

# METABOLIX, INC.

## FORM DEF 14A (Proxy Statement (definitive))

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Telephone	617-583-1700
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UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 14A

Proxy Statement Pursuant to Section 14(a) of  
the Securities Exchange Act of 1934 (Amendment No. )

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

- Preliminary Proxy Statement
- Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))**
- Definitive Proxy Statement
- Definitive Additional Materials
- Soliciting Material under §240.14a-12

**Metabolix, Inc.**

(Name of Registrant as Specified In Its Charter)

(Name of Person(s) Filing Proxy Statement, if other than the Registrant)

Payment of Filing Fee (Check the appropriate box):

- No fee required.
- Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.
- (1) Title of each class of securities to which transaction applies: \_\_\_\_\_
- (2) Aggregate number of securities to which transaction applies: \_\_\_\_\_
- (3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which the filing fee is calculated and state how it was determined): \_\_\_\_\_
- (4) Proposed maximum aggregate value of transaction: \_\_\_\_\_
- (5) Total fee paid: \_\_\_\_\_
- Fee paid previously with preliminary materials.
- Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.
- (1) Amount Previously Paid: \_\_\_\_\_
- (2) Form, Schedule or Registration Statement No.: \_\_\_\_\_
- (3) Filing Party: \_\_\_\_\_
- (4) Date Filed: \_\_\_\_\_



April 27, 2015

Dear Stockholder:

You are cordially invited to attend the 2015 Annual Meeting of Stockholders of Metabolix, Inc. to be held on Thursday, May 28, 2015, at 9:30 a.m., Eastern time, at the offices of Goodwin Procter LLP at Exchange Place, 53 State Street, Boston, MA 02109. Directions to the location of the Annual Meeting can be found at <http://ir.metabolix.com/index.cfm>.

At this Annual Meeting, you will be asked to elect two Class III Directors for three-year terms and to ratify the appointment of PricewaterhouseCoopers LLP as our independent registered public accounting firm for the year ending December 31, 2015. The Board of Directors unanimously recommends that you vote FOR the election of the director nominees and FOR the ratification of the appointment of PricewaterhouseCoopers LLP.

Details regarding the matters to be acted upon at this Annual Meeting appear in the accompanying proxy statement. Please give this material your careful attention.

Whether or not you plan to attend the Annual Meeting, we urge you to complete, sign, date and mail promptly the enclosed proxy which is being solicited on behalf of the Board of Directors so that your shares will be represented at the Annual Meeting. A return envelope which requires no postage if mailed in the United States is enclosed for that purpose. You need to vote in accordance with the instructions listed on the proxy card. If shares are held in a bank or brokerage account, you may be eligible to vote electronically or by telephone. Please refer to the enclosed voting instruction form for instructions. If you attend the Annual Meeting, you may vote in person even if you have previously returned your proxy card. Your prompt cooperation will be greatly appreciated.

Very truly yours,

A handwritten signature in black ink, appearing to read "Joe Shaulson", written in a cursive style.

JOSEPH SHAULSON  
*President and Chief Executive Officer*

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**METABOLIX, INC.**

**21 Erie Street  
Cambridge, Massachusetts 02139  
(617) 583-1700**

**NOTICE OF ANNUAL MEETING OF STOCKHOLDERS**

**TO BE HELD ON MAY 28, 2015**

To the Stockholders of Metabolix, Inc.:

The 2015 Annual Meeting of Stockholders of Metabolix, Inc., a Delaware corporation, will be held on Thursday, May 28, 2015, at 9:30 a.m., Eastern time, at the offices of Goodwin Procter LLP at Exchange Place, 53 State Street, Boston, MA 02109, for the following purposes:

1. To elect two (2) Class III Directors, nominated by the Board of Directors, to the Board of Directors, each to serve for a three-year term and until his successor has been duly elected and qualified or until his earlier death, resignation or removal;
2. To ratify the appointment of PricewaterhouseCoopers LLP as our independent registered public accounting firm for the year ending December 31, 2015; and
3. To transact such other business as may properly come before the Annual Meeting and any adjournments or postponements thereof.

Proposal 1 relates solely to the election of two (2) Class III Directors nominated by the Board of Directors and does not include any other matters relating to the election of directors, including without limitation the election of directors nominated by any stockholder of the Company.

Only stockholders of record at the close of business on April 1, 2015, are entitled to notice of and to vote at the Annual Meeting and at any adjournment or postponement thereof.

All stockholders are cordially invited to attend the Annual Meeting in person. However, to assure your representation at the Annual Meeting, we urge you, whether or not you plan to attend the Annual Meeting, to complete, sign, date and mail promptly the enclosed proxy which is being solicited on behalf of the Board of Directors so that your shares will be represented at the Annual Meeting. A return envelope which requires no postage if mailed in the United States is enclosed for that purpose. You need to vote in accordance with the instructions listed on the proxy card. If shares are held in a bank or brokerage account, you may be eligible to vote electronically or by telephone. Please refer to the enclosed voting instruction form for instructions. If you attend the Annual Meeting, you may vote in person even if you have previously returned your proxy card.

By Order of the Board of Directors,

SARAH P. CECIL



Secretary

Cambridge, Massachusetts

April 27, 2015

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WHETHER OR NOT YOU EXPECT TO ATTEND THE ANNUAL MEETING, PLEASE COMPLETE, SIGN, DATE AND MAIL PROMPTLY THE ENCLOSED PROXY WHICH IS BEING SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS SO THAT YOUR SHARES WILL BE REPRESENTED AT THE ANNUAL MEETING. A RETURN ENVELOPE WHICH REQUIRES NO POSTAGE IF MAILED IN THE UNITED STATES IS ENCLOSED FOR THAT PURPOSE. YOU NEED TO VOTE IN ACCORDANCE WITH THE INSTRUCTIONS LISTED ON THE PROXY CARD. IF SHARES ARE HELD IN A BANK OR BROKERAGE ACCOUNT, YOU MAY BE ELIGIBLE TO VOTE ELECTRONICALLY OR BY TELEPHONE. PLEASE REFER TO THE ENCLOSED VOTING INSTRUCTION FORM FOR INSTRUCTIONS.

IN ACCORDANCE WITH OUR SECURITY PROCEDURES, ALL PERSONS ATTENDING THE ANNUAL MEETING MAY BE REQUIRED TO PRESENT PICTURE IDENTIFICATION.

**METABOLIX, INC.**

**21 Erie Street  
Cambridge, Massachusetts 02139**

**PROXY STATEMENT**

**For the Annual Meeting of Stockholders  
To Be Held on May 28, 2015**

**April 27, 2015**

Proxies in the form enclosed with this Proxy Statement are solicited by the Board of Directors of Metabolix, Inc., a Delaware corporation ("Metabolix" or the "Company"), for use at the Annual Meeting of Stockholders of Metabolix to be held on Thursday, May 28, 2015, at 9:30 a.m., Eastern time, or at any adjournments or postponements thereof (the "Annual Meeting") at the offices of Goodwin Procter LLP at Exchange Place, 53 State Street, Boston, MA 02109. Directions to the location of the Annual Meeting are available at <http://ir.metabolix.com/index.cfm>. An Annual Report to Stockholders, containing financial statements for the fiscal year ended December 31, 2014, is being mailed together with this proxy statement to all stockholders entitled to vote at the Annual Meeting. This Proxy Statement and the form of proxy were first sent or given to stockholders on or about April 27, 2015.

The purpose of the Annual Meeting is to elect two Class III Directors for three-year terms and to ratify the appointment of PricewaterhouseCoopers LLP as our independent registered public accounting firm for the year ending December 31, 2015. Only stockholders of record at the close of business on April 1, 2015 (the "Record Date") will be entitled to receive notice of and to vote at the Annual Meeting. As of the Record Date, 135,353,764 shares of common stock, \$0.01 par value per share, of the Company ("Common Stock") were issued, outstanding and entitled to vote.

## VOTING

The holders of Common Stock are entitled to one vote per share on any proposal presented at the Annual Meeting. Stockholders may vote in person or by proxy. Stockholders may vote by proxy by completing, signing, dating and returning the accompanying proxy card in the postage-prepaid envelope enclosed for that purpose in accordance with the instructions listed on the proxy card. Execution of a proxy will not in any way affect a stockholder's right to attend the Annual Meeting and vote in person.

Any proxy given pursuant to this solicitation may be revoked by the person giving it any time before the taking of the vote at the Annual Meeting. Proxies may be revoked by (1) filing with the Secretary of Metabolix, before the taking of the vote at the Annual Meeting, a written notice of revocation bearing a later date than the proxy, (2) duly executing a later-dated proxy relating to the same shares and delivering it to the Secretary of Metabolix, in accordance with the instructions listed on the proxy card, before the taking of the vote at the Annual Meeting, or (3) if shares are held in a bank or brokerage account and if eligible, by transmitting a subsequent vote over the Internet or by telephone, or (4) attending the Annual Meeting and voting in person (although attendance at the Annual Meeting will not in and of itself constitute a revocation of a proxy). Any written notice of revocation or subsequent proxy should be sent to Metabolix, Inc., 21 Erie Street, Cambridge, MA 02139, Attention: Secretary, so as to be delivered before the taking of the vote at the Annual Meeting.

If your shares are held by a broker on your behalf (that is, in "street name"), you may be required to present an account statement or letter from your bank or brokerage firm showing that you are the beneficial owner of the shares as of the Record Date in order to be admitted to the meeting on May 28, 2015. To be able to vote your shares held in street name at the meeting, you will need to obtain a proxy from the holder of record.

The persons named as attorneys-in-fact in the proxies, Joseph Shaulson and Sarah P. Cecil, were selected by the Board of Directors and are officers of the Company. All properly executed proxies returned in time to be counted at the Annual Meeting will be voted by such persons at the Annual Meeting as stated below. When a choice has been specified on the proxy with respect to a matter, the shares represented by the proxy will be voted in accordance with the specifications. If a proxy is submitted without giving voting instructions, such shares will be voted:

- FOR election of the director nominees,
- FOR the ratification of the appointment of PricewaterhouseCoopers LLP, and
- as the persons named as proxies may determine in their discretion with respect to any other matters properly presented at the meeting.

The representation in person or by proxy of at least a majority of the outstanding shares of Common Stock entitled to vote at the Annual Meeting is necessary to constitute a quorum for the transaction of business. Votes withheld from any nominee, abstentions and broker "non-votes" are counted as present or represented for purposes of determining the presence or absence of a quorum for the Annual Meeting. A "non-vote" occurs when a nominee holding shares for a beneficial owner votes on one proposal but does not vote on another proposal because, with respect to such other proposal, the nominee does not have discretionary voting power and has not received instructions from the beneficial owner.

If your shares are held in street name, and you do not instruct the broker as to how to vote your shares on the ratification of the appointment of PricewaterhouseCoopers LLP as our independent registered public accounting firm for the year ending December 31, 2015, the broker may exercise its discretion to vote for or against that proposal. If, however, you do not instruct the broker as to how to vote your shares on Proposal 1 (the election of directors), the broker may not exercise discretion to vote with respect to the election of the nominees. This would be a "broker non-vote" and these shares will not be counted as having been voted on that proposal. **Please vote your proxy so your vote can be counted.**

**Proposal 1: Election of Directors.** Directors are elected by a plurality of the votes cast, in person or by proxy, at the Annual Meeting. The two nominees who receive the highest number of affirmative votes of the shares present or represented and voting on the election of directors at the Annual Meeting will be elected to the Board of Directors. Any stockholder submitting a proxy has the right to withhold authority to vote for any individual nominee to the Board by checking the box "For All Except" and marking the nominee's name in the space provided on the

proxy card. Proxies that are submitted and not so marked as to withhold authority to vote for a particular nominee will be voted FOR that nominee and will be counted toward such nominee's achievement of a plurality. Shares present at the meeting or represented by proxy where the stockholder properly withholds authority to vote for such nominee in accordance with the proxy instructions will not be counted toward such nominee's achievement of plurality.

**Proposal 2: Ratification of Independent Registered Public Accounting Firm.** The affirmative vote of a majority of the shares of common stock cast by the stockholders present in person or represented by proxy at the Annual Meeting is required to ratify the selection of PricewaterhouseCoopers LLP as our independent registered public accounting firm for the year ending December 31, 2015. Shares voted to abstain are included in the number of shares present or represented and voting on Proposal 2.

**Other Matters.** The Board knows of no other matters to be presented at the Annual Meeting. If any other matter should be presented at the Annual Meeting upon which a vote properly may be taken, the affirmative vote of the majority of shares present, in person or represented by proxy, and voting on that matter is required for approval and all such shares represented by proxies received by the Board will be voted with respect thereto in accordance with the judgment of the persons named as attorneys in the proxies. Shares voted to abstain are included in the number of shares present or represented and voting on each matter.

**Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting: The proxy statement and annual report to stockholders are available for viewing, printing and downloading at <http://ir.metabolix.com/index.cfm>.**

## SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information regarding beneficial ownership of the Company's Common Stock as of April 1, 2015: (i) by each person known to us to be the beneficial owner of more than 5% of our outstanding shares of Common Stock; (ii) by each of our directors and nominees; (iii) by each of our named executive officers; and (iv) by all of our directors and executive officers as a group. Unless otherwise noted below, the address of each person listed on the table is c/o Metabolix, Inc., 21 Erie Street, Cambridge, Massachusetts 02139.

Beneficial Owner	Shares of Common Stock(1)	Options Exercisable Within 60 Days(2)	Total Shares Beneficially Owned	Percentage of Outstanding Shares(3)
<b>5% Stockholders:</b>				
Jack W. Schuler(4) 28161 North Keith Drive Lake Forest, IL 60045	51,840,695	—	51,840,695	38.3%
William P. Scully(5) 771 Manatee Cove Vero Beach, FL 32963	17,600,000	—	17,600,000	13.0%
Larry N. Feinberg(6) 200 Greenwich Avenue, 3rd Floor Greenwich, CT 06830	8,000,000	—	8,000,000	5.9%
<b>Directors, Nominees and Named Executive Officers:</b>				
Peter N. Kellogg	—	150,000	150,000	*
Celeste Beeks Mastin	—	100,000	100,000	*
Oliver P. Peoples(7)	1,193,679	560,815	1,754,494	1.3%
Joseph Shaulson(8)	273,504	—	273,504	*
Anthony J. Sinskey(9)	359,346	150,000	509,346	*
Matthew Strobeck(10)	12,835,614	100,000	12,935,614	9.5%
Robert L. Van Nostrand	20,000	165,000	185,000	*
Charles B. Haaser(11)	11,030	130,875	141,905	*
Johan van Walsem(12)	659,914	416,874	1,076,788	*
Lynne H. Brum(13)	35,043	65,625	100,668	*
Joseph D. Hill(14)	17,771	—	17,771	*
All Directors and executive officers as a group (11 persons)(15)	15,420,718	2,107,711	17,528,429	12.8%

\* less than 1%.

- (1) Beneficial ownership, as such term is used herein, is determined in accordance with Rule 13d-3(d)(1) promulgated under the Securities Exchange Act of 1934, as amended, and includes voting and/or investment power with respect to shares of our Common Stock. Unless otherwise indicated, the named person possesses sole voting and investment power with respect to the shares.
- (2) Consists of shares of Common Stock subject to stock options held by the person that are currently exercisable or exercisable within 60 days after April 1, 2015.
- (3) Percentages of ownership are based upon 135,353,764 shares of Common Stock issued and outstanding as of April 1, 2015. Shares of Common Stock that may be acquired pursuant to options that are exercisable within 60 days after April 1, 2015 are deemed outstanding for computing the percentage ownership of the person holding such options, but are not deemed outstanding for the percentage ownership of any other person.
- (4) Information regarding Mr. Schuler is based solely on a Schedule 13D filed with the SEC on August 29, 2014. According to such Schedule 13D, Mr. Schuler reported sole voting and dispositive power as to 3,124,876 shares and shared voting and dispositive power as to 48,715,819 shares.





- (5) Information regarding Mr. Scully is based solely on a Schedule 13D filed with the SEC on August 29, 2014. According to such Schedule 13D, Mr. Scully reported sole voting power and sole dispositive power as to all of the shares.
- (6) Information regarding Mr. Feinberg is based solely on a Schedule 13G/A filed with the SEC on January 30, 2015. According to such Schedule 13G/A, Mr. Feinberg reported shared voting power as to all of the shares.
- (7) Includes 27,391 shares held for Dr. Peoples in the Company's 401(k) plan.
- (8) Includes 23,504 shares held for Mr. Shaulson in the Company's 401(k) plan and 250,000 shares of Common Stock purchased by Mr. Shaulson in January 2015 pursuant to his employment contract.
- (9) Includes 49,346 shares owned by Dr. Sinskey's spouse and 10,000 shares owned by a trust over which Dr. Sinskey may be deemed to share voting and investment power. Dr. Sinskey disclaims beneficial ownership of such shares.
- (10) Includes 4,000,000 shares held by Birchview Fund, LLC. Mr. Strobeck is the sole member of Birchview Capital GP, LLC (the "GP"), the general partner of Birchview Capital, LP (the "Investment Manager"), which is the investment Manager of Birchview Fund, LLC (the "Fund") and the sole member of Birchview Partners, LLC (the "Manager"), which is a member of the Fund. Mr. Strobeck disclaims Section 16 beneficial ownership of the shares of Common Stock held by the Fund (collectively, the "Fund Shares"), except to the extent of his pecuniary interest, if any, in the Fund Shares by virtue of his membership interest in the GP. Also includes 400,000 shares held in accounts for minor children for which Dr. Strobeck serves as a custodian, 89,695 shares held by Dr. Strobeck's spouse as custodian for their children, and 40,919 shares held indirectly by a trust for the benefit of Dr. Strobeck's children. Dr. Strobeck is a trustee of the trust. Dr. Strobeck disclaims beneficial ownership of these shares except to the extent of his pecuniary interest in them, if any.
- (11) Includes 10,030 shares held for Mr. Haaser in the Company's 401(k) plan.
- (12) Includes 27,914 shares held for Mr. van Walsem in the Company's 401(k) plan.
- (13) Includes 25,043 shares held for Ms. Brum in the Company's 401(k) plan.
- (14) Consists of shares held for Mr. Hill in the Company's 401(k) plan.
- (15) Includes a total of 145,970 shares held for current executive officers in the Company's 401(k) plan.

## **PROPOSAL 1**

### **ELECTION OF DIRECTORS**

#### **Nominees**

The Company's Board of Directors currently consists of seven (7) members. The Board of Directors has fixed the number of directors, as of the date of the Annual Meeting, at seven (7). The Company's amended and restated certificate of incorporation divides the Board of Directors into three classes. One class is elected each year for a term of three years and until their successors have been duly elected and qualified, or until their earlier death, resignation or removal. The Board of Directors, upon the recommendation of the Nominating and Corporate Governance Committee, has nominated Anthony J. Sinskey and Matthew Strobeck, and recommends that each be elected to the Board of Directors as a Class III Director, each to hold office until the annual meeting of stockholders to be held in the year 2018 and until his successor has been duly elected and qualified or until his earlier death, resignation or removal. Both of the nominees are Class III Directors whose terms expire at this Annual Meeting. The Board of Directors is also composed of (i) three Class I Directors (Peter N. Kellogg, Celeste Beeks Mastin and Robert L. Van Nostrand), whose terms expire at the annual meeting of stockholders to be held in 2016, and (ii) two Class II Directors (Oliver P. Peoples and Joseph Shaulson), whose terms expire at the annual meeting of stockholders to be held in 2017. Mr. Van Nostrand serves as the Chairman of the Board of Directors.

The Board of Directors knows of no reason why either of the nominees would be unable or unwilling to serve, but if either nominee should for any reason be unable or unwilling to serve, the proxies will be voted for the election of such other person for the office of director as the Board of Directors may recommend in the place of such nominee. Unless otherwise instructed, the proxy holders will vote the proxies received by them for the nominees named below.



## Recommendation of the Board

The Board of Directors unanimously recommends that you vote "FOR" the nominees listed below.

The following table sets forth the nominees to be elected at the Annual Meeting and the continuing directors, the year each such nominee or director was first elected a director, the positions with the Company currently held by each such nominee or director, the year each nominee's or continuing director's current term will expire, and each nominee's and continuing director's current class:

Nominee's or Director's Name	Year First Became Director	Position(s) with the Company	Year Current Term Will Expire	Current Director Class
<b>Nominees for Class III Directors:</b>				
Anthony J. Sinskey, Sc.D.	1992	Director	2015	III
Matthew Strobeck, Ph.D.	2006	Director	2015	III
<b>Continuing Directors:</b>				
Peter N. Kellogg	2007	Director	2016	I
Celeste Beeks Mastin	2012	Director	2016	I
Robert L. Van Nostrand	2006	Director	2016	I
Oliver P. Peoples, Ph.D.	1992	Chief Scientific Officer, Director	2017	II
Joseph Shaulson	2013	President, Chief Executive Officer, Director	2017	II

## DIRECTORS AND EXECUTIVE OFFICERS

The Company's executive officers are appointed on an annual basis by, and serve at the discretion of the Board. Each executive officer is a full-time employee of Metabolix. The following table sets forth the directors and executive officers of the Company, their ages, and the positions currently held by each such person with the Company as of the date of this proxy statement:

Name	Age	Position
Peter N. Kellogg(1)	59	Director
Celeste Beeks Mastin(2)(3)	46	Director
Oliver P. Peoples, Ph.D.	57	Chief Scientific Officer, Director
Joseph Shaulson	49	President and Chief Executive Officer, Director
Anthony J. Sinskey, Sc.D.(2)(3)	75	Director
Matthew Strobeck, Ph.D.(1)	42	Director
Robert L. Van Nostrand(1)(2)	58	Chairman of the Board, Director
Charles B. Haaser	59	Chief Accounting Officer and Treasurer
Johan van Walsem	52	Chief Operating Officer
Lynne H. Brum	51	Vice President, Marketing and Corporate Communications
Sarah P. Cecil	63	General Counsel and Secretary

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- (1) Member of the Audit Committee
  - (2) Member of the Compensation Committee
  - (3) Member of the Nominating and Corporate Governance Committee

## BIOGRAPHICAL INFORMATION

*Peter N. Kellogg* has served as a director of Metabolix since March 2007. He was named Executive Vice President and Chief Financial Officer of Celgene Corporation in August 2014. Previously, Mr. Kellogg was Chief Financial Officer and Executive Vice President of Merck & Co. Inc. since August 2007. From 2000 to 2007, Mr. Kellogg served as Chief Financial Officer and Executive Vice President of Finance (since 2003) at Biogen Idec Inc. and the former Biogen, Inc. Before that, he served as Senior Vice President, PepsiCo E-Commerce at PepsiCo Inc. from March to July 2000 and as Senior Vice President and Chief Financial Officer, Frito-Lay International, from March 1998 to March 2000. From 1987 to 1998, he served in a variety of senior financial, international and general management positions at PepsiCo and the Pepsi-Cola International, Pepsi-Cola North America, and Frito-Lay International divisions. Prior to joining PepsiCo, Mr. Kellogg was a senior consultant with Arthur Andersen & Co. and Booz Allen & Hamilton. He received a BSE from Princeton University in 1978 and an MBA from The Wharton School in 1982. The Board of Directors has concluded that Mr. Kellogg should serve as a director because his experience in finance, biotechnology and branded consumer products will be valuable to Metabolix. Mr. Kellogg brings valuable insights from his current and prior positions that contribute to his role on the Board. He also serves as an important resource on the Audit Committee.

*Celeste Beeks Mastin* became a director of the Company in January 2012. Ms. Mastin became the CEO of Distribution International, Inc., a supplier of thermal insulation, safety equipment and environmental products, in February 2013. She served from 2008 to 2011 as chief executive officer and during 2007 as chief operating officer of MMI Products, Inc., a wire products manufacturer and distributor of concrete accessories, concrete reinforcement and fencing. Prior to MMI Products, she spent 17 years in the chemical industry. At Ferro Corporation, she held the role of vice president of color and glass performance materials from 2004 to 2006, and the role of vice president of growth and development from 2006 to 2007. Ms. Mastin started her career in sales at Shell Chemical, where she served five years in sales positions of increasing responsibility. Her sales experience expanded at Bostik, Inc., where she held European and later global sales management positions, with her career at Bostik culminating in the role of vice president/general manager of nonwovens. Ms. Mastin holds a bachelor's degree in chemical engineering from Washington State University and a master's degree in business administration from the University of Houston. The Board believes that Ms. Mastin has an impressive track record of accomplishment in the global chemicals and performance materials sector. The Company expects to benefit from her deep operating experience in sales and marketing and proven leadership ability as Metabolix develops and implements effective strategies to commercialize its leading-edge technology in both PHA bioplastics and renewable industrial chemicals.

*Oliver P. Peoples, Ph.D.*, a co-founder of Metabolix, has served as our chief scientific officer since January 2000 and was previously our vice president of research and development. Dr. Peoples has served as a director since June 1992. Before founding Metabolix, Dr. Peoples was a research scientist with the Department of Biology at MIT. The research carried out by Dr. Peoples at MIT established the fundamental tools and methods for engineering bacteria and plants to produce polyhydroxyalkanoates. Dr. Peoples received a Ph.D. in Molecular Biology from the University of Aberdeen, Scotland. The Board believes that Dr. Peoples provides important technical and scientific understanding to the Board's analysis of Company strategy. As Chief Scientific Officer and a founder of the Company, Dr. Peoples has unique information related to the Company's research and technology and has led and directed many of our scientific research and development programs. Dr. Peoples also contributes to the Board's understanding of the intellectual property aspects of the Company's technology platforms.

*Joseph Shaulson* has served as our President and Chief Executive Officer since January 2014 and as a Director since December 2013. Mr. Shaulson brings nearly 20 years of experience as a senior executive with mid-sized specialty chemicals and advanced materials companies and as a corporate lawyer specializing in corporate development and corporate finance transactions. Mr. Shaulson was previously Executive Vice President of Arch Chemicals with responsibility for a variety of global businesses, including Personal Care and Industrial Biocides, Wood Protection, Performance Products and Industrial Coatings. He also led Arch's strategic planning and corporate development functions when he joined the company as Vice President, Strategic Development in 2008. Prior to Arch, Mr. Shaulson served in various leadership positions at Hexcel Corporation, an advanced composites company, including President of the Reinforcements Business Unit. Prior to Hexcel, Mr. Shaulson served as a corporate associate at the law firm of Skadden, Arps, Slate, Meagher & Flom. Mr.

Shaulson received a Bachelor of Science degree in Economics and a Master of Business Administration degree from the Wharton School at the University of Pennsylvania, as well as a Juris Doctor degree from the University of Pennsylvania Law School. The Board of Directors has concluded that Mr. Shaulson should serve as a Director because he is a proven executive who has successfully led and developed global chemical and materials businesses; his broad experience with specialty products in diverse applications and dynamic end markets is valuable for Metabolix as we work to accelerate the progress of our biopolymers business and navigate through the next stage of our development and growth.

*Anthony J. Sinskey, Sc.D.*, a co-founder of Metabolix, has served as a director since June 1992. From 1968 to present, Dr. Sinskey has been on the faculty of MIT. Currently at MIT, he serves as professor of microbiology in the Department of Biology and professor of health sciences and technology in the Harvard-MIT Health Sciences and Technology Program Engineering Systems Division, as well as faculty director of the Center for Biomedical Innovation. Dr. Sinskey serves on the board of directors of Tepha, Inc. (see "Certain Relationships and Related Person Transactions"). Dr. Sinskey received a B.S. from the University of Illinois and a Sc.D. from MIT. The Board believes that, as a faculty member of an academic institution with significant research activity in areas related to the Company's own research, Dr. Sinskey contributes to the Board his scientific knowledge and his awareness of new developments in these fields. Dr. Sinskey's involvement with other start-up and developing enterprises also makes him a valuable Board member.

*Matthew Strobeck, Ph.D.*, served as a director from September 2006 through May 2011. Dr. Strobeck rejoined the Board in March, 2012. Dr. Strobeck is managing partner of Birchview Capital, an investment management firm. Dr. Strobeck was a partner and member of the management committee and advisory board of Westfield Capital Management from 2008 until 2011, having served as a member of the investment team, specializing in healthcare and life sciences, from May 2003 to June 2008. Dr. Strobeck is a member of the board of directors of Accelerate Diagnostics, Inc. Dr. Strobeck also serves on the board of directors of Tepha, Inc. (see "Certain Relationships and Related Person Transactions"). Dr. Strobeck received his B.S. from St. Lawrence University, a Ph.D. from the University of Cincinnati, a S.M. from Harvard University/MIT Health Sciences Technology Program, and a S.M. from the MIT Sloan School of Management. The Board believes that Dr. Strobeck's insights as a professional investor in life science companies are extremely valuable in helping Metabolix to strategically manage its technology portfolio to best realize the economic potential of our scientific opportunities.

*Robert L. Van Nostrand* is a consultant who has served as a director since October 2006. From January 2010 to July 2010, he was executive vice president and chief financial officer of Aureon Laboratories, Inc. From July 2007 until September 2008, Mr. Van Nostrand served as executive vice president and chief financial officer of AGI Dermatics, Inc. Mr. Van Nostrand was with OSI Pharmaceuticals, Inc. from 1986 to 2007, serving as senior vice president and chief compliance officer from May 2005 until July 2007, and as the vice president and chief financial officer from 1996 through 2005. Prior to joining OSI, Mr. Van Nostrand was in a managerial position with Touche Ross & Co. (currently Deloitte and Touche). Mr. Van Nostrand serves on the board of directors and is chairman of the audit committee and a member of the compensation committee of Achillion Pharmaceuticals, Inc. (since 2007), serves on the board of directors and is chairman of the audit committee of Intra- Cellular Therapies, Inc. (since January 2014), serves on the boards of directors of Enumeral Biomedical, Inc. (since December 2104) and the Biomedical Research Alliance of New York (BRANY) (since 2011), and served on the board of directors and as chair of the audit committee of Apex Bioventures, Inc. from 2006 to 2009. Mr. Van Nostrand received a B.S. in Accounting from Long Island University, New York, completed advanced management studies at the Wharton School, and he is a Certified Public Accountant. The Board believes that the Company is very fortunate to have Mr. Van Nostrand serve as a director and as Chairman of our Audit Committee because of the depth of his experience and expertise in financial reporting and corporate compliance, as well as his operational experience.

*Charles B. Haaser* became the Company's Chief Accounting Officer effective November 3, 2014, after serving as the Company's Corporate Controller since 2008. Mr. Haaser has more than thirty years of experience in accounting and finance, primarily working for publicly traded U.S. companies. Before joining Metabolix, Mr. Haaser was the Corporate Controller of Indevus Pharmaceuticals, Inc. from 2006 to 2008. He was the Corporate Controller and Principal Accounting Officer at ABIOMED, Inc. from 1998 to 2006 and additionally served as ABIOMED's Acting Chief Financial Officer from 2003 to 2006. From 1997 to 1998 Mr. Haaser was controller

for Technical Communications Corporation and from 1986 to 1997 was the director of Finance at ISI Systems, Inc. From 1984 to 1986 Mr. Haaser was an auditor in the commercial audit division of Price Waterhouse LLP (now PricewaterhouseCoopers LLP). Mr. Haaser received a bachelor's degree in business administration (finance) from the University of Notre Dame, an MBA from Northeastern University and a Masters of Science in Taxation from Bentley University. Mr. Haaser became a Certified Public Accountant in 1997.

*Johan van Walsem*, chief operating officer since July 2013, returned to Metabolix in August 2009 as vice president of strategy and commercial development, following a 16 month period as senior vice president, R&D and bioprocessing at Joule Biotechnologies, a clean technology start-up company. Previously, Mr. van Walsem served as our vice president of manufacturing, development and operations from October 2003 until April 2008, and was our director of manufacturing and development from September 2001 to October 2003. Before joining Metabolix, Mr. van Walsem was senior biochemical engineer with Montec Research, a division of Resodyn Corporation, where he was responsible for fermentation technology development. Prior to that, Mr. van Walsem worked with AECI Bioproducts in South Africa in technology management and new product development. Mr. van Walsem received a master's degree in Chemical Engineering from the University of Pretoria (South Africa) and an M.B.A. from the University of South Africa. He is a registered professional engineer with the Engineering Council of South Africa and a senior member of AIChE (American Institute of Chemical Engineers).

*Lynne H. Brum* has served as vice president, marketing and corporate communications, of the Company since November, 2011. Prior to joining Metabolix, in 2010 to 2011 she was a communications consultant and served in various roles including as a freelance project director for Seidler Bernstein Inc. Ms. Brum served from 2007 to 2009 as an executive vice president at Porter Novelli Life Sciences, a subsidiary of global PR firm, Porter Novelli International. Prior to that, Ms. Brum was responsible for corporate communications, investor relations and brand management for Vertex Pharmaceuticals, Inc. from 1994 to 2007 in various positions, including vice president of strategic communications. Ms. Brum was also a vice president at Feinstein Kean Healthcare and was part of the communications team at Biogen, Inc. (now Biogen Idec). Ms. Brum holds a bachelor's degree in biological sciences from Wellesley College and a master's degree in business administration from Simmons College's School of Management.

*Sarah P. Cecil* has served as legal counsel to Metabolix since July 2005 and as general counsel since the Company's initial public offering in November 2006. Previously, she was corporate counsel at Vertex Pharmaceuticals from 1992 until 2001, and at Biogen, Inc. from 1985 until 1991. Ms. Cecil's previous legal practice has also included clients in the food ingredients, computer services and clinical research industries, as well as several biotechnology companies. Ms. Cecil received an A.B. from Brown University, and she was a C.P.A. with Price Waterhouse (currently PricewaterhouseCoopers) before obtaining a J.D. from Harvard Law School.

## **CORPORATE GOVERNANCE AND BOARD MATTERS**

### **Independence of Members of the Board of Directors**

The Board of Directors has determined that each of the Company's non-employee directors (Mr. Kellogg, Ms. Mastin, Dr. Sinskey, Dr. Strobeck, and Mr. Van Nostrand) is independent within the meaning of the director independence standards of The NASDAQ Stock Market, LLC. ("NASDAQ") and the Securities and Exchange Commission ("SEC"), including rules under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Furthermore, the Board of Directors has determined that each member of each of the Audit, Compensation and Nominating and Corporate Governance committees of the Board of Directors is independent within the meaning of the director independence standards of NASDAQ and the SEC, and that each member of the Audit Committee meets the heightened director independence standards for audit committee members as required by the SEC. In evaluating the independence of the directors, the Board considered the relationships of Dr. Sinskey and Dr. Strobeck as stockholders and members of the board of directors of Tepha, Inc. The Board determined that these relationships did not impair the independence of Dr. Sinskey, Dr. Strobeck or Mr. Van Nostrand. See "Certain Relationships and Related Person Transactions."

At least annually, a committee of the Board of Directors evaluates all relationships between the Company and each director in light of relevant facts and circumstances for the purpose of determining whether a material

relationship exists that might signal a potential conflict of interest or otherwise interfere with such director's ability to satisfy his responsibilities as an independent director.

## **Executive Sessions**

The Board of Directors generally holds executive sessions of the independent directors following regularly scheduled in-person meetings of the Board of Directors, at least four times a year. Executive sessions do not include any employee directors of the Company.

## **Board Leadership Structure**

Robert L. Van Nostrand serves as our non-executive chairman of the board. Since March 2008, we have maintained a leadership structure with the non-executive chairman separate from the chief executive officer, although the Board of Directors has no formal policy with respect to the separation of such offices. Our Board of Directors believes that having separate offices of the chairman and chief executive officer currently functions well and is the appropriate leadership structure for our Company. While the Board of Directors may combine these offices in the future if it considers such a combination to be in the best interest of the Company, it currently intends to retain this structure. Separating these positions allows our chief executive officer to focus on our day-to-day business, while allowing the chairman of the board to lead our Board of Directors in its fundamental role of providing advice to and independent oversight of management.

## **The Board of Directors' Role in Risk Oversight**

Our Board of Directors' role in the Company's risk oversight process includes:

- Identifying important risks to the Company from a Board of Directors perspective;
- Reviewing the prioritization of risks that the Company is planning to manage;
- Providing guidance as to the amount of effort and/or resources appropriate to manage key risks;
- Assessing the adequacy of the processes and systems that the Company is using to identify and manage risks;
- Reviewing the risk management roles and responsibilities of management and the Board of Directors; and
- Monitoring Company progress in managing and mitigating key risks.

In order to carry out these responsibilities, the Board of Directors focuses on key risks identified by management and performs in-depth reviews of specific risk areas, including operational, financial, legal, strategic and reputational risks, as appropriate.

## **Compensation Risk Assessment**

The Compensation Committee believes that our employee compensation policies and practices are not structured to be reasonably likely to present a material adverse risk to the Company. We believe we have allocated our compensation among base salary and short- and long-term incentive compensation opportunities in such a way as to not encourage excessive or inappropriate risk-taking by our executives and other employees. We also believe our approach to goal setting and evaluation of performance results reduce the likelihood of excessive risk-taking that could harm our value or reward poor judgment.

## **Policies Governing Director Nominations**

### *Director Qualifications*

The Nominating and Corporate Governance Committee of the Board of Directors is responsible for reviewing, from time to time, the appropriate qualities, skills and characteristics desired of members of the Board of Directors in the context of the current make-up of the Board of Directors and selecting or recommending to the Board of Directors, nominees for election as Directors. This assessment includes consideration of the following minimum qualifications that the Nominating and Corporate Governance Committee believes must be met by all directors:





- The director shall have experience at a strategic or policymaking level in a business, government, non-profit or academic organization of high standing.
- The director shall be highly accomplished in his or her respective field, with superior credentials and recognition.
- The director shall be well regarded in the community and shall have a long-term reputation for the high ethical and moral standards.
- The director shall have sufficient time and availability to devote to the affairs of the Company, particularly in light of the number of boards on which the nominee may serve.
- To the extent such director serves or has previously served on other boards, the director shall have a demonstrated history of actively contributing at board meetings.

The Nominating and Corporate Governance Committee also considers numerous other qualities, skills and characteristics when evaluating director nominees, such as:

- An understanding of and experience in the biotechnology, plastics, chemicals or agricultural industries;
- An understanding of and experience in accounting oversight, governance, finance, marketing or regulatory affairs; and
- Leadership experience with public companies or other significant organizations.

These factors and others are considered useful by the Board of Directors, and are reviewed in the context of an assessment of the perceived needs of the Board of Directors at a particular point in time. While the Board does not have a formal diversity policy, the Nominating and Corporate Governance Committee seeks nominees with a broad diversity of experience, professions, skills, and backgrounds.

#### *Process for Identifying and Evaluating Director Nominees*

The Board of Directors is responsible for selecting and nominating candidates for election as directors but delegates the selection and nomination process to the Nominating and Corporate Governance Committee, with the expectation that other members of the Board of Directors or members of management will be requested to take part in the process as appropriate.

Generally, the Nominating and Corporate Governance Committee identifies candidates for director nominees in consultation with management, through the use of search firms or other advisers, through the recommendations submitted by stockholders or through such other methods as the Nominating and Corporate Governance Committee deems to be helpful to identify candidates. Once candidates have been identified, the Nominating and Corporate Governance Committee confirms that the candidates meet all of the minimum qualifications for director nominees established by the Nominating and Corporate Governance Committee. The Nominating and Corporate Governance Committee may gather information about the candidates through interviews, background checks, or any other means that the Nominating and Corporate Governance Committee deems to be helpful in the evaluation process. The Nominating and Corporate Governance Committee discusses and evaluates the qualities and skills of each candidate, taking into account the overall composition and needs of the Board. Based on the results of the evaluation process, the Nominating and Corporate Governance Committee recommends candidates for the Board's approval as director nominees for election to the Board. The Nominating and Corporate Governance Committee also recommends candidates for the Board's appointment to the committees of the Board.

#### *Procedures for Recommendation of Nominees by Stockholders*

The Nominating and Corporate Governance Committee will consider director candidates who are recommended by the stockholders of the Company. Stockholders, in submitting recommendations to the Nominating and Corporate Governance Committee for director candidates, shall follow the following procedures.

The Nominating and Corporate Governance Committee must receive any such recommendation for nomination not later than the close of business on the 90th day nor earlier than the close of business on the 120th day prior to the first anniversary of the preceding year's Annual Meeting.

Such recommendation for nomination must be in writing and include the following:

- Name and address of the stockholder making the recommendation, as they appear on the Company's books and records, and of such record holder's beneficial owner;
- Number of shares of capital stock of the Company that are owned beneficially and held of record by such stockholder and such beneficial owner;
- Name and address of the individual recommended for consideration as a director nominee (a "Director Nominee");
- The principal occupation of the Director Nominee;
- The total number of shares of capital stock of the Company that will be voted for the Director Nominee by the stockholder making the recommendation;
- All other information relating to the recommended candidate that would be required to be disclosed in solicitations of proxies for the election of directors, or is otherwise required, in each case pursuant to Regulation 14A under the Securities Exchange Act of 1934, as amended (the "Exchange Act") (including the recommended candidate's written consent to being named in the proxy statement as a nominee and to serving as a director if approved by the Board and elected); and
- A written statement from the stockholder making the recommendation stating why such recommended candidate would be able to fulfill the duties of a director.

Nominations must be sent to the attention of the Secretary of the Company by U.S. Mail (including courier or expedited delivery service) to Metabolix, Inc., 21 Erie Street, Cambridge, MA 02139 or by facsimile at (617) 583-1767. The Secretary of the Company will promptly forward any such nominations to the Nominating and Corporate Governance Committee. Once the Nominating and Corporate Governance Committee receives the nomination of a candidate, the candidate will be evaluated and a recommendation with respect to such candidate will be delivered to the Board. Nominations not made in accordance with the foregoing policy shall be disregarded by the Nominating and Corporate Governance Committee and votes cast for such nominees shall not be counted.

#### **Policy Governing Stockholder Communications with the Board of Directors**

The Board provides to every stockholder the ability to communicate with the Board, as a whole, and with individual directors on the Board through an established process for stockholder communication (as that term is defined by the rules of the SEC). Stockholders may send such communication to the attention of the Chairman of the Board or to the attention of the individual director by U.S. Mail (including courier or expedited delivery service) to Metabolix, Inc., 21 Erie Street, Cambridge, MA 02139 or by facsimile at (617) 583-1767. The Company will forward any such stockholder communication to the Chairman of the Board, as a representative of the Board, and/or to the director to whom the communication is addressed.

#### **Policy Governing Director Attendance at Annual Meetings of Stockholders**

Our policy is to schedule a regular meeting of the Board of Directors on the same date as the Company's annual meeting of stockholders and, accordingly, directors are encouraged to be present at our stockholder meetings. Each person who was a director of the Company at the time of the 2014 annual meeting of stockholders attended that meeting.

#### **Code of Business Conduct and Ethics**

The Company has adopted the Code of Business Conduct and Ethics ("Code of Business Conduct") as its "code of ethics" as defined by regulations promulgated under the Securities Act of 1933, as amended (the "Securities Act"), and the Exchange Act (and in accordance with the NASDAQ requirements for a "code of conduct"), which applies to all of the Company's directors, officers and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. A current copy of the Code of Business Conduct is available at the Company's website at <http://www.metabolix.com> under "Investor Relations—Corporate Governance." A copy of the Code of Business Conduct may also be obtained free of charge

from the Company upon a request directed to Metabolix, Inc., 21 Erie Street, Cambridge, MA 02139, Attention: Investor Relations. The Company will promptly disclose any substantive changes in or waivers, along with reasons for the waivers, of the Code of Business Conduct granted to its executive officers, including its principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions, and its directors by posting such information on its website at <http://www.metabolix.com> under "Investor Relations—Corporate Governance."

## THE BOARD OF DIRECTORS AND ITS COMMITTEES

### Board of Directors

The Board of Directors held nine meetings during the year ended December 31, 2014. In addition, there were numerous conference calls for informational updates and discussion. During the year ended December 31, 2014, no director attended fewer than 75% of the aggregate of (i) the total number of meetings of the Board and (ii) the total number of meetings held by all committees of the Board on which such director served. The Board has a standing Audit Committee, Compensation Committee and Nominating and Corporate Governance Committee. Each of these committees has a charter that has been approved by the Board of Directors. A current copy of each charter is available on the Company's website at <http://www.metabolix.com> under "Investor Relations—Corporate Governance." Each committee reviews the appropriateness of its charter periodically, as conditions dictate, but at least annually. Each committee retains the authority to engage its own advisors and consultants. The composition and responsibilities of each committee are summarized below.

In addition, the Board of Directors may appoint other committees from time to time. The Board has appointed a special committee, comprised of independent directors, to to: (a) consider and evaluate all proposals that might be received by the Company in connection with a possible investment in the Company or a possible sale or other business transaction or series of transactions, (b) participate in and direct the negotiation of the material terms and conditions of any such transaction, (c) consider any alternatives to any such transaction, and (d) recommend to the Board the advisability of entering into a definitive agreement with respect to any such transaction. Mr. Kellogg and Mr. Van Nostrand are the members of the special committee, which met 18 times during 2014.

### Audit Committee

Mr. Van Nostrand, Mr. Kellogg and Dr. Strobeck serve on the Audit Committee. Mr. Van Nostrand is the chairman of the Audit Committee. The Board of Directors has determined that each member of the Audit Committee is independent within the meaning of the Company's and NASDAQ's director independence standards and the SEC's heightened director independence standards for Audit Committee members as determined under the Exchange Act. The Board of Directors has also determined that Mr. Kellogg and Mr. Van Nostrand also qualify as "Audit Committee financial experts" under the rules of the SEC. The Audit Committee met four times during the year ended December 31, 2014.

The Audit Committee is responsible for overseeing the accounting and financial reporting processes of the Company and the audits of the financial statements of the Company and exercising the responsibilities and duties set forth in its charter, including but not limited to:

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

- preparing the Audit Committee report required by SEC rules to be included in our annual proxy statement.

### **Compensation Committee**

Dr. Sinskey, Ms. Mastin and Mr. Van Nostrand serve on the Compensation Committee. Dr. Sinskey is the chairman of the Compensation Committee. The Board of Directors has determined that each member of the Compensation Committee is independent within the meaning of the Company's, SEC's and NASDAQ's director independence standards. The Compensation Committee held four meetings during the year ended December 31, 2014. The Compensation Committee's responsibilities include:

- annually reviewing and approving goals and objectives relevant to compensation of our executive officers, including the chief executive officer;
- evaluating the performance of our chief executive officer and other executive officers in light of such goals and objectives;
- determining the compensation of our chief executive officer and other executive officers;
- reviewing and approving, for the chief executive officer and the other executive officers of the Company, any employment agreements, severance arrangements, and change in control agreements or provisions;
- overseeing the administration of our incentive-based and equity-based compensation plans; and
- reviewing and making recommendations to the Board with respect to director compensation.

### **Nominating and Corporate Governance Committee**

Ms. Mastin and Dr. Sinskey serve on the Nominating and Corporate Governance Committee. The Board of Directors has determined that each member of the Nominating and Corporate Governance Committee is independent within the meaning of the Company's, SEC's and NASDAQ's director independence standards. The Nominating and Corporate Governance Committee did not hold any meetings during the year ended December 31, 2014, but did take action by written consent. The Nominating and Corporate Governance Committee's responsibilities include:

- developing and recommending to the Board criteria for Board and committee membership;
- establishing procedures for identifying and evaluating director candidates, including nominees recommended by stockholders;
- identifying individuals qualified to become Board members;
- recommending to the Board the persons to be nominated for election as directors and to each of the Board's committees;
- developing succession plans for the Board;
- developing and recommending to the Board a code of business conduct and ethics and a set of corporate governance guidelines; and
- overseeing the evaluation of the Board and its committees.

### **COMPENSATION COMMITTEE INTERLOCKS AND INSIDER PARTICIPATION**

During 2014, Dr. Sinskey, Ms. Mastin, and Mr. Van Nostrand served as members of the Compensation Committee. During 2014, no executive officer of the Company served as: (i) a member of the compensation committee (or other committee of the Board of Directors performing equivalent functions or, in the absence of any such committee, the entire Board of Directors) of another entity, one of whose executive officers served on the Compensation Committee of the Company; (ii) a director of another entity, one of whose executive officers served on the Compensation Committee of the Company; or (iii) a member of the compensation committee (or other committee of the Board of Directors performing equivalent functions or, in the absence of any such committee, the entire Board of Directors) of another entity, one of whose executive officers served as a director of the Company.

## EXECUTIVE COMPENSATION

### COMPENSATION DISCUSSION AND ANALYSIS

#### Executive Summary

This Compensation Discussion and Analysis explains our compensation philosophy, policies and practices with respect to each person who served as principal executive officer or principal financial officer of the Company during 2014 and the other three most highly compensated executive officers, who are collectively referred to as the "named executive officers." Joseph Shaulson, our chief executive officer, Charles B. Haaser, our chief accounting officer, Johan van Walsem, our chief operating officer, Oliver P. Peoples, Ph.D., our chief scientific officer, Lynne H. Brum, our vice president, marketing and corporate communications, and Joseph D. Hill, our former chief financial officer, were our named executive officers during 2014.

Mr. Hill ceased to serve as an officer of the Company on November 3, 2014, and his employment with the Company ended on December 3, 2014. Mr. Hill receives severance payments and benefits as provided in his employment contract. Charles B. Haaser, formerly our corporate controller, became chief accounting officer of the Company on November 3, 2014.

Since 2008 there have been no increases in base salaries or bonus target percentages for the named executive officers other than in connection with promotions. The committee does not expect to make any executive salary adjustments for 2015, but it did approve an increase in the target bonus, as a percentage of base salary, for each of the named executive officers in 2015.

On January 5, 2015, the Compensation Committee approved a program under which each member of the Company's senior management, including Mr. Haaser, Dr. Peoples, Mr. van Walsem and Ms. Brum, had the opportunity to elect, before the amount of the 2014 performance bonus was determined, to convert up to 25% of his or her cash bonus to restricted stock units ("RSUs"). The number of RSUs to be granted pursuant to any such election would be determined by multiplying the cash value of such grantee's converted bonus by 2.5 and dividing the product by the fair market value per share of the Company's common stock at the close of business on the date of grant. All such RSUs will vest in full one (1) year after the date of grant; provided, however, that if prior to the vesting date the grantee's employment is terminated by the Company for cause or the grantee voluntarily terminates his or her employment with the Company, the RSUs will be forfeited and will not vest. Pursuant to his employment contract, Mr. Shaulson also had the right to convert his 2014 performance bonus to equity. Certain of the named executive officers, including Mr. Shaulson, elected to convert all or a portion of their 2014 performance bonuses to RSUs.

In February 2015 the Compensation Committee reviewed corporate performance for 2014. The committee rated the Company's achievement of 2014 goals as 85% of target. This compared to a Company performance achievement rating of 75% for 2013. Bonuses for the named executive officers (other than Mr. Hill) were based on the 2014 performance rating, as applied to each individual's target bonus amount. For the named executive officers other than Mr. Hill, the Compensation Committee calculated bonuses using the same rating for both corporate and individual performance (85%), to recognize and reward the teamwork of the named executive officers in advancing the corporate goals during 2014.

Base salary levels for the named executive officers remained unchanged during 2014 as compared to 2013 (except for Mr. Haaser's promotion). Cash performance bonuses for the named executive officers was generally somewhat higher compared to 2013 as a result of the higher corporate performance rating. However, total compensation of our named executive officers who served as such during both years (as set forth in the Summary Compensation Table below) decreased substantially because there were no equity awards to executive officers in 2014, unlike previous years. The Compensation Committee decided to postpone making any equity awards to executives until corporate progress for the year could be determined and a review of alternative methods of equity compensation could be completed. This was done in March 2015. Accordingly, 2015 equity awards to the named executive officers are larger than in prior years, reflecting long-term incentives that would ordinarily have been granted over a two-year period, as well as a shift in the committee's methodology for determining long-term equity incentives. Since 2008, equity grant levels have been determined primarily based on the number of stock options

granted in the previous year, without taking into account the value of the grants, which generally declined from year to year as the Company's stock price declined. Beginning with the equity grants made in 2015, the committee established targets for the value to be provided by the equity awards.

The Compensation Committee seeks to align the Company's executive pay programs with Company performance. As a result, the committee's executive compensation strategy has been to provide a large portion of executive compensation in the form of equity, with base salaries below market. While the committee did not perform any formal benchmarking analysis in 2014, a review of selected peer group data for 2013, together with studies performed by Pay Governance, an independent compensation consultant, at the request of the committee in 2012 and 2013, suggest that the Company's executive target pay has been well below the market median and that actual and overall realizable pay has also been below market, largely as a result of the impact of the Company's declining share price on the value of the stock options that comprised a large element of executive compensation in past years.

The Compensation Committee concluded from this information that historical levels of stock option grants had not been effective in closing the gap between the Company's executive compensation and peer group benchmarks and were not providing the intended incentive and retention value. As a result, the committee decided to award long-term incentives in 2015 in the form of restricted stock units ("RSUs"), rather than stock options. The committee concluded that RSUs would provide a stronger incentive and retention tool than options. In determining the number of RSUs to be awarded, the committee sought to provide a long-term incentive value ranging from approximately 70% to 150% of base salary per year for each executive, depending on his or her position with the Company. Because there were no equity incentives granted during 2014, the 2015 grants are generally twice the annual target amount, adjusted in Mr. Shaulson's case to take into account the equity awards made to him in connection with the commencement of his employment, and adjusted in Mr. Haaser's case to take into account the stock options granted to him in 2014 in his role as corporate controller and in connection with his promotion to the position of chief accounting officer. The RSUs granted in 2015 will vest in four (4) equal annual installments over a period of four (4) years from the date of grant.

### *Our Compensation Committee*

The Compensation Committee of our Board of Directors oversees the development of our compensation plans and policies for executive officers. Our Compensation Committee has been delegated the authority to determine all forms of compensation to be granted to our executive officers in furtherance of our compensation objectives. The Compensation Committee is composed entirely of non-employee directors. (See "The Board of Directors and its Committees—Compensation Committee.") In making its decisions regarding executive compensation, the committee considers recommendations from our CEO, together with other factors.

We believe that executive compensation should be sufficient to attract and retain persons of exceptional quality and to provide effective incentives to motivate and reward executives for achieving the strategic, financial and operational goals essential to our long-term success and growth in stockholder value. We have defined four objectives for our employee compensation system:

- to create a performance-driven culture;
- to link financial rewards with performance results and achievement;
- to provide competitive compensation which attracts and retains top performers; and
- to share in Company success.

The Compensation Committee applies the same principles in determining compensation for our executives as for our non-executive employees. However, for executives a larger portion of pay is at risk, which reinforces our performance-driven culture. We intend to provide a competitive total compensation package to our executive management team through a combination of base salary, cash incentives, long-term equity incentive compensation, and a broad-based benefits program.

In determining the amount and mix of compensation elements, the Compensation Committee relies upon its judgment about each individual executive officer, and not on rigid formulas, while taking into account the following factors:

- the scope and strategic impact of the executive officer's responsibilities;

- the performance and experience of each individual; and
- the evaluations and recommendations of our chief executive officer.

There are three key elements to our process for setting executive compensation: (i) market referencing; (ii) internal equity; and (iii) business goals and performance considerations.

### ***Market Referencing***

We base our compensation decisions in part on a review of relevant market information. The principle of market referencing means that our compensation and benefits programs are benchmarked against programs available to employees in comparable roles at peer companies. We believe that it is appropriate to use market referencing in order to ensure that our compensation and benefits programs are sufficient to attract and retain top performers.

In choosing a benchmark group, we considered the following factors: market capitalization, industry, and stage of development. Because there are few competitors in our industry that are also comparable to the Company in size and complexity, we also looked at other companies in the biotechnology industry and companies in the alternative energy and clean technology fields for comparison. At the time of our peer group selection in late 2011, the Company's market capitalization approximated that of the selected peer group median. The following peer group of 9 benchmark companies was used for the 2012 Pay Governance study:

- A123 Systems, Inc.
- American Superconductor Corp.
- Amyris, Inc.
- Codexis Inc.
- Fuelcell Energy, Inc.
- Gevo, Inc.
- Senomyx, Inc.
- Solazyme, Inc.
- Verenum Corporation

In early 2013, at the request of our Compensation Committee, Pay Governance conducted a five-year historical assessment of total direct compensation opportunity compared to realizable pay for senior Metabolix executives, including Mr. van Walsem and Dr. Peoples. The analysis showed that, primarily as a result of the decline in the Company's share price over the five-year period from 2008 through 2012, only approximately 42% to 53% of the intended pay opportunity was realized during the period. This followed a three-year historical assessment of realizable pay for performance conducted by Pay Governance in early 2012. In that study it was determined that for the period 2008 through 2010, our CEO's total direct compensation, relative to the peer group, was in the 25<sup>th</sup> percentile. Our CEO's target total direct compensation (base salary, target bonus plus long-term equity incentive awards), relative to the peer group, was slightly below the 25<sup>th</sup> percentile, while target total direct compensation for our overall executive group was positioned between the 25<sup>th</sup> and 50<sup>th</sup> percentile of the peer group.

While no further formal studies have been conducted, we believe that Metabolix executive compensation is now further below the peer group averages than when the Pay Governance studies were performed because there have been no salary increases (other than promotions) and because of the impact of further declines in the Company's stock price. In structuring the 2015 long-term incentive awards for executives, the Compensation Committee reviewed an informal summary of publicly available data from selected companies in the peer group, and the Committee determined that the proposed Metabolix long-term incentives for 2015 were reasonable as compared to that data.



## ***Internal Equity***

A second factor in determining executive compensation is internal equity. The Compensation Committee seeks to ensure that the compensation of individual executives is fair and appropriate relative to that of other Company executives, in relation to each executive's duties and responsibilities, and his or her contribution to the Company's success. Base salaries, bonus opportunities and equity grants reflected the committee's evaluation of each executive's individual role and contributions, taking into consideration (i) the estimated market value of the position, (ii) individual performance, and (iii) the importance of the executive to the business, including a determination of the difficulty of replacing the executive.

## ***Business Goals and Performance Considerations***

As a company in a high growth business environment, we place significant emphasis on performance-based compensation programs, which make payments when certain Company and individual goals are achieved, and equity incentives, which increase in value as stockholder value is created. We award our executives compensation as recognition for how well they perform as a team in achieving our business goals, with the Compensation Committee retaining discretion to modify individual compensation in the case of extraordinary individual performance. In order to determine whether our executives achieved individual and corporate goals, we conduct an annual performance review. The review process is designed to guide performance discussions and set each executive's future performance objectives. At the end of each year, our CEO reviews each executive's performance and provides a qualitative and a numerical assessment of performance to the Compensation Committee. The Compensation Committee makes the final determination of corporate and individual performance for purposes of compensation decisions, based in part on the recommendations of our CEO. The Compensation Committee also reviews the CEO's performance, based in part upon a self-assessment prepared by the CEO, as well as input from the Compensation Committee and other Board members.

## **Compensation Components and Pay Mix**

Executive compensation currently includes the following elements:

- Base salary;
- Short-term incentive compensation, consisting of an annual cash bonus program;
- Long-term incentive compensation, consisting of stock option grants, time-based RSUs and, in the case of Mr. Shaulson, performance-based RSUs; and
- A broad-based benefits program.

The compensation mix for our executives is intended to reinforce our philosophy of providing incentives for long-term value creation, with base salaries generally lower, and incentive compensation higher, than that of our peer companies if annual performance goals are met. To conserve cash resources and to offer executives an opportunity to participate in the future growth of our Company, equity awards continue to represent a large portion of total compensation. This mix of compensation elements is leveraged to ensure a strong pay-for-performance alignment. Our compensation strategy is necessarily tied to our stage of development. Accordingly, the specific direction, emphasis and components of our executive compensation program continue to evolve in parallel with the evolution of our business strategy.

## ***Base Salary***

We determine our executive salaries based on job responsibilities, individual experience, prior salary history, the salary levels of other Company executives, and comparable competitive market compensation for similar positions within the biotechnology and alternative energy/clean technology industries. We use benchmarks in order to make sure that we are offering competitive compensation packages that will enable us to attract qualified candidates from other companies. Base salaries are generally set lower than those at our peer companies, with the expectation that the lower salaries will be offset by higher cash bonus targets and equity award levels, and there have been no executive salary increases since 2008, except for promotions.

## ***Annual Cash Incentives***

The Company grants bonuses based on a cash incentive bonus program for our executive officers which was adopted in 2007, with the expectation that a significant portion of executive cash compensation will be performance-based. Target bonuses, as a percentage of base salary, are determined based on job responsibilities, individual experience, prior bonus history, the bonus levels of other Company executives, and comparable competitive market compensation for similar positions within the biotechnology and alternative energy/clean technology industries. Actual bonus amounts have been determined by the Compensation Committee based on a combination of Company performance and individual performance, together with a subjective evaluation of other considerations including motivation and retention factors. Beginning with the 2014 executive performance bonus determination, the Compensation Committee shifted its emphasis from individual to overall corporate performance. The committee believes that basing cash incentives on corporate performance will promote teamwork and the achievement of corporate, rather than individual, goals.

## ***Long-Term Incentives***

We believe that equity ownership in the Company is important to provide our executive officers with long-term incentives to build value for our stockholders. Historically, each executive officer has been initially provided with an option grant when he or she joins the Company, based upon his or her position with us, relevant prior experience, and benchmarking data, to the extent available. The Compensation Committee provided a portion of Mr. Shaulson's initial equity compensation in the form of performance-based RSUs, with vesting tied to the achievement of certain challenging stock price and/or revenue targets, and a right to purchase shares of the Company's common stock at a discounted price (subject to a one-year holding period).

In addition to the initial option grants for newly hired executives, our Compensation Committee has generally granted additional options annually to retain our executives, to promote the achievement of corporate goals and to ensure that executives are appropriately aligned to lead the Company for future growth. We generally spread the vesting of these equity incentives over four years to compensate executives for their contribution over a period of time and to give our executives an incentive to remain with the Company. All of the outstanding stock options previously granted to our named executive officers are now under water, having an exercise price that is higher than the current market price of the Company's common stock. Beginning in 2015, the committee decided to award long-term incentives in the form of restricted stock units. The committee believes that RSUs will be more effective than options as an incentive and retention tool and will align the interests of the executives with those of the Company's stockholders. The long-term equity incentive program is designed to provide a significant value to the executives to partially offset their lower base salary levels.

## ***Benefits***

Consistent with our compensation philosophy to attract and retain talent, we provide employee benefits for all employees, including executive officers, which include health and dental benefits, life insurance benefits, long and short-term disability coverage, and a 401(k) savings plan. Under the 401(k) savings plan, we provide a matching contribution in the form of Metabolix Common Stock valued at up to 4.5% of each employee's salary plus bonus. We believe these benefits are competitive with those offered by other companies and specifically those companies with which we compete for employees. We have no structured perquisite benefits for any executive officers, including the named executive officers, and we currently do not provide any deferred compensation programs or pensions to any executive officer, including the named executive officers. In past years certain of our executives have relocated to the area of our headquarters. We reimbursed these executives for normal moving expenses in accordance with industry standards. We have also agreed to provide an allowance to Mr. Shaulson in recognition of his additional costs for temporary living and commuting.

## **2014 Compensation for Our Named Executive Officers**

### ***2014 Base Salaries***

Mr. Haaser's base salary was increased to \$205,000 upon his promotion to chief accounting officer during 2014. No other named executive officers received salary increases during 2014, and there have been no named executive officer salary increases since 2008, except in the case of promotions. Under the terms of his employment

contract, Mr. Shaulson receives an annual base salary of \$350,000, subject to increase to \$425,000 if the Company achieves certain revenue targets.

### *2014 Pay for Performance*

Performance bonus target percentages for the named executive officers also remained unchanged in 2014, except that Mr. Haaser's cash bonus target increased from 20% to 40% in connection with his promotion. 2014 bonuses for the named executive officers (other than Mr. Hill) were based on the Compensation Committee's assessment of Company performance, as applied to each individual's target bonus amount (see "Grants of Plan-Based Awards").

On January 5, 2015, the Compensation Committee approved a program under which each member of the Company's senior management, including Mr. Haaser, Dr. Peoples, Mr. van Walsem and Ms. Brum, had the opportunity to elect, before the amount of the 2014 performance bonus was determined, to convert up to 25% of his or her cash bonus to RSUs under the Company's 2014 Stock Option and Incentive Plan. The number of RSUs to be granted pursuant to any such election would be determined by multiplying the cash value of such grantee's converted bonus by 2.5 and dividing the product by the fair market value per share of the Company's common stock at the close of business on the date of grant. All such RSUs will vest in full one (1) year after the date of grant; provided, however, that if prior to the vesting date the grantee's employment is terminated by the Company for cause or the grantee voluntarily terminates his or her employment with the Company, the RSUs will be forfeited and will not vest. Pursuant to his employment contract, Mr. Shaulson also had the right to convert his 2014 performance bonus to equity. Mr. Shaulson, Mr. Haaser, Mr. van Walsem and Ms. Brum elected to receive \$208,000, \$9,500, \$26,400, and \$18,750, respectively, of their cash bonuses in the form of RSUs.

In 2014, the Company's corporate goals were to

- Secure financing;
- Implement the Company's biopolymers business strategy;
- Capture value from the Company's other business platforms;
- Increase focus and reduce the Company's cash usage rate; and
- Build a specialty materials business culture.

In February 2015, the Compensation Committee scored Company performance on each of the 2014 corporate objectives, based upon the evaluations of our CEO and the committee's own judgment. In determining the level of Company performance, the Compensation Committee determined that:

- The Company had successfully secured financing under difficult circumstances and is well-positioned to secure additional funding.
- Biopolymer commercial implementation was identified as an area in which the team applied good efforts and identified a strategy for success, but there are still challenges to achieving that success in a timely fashion. Performance in the area of biopolymer manufacturing was rated highly because, after assessing other alternatives, the team successfully developed a plan to increase output at the Company's contracted pilot manufacturing facility. Technical progress was also viewed as generally strong.
- Increasing focus and reducing cash burn was a new priority identified during the year. This was successfully accomplished by discontinuing the Company's German operation and restructuring the Company's US organization, in addition to other cost-saving measures.
- Capturing value from the crops platform was another goal adopted mid-year. There was some progress, but the spin-out process is still just getting underway.
- The goal of building a specialty materials business culture was considered partially achieved, with room for further improvement.

The goals of (i) securing financing, (ii) implementing the biopolymers strategy, and (iii) increasing focus and reducing cash burn were subjectively weighted somewhat more heavily than the other goals. As a result, the committee decided to base 2014 bonuses on an overall Company performance rating of 85%.

For named executive officers other than Mr. Hill, the Compensation Committee decided to calculate bonuses using the same rating for both corporate and individual performance (85%), to recognize and reward the teamwork of the named executive officers in advancing the corporate goals during 2014. For Mr. Hill, the Compensation Committee scored performance on Mr. Hill's individual objectives based upon information provided by our CEO and the committee's subjective judgment, consistent with past practice. Mr. Hill's bonus for 2014 performance was then determined by the Compensation Committee based 50% on corporate performance and 50% on individual performance, applied to his target bonus amount.

The 2014 performance bonuses for named executive officers, including the portions converted to RSUs, are summarized below.

Named Executive Officer	2013 Bonus Awarded	2014 Target Bonus	Total 2014 Bonus Awarded	2014 Bonus Paid in Cash	2014 Bonus Amount Converted to RSUs
Joseph Shaulson	n/a	\$ 245,000	\$ 208,000	—	\$ 208,000
Charles B. Haaser(1)	\$ 33,700	\$ 44,517	\$ 38,000	\$ 28,500	\$ 9,500
Johan van Walsem	\$ 144,156	\$ 206,500	\$ 176,000	\$ 149,600	\$ 26,400
Oliver P. Peoples	\$ 117,600	\$ 168,000	\$ 143,000	\$ 143,000	—
Lynne H. Brum	\$ 70,400	\$ 88,000	\$ 75,000	\$ 56,250	\$ 18,750
Joseph D. Hill(2)	\$ 99,000	\$ 121,000	\$ 88,000	\$ 88,000	—

- (1) Mr. Haaser's 2014 target bonus and awarded bonus were pro-rated based on his November 2014 promotion and salary increase.
- (2) Mr. Hill's 2014 target bonus and awarded bonus were pro-rated based on his employment termination on December 3, 2014.

### ***2014 Long-Term Incentives***

Upon the commencement of his employment in January 2014, Mr. Shaulson was awarded 600,000 RSUs that vest in various percentages over three years once certain Company stock price and/or revenue based targets are achieved, if ever. The targets that trigger vesting of the RSUs are challenging milestones, based upon (A) the Company's stock attaining specified price levels which would be more than double the Company's stock price when Mr. Shaulson joined the Company, and (B) establishing a supply chain and securing contracts representing \$25 million of annual revenue. Mr. Shaulson also agreed to purchase 250,000 shares of the Company's common stock at a price 10% below the closing price of the Company's common stock on December 19, 2013. In January 2014 Mr. Shaulson purchased the shares for an aggregate price of \$300,000. The shares were subject to a one-year holding period that expired on January 28, 2015. In addition, on December 19, 2013, Mr. Shaulson was awarded a stock option for the purchase of 1,150,000 shares of common stock in connection with his agreement to serve as a member of the Company's Board on that date and as an inducement for him to accept employment with the Company as its president and chief executive officer starting in January 2014. The option has an exercise price equal to the fair market value of the Company's common stock at the date of grant, and it has a 10-year term and a four-year vesting schedule (subject to continued vesting upon termination without cause and other employment termination events).

In February 2014 Mr. Haaser was awarded a stock option for 10,000 shares, consistent with the option awards to other non-executive employees at that time. He was awarded an additional stock option for 15,000 shares upon his promotion to chief accounting officer. These stock options each had an exercise price equal to the fair market value per share of the Company's Common Stock on the date of grant and vest in sixteen (16) equal quarterly installments over a four-year period from the date of grant.

There were no other equity awards to executive officers in 2014, unlike previous years. The Compensation Committee decided to postpone making equity awards to executives until corporate progress for the year could be determined and a review of alternative methods of equity compensation could be prepared. This review was completed in March 2015.

## **2015 Compensation**

It is the committee's intention that performance bonuses represent a relatively large portion of executive compensation, to ensure pay for performance. The Compensation Committee does not expect to make any executive salary adjustments for 2015. Keeping both base salaries and target bonus percentages unchanged over the years as peer group salaries have risen has resulted in cash incentives, as well as base salaries, being generally below market. Therefore the committee decided to increase executive target bonuses as a percentage of base salary, beginning with 2015. The committee has also determined that for 2015, executive officer performance bonuses will generally be determined by applying the overall corporate performance rating to the individual target bonuses, with the committee reserving the right to increase or decrease any individual bonus, based on the subjective judgment of the committee, in the event of extraordinary circumstances.

After completing its review of executive equity compensation in March 2015, the committee decided to award long-term incentives in 2015 in the form of RSUs, rather than stock options. The committee concluded that, under current circumstances, RSUs would provide a stronger incentive and retention tool than stock options. In determining the number of RSUs to be awarded, the committee sought to provide a long-term incentive value ranging from approximately 70% to 150% of base salary per year. Because there were no equity incentives granted during 2014, the 2015 grants are generally twice the annual target amount, adjusted in Mr. Shaulson's case to take into account the equity awards made to him in connection with the commencement of his employment, and adjusted in Mr. Haaser's case to take into account the stock options granted to him in 2014 in his role as corporate controller and in connection with his promotion to the position of chief accounting officer. The RSUs granted in 2015 will vest in four (4) equal annual installments over a period of four (4) years from the date of grant.

## **Severance Compensation and Termination Protection**

We have agreements with each of our named executive officers that provide for severance compensation to be paid if the executives are terminated under certain conditions, including a change in control of the Company, as defined in the agreements. These agreements are described in more detail elsewhere in this proxy statement, in the section titled "Executive Employment Agreements." In negotiating these agreements, it was the belief of the Compensation Committee that these provisions were consistent with executive severance arrangements that are customary for public companies at our stage of development and were necessary in order to hire and/or retain the executives.

Our executive employment agreements and the related severance compensation provisions are designed to meet the following objectives:

- *Termination Without Cause or For Good Reason:* If we terminate the employment of a named executive officer "without cause" or the executive resigns for "good reason," each as defined in the applicable agreement, we are obligated to make certain payments based on the executive's then-effective base salary and, in the case of Dr. Peoples, based on his target bonus, as more fully described below in the section titled "Executive Employment Agreements." We believe these severance provisions are appropriate because the terminated executive is bound by confidentiality and non-competition provisions continuing after termination. We also believe it is beneficial to have a mutually-agreed severance package in place prior to any termination event, to avoid disruptive conflicts and provide us with more flexibility to make a change in senior management if we believe that such a change is in our and our stockholders' best interests.
- *Change in Control:* As part of our normal course of business, we engage in discussions with other companies about possible collaborations, licensing and/or other ways in which the companies may work together to further our respective long-term objectives. In addition, many larger, more established companies consider companies at similar stages of development to ours as potential acquisition targets. In certain scenarios, the potential for merger or being acquired may be in the best interests of our stockholders. We provide for severance compensation, including the acceleration of vesting for any options

not yet vested, if an executive is terminated as a result of a change of control transaction, to promote the ability of our senior executives to act in the best interests of our stockholders even though they could be terminated as a result of the transaction.

In connection with the termination of Mr. Hill's services as CFO, under his employment contract with the Company Mr. Hill became entitled to severance of 12 months base salary payable over a 12-month period in accordance with the Company's normal payroll practices, 12 months of COBRA premiums, and a pro-rated bonus as determined by the Compensation Committee.

### **Tax Considerations**

Section 162(m) of the Internal Revenue Code of 1986, as amended, places a limit of \$1 million on the amount of compensation that the Company may deduct in any one year with respect to the Company's chief executive officer and each of the Company's next three most highly compensated executive officers other than the chief financial officer. Certain performance-based compensation within the meaning of Section 162(m) is not subject to the deduction limit. Certain awards granted under our 2014 Stock Option and Incentive Plan are exempt from the deduction limits of Section 162(m), and awards granted under our 2006 Stock Option and Incentive Plan prior to May 27, 2010 were exempt from the deduction limits of Section 162(m). Awards made under the 2006 Plan after that date may be subject to limitations on deductibility under Section 162(m). To maintain flexibility in compensating the chief executive officer and the executive officers in a manner designed to promote varying corporate goals, the Compensation Committee has not adopted a policy that all compensation must be deductible. The Compensation Committee intends to continue to evaluate the effects of the compensation limits of Section 162(m) and to grant compensation awards in the future in a manner consistent with the best interests of the Company and the best interests of our stockholders.

### **COMPENSATION COMMITTEE REPORT**

The Compensation Committee of the Board of Directors has reviewed and discussed with management the foregoing Compensation Discussion and Analysis and, based on such review and discussions, has recommended to the Board that the Compensation Discussion and Analysis be included in this Proxy Statement and incorporated into the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2014.

Respectfully Submitted by the Compensation Committee,

Anthony J. Sinskey, Chairman  
Celeste Beeks Mastin  
Robert L. Van Nostrand

## SUMMARY COMPENSATION TABLE

The following table summarizes the compensation earned during the years ended December 31, 2014, 2013 and 2012 by each person who served as our "principal executive officer" or "principal financial officer" at any time during 2014 and the three other most highly paid executive officers who were serving as executive officers on December 31, 2014 and whose total compensation in fiscal year 2014 exceeded \$100,000 (our named executive officers):

Name and Principal Position	Year	Salary	Bonus	Stock Awards (1)	Option Awards(1)	Non-Equity Incentive Plan Compensation(2)	All Other Compensation(3)	Total
Joseph Shaulson, President and Chief Executive Officer	2014	\$ 348,674	—	\$ 327,000	\$ 31,525	\$ 208,000	\$ 71,700	\$ 986,899
Charles B. Haaser, Chief Accounting Officer	2014	\$ 188,417	—	—	\$ 15,530	\$ 38,000	\$ 9,995	\$ 251,942
Johan van Walsem, Chief Operating Officer	2014	\$ 295,000	—	—	—	\$ 176,000	\$ 11,700	\$ 482,700
	2013	\$ 278,333	—	—	\$ 189,140	\$ 144,156	\$ 11,475	\$ 623,104
	2012	\$ 250,417	—	—	\$ 296,327	\$ 134,975	\$ 11,250	\$ 692,969
Oliver P. Peoples, Ph.D., Chief Scientific Officer	2014	\$ 225,091	—	—	—	\$ 143,000	\$ 11,700	\$ 379,791
	2013	\$ 240,000	—	—	\$ 83,510	\$ 117,600	\$ 11,475	\$ 452,585
	2012	\$ 240,000	—	—	\$ 296,327	\$ 108,780	\$ 11,250	\$ 656,357
Lynne H. Brum Vice President, Marketing and Corporate Communications	2014	\$ 220,000	—	—	—	\$ 75,000	\$ 11,700	\$ 306,700
	2013	\$ 220,000	—	—	\$ 47,720	\$ 70,400	\$ 11,475	\$ 349,595
	2012	\$ 220,000	—	—	\$ 27,136	\$ 67,760	\$ 8,333	\$ 323,229
Joseph D. Hill, Former Chief Financial Officer	2014	\$ 204,167	—	—	—	\$ 88,000	\$ 237,029	\$ 529,196
	2013	\$ 220,000	—	—	\$ 59,650	\$ 99,000	\$ 8,546	\$ 387,196
	2012	\$ 220,000	—	—	\$ 154,746	\$ 92,400	\$ 11,250	\$ 478,396

- (1) The amounts in the "Stock Awards" and "Option Awards" columns represent the aggregate grant date fair value of restricted stock units and stock option awards for each individual computed in accordance with FASB ASC Topic 718. For a discussion of valuation assumptions, see Note 13 to our 2014 Consolidated Financial Statements, Note 14 to our 2013 Consolidated Financial Statements and Note 12 to our 2012 Consolidated Financial Statements included in our Annual Reports on Form 10-K for the years ended December 31, 2014, 2013 and 2012, respectively. See the "Grants of Plan-Based Awards" table below for more information regarding stock and option awards granted in 2014. In the case of Mr. Shaulson's stock award, the value of the award at the grant date assuming that the highest level of performance conditions will be achieved was \$732,000, based on a value of \$1.22 per share, which was the closing price per share of the Company's common stock on the date of grant.
- (2) 2014 Non-Equity Incentive Plan Compensation represents bonus amounts paid in March 2015 based on the Compensation Committee's review of corporate and individual performance for fiscal 2014 pursuant to the Company's executive cash incentive performance bonus program. Mr. Shaulson, Mr. Haaser, Mr. van Walsem and Ms. Brum elected to receive \$208,000, \$9,500, \$26,400, and \$18,750, respectively, of their cash bonuses in the form of RSUs valued at 2.5 times the converted bonus amount, vesting one year after the date of grant.
- (3) Other Compensation for 2014 includes the value of the Company's Common Stock contributed to the Company's 401(k) plan as a matching contribution. In Mr. Shaulson's case, Other Compensation also includes \$60,000 paid to him pursuant to his employment contract for temporary living and commuting costs. In Mr. Hill's case, Other Compensation for 2014 also includes \$212,692 paid or payable to him pursuant to his employment contract upon the termination of his employment in 2014.





## GRANTS OF PLAN-BASED AWARDS

The following table presents information on all grants of plan-based awards to our named executive officers for the year ended December 31, 2014.

Name	Grant Date	Estimated Future Payouts Under Non-Equity Incentive Plan Awards			Estimated Future Payouts Under Equity Incentive Plan Awards (#)(2)	All Other Option Awards: Number of Securities Underlying Options (#)(3)	Exercise or Base Price of Option Awards (\$/Sh)	Grant Date Fair Value of Stock and Option Awards(4)
		Threshold \$(1)	Target \$(1)	Maximum \$(1)				
Joseph Shaulson		—	\$ 245,000	\$ 490,000				
	1/2/2014				600,000		\$ 327,000	
	1/2/2014					250,000	\$ 31,525	
Charles B. Haaser		—	\$ 44,517					
	2/24/2014					10,000	\$ 9,030	
	11/10/2014					15,000	\$ 6,500	
Johan van Walsem		—	\$ 206,500	\$ 442,500				
Oliver P. Peoples		—	\$ 168,000	\$ 360,000				
Lynne H. Brum		—	\$ 88,000	\$ 176,000				
Joseph D. Hill		—	\$ 121,000	\$ 242,000				

- (1) Estimated Future Payouts Under Non-Equity Incentive Plan Awards represent the bonus range in effect at December 31, 2014 under the executive bonus program for bonus awards that could be earned by named executive officers for performance during 2014, depending on Company and individual performance. Mr. Shaulson's bonus range is 0% to 140% of his base salary, with a target bonus of 70% of base salary. Mr. Haaser's target bonus is 40% of his base salary, with no maximum bonus specified. For Dr. Peoples and Mr. van Walsem the bonus range is 0% to 150% of base salary, with a target bonus of 70% of base salary, for Ms. Brum the bonus range is 0% to 80% of base salary, with a target bonus of 40% of base salary, and for Mr. Hill the bonus range was 0% to 120% of base salary with a target bonus of 60% of base salary, pro rated for his partial year of employment.
- (2) Represents the number of performance restricted stock units issued to Mr. Shaulson pursuant to his employment contract. These RSUs were not issued under any of the Company's stock plans. The RSUs vest in various percentages over three years (subject to continued vesting upon termination without cause and other employment termination events) once certain Company stock price and/or revenue based targets are achieved, if ever. The targets that will trigger vesting of the RSUs are based upon (A) the Company's stock attaining certain price levels which would be more than double the Company's stock price when Mr. Shaulson joined the Company, and (B) establishing a supply chain and securing contracts representing \$25 million of annual revenue. To the extent vesting of the RSUs has not been triggered by January 2, 2016, they will be forfeited.
- (3) Under Mr. Shaulson's employment agreement, he agreed to purchase 250,000 shares of the Company's common stock at a price 10% below the closing price of the Company's common stock on December 19, 2013. This stock option was exercisable immediately upon grant. Mr. Haaser's stock options have a term of ten years and vest in sixteen equal quarterly installments over a period of four years from the date of grant, subject to the terms of the applicable stock plan and the option agreements issued in connection with these grants.
- (4) Represents the aggregate grant date fair value of restricted stock unit and stock option awards computed in accordance with FASB ASC Topic 718. For a discussion of valuation assumptions, see Note 13 to our 2014 Consolidated Financial Statements included in our Annual Report on Form 10-K for the year ended December 31, 2014.

## OUTSTANDING EQUITY AWARDS AT FISCAL YEAR-END

The following table summarizes stock option and restricted stock awards held by our named executive officers at December 31, 2014:

Name	Option Awards					Stock Awards	
	Grant Date	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable(1)	Option Exercise Price(\$)	Option Expiration Date	Equity Incentive Plan Awards: Number of Units That Have Not Vested (#)	Equity Incentive Plan Awards: Market Value of Units of Stock That Have Not Vested (\$) (2)
Joseph Shaulson	12/19/2013	—	1,150,000	\$ 1.33	12/19/2023		
	1/2/2014					600,000	\$ 246,000
Charles B. Haaser	9/24/2008	25,000	—	\$ 11.02	9/24/2018		
	8/21/2009	4,000	—	\$ 10.54	8/21/2019		
	2/12/2010	10,000	—	\$ 9.77	2/12/2020		
	2/11/2011	9,375	625	\$ 9.12	2/11/2021		
	2/1/2012	13,750	6,250	\$ 2.66	2/1/2022		
	5/31/2012	12,500	7,500	\$ 2.00	5/31/2022		
	9/18/2012	40,000	—	\$ 1.55	9/18/2022		
	2/13/2013	4,375	5,625	\$ 1.68	2/13/2023		
	2/24/2014	1,875	8,125	\$ 1.29	2/24/2024		
	11/10/2014	—	15,000	\$ 0.61	11/10/2024		
Johan van Walsem	8/21/2009	50,000	—	\$ 10.54	8/21/2019		
	5/27/2010	45,000	—	\$ 14.49	5/27/2020		
	5/19/2011	39,375	5,625	\$ 7.25	5/19/2021		
	2/1/2012	61,875	28,125	\$ 2.66	2/1/2022		
	9/18/2012	125,000	—	\$ 1.55	9/18/2022		
	5/30/2013	26,250	43,750	\$ 1.69	5/30/2023		
	7/22/2013	31,250	68,750	\$ 1.48	7/22/2023		
Oliver P. Peoples	9/20/2005	117,691	—	\$ 1.65	9/20/2015		
	5/17/2007	40,000	—	\$ 23.99	5/17/2017		
	3/5/2008	40,000	—	\$ 15.00	3/5/2018		
	5/28/2009	40,000	—	\$ 6.93	5/28/2019		
	5/27/2010	45,000	—	\$ 14.49	5/27/2020		
	5/19/2011	39,375	5,625	\$ 7.25	5/19/2021		
	2/1/2012	61,875	28,125	\$ 2.66	2/1/2022		
	9/18/2012	125,000	—	\$ 1.55	9/18/2022		
	5/30/2013	26,250	43,750	\$ 1.69	5/30/2023		
Lynne H. Brum	11/17/2011	26,250	8,750	\$ 4.13	11/17/2021		
	5/31/2012	12,500	7,500	\$ 2.00	5/31/2022		
	5/30/2013	15,000	25,000	\$ 1.69	5/30/2023		
Joseph D. Hill	—	—	—	—	—		

(1) All stock options that are not yet fully exercisable vest in equal quarterly installments over a period of four years from the grant date, except for Mr. Shaulson's stock option. Mr. Shaulson's stock option was granted to him in connection with his agreement to serve as a member of the Company's Board on the date of grant and as

an inducement for him to accept employment with the Company as its President and Chief Executive Officer. The option has an exercise price equal to the fair market value of the Company's common stock at the date of grant, and it has a four-year vesting schedule in which 25%, 25% and 50% of the option vests on the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> anniversary dates, respectively, of Mr. Shaulson commencing employment.

- (2) These RSUs were issued to Mr. Shaulson pursuant to his employment contract. The RSUs vest in various percentages over three years (subject to continued vesting upon termination without cause and other employment termination events) once certain Company stock price and/or revenue based targets are achieved, if ever. The targets that will trigger vesting of the RSUs are based upon (A) the Company's stock attaining certain price levels which would be more than double the Company's stock price when Mr. Shaulson joined the Company, and (B) establishing a supply chain and securing contracts representing \$25 million of annual revenue. The aggregate market value of the unvested restricted stock units held by Mr. Shaulson as shown in the table is based on \$0.41 per share, the closing price per share of the Company's common stock on December 31, 2014.

**OPTION EXERCISES AND STOCK VESTED, PENSION BENEFITS,  
AND NONQUALIFIED DEFERRED COMPENSATION**

The following table presents information about option exercises in 2014 by each of the named executive officers. Amounts shown under the column "Value Realized on Exercise" are based on the market price of our Common Stock on the date of exercise, without taking into account any taxes that may be payable in connection with the transaction, less the exercise price paid for the purchased shares.

Name	Number of Shares Acquired on Exercise	Value Realized on Exercise
Joseph Shaulson(1)	250,000	\$ 50,000
Charles B. Haaser	—	—
Johan van Walsem	—	—
Oliver P. Peoples	—	—
Lynne H. Brum	—	—
Joseph D. Hill	—	—

- (1) In his employment agreement with the Company, Mr. Shaulson agreed to purchase 250,000 shares of the Company's common stock at a price 10% below the closing price of the Company's common stock on December 19, 2013, subject to a one-year holding period. Mr. Shaulson purchased the shares on January 28, 2014. The value realized on exercise, as stated in the table above, represents the difference between the market price of the shares on the date of purchase as reported on the Nasdaq Global Market, and the aggregate purchase price paid by Mr. Shaulson.

There were no stock awards held by named executive officers that became vested during 2014. The Company does not maintain any tax-qualified or nonqualified defined benefit pension plans or any nonqualified deferred compensation plans in which any of the named executive officers participate. Accordingly, the Option Exercise and Stock Vested table otherwise required by Item 402(g) of Regulation S-K, the Pension Benefits table otherwise required by Item 402(h) of Regulation S-K and the Nonqualified Deferred Compensation table otherwise required by Item 402(i) of Regulation S-K have each been omitted.

## POTENTIAL PAYMENTS UPON TERMINATION OR CHANGE OF CONTROL

The following table sets forth estimated potential payments we would be required to make to each of our named executive officers who had an employment agreement in effect on December 31, 2014, upon termination of employment or change in control of the Company. The table assumes that the triggering event occurred on December 31, 2014, and uses a share price of \$0.41, the closing price of our Common Stock on December 31, 2014.

Name	Benefit	Involuntary Termination Without Cause or Voluntary Termination for Good Reason(1)	Termination After Change of Control (1)
Joseph Shaulson	Severance Pay(2)	\$ 595,000	\$ 1,190,000
	Equity Acceleration(3)	—	\$ 246,000
	Tax Gross-up	—	\$ 500,000
	<b>Total Termination Benefits</b>	<b>\$ 595,000</b>	<b>\$ 1,936,000</b>
Charles B. Haaser	Salary(4)	\$ 102,500	\$ 102,500
	COBRA Premiums(5)	\$ 8,222	\$ 8,222
	Equity Acceleration(3)	—	—
	<b>Total Termination Benefits(6)</b>	<b>\$ 110,722</b>	<b>\$ 110,722</b>
Johan van Walsem	Salary(4)	\$ 295,000	\$ 295,000
	COBRA Premiums(5)	\$ 16,443	\$ 16,443
	Equity Acceleration(3)	—	—
	<b>Total Termination Benefits(6)</b>	<b>\$ 311,443</b>	<b>\$ 311,443</b>
Oliver P. Peoples	Salary(4)	\$ 480,000	\$ 480,000
	Bonus	\$ 168,000	\$ 168,000
	COBRA Premiums(5)	\$ 32,886	\$ 32,886
	Equity Acceleration(3)	—	—
	<b>Total Termination Benefits(6)</b>	<b>\$ 680,886</b>	<b>\$ 680,886</b>
Lynne H. Brum	Salary(4)	\$ 220,000	\$ 220,000
	COBRA Premiums(5)	\$ 16,443	\$ 16,443
	Equity Acceleration(3)	—	—
	<b>Total Termination Benefits(6)</b>	<b>\$ 236,443</b>	<b>\$ 236,443</b>

(1) As defined in the applicable executive employment agreement.

(2) Mr. Shaulson's severance pay would be paid (i) in substantially equal installments in accordance with the Company's normal payroll procedure over a 12-month period in the case of termination without cause or for good reason, or (ii) in a lump sum if in connection with a change of control.

(3) The value of Mr. Shaulson's equity acceleration upon a change of control is based on \$0.41 per share, the closing price per share of the Company's Common Stock on December 31, 2014. The Company's share price was below the strike price of all outstanding stock options held by the named executive officers on December 31, 2014, so there would have been no option acceleration benefits at that date.

(4) Salary continuation would be paid to Mr. van Walsem and Ms. Brum over a 12-month period and to Mr. Haaser over a 6-month period in accordance with the Company's normal payroll procedures. Dr. Peoples would receive a lump-sum payment equal to 24 months' base salary.

(5) Estimated cost based on the Company's cost of COBRA premiums at December 31, 2014.

(6) The total termination benefits payable to Mr. Haaser, Mr. van Walsem, Dr. Peoples and Ms. Brum are subject to reduction under certain circumstances in the event such payments would trigger an excise tax under Section 4999 of the Code.



## Executive Employment Agreements

*Joseph Shaulson* . The Company has an employment contract with Joseph Shaulson, our chief executive officer, which will expire on January 2, 2017. The agreement will automatically renew from year to year unless either party gives written notice of non-renewal. Under the agreement, Mr. Shaulson receives the following compensation in connection with his service as the president and CEO: an annual base salary of \$350,000, subject to increase to \$425,000 if the Company achieves certain revenue targets, and an annual cash bonus of up to 140% of base salary with a target bonus of no less than 70% of base salary, subject to the achievement of performance goals and subject to the right to convert the 2014 bonus, if any, into equity at a designated rate.

If during the term of the agreement Mr. Shaulson's employment is terminated without cause or he terminates his employment for good reason (as defined in the agreement), Mr. Shaulson will be entitled to severance of 1.7 times his base salary, provided that he signs and does not revoke a general release. In addition, the vesting of all unvested equity will continue as scheduled, and the exercise period for all equity awards will be extended. The agreement provides that if Mr. Shaulson's employment is terminated after a change of control of the Company, instead of the foregoing severance benefits the vesting of all unvested equity will be accelerated, and he will receive a lump sum payment equal to two times the sum of (A) his then current base salary plus (B) either the average of the bonuses received by him (if any) for the two immediately preceding fiscal years, or, if the second year bonus has not yet been determined, his target bonus of 70% of base salary. If any portion of the severance payments, benefits and vesting constitutes an "excess parachute payment" within the meaning of Section 280G of the Internal Revenue Code, the Company will make an additional gross-up payment of up to \$500,000 that, after reduction for all taxes with respect to such gross-up payment, equals the excise tax with respect to the excess parachute payments.

*Charles B. Haaser* . The Company has an agreement with Charles B. Haaser, chief accounting officer, which provides that if the Company terminates Mr. Haaser's employment without "cause" or if he terminates his employment for "good reason" (each, as defined in the agreement), in addition to any accrued obligations, and contingent on the executive's provision of a timely and complete release of claims against the Company, for the period of twelve months following the termination he will be entitled to continuation of his base salary and payment of COBRA premiums. If the Company terminates Mr. Haaser's employment without cause or if he terminates his employment for "good reason" within the 12-month period immediately following, or the 6-month period immediately prior to, a "change of control" (as defined in the agreement), in addition to any accrued obligations and subject to certain conditions: (i) for a period of twelve months following the termination, the Company will continue Mr. Haaser's base salary and payment of COBRA premiums, and (ii) vesting of all of Mr. Haaser's stock options will be accelerated, subject to certain conditions.

*Johan van Walsem* . The Company has an employment agreement with Johan van Walsem, chief operating officer, expiring on August 17, 2015. The agreement will automatically renew from year to year unless either party gives written notice of non-renewal. The agreement provides that Mr. van Walsem is eligible to receive a performance bonus of up to 150% of his base salary, depending on the Compensation Committee's assessment of achievement of individual and Company goals, with a target of 70% of base salary if performance goals are met. Pursuant to the terms of the agreement with Mr. van Walsem, if the Company terminates Mr. van Walsem's employment without "cause" or if he terminates his employment for "good reason" (each, as defined in the agreement), in addition to any accrued obligations, and contingent on the executive's provision of a timely and complete release of claims against the Company, for the period of twelve months following the termination he will be entitled to continuation of his base salary and payment of COBRA premiums. If the Company terminates Mr. van Walsem's employment without cause or if the executive terminates his employment for "good reason" within the 12-month period immediately following, or the 6-month period immediately prior to, a "change of control" (as defined in the agreement), in addition to any accrued obligations and subject to certain conditions: (i) for a period of twelve months following the termination, the Company will continue Mr. van Walsem's base salary and payment of COBRA premiums, and (ii) vesting of all of Mr. van Walsem's stock options will be accelerated, subject to certain conditions. To the extent Mr. van Walsem would be subject to tax under Section 4999 of the Internal Revenue Code as a result of company payments and benefits, the payments and benefits will be reduced if the reduction would maximize his total after-tax payments.

*Oliver P. Peoples* . The Company has an employment agreement with Oliver P. Peoples, chief scientific officer. Under his employment agreement Dr. Peoples is entitled to a base salary of not less than \$200,000. The Compensation Committee has set Dr. Peoples' base salary at \$240,000. The agreement also provides that Dr. Peoples will be eligible to receive annual bonuses under a bonus scheme to be established by the Company, based on individual and Company performance. Under the Company's incentive program, Dr. Peoples is eligible to receive a performance bonus of up to 150% of his base salary, depending on the Compensation Committee's assessment of achievement of individual and Company goals, with a target of 70% of base salary if performance goals are met. Pursuant to the terms of Dr. Peoples' agreement, if the Company terminates Dr. Peoples' employment without "cause" or if Dr. Peoples terminates his employment for "good reason" (each, as defined in the agreement), he will be entitled to a lump-sum cash payment equal to 24 months' base salary and a pro rata portion of the target bonus for the year in which termination occurs, plus payment of COBRA premiums for 24 months. If the Company terminates Dr. Peoples' employment without cause or if Dr. Peoples terminates his employment for "good reason" within the twenty-four month period immediately following, or the two month period immediately prior to, a "change of control" (as defined in the agreement), in addition to any accrued obligations, and subject to certain conditions, Dr. Peoples will receive: (i) a lump-sum cash payment equal to two times the sum of his then-current base salary plus 50% of his then-current target bonus, (ii) payment of COBRA premiums for 24 months, and (iii) full vesting of his stock options. To the extent Dr. Peoples would be subject to tax under Section 4999 of the Internal Revenue Code as a result of company payments and benefits, the payments and benefits will be reduced if the reduction would maximize his total after-tax payments.

*Lynne H. Brum* . The Company has an employment agreement with Lynne H. Brum, vice president, marketing and corporate communications. The agreement may be terminated without cause by either party upon 30 days prior written notice. Under the agreement Ms. Brum receives an initial base salary of \$220,000 per year. The agreement provides that Ms. Brum is eligible to receive a performance bonus of up to 80% of her base salary, depending on the Compensation Committee's assessment of achievement of individual and Company goals, with a target of 40% of base salary if performance goals are met. Pursuant to the terms of the agreement with Ms. Brum, if the Company terminates Ms. Brum's employment without "cause" or if she terminates her employment for "good reason" (each, as defined in the agreement), in addition to any accrued obligations, and contingent on the executive's provision of a timely and complete release of claims against the Company, for the period of twelve months following the termination she will be entitled to continuation of her base salary and payment of COBRA premiums. If the Company terminates Ms. Brum's employment without cause or if she terminates her employment for "good reason" within the 12-month period immediately following, or the 6-month period immediately prior to, a "change of control" (as defined in the agreement), in addition to any accrued obligations and subject to certain conditions: (i) for a period of twelve months following the termination, the Company will continue Ms. Brum's base salary and payment of COBRA premiums, and (ii) vesting of all of Ms. Brum's stock options will be accelerated, subject to certain conditions. To the extent Ms. Brum would be subject to tax under Section 4999 of the Internal Revenue Code as a result of company payments and benefits, the payments and benefits will be reduced if the reduction would maximize her total after-tax payments.

*Joseph D. Hill* . The Company had an employment agreement with Joseph D. Hill, our former chief financial officer. Mr. Hill's employment with the Company ended on December 3, 2014. Upon termination of Mr. Hill's employment without cause (as defined in the agreement), and upon signing a general release, Mr. Hill became entitled to severance of 12 months base salary and payment of COBRA premiums. The agreement provided that Mr. Hill was eligible to receive a performance bonus of up to 120% of his base salary, depending on the Compensation Committee's assessment of achievement of individual and Company goals, with a target of 60% of base salary if performance goals were met, to be awarded on a pro rata basis for any partial year of employment. In connection with the termination of Mr. Hill's services as CFO, under the terms of his employment contract with the Company as described above Mr. Hill receives 12 months base salary (a total of \$220,000), payable over a 12-month period commencing December 3, 2014 and payment of 12 months of COBRA premiums, and in March 2015 he received a 2014 performance bonus payment of \$88,000.

*Noncompetition Agreements*. Mr. Shaulson signed an employee noncompetition, nondisclosure and inventions agreement which prohibits him, during his employment by us and for a period of one year thereafter, from engaging in certain business activities which are directly or indirectly in competition with the products or services being developed, manufactured, marketed, distributed, planned, sold by the Company during the term of his employment.

Each of our other named executive officers has signed an employee noncompetition, nondisclosure and inventions agreement prohibiting the executive, during his or her employment by us and for a period of two years thereafter, from engaging in certain business activities which are directly or indirectly in competition with the products or services being developed, manufactured, marketed, distributed, planned, sold or otherwise provided by us or which are in any way directly or indirectly detrimental to our business.

## DIRECTOR COMPENSATION

### Compensation of Directors

Under the Company's policy for compensation of non-employee directors, each non-employee member of our Board of Directors receives an annual retainer of \$30,000. In addition, the chairs of the Audit Committee, Compensation Committee and Nominating and Corporate Governance Committee are entitled to an additional annual retainer of \$15,000, \$10,000 and \$10,000, respectively. Each non-employee director serving as a member but not chair of our Audit Committee, Compensation Committee and Nominating and Corporate Governance Committee receives an annual retainer of \$5,000.

Under the 2006 Stock Option and Incentive Plan, each non-employee director was granted a fully vested nonqualified stock option to acquire 20,000 shares of stock when first elected to serve as a director. In addition, after each annual meeting of stockholders each non-employee director is automatically granted a non-qualified stock option to acquire 10,000 shares of stock, and the non-employee Chairman of the Board is granted a stock option to acquire an additional 15,000 shares of stock, each of which vests one year after the date of grant. All of these non-employee director stock options have an exercise price equal to the fair market value of the stock on the date the stock option is granted. In addition, the Board of Directors approved special one-time grants of stock options for 50,000 shares each to the Company's non-employee directors during 2014. These options were granted because there have been no adjustments to the number of option shares awarded since the Company went public in 2006. Therefore, the value of the regular annual grants is now well below the value that was originally intended to be delivered, as a result of the Company's declining stock price.

The 2006 Stock Option and Incentive Plan was terminated upon the adoption of Company's 2014 Stock Option and Incentive Plan, which does not include any provision for automatic equity grants to directors. The Compensation Committee is considering alternative structures for compensation of directors and expects to finalize its determination by mid-2015.

The following table summarizes the compensation earned by our non-employee directors in 2014:

Name	Fees Earned or Paid in Cash \$(1)	Option Awards \$(2)	Total (\$)
Peter N. Kellogg	\$ 35,000	\$ 49,797	\$ 84,797
Celeste Beeks Mastin	\$ 40,000	\$ 49,797	\$ 89,797
Anthony J. Sinskey, Sc.D.	\$ 45,000	\$ 49,797	\$ 94,797
Matthew Strobeck, Ph.D.	\$ 35,000	\$ 49,797	\$ 84,797
Robert L. Van Nostrand	\$ 49,431	\$ 58,260	\$ 107,691

(1) Represents fees for the year 2014. All such fees were paid during 2014.

(2) Represents the aggregate grant date fair value of stock option awards for each individual computed in accordance with FASB ASC Topic 718. For a discussion of valuation assumptions, see Note 13 to our 2014 Consolidated Financial Statements included in our Annual Report on Form 10-K for the year ended December 31, 2014. All stock options were issued under the Company's 2006 Stock Option and Incentive Plan and have an exercise price per share equal to the fair market value of our Common Stock on the date of grant.



As of December 31, 2014, non-employee directors had outstanding stock options as follows:

Name	Stock Options Outstanding
Peter N. Kellogg	150,000
Celeste Beeks Mastin	100,000
Anthony J. Sinskey, Sc.D.	150,000
Matthew Strobeck, Ph.D.	100,000
Robert L. Van Nostrand	165,000

### SECURITIES AUTHORIZED FOR ISSUANCE UNDER EQUITY COMPENSATION PLANS

The following table provides information about the Common Stock that may be issued upon the exercise of options, warrants and rights under all the Company's existing equity compensation plans as of December 31, 2014.

Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
	(a)	(b)	(c)
Equity compensation plans approved by stockholders(1)	5,514,359	\$ 5.4067	25,241,099

(1) Consists of the 2005 Stock Plan, the 2006 Stock Option and Incentive Plan and the 2014 Stock Option and Incentive Plan. For a description of these plans see Note 13 to our 2014 Consolidated Financial Statements included in our Annual Report on Form 10-K for the year ended December 31, 2014.

### CERTAIN RELATIONSHIPS AND RELATED PERSON TRANSACTIONS

The charter of the Nominating and Corporate Governance Committee provides that the committee shall conduct an appropriate review of all related party transactions (including those required to be disclosed pursuant to Item 404 of Regulation S-K) for potential conflict of interest situations on an ongoing basis, and the approval of that committee shall be required for all such transactions.

Also, under the Company's Code of Business Conduct, any transaction or relationship that reasonably could be expected to give rise to a conflict of interest involving an employee must be reported promptly to the Company's General Counsel, who has been designated as the Company's Compliance Officer. The Compliance Officer may notify the Board of Directors or a committee thereof as she deems appropriate. Actual or potential conflicts of interest involving a director, executive officer or the Compliance Officer must be disclosed directly to the Chairman of the Board of Directors.

The transactions set forth below were approved by a majority of the Board of Directors, including a majority of the independent and disinterested members of the Board of Directors. The Company believes that it has executed all of the transactions set forth below on terms no less favorable to us than could have been obtained from unaffiliated third parties.

Metabolix has agreements with Tepha, Inc. ("Tepha") to license certain technology to Tepha. Dr. Sinskey and Dr. Strobeck, members of our Board of Directors, serve on the board of directors of Tepha, Dr. Peoples, Dr. Sinskey, and Dr. Strobeck are stockholders of Tepha, and Metabolix owns 648,149 shares of Tepha's Series A redeemable

convertible preferred stock. The agreements with Tephra contain provisions for sublicense maintenance fees to be paid to Metabolix and for product-related milestone payments. Under the agreements, Metabolix also receives royalties on net sales of licensed products and sublicensing revenues received by Tephra, subject to a minimum payment each year. Metabolix recognized license and royalty revenues of approximately \$425,000 from Tephra for the year ended December 31, 2014. The Company believes that the terms of the agreements with Tephra are no less favorable to us than license agreements that might be entered into with an independent third party.

## REPORT OF THE AUDIT COMMITTEE

The Audit Committee for the last fiscal year consisted of Mr. Van Nostrand, Chairman, Mr. Kellogg and Dr. Strobeck. The Audit Committee has the responsibility and authority described in the Metabolix Audit Committee Charter, which has been approved by the Board of Directors. A copy of the Audit Committee Charter is available on our website at <http://www.metabolix.com> under "Investor Relations—Corporate Governance—Essential Governance Documents." The Board of Directors has determined that the members of the Audit Committee meet the independence requirements set forth in Rule 10A-3(b)(1) under the Securities Exchange Act of 1934, as amended, and the applicable rules of the NASDAQ Stock Market, and that Mr. Van Nostrand and Mr. Kellogg each qualify as an "Audit Committee financial expert" under the rules of the SEC. The Audit Committee oversees the accounting and financial reporting processes of the Company and its subsidiaries and the audits of the financial statements of the Company. Management has the primary responsibility for the financial statements and the reporting process, including the systems of internal controls.

In fulfilling its oversight responsibilities, the Audit Committee reviewed and discussed with both the management of the Company and PricewaterhouseCoopers LLP, the Company's independent registered public accounting firm, the audited financial statements included in the Company's Annual Report on Form 10-K for the year ended December 31, 2014, including a discussion of the acceptability of the accounting principles, the reasonableness of significant judgments and the clarity of disclosures in the financial statements. The Audit Committee also reviewed the Company's quarterly financial statements for the first three fiscal quarters during the fiscal year ended December 31, 2014 and discussed them with both the management of the Company and PricewaterhouseCoopers LLP prior to including such interim financial statements in the Company's quarterly reports on Form 10-Q and its other filings with the SEC.

The Audit Committee reviewed with PricewaterhouseCoopers LLP their judgments as to the application of the Company's accounting principles and such other matters as are required to be discussed with the Audit Committee by Statement on Auditing Standards No. 61, as amended (AICPA, Professional Standards, Vol. 1, AU Section 380), as adopted by the Public Company Accounting Oversight Board in Rule 3200T. In addition, the Audit Committee has received from PricewaterhouseCoopers LLP the written disclosures and the letter required by applicable requirements of the Public Company Accounting Oversight Board regarding PricewaterhouseCoopers LLP's communications with the Audit Committee concerning independence, has discussed with PricewaterhouseCoopers LLP their independence from management and the Company, and has considered the compatibility with PricewaterhouseCoopers LLP's independence as auditors of any non-audit services performed for the Company by PricewaterhouseCoopers LLP.

The Audit Committee discussed with PricewaterhouseCoopers LLP the overall scope and plans for their audit. The Audit Committee met with PricewaterhouseCoopers LLP, with and without management present, to discuss the results of their examinations and their evaluations of the Company's financial reporting.

The Audit Committee has also evaluated the performance of PricewaterhouseCoopers LLP, including, among other things, the amount of fees paid to PricewaterhouseCoopers LLP for audit and non-audit services during the fiscal year ended December 31, 2014. Information about PricewaterhouseCoopers LLP's fees for the fiscal year ended December 31, 2014 is discussed below in this Proxy Statement under "Independent Registered Public Accountants."

The Audit Committee met four times during fiscal year 2014. In reliance on the reviews and discussions referred to above, the Audit Committee recommended to the Board of Directors that the Company's audited financial statements be included in the Annual Report on Form 10-K for the year ended December 31, 2014 and filed with the SEC, and the Board of Directors approved such inclusion.

Respectfully submitted by the Audit Committee,

Robert L. Van Nostrand, Chairman  
Peter N. Kellogg  
Matthew Strobeck, Ph.D.

## **INDEPENDENT REGISTERED PUBLIC ACCOUNTANTS**

The Audit Committee of the Board of Directors selected the firm of PricewaterhouseCoopers LLP, an independent registered public accounting firm, to serve as independent auditors for the fiscal year ended December 31, 2014. PricewaterhouseCoopers LLP has served as the Company's independent auditors for at least the past ten years. In accordance with related requirements, PricewaterhouseCoopers LLP periodically changes certain personnel who work on the audit of the Company.

### **Fees**

The following sets forth the aggregate fees billed by PricewaterhouseCoopers LLP to the Company during the years ended December 31, 2014 and 2013:

#### *Audit Fees*

Fees related to audit services were approximately \$508,481 for the year ended December 31, 2014 and \$550,350 for the year ended December 31, 2013. These fees relate to the audits of the Company's financial statements for the years ended December 31, 2014 and 2013, quarterly review procedures on the Company's financial statements during the years ended December 31, 2014 and 2013, and consents in connection with benefit plan registration statements.

#### *Audit Related Fees*

There were no audit related fees for the year ended December 31, 2014. Audit related fees were \$3,500 for the year ended December 31, 2013.

#### *Tax Fees*

PricewaterhouseCoopers LLP billed no fees for tax services for the fiscal years ended December 31, 2014 and 2013.

#### *All Other Fees*

PricewaterhouseCoopers LLP billed \$1,800 for each of the years ended December 31, 2014 and 2013, for the Company's license of PricewaterhouseCoopers LLP's accounting research tool.

### **Pre-Approval Policy of the Audit Committee**

All of the services performed by PricewaterhouseCoopers LLP for the fiscal years ended December 31, 2014 and 2013 were pre-approved in accordance with the pre-approval policy set forth in the Audit Committee Charter. The Audit Committee pre-approves all audit services and permitted non-audit services performed or proposed to be undertaken by the independent registered public accounting firm (including the fees and terms thereof), except where such services are determined to be *de minimis* under the Exchange Act, giving particular attention to the relationship between the types of services provided and the independent registered public accounting firm's independence.

## **PROPOSAL NO. 2**

### **RATIFICATION OF APPOINTMENT OF INDEPENDENT REGISTERED**

#### **PUBLIC ACCOUNTING FIRM**

Our Audit Committee is responsible for the appointment, compensation, retention and oversight of the work of our independent registered public accounting firm. Our Audit Committee expects to appoint PricewaterhouseCoopers LLP to perform the independent audit, review and attestation services with respect to our financial statements for the fiscal year ending December 31, 2015. Although shareholder approval of the selection of PricewaterhouseCoopers LLP is not required by law, our Board of Directors believes that it is advisable to give shareholders an opportunity to ratify this selection.

If this proposal is not approved at the Annual Meeting, our Audit Committee will reconsider the selection of PricewaterhouseCoopers LLP for the ensuing fiscal year, but may determine that continued retention of PricewaterhouseCoopers LLP is in our Company's and our stockholders' best interests. Even if the appointment is ratified, the Audit Committee, in its discretion, may direct the appointment of a different independent registered public accounting firm at any time during the year if it determines that such a change would be in our Company's and our stockholders' best interests.

We expect representatives of PricewaterhouseCoopers LLP to be present at the Annual Meeting. They will have the opportunity to make a statement if they desire to do so and will also be available to respond to appropriate questions from stockholders.

#### **Recommendation of the Board**

**The Board of Directors unanimously recommends that you vote "FOR" ratification of the appointment of PricewaterhouseCoopers LLP as our independent registered public accounting firm for the year ending December 31, 2015.**

#### **OTHER MATTERS**

The Board of Directors knows of no other matters to be brought before the Annual Meeting. If any other matters are properly brought before the Annual Meeting, the persons appointed in the accompanying proxy intend to vote the shares represented thereby in accordance with their best judgment on such matters, under applicable laws.

#### **STOCKHOLDER PROPOSALS FOR THE 2016 ANNUAL MEETING**

Any stockholder proposals submitted pursuant to Exchange Act Rule 14a-8 for inclusion in the Company's proxy statement and form of proxy for its 2016 annual meeting must be received by Metabolix on or before December 29, 2015 in order to be considered for inclusion in its proxy statement and form of proxy. Such proposals must also comply with the requirements as to form and substance established by the SEC if such proposals are to be included in the proxy statement and form of proxy. Any such proposal should be mailed to our principal executive offices: Metabolix, Inc., 21 Erie Street, Cambridge, Massachusetts 02139, Attention: Secretary.

Stockholder proposals to be presented at the Company's 2016 annual meeting, other than stockholder proposals submitted pursuant to Exchange Act Rule 14a-8 for inclusion in the Company's proxy statement and form of proxy for its 2016 annual meeting, must be received in writing at our principal executive office not earlier than January 29, 2016, nor later than February 28, 2016, unless our 2016 annual meeting of stockholders is scheduled to take place before April 28, 2016 or after July 27, 2016. Our By-Laws state that the stockholder must provide timely written notice of such nomination or proposal as well as be present at such meeting, either in person or by a representative. A stockholders' notice shall be timely received by Metabolix at its principal executive office not less than ninety (90) days nor more than one hundred twenty (120) days prior to the anniversary date of the immediately preceding annual meeting (the "Anniversary Date"); provided, however, that in the event the annual meeting is scheduled to be held on a date more than thirty (30) days before the Anniversary Date or more than sixty (60) days

after the Anniversary Date, a stockholder's notice shall be timely if received by Metabolix at its principal executive office not later than the close of business on the later of (a) the ninetieth (90th) day prior to the scheduled date of such annual meeting or (b) the tenth (10th) day following the day on which public announcement of the date of such annual meeting is first made by Metabolix. Any such proposal should be mailed to: Metabolix, Inc., 21 Erie Street, Cambridge, Massachusetts 02139, Attention: Secretary.

#### **SECTION 16(a) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE**

Section 16(a) of the Exchange Act requires our directors, executive officers and persons who own more than ten percent of a registered class of our equity securities to file reports of ownership and changes in ownership with the SEC. Such persons are required by regulations of the SEC to furnish us with copies of all such filings. Based on our review of the copies of such filings received by us with respect to the fiscal year ended December 31, 2014, we believe that all required persons complied with all Section 16(a) filing requirements.

#### **EXPENSES AND SOLICITATION**

The cost of solicitation of proxies will be borne by the Company and, in addition to soliciting stockholders by mail through its regular employees, the Company may request banks, brokers and other custodians, nominees and fiduciaries to solicit their customers who have stock of the Company registered in the names of a nominee and, if so, will reimburse such banks, brokers and other custodians, nominees and fiduciaries for their reasonable out-of-pocket costs. Solicitation by officers and employees of the Company may also be made of some stockholders in person or by mail, telephone or e-mail following the original solicitation. If Metabolix does retain a proxy solicitation firm, Metabolix would pay such firm's customary fees and expenses, which fees would be expected not to exceed \$10,000 plus expenses.

#### **HOUSEHOLDING OF PROXY MATERIALS**

Our 2014 Annual Report, including audited financial statements for the fiscal year ended December 31, 2014, is being mailed to you along with this proxy statement. In order to reduce printing and postage costs, the Company has undertaken an effort to deliver only one Annual Report and one proxy statement to multiple shareholders sharing an address. This delivery method, called "householding," is being used unless the Company has received contrary instructions from one or more of the stockholders sharing an address. If your household has received only one Annual Report and one proxy statement, the Company will deliver promptly a separate copy of the Annual Report and the proxy statement to any shareholder who sends a written request to Metabolix, Inc., 21 Erie Street, Cambridge, Massachusetts 02139, Attention: Secretary, or makes an oral request to Investor Relations at (617) 583-1700. If your household is receiving multiple copies of the Company's Annual Report or proxy statement and you wish to request delivery of a single copy, you may send a written request to Metabolix, Inc., 21 Erie Street, Cambridge, Massachusetts 02139, Attention: Secretary.

**METABOLIX, INC.  
ANNUAL MEETING OF STOCKHOLDERS**

**May 28, 2015  
9:30 a.m. Eastern Time  
Exchange Place  
53 State Street  
Boston, MA 02109**

**THIS PROXY IS SOLICITED ON BEHALF OF THE COMPANY'S BOARD OF DIRECTORS  
FOR THE 2015 ANNUAL MEETING OF STOCKHOLDERS TO BE HELD MAY 28, 2015.**

The undersigned hereby constitutes and appoints JOSEPH SHAULSON and SARAH P. CECIL, and each of them acting in the absence of the other with full power of substitution, the true and lawful attorneys and proxies of the undersigned, to attend the Annual Meeting of the Stockholders of METABOLIX, INC. (the "Company"), to be held at the offices of Goodwin Procter LLP at Exchange Place, 53 State Street, Boston, MA 02109, on May 28, 2015, at 9:30 a.m. Eastern time, and any adjournments or postponements thereof, and to vote all shares of the Company's common stock outstanding in the name of the undersigned on the matters set forth on the reverse side and upon any other matters that may come properly before the meeting or any adjournments or postponements thereof, with all the powers the undersigned would possess if personally present at the meeting, as follows:

*See reverse for voting instructions.*

**Annual Meeting of Stockholders of  
Metabolix, Inc.  
May 28, 2015**

**Important Notice Regarding Internet Availability of Proxy Materials for the Annual Meeting:  
The proxy statement and annual report to shareholders are available  
at <http://ir.metabolix.com/index.cfm>.  
Please date, sign and mail your proxy card in  
the envelope provided as soon as possible.**

Please detach along perforated line and mail in the envelope provided

**The Board of Directors Recommends a Vote FOR all nominees in Proposal 1 and FOR Proposal 2:**

Please sign, date and return promptly in the enclosed envelope. Please mark your vote in blue or black ink as shown here ■

- |    |   |                          |  |                  |                    |
|----|---|--------------------------|--|------------------|--------------------|
| 1. | Election of two<br>Class III Directors: | <input type="checkbox"/> | FOR ALL NOMINEES                           | Nominees:<br>( ) | Anthony J. Sinskey |
|    |   | <input type="checkbox"/> | WITHHOLD AUTHORITY<br>FOR ALL NOMINEES     | ( )              | Matthew Strobeck   |
|    |   | <input type="checkbox"/> | FOR ALL EXCEPT<br>(See instructions below) |                  |                    |

INSTRUCTIONS: To withhold authority to vote for any individual nominee(s), mark "FOR ALL EXCEPT" and fill in the circle next to each nominee you wish to withhold, as shown here:

- |    |   |                                 |                                     |                                     |
|----|---|---------------------------------|-------------------------------------|-------------------------------------|
| 2. | Ratification of the appointment of PricewaterhouseCoopers LLP as Independent Registered Public Accounting Firm for the year ending December 31, 2015: | FOR<br><input type="checkbox"/> | AGAINST<br><input type="checkbox"/> | ABSTAIN<br><input type="checkbox"/> |
|----|---|---------------------------------|-------------------------------------|-------------------------------------|

**THIS PROXY WILL BE VOTED AS DIRECTED OR, IF NO CONTRARY DIRECTION IS INDICATED, WILL BE VOTED FOR ALL NOMINATED CLASS III DIRECTORS; FOR PROPOSAL 2; AND AS THE PROXY HOLDERS DEEM ADVISABLE ON SUCH OTHER MATTERS AS MAY COME BEFORE THE MEETING, OR ANY ADJOURNMENTS OR POSTPONEMENTS THEREOF.**

**VOTE BY MAIL**

Mark, sign, and date your proxy card. Return it in the postage-paid envelope we have provided or return it to Metabolix, Inc., c/o American Stock Transfer & Trust Company, 6201 15th Avenue, Brooklyn, NY 10219.

To change the address on your account, please check the box at right and indicate your new address in the address space above. Please note that changes to the registered name(s) on the account may not be submitted via this method.

Signature of Stockholder      Date:      Signature of Stockholder      Date:

**Note:** Please sign exactly as your name or names appear on this Proxy. When shares are held jointly, each holder should sign. When signing as executor, administrator, attorney, trustee or guardian, please give full title as such. If the signer is a corporation, please sign full corporate name by duly authorized officer, giving full title as such. If signer is a partnership, please sign in partnership name by authorized person.

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