary, the Series B Preferred Stock may not be converted into any shares of Common Stock unless the Corporation has obtained Stockholder Approval.

#### Section 7. Certain Adjustments.

a) Stock Dividends and Stock Splits. If the Corporation, at any time while the Series B Preferred Stock is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions payable in shares of Common Stock on shares of Common Stock or any other Common Stock Equivalents (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Corporation upon conversion of, or payment of a dividend on, Series B Preferred Stock), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of a reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (iv) issues, in the event of a reclassification of shares of the Common Stock, any shares of capital stock of the Corporation, then the Conversion Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock outstanding immediately before such event, and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event. Any adjustment made pursuant to this Section 7(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or re-classification.

b) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 7(a), if, at any time while the Series B Preferred Stock is outstanding, the Corporation grants, issues or sells any Common Stock Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of shares of Common Stock (the "Purchase Rights"), then each Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which such Holder could have acquired if such Holder had held the number of shares of Common Stock acquirable upon complete conversion of such Holder's Series B Preferred Stock immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights.

c) Pro Rata Distributions. During such time as Series B Preferred Stock is outstanding, if the Corporation declares or makes any dividend or other distribution of its assets (or rights to acquire its assets) to holders of shares of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a "Distribution"), at any time after the issuance of the Series B Preferred Stock, then, in each such case, Holders shall be entitled to participate in such Distribution to the same extent that such Holders would have participated therein if such Holders had held the number of shares of Common Stock acquirable upon complete conversion of Series B Preferred Stock immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the participation in such Distribution.

d) Fundamental Transaction. If, at any time while Series B Preferred Stock is outstanding, (i) the Corporation, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Corporation with or into another Person, (ii) the Corporation, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Corporation or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding Common Stock, (iv) the Corporation, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property, or (v) the Corporation, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with another Person whereby such other Person acquires more than 50% of the outstanding shares of Common Stock (not including any shares of Common Stock held by the other Person or other Persons making or party to, or associated or Affiliated with the other Persons making or party to, such stock or share purchase agreement or other business combination) (each a "Fundamental Transaction"), then, upon any

subsequent conversion of Series B Preferred Stock, Holders shall have the right to receive, for each Conversion Share that would have been issuable upon such conversion immediately prior to the occurrence of such Fundamental Transaction (without regard to any limitation in Section 6(e) on the conversion of Series B Preferred Stock), the number of shares of Common Stock of the successor or acquiring corporation or of the Corporation, if it is the surviving corporation, and any additional consideration (the “Alternate Consideration”) receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which Series B Preferred Stock is convertible immediately prior to such Fundamental Transaction (without regard to any limitation in Section 6(e) on the conversion of Series B Preferred Stock). For purposes of any such conversion, the determination of the Conversion Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Corporation shall apportion the Conversion Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, the Holders shall be given the same choice as to the Alternate Consideration as to the securities, cash or property to be received upon any conversion of Series B Preferred Stock following such Fundamental Transaction. To the extent necessary to effectuate the foregoing provisions, any successor to the Corporation or surviving entity in such Fundamental Transaction shall file a new Certificate of Designation with the same terms and conditions and issue to the Holders new preferred stock consistent with the foregoing provisions and evidencing the Holders’ right to convert such preferred stock into Alternate Consideration. The Corporation shall cause any successor entity in a Fundamental Transaction in which the Corporation is not the survivor (the “Successor Entity”) to assume in writing all of the obligations of the Corporation under this Certificate of Designation and the Purchase Agreement in accordance with the provisions of this Section 7(d) pursuant to written agreements and shall, at the option of a Holders, deliver to the Holders in exchange for Series B Preferred Stock a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to Series B Preferred Stock which is convertible into a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon conversion of Series B Preferred Stock (without regard to any limitations on the conversion of Series B Preferred Stock) prior to such Fundamental Transaction, and with a conversion price which applies the Conversion Price to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such conversion price being for the purpose of protecting the economic value of Series B Preferred Stock immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holders. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for (so that from and after the date of such Fundamental Transaction, the provisions of this Certificate of Designation and the other Transaction Documents referring to the “Corporation” shall refer instead to the Successor Entity), and may exercise every right and power of the Corporation and shall assume all of the obligations of the Corporation under this Certificate of Designation and the other Transaction Documents with the same effect as if such Successor Entity had been named as the Corporation herein.

e) Calculations. All calculations under this Section 7 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 7, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the number of shares of Common Stock (excluding any treasury shares of the Corporation) issued and outstanding.

f) Notice to the Holders of Adjustment to Conversion Price. Whenever the Conversion Price is adjusted pursuant to any provision of this Section 7, the Corporation shall promptly deliver to each Holder a notice setting forth the Conversion Price after such adjustment and setting forth a brief statement of the facts requiring such adjustment.

## Section 8. Miscellaneous.

a) Notices. Any and all notices or other communications or deliveries to be provided by the Holders hereunder shall be in writing and delivered personally, by facsimile, or sent by a nationally recognized overnight courier service, addressed to the Corporation, at the address set forth above Attention: Secretary, or such other address as the Corporation may specify for such purposes by notice to the Holders delivered in accordance with this Section 8(a). Any and all notices or other communications or deliveries to be provided by the Corporation hereunder shall be in writing and delivered personally, by facsimile, or sent by a nationally recognized overnight courier service addressed to each Holder at the facsimile number or address of such Holder appearing on the books of the Corporation, or if no such facsimile number or address appears on the books of the Corporation, at the facsimile number or address of such Holder, as set forth in Schedule I to the Purchase Agreement. Any notice or other communication or deliveries hereunder shall be deemed given and effective on the earliest of (i) the date of transmission, if such notice or communication is delivered via facsimile at the facsimile number set forth in this Section 8(a) prior to 5:30 p.m. (New York City time) on any date, (ii) the next Trading Day after the date of transmission, if such notice or communication is delivered via facsimile at the facsimile number set forth in this Section 8(a) on a day that is not a Trading Day or later than 5:30 p.m. (New York City time) on any Trading Day, (iii) the second Trading Day following the date of mailing, if sent by U.S. nationally recognized overnight courier service, or (iv) upon actual receipt by the party to whom such notice is required to be given.

b) Lost or Mutilated Series B Preferred Stock Certificate. If a Holder's Series B Preferred Stock certificate shall be mutilated, lost, stolen or destroyed, the Corporation shall execute and deliver, in exchange and substitution for and upon cancellation of a mutilated certificate, or in lieu of or in substitution for a lost, stolen or destroyed certificate, a new certificate for the shares of Series B Preferred Stock so mutilated, lost, stolen or destroyed, but only upon receipt of evidence of such loss, theft or destruction of such certificate, and of the ownership hereof reasonably satisfactory to the Corporation and, if requested by the Corporation, in its reasonable discretion, the receipt of a bond in a customary amount

c) Governing Law. All questions concerning the construction, validity, enforcement and interpretation of this Certificate of Designation shall be governed by and construed and enforced in accordance with the internal laws of the State of Delaware, without regard to the principles of conflict of laws thereof. Each party agrees that all legal proceedings concerning the interpretation, enforcement and defense of the transactions contemplated by any of the Transaction Documents (whether brought against a party hereto or its respective Affiliates, directors, officers, shareholders, employees or agents) shall be commenced in the state and federal courts of the State of Delaware (the "Delaware Courts"). Each party hereto hereby irrevocably submits to the exclusive jurisdiction of the Delaware Courts for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein (including with respect to the enforcement of any of the Transaction Documents), and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of such Delaware Courts, or such Delaware Courts are improper or inconvenient venue for such proceeding. Each party hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to such party at the address in effect for notices to it under this Certificate of Designation and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any other manner permitted by applicable law. Each party hereto hereby irrevocably waives, to the fullest extent permitted by applicable law, any and all right to trial by jury in any legal proceeding arising out of or relating to this Certificate of Designation or the transactions contemplated hereby. If any party shall commence an action or proceeding to enforce any provisions of this Certificate of Designation, then the prevailing party in such action or proceeding shall be reimbursed by the other party for its attorneys' fees and other costs and expenses incurred in the investigation, preparation and prosecution of such action or proceeding.

d) Waiver. Any waiver by the Corporation or a Holder of a breach of any provision of this Certificate of Designation shall not operate as or be construed to be a waiver of any other breach of such provision or of any breach of any other provision of this Certificate of Designation or a waiver by any other Holders. The failure of the Corporation or a Holder to insist upon strict adherence to any term of this Certificate of Designation on one or more occasions shall not be considered a waiver or deprive that party (or any other Holder) of the right thereafter to insist upon strict adherence to that term or any other term of this Certificate of Designation on any other occasion. Any waiver by the Corporation or a Holder must be in writing.

e) Severability. If any provision of this Certificate of Designation is invalid, illegal or unenforceable, the balance of this Certificate of Designation shall remain in effect, and if any provision is inapplicable to any Person or circumstance, it shall nevertheless remain applicable to all other Persons and circumstances.

f) Next Business Day. Whenever any payment or other obligation hereunder shall be due on a day other than a Business Day, such payment shall be made on the next succeeding Business Day.

g) Headings. The headings contained herein are for convenience only, do not constitute a part of this Certificate of Designation and shall not be deemed to limit or affect any of the provisions hereof.

h) Status of Converted or Redeemed Series B Preferred Stock. Shares of Series B Preferred Stock may only be issued pursuant to the Purchase Agreement. If any shares of Series B Preferred Stock shall be converted, redeemed or reacquired by the Corporation, such shares shall resume the status of authorized but unissued shares of preferred stock and shall no longer be designated as Series B Convertible Preferred Stock.

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RESOLVED, FURTHER, that the Chairman, the president or any vice-president, and the secretary or any assistant secretary, of the Corporation be, and they hereby are, authorized and directed to prepare and file this Certificate of Designation of Preferences, Rights and Limitations in accordance with the foregoing resolution and the provisions of Delaware law.

IN WITNESS WHEREOF, the undersigned have executed this Certificate this 22<sup>nd</sup> day of August 2014.

/s/ Joseph Shaulson  
Joseph Shaulson  
President

/s/ Sarah P. Cecil  
Sarah P. Cecil  
Secretary

**CERTIFICATE OF AMENDMENT TO  
AMENDED AND RESTATED CERTIFICATE OF INCORPORATION  
OF  
METABOLIX, INC.**

Metabolix, Inc. (the “**Corporation**”), a corporation organized under and by virtue of the provisions of the General Corporation Law of the State of Delaware (the “**General Corporation Law**”),

**DOES HEREBY CERTIFY:**

1. Pursuant to Section 242 of the General Corporation Law, this Certificate of Amendment to Amended and Restated Certificate of Incorporation (this “**Amendment**”) amends the provisions of the Amended and Restated Certificate of Incorporation of the Corporation (the “**Certificate**”).
2. This Amendment has been approved and duly adopted by the Corporation’s Board of Directors and its stockholders in accordance with the provisions of Section 242 of the General Corporation Law, and the provisions of the Certificate.
3. The first paragraph of ARTICLE IV of the Certificate is hereby amended and restated in its entirety to read as set forth below:

“The total number of shares of capital stock which the Corporation shall have authority to issue is Two Hundred Fifty Five Million (255,000,000) shares, of which (i) Two Hundred Fifty Million (250,000,000) shares shall be a class designated as common stock, par value \$.01 per share (the “**Common Stock**”), (ii) Four Million Nine Hundred Fifty Thousand (4,950,000) shares shall be a class designated as undesignated preferred stock, par value \$.01 per share (the “**Undesignated Preferred Stock**”) and (iii) Fifty Thousand (50,000) shares shall be a class designated as Series B Convertible Preferred Stock, par value \$.01 per share (the “**Series B Preferred Stock**”).”

[End of Text]

IN WITNESS WHEREOF, the undersigned authorized officer of the Corporation, has executed this Certificate of Amendment to Amended and Restated Certificate of Incorporation as of October 30, 2014.

**METABOLIX, INC.**

/s/ Joseph Shaulson \_\_\_\_\_  
Name: Joseph Shaulson  
Title: President & CEO

**CERTIFICATE OF AMENDMENT TO  
AMENDED AND RESTATED CERTIFICATE OF INCORPORATION  
OF  
METABOLIX, INC.**

Metabolix, Inc. (the “**Corporation**”), a corporation organized under and by virtue of the provisions of the General Corporation Law of the State of Delaware (the “**General Corporation Law**”),

**DOES HEREBY CERTIFY:**

1. Pursuant to Section 242 of the General Corporation Law, this Certificate of Amendment to Amended and Restated Certificate of Incorporation (this “**Amendment**”) amends the provisions of the Amended and Restated Certificate of Incorporation of the Corporation (the “**Certificate**”).
2. This Amendment has been approved and duly adopted by the Corporation’s Board of Directors and its stockholders in accordance with the provisions of Section 242 of the General Corporation Law, and the provisions of the Certificate.
3. The following language is hereby added to the end of the first paragraph of ARTICLE IV of the Certificate:

“Effective at 5:00 p.m. EDT, on May 26, 2015, every six outstanding shares of Common Stock will be combined into and automatically become one share of outstanding Common Stock of the Corporation. The Corporation will not issue fractional

shares on account of the foregoing reverse stock split; all shares that are held by a stockholder as of the effective date hereof shall be aggregated and each fractional share resulting from the reverse stock split after giving effect to such aggregation shall be cancelled.

In lieu of any interest in a fractional share to which a stockholder would otherwise be entitled as a result of such reverse stock split, such stockholder will be paid a cash amount for such fractional shares equal to the product obtained by multiplying (a) the closing price of the shares of Common Stock on the first trading day immediately preceding the effective date of the reverse split, as reported on The NASDAQ Capital Market by (b) the number of shares of Common Stock held by such stockholder that would otherwise have been exchanged for such fractional share interest. The par value of the Common Stock and the total number of authorized shares of Common Stock will not change as a result of such reverse stock split.”

[End of Text]

IN WITNESS WHEREOF, the undersigned authorized officer of the Corporation, has executed this Certificate of Amendment to Amended and Restated Certificate of Incorporation as of May 26, 2015.

**METABOLIX, INC.**

/s/ Joseph Shaulson  
Name: Joseph Shaulson  
Title: President & CEO

# METABOLIX, INC.

## 2014 STOCK OPTION AND INCENTIVE PLAN

(Revised and restated solely to reflect the effect of the Company's reverse stock split on May 26, 2015.)

### SECTION 1. GENERAL PURPOSE OF THE PLAN; DEFINITIONS

The name of the plan is the Metabolix, Inc. 2014 Stock Option and Incentive Plan (the "Plan"). The purpose of the Plan is to encourage and enable the officers, employees, Non-Employee Directors and other key persons (including Consultants) of Metabolix, Inc., a Delaware corporation (the "Company"), and its Subsidiaries upon whose judgment, initiative and efforts the Company largely depends for the successful conduct of its business to acquire a proprietary interest in the Company. It is anticipated that providing such persons with a direct stake in the Company's welfare will assure a closer identification of their interests with those of the Company and its stockholders, thereby stimulating their efforts on the Company's behalf and strengthening their desire to remain with the Company.

The following terms shall be defined as set forth below:

"Act" means the Securities Act of 1933, as amended, and the rules and regulations thereunder.

"Administrator" means either the Board or the compensation committee of the Board or a similar committee performing the functions of the compensation committee and which is comprised of not less than two Non-Employee Directors who are independent.

"Award" or "Awards," except where referring to a particular category of grant under the Plan, shall include Incentive Stock Options, Non-Qualified Stock Options, Stock Appreciation Rights, Restricted Stock Units, Restricted Stock Awards, Unrestricted Stock Awards, Cash-Based Awards, Performance Share Awards and Dividend Equivalent Rights.

"Award Certificate" means a written or electronic document setting forth the terms and provisions applicable to an Award granted under the Plan. Each Award Certificate is subject to the terms and conditions of the Plan.

"Board" means the Board of Directors of the Company.

"Cash-Based Award" means an Award entitling the recipient to receive a cash-denominated payment.

"Code" means the Internal Revenue Code of 1986, as amended, and any successor Code, and related rules, regulations and interpretations.

"Consultant" means any natural person that provides bona fide services to the Company, and such services are not in connection with the offer or sale of securities in a capital-raising transaction and do not directly or indirectly promote or maintain a market for the Company's securities.

"Covered Employee" means an employee who is a "Covered Employee" within the meaning of Section 162(m) of the Code.

"Dividend Equivalent Right" means an Award entitling the grantee to receive credits based on cash dividends that would have been paid on the shares of Stock specified in the Dividend Equivalent Right (or other award to which it relates) if such shares had been issued to and held by the grantee.

"Effective Date" means the date on which the Plan is approved by stockholders as set forth in Section 21.

"Exchange Act" means the Securities Exchange Act of 1934, as amended, and the rules and regulations thereunder.

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

"Incentive Stock Option" means any Stock Option designated and qualified as an "incentive stock option" as defined in Section 422 of the Code.

"Non-Employee Director" means a member of the Board who is not also an employee of the Company or any Subsidiary.

"Non-Qualified Stock Option" means any Stock Option that is not an Incentive Stock Option.

"Option" or "Stock Option" means any option to purchase shares of Stock granted pursuant to Section 5.

“*Performance-Based Award*” means any Restricted Stock Award, Restricted Stock Units, Performance Share Award or Cash-Based Award granted to a Covered Employee that is intended to qualify as “performance-based compensation” under Section 162(m) of the Code and the regulations promulgated thereunder.

“*Performance Criteria*” means the criteria that the Administrator selects for purposes of establishing the Performance Goal or Performance Goals for an individual for a Performance Cycle. The Performance Criteria (which shall be applicable to the organizational level specified by the Administrator, including, but not limited to, the Company or a unit, division, group, or Subsidiary of the Company) that will be used to establish Performance Goals are limited to the following: total shareholder return, earnings before interest, taxes, depreciation and amortization, net income (loss) (either before or after interest, taxes, depreciation and/or amortization), changes in the market price of the Stock, customer satisfaction indicators, economic value-added, funds from operations or similar measure, sales or revenue, mergers, acquisitions, financing, corporate partnering or strategic transactions, operating income (loss), cash flow (including, but not limited to, operating cash flow and free cash flow), return on capital, assets, equity, or investment, shareholder returns, return on sales, gross or net profit levels, productivity, expense, margins, operating efficiency, customer satisfaction, working capital, earnings (loss) per share of Stock, sales or market shares, number of customers, branding establishment or awareness, technical or product development, advances, research and development and/or engineering milestones, achievement of corporate collaborative agreement milestones and adjusted EBITDA, any of which may be measured either in absolute terms or as compared to any incremental increase or as compared to results of a peer group. The Committee may appropriately adjust any evaluation performance under a Performance Criterion to exclude any of the following events that occurs during a Performance Cycle: (i) asset write-downs or impairments, (ii) litigation or claim judgments or settlements, (iii) the effect of changes in tax law, accounting principles or other such laws or provisions affecting reporting results, (iv) accruals for reorganizations and restructuring programs, (v) any extraordinary non-recurring items, including those described in the Financial Accounting Standards Board’s authoritative guidance and/or in management’s discussion and analysis of financial condition of operations appearing the Company’s annual report to stockholders for the applicable year, and (vi) any other extraordinary items adjusted from the Company U.S. GAAP results.

“*Performance Cycle*” means one or more periods of time, which may be of varying and overlapping durations, as the Administrator may select, over which the attainment of one or more Performance Criteria will be measured for the purpose of determining a grantee’s right to and the payment of a Restricted Stock Award, Restricted Stock Units, Performance Share Award or Cash-Based Award, the vesting and/or payment of which is subject to the attainment of one or more Performance Goals. Each such period shall not be less than 12 months.

“*Performance Goals*” means, for a Performance Cycle, the specific goals established in writing by the Administrator for a Performance Cycle based upon the Performance Criteria.

“*Performance Share Award*” means an Award entitling the recipient to acquire shares of Stock upon the attainment of specified performance goals.

“*Restricted Shares*” means the shares of Stock underlying a Restricted Stock Award that remain subject to a risk of forfeiture or the Company’s right of repurchase.

“*Restricted Stock Award*” means an Award of Restricted Shares subject to such restrictions and conditions as the Administrator may determine at the time of grant.

“*Restricted Stock Units*” means an Award of stock units subject to such restrictions and conditions as the Administrator may determine at the time of grant.

“*Sale Event*” shall mean (i) the sale of all or substantially all of the assets of the Company on a consolidated basis to an unrelated person or entity, (ii) a merger, reorganization or consolidation pursuant to which the holders of the Company’s outstanding voting power and outstanding stock immediately prior to such transaction do not own a majority of the outstanding voting power and outstanding stock or other equity interests of the resulting or successor entity (or its ultimate parent, if applicable) immediately upon completion of such transaction, (iii) the sale of all of the Stock of the Company to an unrelated person, entity or group thereof acting in concert, or (iv) any other transaction in which the owners of the Company’s outstanding voting power immediately prior to such transaction do not own at least a majority of the outstanding voting power of the Company or any successor entity immediately upon completion of the transaction other than as a result of the acquisition of securities directly from the Company.

“*Sale Price*” means the value as determined by the Administrator of the consideration payable, or otherwise to be received by stockholders, per share of Stock pursuant to a Sale Event.

“*Section 409A*” means Section 409A of the Code and the regulations and other guidance promulgated thereunder.

“*Stock*” means the Common Stock, par value \$0.01 per share, of the Company, subject to adjustments pursuant to Section 3.

“*Stock Appreciation Right*” means an Award entitling the recipient to receive shares of Stock having a value equal to the excess of the Fair Market Value of the Stock on the date of exercise over the exercise price of the Stock Appreciation Right multiplied by the number of shares of Stock with respect to which the Stock Appreciation Right shall have been exercised.

“*Subsidiary*” means any corporation or other entity (other than the Company) in which the Company has at least a 50 percent interest, either directly or indirectly.

“*Ten Percent Owner*” means an employee who owns or is deemed to own (by reason of the attribution rules of Section 424(d) of the Code) more than 10 percent of the combined voting power of all classes of stock of the Company or any parent or subsidiary corporation.

“*Unrestricted Stock Award*” means an Award of shares of Stock free of any restrictions.

## SECTION 2. ADMINISTRATION OF PLAN; ADMINISTRATOR AUTHORITY TO SELECT GRANTEES AND DETERMINE AWARDS

(a) Administration of Plan. The Plan shall be administered by the Administrator.

(b) Powers of Administrator. The Administrator shall have the power and authority to grant Awards consistent with the terms of the Plan, including the power and authority:

(i) to select the individuals to whom Awards may from time to time be granted;

(ii) to determine the time or times of grant, and the extent, if any, of Incentive Stock Options, Non-Qualified Stock Options, Stock Appreciation Rights, Restricted Stock Awards, Restricted Stock Units, Unrestricted Stock Awards, Cash-Based Awards, Performance Share Awards and Dividend Equivalent Rights, or any combination of the foregoing, granted to any one or more grantees;

(iii) to determine the number of shares of Stock to be covered by any Award;

(iv) to determine and modify from time to time the terms and conditions, including restrictions, not inconsistent with the terms of the Plan, of any Award, which terms and conditions may differ among individual Awards and grantees, and to approve the forms of Award Certificates;

(v) to accelerate at any time the exercisability or vesting of all or any portion of any Award in circumstances involving the grantee’s death, disability, retirement or termination of employment, or a change in control (including a Sale Event);

(vi) subject to the provisions of Section 5(c), to extend at any time the period in which Stock Options may be exercised; and

(vii) at any time to adopt, alter and repeal such rules, guidelines and practices for administration of the Plan and for its own acts and proceedings as it shall deem advisable; to interpret the terms and provisions of the Plan and any Award (including related written instruments); to make all determinations it deems advisable for the administration of the Plan; to decide all disputes arising in connection with the Plan; and to otherwise supervise the administration of the Plan.

All decisions and interpretations of the Administrator shall be binding on all persons, including the Company and Plan grantees.

(c) Delegation of Authority to Grant Awards. Subject to applicable law, the Administrator, in its discretion, may delegate to the Chief Executive Officer of the Company all or part of the Administrator’s authority and duties with respect to the granting of Awards to individuals who are (i) not subject to the reporting and other provisions of Section 16 of the Exchange Act and (ii) not Covered Employees. Any such delegation by the Administrator shall include a limitation as to the amount of Stock underlying Awards that may be granted during the period of the delegation and shall contain guidelines as to the determination of the exercise price and the vesting criteria. The Administrator may revoke or amend the terms of a delegation at any time but such action shall not invalidate any prior actions of the Administrator’s delegate or delegates that were consistent with the terms of the Plan.

(d) Award Certificate. Awards under the Plan shall be evidenced by Award Certificates that set forth the terms, conditions and limitations for each Award which may include, without limitation, the term of an Award and the provisions applicable in the event employment or service terminates.

(e) Indemnification. Neither the Board nor the Administrator, nor any member of either or any delegate thereof, shall be liable for any act, omission, interpretation, construction or determination made in good faith in connection with the Plan, and the members of the Board and the Administrator (and any delegate thereof) shall be entitled in all cases to indemnification and reimbursement by the Company in respect of any claim, loss, damage or expense (including, without limitation, reasonable attorneys’ fees) arising or resulting therefrom to the fullest extent permitted by law and/or under the Company’s articles or bylaws

or any directors' and officers' liability insurance coverage which may be in effect from time to time and/or any indemnification agreement between such individual and the Company.

(f) Foreign Award Recipients. Notwithstanding any provision of the Plan to the contrary, in order to comply with the laws in other countries in which the Company and its Subsidiaries operate or have employees or other individuals eligible for Awards, the Administrator, in its sole discretion, shall have the power and authority to: (i) determine which Subsidiaries shall be covered by the Plan; (ii) determine which individuals outside the United States are eligible to participate in the Plan; (iii) modify the terms and conditions of any Award granted to individuals outside the United States to comply with applicable foreign laws; (iv) establish subplans and modify exercise procedures and other terms and procedures, to the extent the Administrator determines such actions to be necessary or advisable (and such subplans and/or modifications shall be attached to this Plan as appendices); provided, however, that no such subplans and/or modifications shall increase the share limitations contained in Section 3(a) hereof; and (v) take any action, before or after an Award is made, that the Administrator determines to be necessary or advisable to obtain approval or comply with any local governmental regulatory exemptions or approvals. Notwithstanding the foregoing, the Administrator may not take any actions hereunder, and no Awards shall be granted, that would violate the Exchange Act or any other applicable United States securities law, the Code, or any other applicable United States governing statute or law.

### SECTION 3. STOCK ISSUABLE UNDER THE PLAN; MERGERS; SUBSTITUTION

(a) Stock Issuable. The maximum number of shares of Stock reserved and available for issuance under the Plan shall be (i) 4,166,666 shares plus (ii) the number of shares of Stock underlying any awards under the Metabolix, Inc. 2006 Stock Option and Incentive Plan and the Metabolix, Inc. 2005 Stock Plan that are forfeited, canceled or terminated (other than by exercise) from and after the Effective Date, subject to adjustment as provided in this Section 3. For purposes of this limitation, the shares of Stock underlying any Awards that are forfeited, canceled or otherwise terminated (other than by exercise) shall be added back to the shares of Stock available for issuance under the Plan. Notwithstanding the foregoing, the following shares shall not be added to the shares authorized for grant under the Plan: (i) shares tendered or held back upon exercise of an Option or settlement of an Award to cover the exercise price or tax withholding, and (ii) shares subject to a Stock Appreciation Right that are not issued in connection with the stock settlement of the Stock Appreciation Right upon exercise thereof. In the event the Company repurchases shares of Stock on the open market, such shares shall not be added to the shares of Stock available for issuance under the Plan. Subject to such overall limitations, shares of Stock may be issued up to such maximum number pursuant to any type or types of Award; provided, however, that Stock Options or Stock Appreciation Rights with respect to no more than 500,000 shares of Stock, may be granted to any one individual grantee during any one calendar year period. The shares available for issuance under the Plan may be authorized but unissued shares of Stock or shares of Stock reacquired by the Company.

(b) Changes in Stock. Subject to Section 3(c) hereof, if, as a result of any reorganization, recapitalization, reclassification, stock dividend, stock split, reverse stock split or other similar change in the Company's capital stock, the outstanding shares of Stock are increased or decreased or are exchanged for a different number or kind of shares or other securities of the Company, or additional shares or new or different shares or other securities of the Company or other non-cash assets are distributed with respect to such shares of Stock or other securities, or, if, as a result of any merger or consolidation, sale of all or substantially all of the assets of the Company, the outstanding shares of Stock are converted into or exchanged for securities of the Company or any successor entity (or a parent or subsidiary thereof), the Administrator shall make an appropriate or proportionate adjustment in (i) the maximum number of shares reserved for issuance under the Plan, including the maximum number of shares that may be issued in the form of Incentive Stock Options, (ii) the number of Stock Options or Stock Appreciation Rights that can be granted to any one individual grantee and the maximum number of shares that may be granted under a Performance-Based Award, (iii) the number and kind of shares or other securities subject to any then outstanding Awards under the Plan, (iv) the repurchase price, if any, per share subject to each outstanding Restricted Stock Award, and (v) the exercise price for each share subject to any then outstanding Stock Options and Stock Appreciation Rights under the Plan, without changing the aggregate exercise price (i.e., the exercise price multiplied by the number of Stock Options and Stock Appreciation Rights) as to which such Stock Options and Stock Appreciation Rights remain exercisable. The Administrator shall also make equitable or proportionate adjustments in the number of shares subject to outstanding Awards and the exercise price and the terms of outstanding Awards to take into consideration cash dividends paid other than in the ordinary course or any other extraordinary corporate event. The adjustment by the Administrator shall be final, binding and conclusive. No fractional shares of Stock shall be issued under the Plan resulting from any such adjustment, but the Administrator in its discretion may make a cash payment in lieu of fractional shares.

(c) Mergers and Other Transactions. In the case of and subject to the consummation of a Sale Event, the parties thereto may cause the assumption or continuation of Awards theretofore granted by the successor entity, or the substitution of such Awards with new Awards of the successor entity or parent thereof, with appropriate adjustment as to the number and kind of shares and, if appropriate, the per share exercise prices, as such parties shall agree. To the extent the parties to such Sale Event do not provide for the assumption, continuation or substitution of Awards, upon the effective time of the Sale Event, the Plan and all outstanding Awards granted hereunder shall terminate. In such case, except as may be otherwise provided in the relevant Award Certificate, all Options and Stock Appreciation Rights that are not exercisable immediately prior to the effective time of the Sale Event shall become fully exercisable as of the effective time of the Sale Event, all other Awards with time-based vesting, conditions or restrictions shall become fully vested and nonforfeitable as of the effective time of the Sale Event, and all Awards with conditions and restrictions relating to the attainment of performance goals may become vested and nonforfeitable in connection with a Sale Event in the Administrator's discretion or to the extent specified in the relevant Award Certificate. In the event of such termination, (i) the Company shall have the option (in its sole discretion) to make or provide for a cash payment to the grantees holding Options

and Stock Appreciation Rights, in exchange for the cancellation thereof, in an amount equal to the difference between (A) the Sale Price multiplied by the number of shares of Stock subject to outstanding Options and Stock Appreciation Rights (to the extent then exercisable at prices not in excess of the Sale Price) and (B) the aggregate exercise price of all such outstanding Options and Stock Appreciation Rights; or (ii) each grantee shall be permitted, within a specified period of time prior to the consummation of the Sale Event as determined by the Administrator, to exercise all outstanding Options and Stock Appreciation Rights (to the extent then exercisable) held by such grantee.

(d) Substitute Awards. The Administrator may grant Awards under the Plan in substitution for stock and stock-based awards held by employees, directors or other key persons of another corporation in connection with the merger or consolidation of the employing corporation with the Company or a Subsidiary or the acquisition by the Company or a Subsidiary of property or stock of the employing corporation. The Administrator may direct that the substitute awards be granted on such terms and conditions as the Administrator considers appropriate in the circumstances. Any substitute Awards granted under the Plan shall not count against the share limitation set forth in Section 3(a).

#### SECTION 4. ELIGIBILITY

Grantees under the Plan will be such full or part-time officers and other employees, Non-Employee Directors and Consultants of the Company and its Subsidiaries as are selected from time to time by the Administrator in its sole discretion.

#### SECTION 5. STOCK OPTIONS

(a) Award of Stock Options. The Administrator may grant Stock Options under the Plan. Any Stock Option granted under the Plan shall be in such form as the Administrator may from time to time approve.

Stock Options granted under the Plan may be either Incentive Stock Options or Non-Qualified Stock Options. Incentive Stock Options may be granted only to employees of the Company or any Subsidiary that is a "subsidiary corporation" within the meaning of Section 424(f) of the Code. To the extent that any Option does not qualify as an Incentive Stock Option, it shall be deemed a Non-Qualified Stock Option.

Stock Options granted pursuant to this Section 5 shall be subject to the following terms and conditions and shall contain such additional terms and conditions, not inconsistent with the terms of the Plan, as the Administrator shall deem desirable. If the Administrator so determines, Stock Options may be granted in lieu of cash compensation at the optionee's election, subject to such terms and conditions as the Administrator may establish.

(b) Exercise Price. The exercise price per share for the Stock covered by a Stock Option granted pursuant to this Section 5 shall be determined by the Administrator at the time of grant but shall not be less than 100 percent of the Fair Market Value on the date of grant. In the case of an Incentive Stock Option that is granted to a Ten Percent Owner, the option price of such Incentive Stock Option shall be not less than 110 percent of the Fair Market Value on the grant date.

(c) Option Term. The term of each Stock Option shall be fixed by the Administrator, but no Stock Option shall be exercisable more than ten years after the date the Stock Option is granted. In the case of an Incentive Stock Option that is granted to a Ten Percent Owner, the term of such Stock Option shall be no more than five years from the date of grant.

(d) Exercisability; Rights of a Stockholder. Stock Options shall become exercisable at such time or times, whether or not in installments, as shall be determined by the Administrator at or after the grant date. The Administrator may at any time accelerate the exercisability of all or any portion of any Stock Option. An optionee shall have the rights of a stockholder only as to shares acquired upon the exercise of a Stock Option and not as to unexercised Stock Options.

(e) Method of Exercise. Stock Options may be exercised in whole or in part, by giving written or electronic notice of exercise to the Company, specifying the number of shares to be purchased. Payment of the purchase price may be made by one or more of the following methods except to the extent otherwise provided in the Option Award Certificate:

(i) In cash, by certified or bank check or other instrument acceptable to the Administrator;

(ii) Through the delivery (or attestation to the ownership following such procedures as the Administrator may prescribe) of shares of Stock that are not then subject to restrictions under any Company plan. Such surrendered shares shall be valued at Fair Market Value on the exercise date;

(iii) By the optionee delivering to the Company a properly executed exercise notice together with irrevocable instructions to a broker to promptly deliver to the Company cash or a check payable and acceptable to the Company for the purchase price; provided that in the event the optionee chooses to pay the purchase price as so provided, the optionee and the broker shall comply with such procedures and enter into such agreements of indemnity and other agreements as the Administrator shall prescribe as a condition of such payment procedure; or

(iv) With respect to Stock Options that are not Incentive Stock Options, by a "net exercise" arrangement pursuant to which the Company will reduce the number of shares of Stock issuable upon exercise by the largest whole number of shares with

a Fair Market Value that does not exceed the aggregate exercise price.

Payment instruments will be received subject to collection. The transfer to the optionee on the records of the Company or of the transfer agent of the shares of Stock to be purchased pursuant to the exercise of a Stock Option will be contingent upon receipt from the optionee (or a purchaser acting in his stead in accordance with the provisions of the Stock Option) by the Company of the full purchase price for such shares and the fulfillment of any other requirements contained in the Option Award Certificate or applicable provisions of laws (including the satisfaction of any withholding taxes that the Company is obligated to withhold with respect to the optionee). In the event an optionee chooses to pay the purchase price by previously-owned shares of Stock through the attestation method, the number of shares of Stock transferred to the optionee upon the exercise of the Stock Option shall be net of the number of attested shares. In the event that the Company establishes, for itself or using the services of a third party, an automated system for the exercise of Stock Options, such as a system using an internet website or interactive voice response, then the paperless exercise of Stock Options may be permitted through the use of such an automated system.

(f) Auto Exercise at Expiration. The Company may provide in an Award Agreement that to the extent the Option remains unexercised, it will be exercised automatically by “net exercise” pursuant to Section 5(e)(iv) of the Plan immediately prior to the end of the Option Term.

(g) Annual Limit on Incentive Stock Options. To the extent required for “incentive stock option” treatment under Section 422 of the Code, the aggregate Fair Market Value (determined as of the time of grant) of the shares of Stock with respect to which Incentive Stock Options granted under this Plan and any other plan of the Company or its parent and subsidiary corporations become exercisable for the first time by an optionee during any calendar year shall not exceed \$100,000. To the extent that any Stock Option exceeds this limit, it shall constitute a Non-Qualified Stock Option.

## SECTION 6. STOCK APPRECIATION RIGHTS

(a) Award of Stock Appreciation Rights. The Administrator may grant Stock Appreciation Rights under the Plan. A Stock Appreciation Right is an Award entitling the recipient to receive shares of Stock having a value equal to the excess of the Fair Market Value of a share of Stock on the date of exercise over the exercise price of the Stock Appreciation Right multiplied by the number of shares of Stock with respect to which the Stock Appreciation Right shall have been exercised.

(b) Exercise Price of Stock Appreciation Rights. The exercise price of a Stock Appreciation Right shall not be less than 100 percent of the Fair Market Value of the Stock on the date of grant.

(c) Grant and Exercise of Stock Appreciation Rights. Stock Appreciation Rights may be granted by the Administrator independently of any Stock Option granted pursuant to Section 5 of the Plan.

(d) Terms and Conditions of Stock Appreciation Rights. Stock Appreciation Rights shall be subject to such terms and conditions as shall be determined from time to time by the Administrator. The term of a Stock Appreciation Right may not exceed ten years.

## SECTION 7. RESTRICTED STOCK AWARDS

(a) Nature of Restricted Stock Awards. The Administrator may grant Restricted Stock Awards under the Plan. A Restricted Stock Award is any Award of Restricted Shares subject to such restrictions and conditions as the Administrator may determine at the time of grant. Conditions may be based on continuing employment (or other service relationship) and/or achievement of pre-established performance goals and objectives. The terms and conditions of each such Award Certificate shall be determined by the Administrator, and such terms and conditions may differ among individual Awards and grantees.

(b) Rights as a Stockholder. Upon the grant of the Restricted Stock Award and payment of any applicable purchase price, a grantee shall have the rights of a stockholder with respect to the voting of the Restricted Shares and receipt of dividends; provided that if the lapse of restrictions with respect to the Restricted Stock Award is tied to the attainment of performance goals, any dividends paid by the Company during the performance period shall accrue and shall not be paid to the grantee until and to the extent the performance goals are met with respect to the Restricted Stock Award. Unless the Administrator shall otherwise determine, (i) uncertificated Restricted Shares shall be accompanied by a notation on the records of the Company or the transfer agent to the effect that they are subject to forfeiture until such Restricted Shares are vested as provided in Section 7(d) below, and (ii) certificated Restricted Shares shall remain in the possession of the Company until such Restricted Shares are vested as provided in Section 7(d) below, and the grantee shall be required, as a condition of the grant, to deliver to the Company such instruments of transfer as the Administrator may prescribe.

(c) Restrictions. Restricted Shares may not be sold, assigned, transferred, pledged or otherwise encumbered or disposed of except as specifically provided herein or in the Restricted Stock Award Certificate. Except as may otherwise be provided by the Administrator either in the Award Certificate or, subject to Section 18 below, in writing after the Award is issued, if a grantee’s employment (or other service relationship) with the Company and its Subsidiaries terminates for any reason, any Restricted Shares that have not vested at the time of termination shall automatically and without any requirement of notice to such grantee from or other action by or on behalf of, the Company be deemed to have been reacquired by the Company at its original purchase price (if any) from such grantee or such grantee’s legal representative simultaneously with such termination of employment (or other service

relationship), and thereafter shall cease to represent any ownership of the Company by the grantee or rights of the grantee as a stockholder. Following such deemed reacquisition of Restricted Shares that are represented by physical certificates, a grantee shall surrender such certificates to the Company upon request without consideration.

(d) Vesting of Restricted Shares. The Administrator at the time of grant shall specify the date or dates and/or the attainment of pre-established performance goals, objectives and other conditions on which the non-transferability of the Restricted Shares and the Company's right of repurchase or forfeiture shall lapse. Subsequent to such date or dates and/or the attainment of such pre-established performance goals, objectives and other conditions, the shares on which all restrictions have lapsed shall no longer be Restricted Shares and shall be deemed "vested."

## SECTION 8. RESTRICTED STOCK UNITS

(a) Nature of Restricted Stock Units. The Administrator may grant Restricted Stock Units under the Plan. A Restricted Stock Unit is an Award of stock units that may be settled in shares of Stock upon the satisfaction of such restrictions and conditions at the time of grant. Conditions may be based on continuing employment (or other service relationship) and/or achievement of pre-established performance goals and objectives. The terms and conditions of each such Award Certificate shall be determined by the Administrator, and such terms and conditions may differ among individual Awards and grantees. Except in the case of Restricted Stock Units with a deferred settlement date that complies with Section 409A, at the end of the vesting period, the Restricted Stock Units, to the extent vested, shall be settled in the form of shares of Stock. Restricted Stock Units with deferred settlement dates are subject to Section 409A and shall contain such additional terms and conditions as the Administrator shall determine in its sole discretion in order to comply with the requirements of Section 409A.

(b) Election to Receive Restricted Stock Units in Lieu of Compensation. The Administrator may, in its sole discretion, permit a grantee to elect to receive a portion of future cash compensation otherwise due to such grantee in the form of an award of Restricted Stock Units. Any such election shall be made in writing and shall be delivered to the Company no later than the date specified by the Administrator and in accordance with Section 409A and such other rules and procedures established by the Administrator. Any such future cash compensation that the grantee elects to defer shall be converted to a fixed number of Restricted Stock Units based on the Fair Market Value of Stock on the date the compensation would otherwise have been paid to the grantee if such payment had not been deferred as provided herein. The Administrator shall have the sole right to determine whether and under what circumstances to permit such elections and to impose such limitations and other terms and conditions thereon as the Administrator deems appropriate. Any Restricted Stock Units that are elected to be received in lieu of cash compensation shall be fully vested, unless otherwise provided in the Award Certificate.

(c) Rights as a Stockholder. A grantee shall have the rights as a stockholder only as to shares of Stock acquired by the grantee upon settlement of Restricted Stock Units; provided, however, that the grantee may be credited with Dividend Equivalent Rights with respect to the stock units underlying his Restricted Stock Units, subject to the provisions of Section 11 and such terms and conditions as the Administrator may determine.

(d) Termination. Except as may otherwise be provided by the Administrator either in the Award Certificate or, subject to Section 18 below, in writing after the Award is issued, a grantee's right in all Restricted Stock Units that have not vested shall automatically terminate upon the grantee's termination of employment (or cessation of service relationship) with the Company and its Subsidiaries for any reason.

## SECTION 9. UNRESTRICTED STOCK AWARDS

Grant or Sale of Unrestricted Stock. The Administrator may grant (or sell at par value or such higher purchase price determined by the Administrator) an Unrestricted Stock Award under the Plan. An Unrestricted Stock Award is an Award pursuant to which the grantee may receive shares of Stock free of any restrictions under the Plan. Unrestricted Stock Awards may be granted in respect of past services or other valid consideration, or in lieu of cash compensation due to such grantee.

## SECTION 10. CASH-BASED AWARDS

Grant of Cash-Based Awards. The Administrator may grant Cash-Based Awards under the Plan. A Cash-Based Award is an Award that entitles the grantee to a payment in cash upon the attainment of specified Performance Goals. The Administrator shall determine the maximum duration of the Cash-Based Award, the amount of cash to which the Cash-Based Award pertains, the conditions upon which the Cash-Based Award shall become vested or payable, and such other provisions as the Administrator shall determine. Each Cash-Based Award shall specify a cash-denominated payment amount, formula or payment ranges as determined by the Administrator. Payment, if any, with respect to a Cash-Based Award shall be made in accordance with the terms of the Award and may be made in cash.

## SECTION 11. PERFORMANCE SHARE AWARDS

(a) Nature of Performance Share Awards. The Administrator may grant Performance Share Awards under the Plan. A Performance Share Award is an Award entitling the grantee to receive shares of Stock upon the attainment of performance goals. The Administrator shall determine whether and to whom Performance Share Awards shall be granted, the performance goals, the

periods during which performance is to be measured, which may not be less than one year except in the case of a Sale Event, and such other limitations and conditions as the Administrator shall determine.

(b) Rights as a Stockholder. A grantee receiving a Performance Share Award shall have the rights of a stockholder only as to shares of Stock actually received by the grantee under the Plan and not with respect to shares subject to the Award but not actually received by the grantee. A grantee shall be entitled to receive shares of Stock under a Performance Share Award only upon satisfaction of all conditions specified in the Performance Share Award Certificate (or in a performance plan adopted by the Administrator).

(c) Termination. Except as may otherwise be provided by the Administrator either in the Award agreement or, subject to Section 18 below, in writing after the Award is issued, a grantee's rights in all Performance Share Awards shall automatically terminate upon the grantee's termination of employment (or cessation of service relationship) with the Company and its Subsidiaries for any reason.

## SECTION 12. PERFORMANCE-BASED AWARDS TO COVERED EMPLOYEES

(a) Performance-Based Awards. The Administrator may grant one or more Performance-Based Awards in the form of a Restricted Stock Award, Restricted Stock Units, Performance Share Awards or Cash-Based Award payable upon the attainment of Performance Goals that are established by the Administrator and relate to one or more of the Performance Criteria, in each case on a specified date or dates or over any period or periods determined by the Administrator. The Administrator shall define in an objective fashion the manner of calculating the Performance Criteria it selects to use for any Performance Cycle. Depending on the Performance Criteria used to establish such Performance Goals, the Performance Goals may be expressed in terms of overall Company performance or the performance of a division, business unit, or an individual. Each Performance-Based Award shall comply with the provisions set forth below.

(b) Grant of Performance-Based Awards. With respect to each Performance-Based Award granted to a Covered Employee, the Administrator shall select, within the first 90 days of a Performance Cycle (or, if shorter, within the maximum period allowed under Section 162(m) of the Code) the Performance Criteria for such grant, and the Performance Goals with respect to each Performance Criterion (including a threshold level of performance below which no amount will become payable with respect to such Award). Each Performance-Based Award will specify the amount payable, or the formula for determining the amount payable, upon achievement of the various applicable performance targets. The Performance Criteria established by the Administrator may be (but need not be) different for each Performance Cycle and different Performance Goals may be applicable to Performance-Based Awards to different Covered Employees.

(c) Payment of Performance-Based Awards. Following the completion of a Performance Cycle, the Administrator shall meet to review and certify in writing whether, and to what extent, the Performance Goals for the Performance Cycle have been achieved and, if so, to also calculate and certify in writing the amount of the Performance-Based Awards earned for the Performance Cycle. The Administrator shall then determine the actual size of each Covered Employee's Performance-Based Award.

(d) Maximum Award Payable. The maximum Performance-Based Award payable to any one Covered Employee under the Plan for a Performance Cycle is 500,000 shares of Stock (subject to adjustment as provided in Section 3(b) hereof) or \$10,000,000 in the case of a Performance-Based Award that is a Cash-Based Award.

## SECTION 13. DIVIDEND EQUIVALENT RIGHTS

(a) Dividend Equivalent Rights. The Administrator may grant Dividend Equivalent Rights under the Plan. A Dividend Equivalent Right is an Award entitling the grantee to receive credits based on cash dividends that would have been paid on the shares of Stock specified in the Dividend Equivalent Right (or other Award to which it relates) if such shares had been issued to the grantee. A Dividend Equivalent Right may be granted hereunder to any grantee as a component of an award of Restricted Stock Units, Restricted Stock Award or Performance Share Award or as a freestanding award. The terms and conditions of Dividend Equivalent Rights shall be specified in the Award Certificate. Dividend equivalents credited to the holder of a Dividend Equivalent Right may be paid currently or may be deemed to be reinvested in additional shares of Stock, which may thereafter accrue additional equivalents. Any such reinvestment shall be at Fair Market Value on the date of reinvestment or such other price as may then apply under a dividend reinvestment plan sponsored by the Company, if any. Dividend Equivalent Rights may be settled in cash or shares of Stock or a combination thereof, in a single installment or installments. A Dividend Equivalent Right granted as a component of an Award of Restricted Stock Units or Performance Share Award shall provide that such Dividend Equivalent Right shall be settled only upon settlement or payment of, or lapse of restrictions on, such other Award, and that such Dividend Equivalent Right shall expire or be forfeited or annulled under the same conditions as such other Award.

(b) Termination. Except as may otherwise be provided by the Administrator either in the Award Certificate or, subject to Section 18 below, in writing after the Award is issued, a grantee's rights in all Dividend Equivalent Rights shall automatically terminate upon the grantee's termination of employment (or cessation of service relationship) with the Company and its Subsidiaries for any reason.

#### SECTION 14. TRANSFERABILITY OF AWARDS

(a) Transferability. Except as provided in Section 14(b) below, during a grantee's lifetime, his or her Awards shall be exercisable only by the grantee, or by the grantee's legal representative or guardian in the event of the grantee's incapacity. No Awards shall be sold, assigned, transferred or otherwise encumbered or disposed of by a grantee other than by will or by the laws of descent and distribution or pursuant to a domestic relations order. No Awards shall be subject, in whole or in part, to attachment, execution, or levy of any kind, and any purported transfer in violation hereof shall be null and void.

(b) Administrator Action. Notwithstanding Section 14(a), the Administrator, in its discretion, may provide either in the Award Certificate regarding a given Award or by subsequent written approval that the grantee (who is an employee or director) may transfer his or her Non-Qualified Options to his or her immediate family members, to trusts for the benefit of such family members, or to partnerships in which such family members are the only partners, provided that the transferee agrees in writing with the Company to be bound by all of the terms and conditions of this Plan and the applicable Award. In no event may an Award be transferred by a grantee for value.

(c) Family Member. For purposes of Section 14(b), "family member" shall mean a grantee's child, stepchild, grandchild, parent, stepparent, grandparent, spouse, former spouse, sibling, niece, nephew, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law, or sister-in-law, including adoptive relationships, any person sharing the grantee's household (other than a tenant of the grantee), a trust in which these persons (or the grantee) have more than 50 percent of the beneficial interest, a foundation in which these persons (or the grantee) control the management of assets, and any other entity in which these persons (or the grantee) own more than 50 percent of the voting interests.

(d) Designation of Beneficiary. To the extent permitted by the Company, each grantee to whom an Award has been made under the Plan may designate a beneficiary or beneficiaries to exercise any Award or receive any payment under any Award payable on or after the grantee's death. Any such designation shall be on a form provided for that purpose by the Administrator and shall not be effective until received by the Administrator. If no beneficiary has been designated by a deceased grantee, or if the designated beneficiaries have predeceased the grantee, the beneficiary shall be the grantee's estate.

#### SECTION 15. TAX WITHHOLDING

(a) Payment by Grantee. Each grantee shall, no later than the date as of which the value of an Award or of any Stock or other amounts received thereunder first becomes includable in the gross income of the grantee for Federal income tax purposes, pay to the Company, or make arrangements satisfactory to the Administrator regarding payment of, any Federal, state, or local taxes of any kind required by law to be withheld by the Company with respect to such income. The Company and its Subsidiaries shall, to the extent permitted by law, have the right to deduct any such taxes from any payment of any kind otherwise due to the grantee. The Company's obligation to deliver evidence of book entry (or stock certificates) to any grantee is subject to and conditioned on tax withholding obligations being satisfied by the grantee.

(b) Payment in Stock. Subject to approval by the Administrator, a grantee may elect to have the Company's minimum required tax withholding obligation satisfied, in whole or in part, by authorizing the Company to withhold from shares of Stock to be issued pursuant to any Award a number of shares with an aggregate Fair Market Value (as of the date the withholding is effected) that would satisfy the withholding amount due. The Administrator may also require Awards to be subject to mandatory share withholding up to the required withholding amount. For purposes of share withholding, the Fair Market Value of withheld shares shall be determined in the same manner as the value of Stock includible in income of the Participants.

#### SECTION 16. SECTION 409A AWARDS

To the extent that any Award is determined to constitute "nonqualified deferred compensation" within the meaning of Section 409A (a "409A Award"), the Award shall be subject to such additional rules and requirements as specified by the Administrator from time to time in order to comply with Section 409A. In this regard, if any amount under a 409A Award is payable upon a "separation from service" (within the meaning of Section 409A) to a grantee who is then considered a "specified employee" (within the meaning of Section 409A), then no such payment shall be made prior to the date that is the earlier of (i) six months and one day after the grantee's separation from service, or (ii) the grantee's death, but only to the extent such delay is necessary to prevent such payment from being subject to interest, penalties and/or additional tax imposed pursuant to Section 409A. Further, the settlement of any such Award may not be accelerated except to the extent permitted by Section 409A.

#### SECTION 17. TERMINATION OF EMPLOYMENT, TRANSFER, LEAVE OF ABSENCE, ETC.

(a) Termination of Employment. If the grantee's employer ceases to be a Subsidiary, the grantee shall be deemed to have terminated employment for purposes of the Plan.

(b) For purposes of the Plan, the following events shall not be deemed a termination of employment:

(i) a transfer to the employment of the Company from a Subsidiary or from the Company to a Subsidiary, or from one Subsidiary to another; or

(ii) an approved leave of absence for military service or sickness, or for any other purpose approved by the Company, if the employee's right to re-employment is guaranteed either by a statute or by contract or under the policy pursuant to which the leave of absence was granted or if the Administrator otherwise so provides in writing.

## SECTION 18. AMENDMENTS AND TERMINATION

The Board may, at any time, amend or discontinue the Plan and the Administrator may, at any time, amend or cancel any outstanding Award for the purpose of satisfying changes in law or for any other lawful purpose, but no such action shall adversely affect rights under any outstanding Award without the holder's consent. Except as provided in Section 3(c) or 3(d), without prior stockholder approval, in no event may the Administrator exercise its discretion to reduce the exercise price of outstanding Stock Options or Stock Appreciation Rights or effect repricing through cancellation and re-grants or cancellation of Stock Options or Stock Appreciation Rights in exchange for cash. To the extent required under the rules of any securities exchange or market system on which the Stock is listed, to the extent determined by the Administrator to be required by the Code to ensure that Incentive Stock Options granted under the Plan are qualified under Section 422 of the Code, or to ensure that compensation earned under Awards qualifies as performance-based compensation under Section 162(m) of the Code, Plan amendments shall be subject to approval by the Company stockholders entitled to vote at a meeting of stockholders. Nothing in this Section 18 shall limit the Administrator's authority to take any action permitted pursuant to Section 3(b) or 3(c).

## SECTION 19. STATUS OF PLAN

With respect to the portion of any Award that has not been exercised and any payments in cash, Stock or other consideration not received by a grantee, a grantee shall have no rights greater than those of a general creditor of the Company unless the Administrator shall otherwise expressly determine in connection with any Award or Awards. In its sole discretion, the Administrator may authorize the creation of trusts or other arrangements to meet the Company's obligations to deliver Stock or make payments with respect to Awards hereunder, provided that the existence of such trusts or other arrangements is consistent with the foregoing sentence.

## SECTION 20. GENERAL PROVISIONS

(a) No Distribution. The Administrator may require each person acquiring Stock pursuant to an Award to represent to and agree with the Company in writing that such person is acquiring the shares without a view to distribution thereof.

(b) Delivery of Stock Certificates. Stock certificates to grantees under this Plan shall be deemed delivered for all purposes when the Company or a stock transfer agent of the Company shall have mailed such certificates in the United States mail, addressed to the grantee, at the grantee's last known address on file with the Company. Uncertificated Stock shall be deemed delivered for all purposes when the Company or a Stock transfer agent of the Company shall have given to the grantee by electronic mail (with proof of receipt) or by United States mail, addressed to the grantee, at the grantee's last known address on file with the Company, notice of issuance and recorded the issuance in its records (which may include electronic "book entry" records). Notwithstanding anything herein to the contrary, the Company shall not be required to issue or deliver any certificates evidencing shares of Stock pursuant to the exercise of any Award, unless and until the Administrator has determined, with advice of counsel (to the extent the Administrator deems such advice necessary or advisable), that the issuance and delivery of such certificates is in compliance with all applicable laws, regulations of governmental authorities and, if applicable, the requirements of any exchange on which the shares of Stock are listed, quoted or traded. All Stock certificates delivered pursuant to the Plan shall be subject to any stop-transfer orders and other restrictions as the Administrator deems necessary or advisable to comply with federal, state or foreign jurisdiction, securities or other laws, rules and quotation system on which the Stock is listed, quoted or traded. The Administrator may place legends on any Stock certificate to reference restrictions applicable to the Stock. In addition to the terms and conditions provided herein, the Administrator may require that an individual make such reasonable covenants, agreements, and representations as the Administrator, in its discretion, deems necessary or advisable in order to comply with any such laws, regulations, or requirements. The Administrator shall have the right to require any individual to comply with any timing or other restrictions with respect to the settlement or exercise of any Award, including a window-period limitation, as may be imposed in the discretion of the Administrator.

(c) Stockholder Rights. Until Stock is deemed delivered in accordance with Section 20(b), no right to vote or receive dividends or any other rights of a stockholder will exist with respect to shares of Stock to be issued in connection with an Award, notwithstanding the exercise of a Stock Option or any other action by the grantee with respect to an Award.

(d) Other Compensation Arrangements; No Employment Rights. Nothing contained in this Plan shall prevent the Board from adopting other or additional compensation arrangements, including trusts, and such arrangements may be either generally applicable or applicable only in specific cases. The adoption of this Plan and the grant of Awards do not confer upon any employee any right to continued employment with the Company or any Subsidiary.

(e) Trading Policy Restrictions. Option exercises and other Awards under the Plan shall be subject to the Company's insider trading policies and procedures, as in effect from time to time.

(f) Clawback Policy. Awards under the Plan shall be subject to the Company's clawback policy, as in effect from time to time.

#### SECTION 21. EFFECTIVE DATE OF PLAN

This Plan shall become effective on the Effective Date upon stockholder approval of the Plan in accordance with applicable state law, the Company's bylaws and articles of incorporation, and applicable stock exchange rules or pursuant to written consent. No grants of Stock Options and other Awards may be made hereunder after the tenth anniversary of the Effective Date and no grants of Incentive Stock Options may be made hereunder after the tenth anniversary of the date the Plan is approved by the Board.

#### SECTION 22. GOVERNING LAW

This Plan and all Awards and actions taken thereunder shall be governed by, and construed in accordance with, the laws of the State of Delaware, applied without regard to conflict of law principles.

DATE APPROVED BY BOARD OF DIRECTORS: September 11, 2014

DATE APPROVED BY STOCKHOLDERS: October 30, 2014

ACTIVE/76963919.2

## CERTIFICATION

I, Joseph Shaulson, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Metabolix, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: August 13, 2015

/s/ JOSEPH SHAULSON

Name: Joseph Shaulson  
 Title: *President and Chief Executive Officer  
 (Principal Executive Officer)*

## CERTIFICATION

I, Charles B. Haaser, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Metabolix, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: August 13, 2015

/s/ CHARLES B. HAASER

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

**CERTIFICATION PURSUANT TO  
18 U.S.C. SECTION 1350,  
AS ADOPTED PURSUANT TO  
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the quarterly report on Form 10-Q of Metabolix, Inc. (the "Company") for the quarter ended June 30, 2015 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), we, Joseph Shaulson, President, Chief Executive Officer and Principal Executive Officer of the Company and Charles B. Haaser, Chief Accounting Officer and Principal Financial and Accounting Officer of the Company, certify, pursuant to 18 U.S.C. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, to our knowledge that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934, as amended; and
2. The information in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

This certification is being provided pursuant to 18 U.S.C. 1350 and is not to be deemed a part of the Report, nor is it to be deemed to be "filed" for any purpose whatsoever.

Dated: August 13, 2015

/s/ JOSEPH SHAULSON

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

Dated: August 13, 2015

/s/ CHARLES B. HAASER

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