

# TERRAVIA HOLDINGS, INC.

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

Filed 03/27/17 for the Period Ending 05/22/17

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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

**TerraVia Holdings, Inc.**

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(Name of Registrant as Specified In Its Charter)

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

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- No fee required.
- Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.
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  - (4) Date Filed: \_\_\_\_\_

**TERRAVIA HOLDINGS, INC.**  
225 Gateway Boulevard  
South San Francisco, California 94080

**NOTICE OF ANNUAL MEETING OF STOCKHOLDERS**  
**To Be Held May 22, 2017**

**To Our Stockholders:**

We cordially invite you to attend TerraVia's 2017 Annual Meeting of Stockholders (Annual Meeting) at our corporate headquarters located at 225 Gateway Boulevard, South San Francisco, CA 94080, on Monday, May 22, 2017 at 8:00 a.m. Pacific Daylight Time. At the meeting, holders of our common stock and holders of our Series A Convertible Preferred Stock will:

1. vote on the election of the two director nominees named in this proxy statement for three-year terms expiring in 2020;
2. vote on an amendment to our Amended and Restated Certificate of Incorporation to increase the number of authorized shares of our common stock from 225,000,000 shares to 337,500,000 shares;
3. vote on the ratification of the appointment of Deloitte & Touche LLP as our independent registered public accounting firm for our fiscal year ending December 31, 2017; and
4. transact such other business as may properly come before the Annual Meeting or any adjournment or postponement thereof.

You can vote at the Annual Meeting and any adjournment or postponement thereof if you were a stockholder of record at the close of business on March 23, 2017.

We are pleased to take advantage of the Securities and Exchange Commission (SEC) rules that allow issuers to furnish proxy materials to their stockholders on the Internet. We believe these rules allow us to provide you with the information you need in a more timely manner while lowering the costs of delivery and reducing the environmental impact of our Annual Meeting. For specific voting instructions, please refer to the instructions on the proxy card or on the Notice of Internet Availability of Proxy Materials (Notice) that was mailed to you. If you attend the meeting, you will have the right to revoke the proxy and vote your shares in person.

You are cordially invited to attend the Annual Meeting in person. To ensure that your vote is counted at the Annual Meeting, however, please vote as promptly as possible.

By Order of the Board  
of Directors,



Apu S. Mody  
Chief Executive  
Officer

South San Francisco, California  
March 27, 2017

**IMPORTANT NOTICE REGARDING INTERNET AVAILABILITY OF  
PROXY MATERIALS AND ANNUAL REPORT**

Our proxy statement for the 2017 Annual Meeting of Stockholders as well as our Annual Report on Form 10-K for the fiscal year ended December 31, 2016 (Annual Report) are available at <http://investors.terravia.com/financials.cfm>.

# TERRAVIA HOLDINGS, INC.

225 Gateway Boulevard  
South San Francisco, California 94080

## PROXY STATEMENT FOR 2017 ANNUAL MEETING OF STOCKHOLDERS

### GENERAL INFORMATION

References in this proxy statement to “we,” “us,” “our,” “the company” and “TerraVia” refer to TerraVia Holdings, Inc. References in this proxy statement to “common stock” and “preferred stock” refer to our common stock, par value \$0.001 per share, and our Series A Convertible Preferred Stock, par value \$0.001 per share, respectively. References in this proxy statement to “stockholders” refer to the holders of our outstanding common stock and preferred stock.

#### Why am I receiving these materials?

The board of directors of TerraVia Holdings, Inc. is making these proxy materials available to you on the Internet or, upon your request, has delivered printed versions of these materials to you by mail, in connection with its solicitation of proxies for use at our 2017 Annual Meeting of Stockholders to be held on Monday, May 22, 2017 at 8:00 a.m. Pacific Daylight Time at our corporate headquarters located at 225 Gateway Boulevard, South San Francisco, CA 94080, and at any postponement(s) or adjournment(s) thereof. These materials are being first sent or given to stockholders on or about March 27, 2017. You are invited to attend the Annual Meeting and are requested to vote on the proposals described in this proxy statement.

#### What is included in these materials?

These materials include:

- This proxy statement for the Annual Meeting; and
- Our Annual Report on Form 10-K for the fiscal year ended December 31, 2016, as filed with the U.S. Securities and Exchange Commission (SEC) on March 16, 2017.

If you requested printed versions of these materials by mail, these materials also include the proxy card or vote instruction form for the Annual Meeting.

#### What items will be voted on at the Annual Meeting?

Stockholders will vote on three (3) items at the Annual Meeting:

- Election to our board of directors of the two nominees named in this proxy statement (Proposal 1);
- Approval of an amendment to our Amended and Restated Certificate of Incorporation to increase the number of authorized shares of our common stock from 225,000,000 shares to 337,500,000 shares (Proposal 2); and
- Ratification of the appointment of Deloitte & Touche LLP as our independent registered public accounting firm for our fiscal year ending December 31, 2017 (Proposal 3).

In addition, we will consider and vote upon such other business as may properly come before the Annual Meeting. We are not currently aware of any other matters to be considered and voted upon at the meeting.

#### What are the board’s voting recommendations?

Our board of directors recommends that you vote your shares:

- “FOR” each of the nominees to our board of directors (Proposal 1);
- “FOR” the amendment to our Amended and Restated Certificate of Incorporation to increase the number of authorized shares of our common stock from 225,000,000 shares to 337,500,000 shares (Proposal 2); and
- “FOR” ratification of the appointment of Deloitte & Touche LLP as our independent registered public accounting firm for our fiscal year ending December 31, 2017 (Proposal 3).

#### Where are TerraVia’s principal executive offices located and what is TerraVia’s main telephone number?

Our principal executive offices are located at 225 Gateway Boulevard, South San Francisco, CA 94080. Our main telephone number is (650) 780-4777.

**Why did I receive a one-page notice in the mail regarding the Internet availability of proxy materials instead of a full set of proxy materials?**

Pursuant to rules adopted by the SEC, we have elected to provide access to our proxy materials via the Internet. Accordingly, we are sending a Notice of Internet Availability of Proxy Materials (Notice) to our stockholders. All stockholders will have the ability to access the proxy materials on the website referred to in the Notice or request to receive a printed set of the proxy materials. Instructions on how to access the proxy materials over the Internet or to request a printed copy may be found in the Notice. In addition, stockholders may request to receive proxy materials in printed form by mail or electronically by email on an ongoing basis. We encourage stockholders to take advantage of the availability of the proxy materials on the Internet to help reduce the environmental impact of our annual meetings.

**I share an address with another stockholder, and we received only one paper copy of the proxy materials. How may I obtain an additional copy of the proxy materials?**

Pursuant to rules adopted by the SEC, we utilize a procedure called “householding.” Under this procedure, we are delivering a single copy of the Notice and, if applicable, this proxy statement and the Annual Report to multiple stockholders who share the same address unless we have received contrary instructions from one or more of the stockholders. This procedure reduces our printing costs, mailing costs and fees. Stockholders who participate in householding will continue to be able to access and receive separate proxy cards. Upon written or oral request, a separate copy of the Notice and, if applicable, this proxy statement and the Annual Report will promptly be delivered to any stockholder at a shared address to which a single copy of any of these documents was delivered. To receive a separate copy of the Notice and, if applicable, the proxy materials, stockholders may contact our mailing agent at the following address and telephone number:

Broadridge Financial Solutions  
Broadridge Householding Department  
51 Mercedes Way  
Edgewood, NY 11717  
1-800-542-1061

Stockholders who hold shares in “street name” (as described below) may contact their brokerage firm, bank, broker-dealer or other similar organization to request information about householding.

**How can I get electronic access to the proxy materials?**

The Notice will provide you with instructions regarding how to:

- View on the Internet our proxy materials for the Annual Meeting; and
- Instruct us to send future proxy materials to you by email.

Our proxy materials are also available on our website at <http://investors.terravia.com/financials.cfm>.

Choosing to receive future proxy materials by email will save us the cost of printing and mailing documents to you and will reduce the impact of our annual meetings on the environment. If you choose to receive future proxy materials by email, you will receive an email message next year with instructions containing a link to those materials and a link to the proxy voting website. Your election to receive proxy materials by email will remain in effect until you terminate it.

**Who may vote at the Annual Meeting?**

You may vote at the Annual Meeting or by proxy if you were a stockholder of record at the close of business on March 23, 2017. Each holder of our common stock is entitled to one vote per share of common stock on each matter presented. Each holder of our preferred stock is entitled to that number of votes equal to the whole number of shares of common stock into which such holder’s aggregate number of shares of preferred stock are convertible as of the close of business on the record date on all matters submitted to a vote of the holders of the common stock at the meeting. Shares of our preferred stock are currently convertible at the rate of 500 shares of common stock per share of preferred stock.

As of March 23, 2017 there were 100,928,901 shares of our common stock outstanding and 26,750 shares of preferred stock outstanding (representing aggregate voting power of 13,375,000 shares of common stock on an as converted basis, or 11.7% of the combined voting power of our common stock and preferred stock).

Internet and telephone voting will close at 11:59 p.m., New York time, on May 21, 2017. If you vote through the Internet or by telephone, you should be aware that you may incur costs, such as usage charges from telephone companies or Internet service providers, and that these costs must be borne by you. If you vote by the Internet or telephone, then you need not return a written proxy card by mail. Written proxy cards must be received by 8:00 a.m., New York time, on May 22, 2017.

**What is the difference between a stockholder of record and a beneficial owner of shares held in street name?**

*Stockholder of Record* . If your shares are registered directly in your name with our transfer agent, Computershare Trust Company, N.A. (Computershare), you are considered the stockholder of record with respect to those shares, and the Notice was sent directly to you by us. As the stockholder of record, you have the right to grant your voting proxy directly to us. If you request printed copies of the proxy materials by mail, you will receive a proxy card.

*Beneficial Owner of Shares Held in Street Name* . If your shares are held in an account at a brokerage firm, bank, broker-dealer, or other similar organization, then you are the beneficial owner of shares held in “street name,” and the Notice was forwarded to you by that organization. The organization holding your account is considered the stockholder of record for purposes of voting at the Annual Meeting. As a beneficial owner, you have the right to instruct that organization on how to vote the shares held in your account. Those instructions are contained in a “vote instruction form.” As a beneficial owner, you are also invited to attend the Annual Meeting; however, since you are not the stockholder of record, you may not vote these shares in person at the Annual Meeting unless you request, complete and deliver a legal proxy from your broker, bank or nominee. If you request printed copies of the proxy materials by mail, you will receive a vote instruction form.

**If I am a stockholder of record of TerraVia shares, how do I vote?**

There are four ways to vote:

- *In person* . If you are a stockholder of record, you may vote in person at the Annual Meeting. We will give you a ballot at your request when you arrive.
- *Via the Internet* . You may vote by proxy via the Internet by following the instructions provided in the Notice.
- *By telephone* . If you request printed copies of the proxy materials by mail, you may vote by proxy by calling the toll free number found on the proxy card.
- *By mail* . If you request printed copies of the proxy materials by mail, you may vote by proxy by filling out the proxy card and sending it back in the envelope provided.

**If I am a beneficial owner of shares held in street name, how do I vote?**

There are four ways to vote:

- *In person* . If you are a beneficial owner of shares held in street name and you wish to vote in person at the Annual Meeting, you must obtain a legal proxy from the organization that holds your shares. Please contact that organization for instructions regarding obtaining a legal proxy.
- *Via the Internet* . You may vote by proxy via the Internet by visiting [www.proxyvote.com](http://www.proxyvote.com) and entering the control number found in the Notice.
- *By telephone* . If you request printed copies of the proxy materials by mail, you may vote by proxy by calling the toll free number found on the vote instruction form.
- *By mail* . If you request printed copies of the proxy materials by mail, you may vote by proxy by filling out the vote instruction form and sending it back in the envelope provided.

**Can I vote my shares by filling out and returning the Notice?**

No. The Notice identifies the items to be voted on at the Annual Meeting, but you cannot vote by marking the Notice and returning it. The Notice provides instructions on how to vote by Internet or by telephone and how to request paper copies of the proxy materials.

**What is the quorum requirement for the Annual Meeting?**

The holders of a majority of the shares entitled to vote at the Annual Meeting (including shares of our common stock and shares of our preferred stock on an as-converted basis voting together with the holders of our common stock as one class) must be present in person or by proxy at the Annual Meeting for the transaction of business. This is called a quorum. Your shares will be counted for purposes of determining if there is a quorum, whether representing votes for, against or abstained, if you:

- Are present and vote in person at the Annual Meeting; or
- Have voted on the Internet, by telephone or by properly submitting a proxy card or vote instruction form by mail.

If a quorum is not present, the Annual Meeting will be adjourned until a quorum is obtained.

**How are proxies voted?**

All shares represented by valid proxies received prior to the Annual Meeting will be voted and, where a stockholder specifies by means of the proxy a choice with respect to any matter to be acted upon, the shares will be voted in accordance with the stockholder’s instructions.

**What happens if I do not give specific voting instructions?**

*Stockholders of Record* . If you are a stockholder of record and you:

- Indicate when voting on the Internet or by telephone that you wish to vote as recommended by our board of directors; or
- Sign and return a proxy card without giving specific voting instructions,

then the proxy holders will vote your shares in the manner recommended by our board of directors on all matters presented in this proxy statement and as the proxy holders may determine in their discretion with respect to any other matters properly presented for a vote at the Annual Meeting. See the section entitled “Other Matters” below.

*Beneficial Owners of Shares Held in Street Name* . If you are a beneficial owner of shares held in street name and do not provide the organization that holds your shares with specific voting instructions, under the rules of various national and regional securities exchanges, the organization that holds your shares may generally vote on routine matters but cannot vote on non-routine matters. If the organization that holds your shares does not receive instructions from you on how to vote your shares on a non-routine matter, the organization that holds your shares will inform the inspector of election that it does not have the authority to vote on this matter with respect to your shares. This is generally referred to as a “broker non-vote.”

#### **Which ballot measures are considered “routine” or “non-routine”?**

The election of directors (Proposal 1) is a matter considered non-routine under applicable rules. A broker or other nominee cannot vote without instructions on non-routine matters, and therefore there may be broker non-votes on Proposal 1.

We expect the proposal for approval of an amendment to our Amended and Restated Certificate of Incorporation to increase the number of authorized shares of our common stock (Proposal 2) will be a matter considered routine under applicable rules, and the ratification of the appointment of Deloitte & Touche LLP as our independent registered public accounting firm for our fiscal year ending December 31, 2017 (Proposal 3) will be a matter considered routine under applicable rules. A broker or other nominee may generally vote on routine matters, and therefore no broker non-votes are expected to exist in connection with Proposals 2 and 3.

#### **What is the voting requirement to approve each of the proposals?**

Proposal 1. A plurality of the votes of the shares of our common stock and preferred stock (on an as-converted basis), voting as one class, present in person or represented by proxy and entitled to vote is required to elect directors. This means that the two nominees receiving the highest number of affirmative votes of the shares entitled to be voted for them will be elected as Class III directors to serve terms ending at our 2020 annual meeting of stockholders. In counting votes on the election of directors, only votes “for” affect the outcome. Votes withheld shall have no legal effect. Broker non-votes (which are explained below) will be counted as not voted and will be deducted from the total shares of which a plurality is required.

Proposal 2. The affirmative vote of the holders of a majority of the outstanding shares of our common stock and our preferred stock entitled to vote at the Annual Meeting, voting together as one class, and a majority of the outstanding shares of our common stock (as a separate class) entitled to vote at the Annual Meeting is required to approve the proposed amendment to our Amended and Restated Certificate of Incorporation to increase the number of authorized shares of our common stock. In counting votes on this Proposal 2, abstentions, broker non-votes (if any) and other shares not voted will be counted as votes “against” the proposal.

Proposal 3. The affirmative vote of a majority of the shares of our common stock and preferred stock (on an as-converted basis), voting as one class, present in person or represented by proxy and entitled to vote on the item will be required to ratify the appointment of Deloitte & Touche LLP as our independent registered public accounting firm for our fiscal year ending December 31, 2017.

If any other matter is properly submitted to the stockholders at the Annual Meeting, its adoption generally will require the affirmative vote of a majority of the shares of our common stock and preferred stock (on an as-converted basis), voting as one class, present in person or represented by proxy and entitled to vote upon the particular proposal.

#### **What are broker non-votes and what effect do they have on the proposals?**

Generally, broker non-votes occur when shares held by a broker in “street name” for a beneficial owner are not voted with respect to a particular proposal because (a) the broker has not received voting instructions from the beneficial owner, and (b) the broker lacks discretionary voting power to vote those shares.

If you do not vote your proxy and your shares are held in street name, your brokerage firm may either vote your shares on routine matters or leave your shares unvoted. On non-routine matters, if the brokerage firm has not received voting instructions from you, the brokerage firm cannot vote your shares on that proposal, which is considered a “broker non-vote.” Broker non-votes will be counted for purposes of establishing a quorum to conduct business at the Annual Meeting. We expect the proposal

for approval of an amendment to our Amended and Restated Certificate of Incorporation to increase the number of authorized shares of our common stock will be considered routine under applicable rules, and the proposal for the ratification of the appointment of our independent registered public accounting firm will be considered routine under applicable rules. The other proposal in this proxy statement is considered non-routine under applicable rules. Accordingly, brokers that do not receive instructions will be entitled to vote on the approval of an amendment to our Amended and Restated Certificate of Incorporation to increase the number of authorized shares of our common stock and the ratification of the appointment of our independent registered public accounting firm at the Annual Meeting, but may not vote for the election of directors. Therefore, we encourage you to provide voting instructions to the organization that holds your shares by carefully following the instructions provided in the Notice before the Annual Meeting so that your shares will be represented and voted at the meeting even if you cannot attend in person.

**Can I change my vote or revoke my proxy after I have voted?**

You may revoke your proxy and change your vote at any time before the final vote at the Annual Meeting.

If you are a record holder, you may vote again on a later date via the Internet or by telephone (only your latest Internet or telephone proxy submitted prior to the Annual Meeting will be counted) by signing and returning a new proxy card or vote instruction form with a later date, or by attending the Annual Meeting and voting in person.

However, your attendance at the Annual Meeting will not automatically revoke your proxy unless you vote again at the Annual Meeting or specifically request that your prior proxy be revoked by delivering a written notice of revocation prior to the Annual Meeting to our Corporate Secretary at TerraVia Holdings, Inc., 225 Gateway Boulevard, South San Francisco, CA 94080.

For shares you hold beneficially in the name of a broker, trustee or other nominee, you may change your vote by submitting new voting instructions to your broker, trustee or nominee, or, if you have obtained a legal proxy from your broker or nominee giving you the right to vote your shares, by attending the meeting and voting in person.

**Have you engaged a proxy solicitor?**

Yes. We have engaged Georgeson LLC to assist us in obtaining proxies.

**Who will serve as the inspector of election?**

A third party engaged by Broadridge Financial Solutions on our behalf will serve as the inspector of election.

**Is my vote confidential?**

Proxy instructions, ballots and voting tabulations that identify individual stockholders are handled in a manner that protects your voting privacy. Your vote will not be disclosed either within TerraVia or to third parties, except:

- As necessary to meet applicable legal requirements;
- To allow for the tabulation and certification of votes; and
- To facilitate a successful proxy solicitation.

Written comments provided by stockholders on their proxy cards may be forwarded to our management and our board of directors.

**What does it mean if I receive more than one proxy or voting instruction card?**

It means that your shares are registered differently or are in more than one account. Please provide voting instructions for all proxy and voting instruction cards you receive.

**Where can I find the voting results of the Annual Meeting?**

We will announce the preliminary voting results at the Annual Meeting. The final voting results will be tallied by the inspector of election and published in a Current Report on Form 8-K we are required to file with the SEC shortly after the Annual Meeting.

**How can I attend the Annual Meeting?**

Attendance at the Annual Meeting is limited to stockholders. Please bring valid picture identification, such as a driver's license or passport, and proof of stock ownership as of March 23, 2017. Shares held directly in your name as the stockholder of record may be voted in person at the Annual Meeting. We will give you a ballot at your request when you arrive. Shares held in "street name" through a brokerage account or by a bank or other nominee may be voted in person by you if you obtain a signed proxy from the record holder giving you the right to vote the shares. You should allow yourself enough time prior to the Annual

Meeting to obtain this proxy from the record holder. Even if you plan to attend the Annual Meeting in person, we recommend that you vote your shares in advance as described above so that your vote will be counted if you later decide not to attend the Annual Meeting.

## DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

### Board Structure

Our board of directors currently consists of eight members, comprised of seven non-employee members and our Chief Executive Officer. The authorized number of directors may be changed only by resolution of the board of directors. Our bylaws provide that the board is divided into three classes with staggered terms described below, with each class to be as nearly equal in number as possible. Any additional directorships resulting from an increase in the number of directors would be distributed among the three classes so that, as nearly as possible, each class would consist of one-third of the directors. Our three classes of directors are:

- Class I directors, who consist of Irene Chang Britt, Ian T. Clark and James R. Craigie, whose terms expire at our annual meeting of stockholders to be held in 2018;
- Class II directors, who consist of Michael V. Arbige, Jerry Fiddler and Apu Mody, whose terms expire at our annual meeting of stockholders to be held in 2019; and
- Class III directors, who consist of Jonathan S. Wolfson and Gary M. Pfeiffer, whose terms expire at the Annual Meeting, with Messrs. Wolfson and Pfeiffer being nominated for re-election.

Upon expiration of the terms set forth above, each director's successor elected upon expiration of the applicable term will serve until such director's successor has been duly elected and qualified at the third annual meeting following his or her election, or until such director's earlier death, resignation or removal. Under Delaware law, our directors may be removed for cause by the affirmative vote of the holders of a majority of our voting stock.

### Diversity in Board Membership

We seek to achieve an appropriate level of diversity in the membership of our board of directors and to assemble a broad range of skills, expertise and knowledge to benefit our business. The nominating and corporate governance committee and the full board of directors annually assess the composition of our board of directors, considering diversity across many dimensions, including industry experience, functional areas and skills (e.g., technology and finance), gender, geographic scope, public and private company experience, and director experience in the context of an assessment of the current and expected needs of the board. The nominating and corporate governance committee reviews director candidates based on the board's needs as identified through this assessment and other factors and considers, among other things, independence, character, gender, demonstrated leadership, skills, including financial expertise, and experience in the context of the needs of the board. Although the board does not have a formal policy regarding board diversity, the board believes that having such diversity among its members enhances the board's ability to make fully informed, comprehensive decisions.

### Director Nominees

As recommended by our nominating and corporate governance committee, our board of directors has nominated Jonathan S. Wolfson and Gary M. Pfeiffer as Class III directors for terms expiring at the 2020 annual meeting of stockholders. Each proposed nominee is willing to serve as a director if elected and has agreed to be named in this proxy statement. However, if a nominee is unable to serve or is otherwise unavailable for election, which is not contemplated, our incumbent board may or may not select a substitute nominee. If a substitute nominee is selected, your shares will be voted for the substitute nominee (unless you give other instructions). If a substitute nominee is not selected, your shares will be voted for the remaining nominees. Proxies will not be voted for more than two nominees.

Biographical information for each nominee and each current director who will continue to serve after the Annual Meeting is presented below. Except as otherwise indicated, all have had the same principal positions and employment for over five years.

### Nominees for Terms Expiring in 2020 (Class III)

**Jonathan S. Wolfson**, 46, is a co-founder and was our President and Chief Operating Officer from 2003 to 2008, and from 2008 to 2016 he served as our Chief Executive Officer. He served as Executive Chairman of our board of directors from March 2016 to March 2017 and now serves as a non-employee director on our board of directors. Prior to founding TerraVia, Mr. Wolfson held a variety of positions in finance, business and law, most recently that of Vice President of Finance and Business Development for 7thOnline, Inc., a supply chain software company. Immediately prior to that, Mr. Wolfson was co-founder and Chief Operating Officer of InvestorTree, Inc., a financial services software company. Mr. Wolfson obtained a law degree from New York University (NYU) School of Law and an M.B.A. from NYU Stern School of Business. He has served as a member of our board of directors since inception. Mr. Wolfson is a valuable member of the board of directors due to his leadership, his experience in finance and business and his extensive understanding of the company, which brings historic knowledge and continuity to the board of directors.

**Gary M. Pfeiffer**, 67, has been a member of our board of directors since 2014. He retired in 2006 as the Senior Vice President and Chief Financial Officer of E.I. du Pont de Nemours and Company. He joined DuPont in 1974, where he held positions of increasing responsibility in finance and international operations, as well as in various DuPont divisions. Mr. Pfeiffer served as Secretary of Finance for the state of Delaware from January through June 2009. Mr. Pfeiffer is a director of Quest Diagnostics Incorporated and Internap Corporation and served as a director of Talbots, Inc. from 2005 to 2012. He served as the non-executive Chair of the Board of Directors of Christiana Care Health System, a regional hospital system located in Delaware from 2012 to 2016. Mr. Pfeiffer is a valuable member of the board of directors due to his extensive executive experience, including in corporate finance, accounting, international operations, and strategic planning, with a multinational corporation operating in complex industries.

#### **Continuing Directors with Terms Expiring in 2018 (Class I)**

**Irene Chang Britt**, 54, has been a member of our board of directors since March 2016 and has been serving as Chairperson of our board of directors since March 2017. She served as President, Pepperidge Farm, a subsidiary of Campbell Soup Company from August 2012 to February 2015 and also held the position of Senior Vice President, Global Baking and Snacking for Campbell from March 2012 to February 2015. Ms. Chang Britt joined Campbell in 2005 and held a series of leadership positions with Campbell including Senior Vice President and Chief Strategy Officer and President, North America Foodservice. Ms. Chang Britt is a director of each of Dunkin' Brands Group, Inc. and Tailored Brands, Inc., and formerly served on the board of directors of Sunoco, Inc. Ms. Chang Britt brings to the Board a deep knowledge of the consumer packaged goods category, and extensive executive experience.

**Ian T. Clark**, 56, has been a member of our board of directors since 2011. Mr. Clark served as Chief Executive Officer of Genentech, Inc., a member of the Roche Group, and head of North American Commercial Operations from January 2010 until his retirement in December 2016. During his tenure, he led the Genentech Executive Committee and was a member of the Genentech board of directors. Mr. Clark joined Genentech in 2003 as Senior Vice President and General Manager, BioOncology, and subsequently held a number of senior management positions. Prior to joining Genentech, Mr. Clark served as President of Novartis Canada, overseeing all of the company's country operations. Before assuming his post in Canada, Mr. Clark served as Chief Operating Officer for Novartis United Kingdom. Prior to joining Novartis in 1999, Mr. Clark worked in vice presidential roles in sales and marketing for Sanofi (Aventis) and Ivax in the United Kingdom and Eastern Europe. Mr. Clark has served on the board of directors of Agios Pharmaceuticals, Inc., a biopharmaceutical company, Corvus Pharmaceuticals, Inc., a clinical-stage biopharmaceutical company, Shire plc, a biotechnology company, and Kite Pharma, Inc., a clinical-stage biopharmaceutical company, since 2017. In addition, he has served on the board of the Biotechnology Industry Organization (BIO) Industry Association since 2009, is an advisor to the Institute of Life Sciences at Southampton University in the United Kingdom, and is a member of the Federal Reserve Bank of San Francisco's Economic Advisory Council. Mr. Clark received a Bachelor of Science degree in biological sciences from Southampton University in the United Kingdom. Mr. Clark is a valuable member of the board of directors due to his experience in and knowledge of the biotechnology sector and his leadership experience.

**James R. Craigie**, 63, has been a member of the board of directors since 2013. He has been the Chairman of Church & Dwight Co., Inc., a leading developer, manufacturer and marketer of household and personal care consumer packaged goods, since 2007. From June 2007 to December 2015, he was the Chairman and Chief Executive Officer of Church & Dwight, and from July 2004 through May 2007, he was the President and Chief Executive Officer of Church & Dwight. He has served on the board of directors of Church & Dwight since 2004. From December 1998 through September 2003, he was President, Chief Executive Officer and a member of the board of directors of Spalding Sports Worldwide and its successor, Top-Flite Golf Co. During the period from 1983 to November 1998, Mr. Craigie held various senior management positions with Kraft Foods Inc. Prior to entering private industry, he served for six years as an officer in the U.S. Navy/Department of Energy working for Admiral Rickover. He currently serves as a member of the boards of directors of Bloomin' Brands, Inc., a casual dining company and the Gettysburg Foundation, a non-profit foundation involved with restoring the Gettysburg battlefields. Mr. Craigie holds an undergraduate degree from the University of Rochester and an M.B.A. from Harvard University. Mr. Craigie is a valuable member of the board of directors due to his consumer products and brand building experience, particularly in the food, household and personal care sectors, as well as his leadership experience.

#### **Continuing Directors with Terms Expiring in 2019 (Class II)**

**Michael V. Arbige**, 62, has been a member of our board of directors since 2005. In May 2011, E.I. du Pont de Nemours and Company acquired Genencor International, Inc., a division of Danisco US Inc., a diversified biotechnology company, and Dr. Arbige was appointed Vice President, Research and Development of DuPont Industrial Biosciences. From 1990 to 2011, Dr. Arbige held a variety of positions at Genencor, most recently as its Executive Vice President of Research and Development, a position he held from 2009 to 2011. He is responsible for all activities associated with managing and driving the research and development activities for the division. Dr. Arbige obtained his Ph.D. in Microbial Physiology and Genetics in 1982 from the

University of New Hampshire. Dr. Arbige is a valuable member of the board of directors due to his experience in and knowledge of the biotechnology sector.

**Jerry Fiddler**, 65, has been a member of our board of directors since 2004. He served as Chairman of our board of directors from 2004 to March 2016, and served as lead independent director from March 2016 to March 2017. From 1981 to 2009 Mr. Fiddler was, at various times, the founder, Chief Executive Officer, Chairman and/or director of Wind River Systems, Inc., a publicly held software company, until it was acquired by Intel Corporation, a semiconductor company. Mr. Fiddler is the principal/CEO of Zygote Ventures, LLC. He serves on a number of private company and non-profit boards. Mr. Fiddler obtained an M.S. from the University of Illinois. Mr. Fiddler is a valuable member of the board of directors due to his leadership and corporate governance experience, his experience as Chief Executive Officer and Chairman of a public company, his service on the boards of directors of other private companies and non-profit entities and his extensive knowledge of the company due to his service on the board of directors since 2004, which brings historic understanding and continuity to the board of directors.

**Apu Mody**, 50, has been our Chief Executive Officer and member of our board of directors since 2016. Prior to joining us, he was President, Mars Food America, at Mars, Inc. from 2010 to 2015. From 2008 to 2010, he was Chief Executive Officer of The Brand Accelerator, a consumer goods innovation company, and from 2002 to 2008 he held various positions within Del Monte Foods, a food company, most recently as Senior Vice President and Managing Director, Consumer Products Division. From 1995 to 2000, Mr. Mody held various positions with The Proctor and Gamble Company, a consumer packaged goods company, most recently Senior Brand Manager, Global New Product Development. Mr. Mody holds an undergraduate degree from the University of Michigan and an M.B.A. with Distinction from the University of Michigan.

### **Board Leadership Structure**

Our board of directors does not have a formal policy with respect to whether our Chief Executive Officer (CEO) should also serve as our chairman or chairperson of the board. On March 8, 2017, the board of directors appointed Ms. Chang Britt as chairperson of the board of directors (Chairperson), following the decision by Mr. Wolfson to limit his role at TerraVia to that of a non-employee director. Also in March 2017, Mr. Fiddler stepped down from his role as lead independent director and will continue to serve on our board of directors as a non-employee director. Our board of directors believes that its current leadership structure best promotes the ability of our board of directors to carry out its roles and responsibilities on behalf of the stockholders and our company's overall corporate governance. Our board of directors also believes that the board and our stockholders will benefit from Ms. Chang Britt's service as Chairperson due to her deep food industry background. The roles of Chairperson and CEO are separated to allow our CEO to develop and execute the company's corporate strategy and focus on day-to-day operations and company performance. Our board of directors periodically reviews the leadership structure and may make changes in the future.

### **Director Independence**

In February 2017, our board of directors undertook a review of the independence of each director and considered whether any director has a material relationship with us that could compromise his or her ability to exercise independent judgment in carrying out his or her responsibilities. As a result of this review, our board of directors determined that all of our directors, other than Messrs. Wolfson and Mody, are "independent" within the meaning of applicable NASDAQ listing standards, constituting a majority of independent directors of our board of directors as required by NASDAQ listing standards.

### **Board Committees**

As described above under "Board Leadership Structure," our board of directors currently consists of eight members, comprised of seven non-employee members and our chief executive officer. Our bylaws provide that the board of directors is divided into three classes with the staggered terms described above, with each class to be as nearly equal in number as possible. The division of our board of directors into three classes with staggered three-year terms may delay or prevent a change of control at our company.

During 2016, our board of directors held seven meetings. In 2016, each director attended at least 75% of the aggregate of the meetings of the board of directors (held during the period that such director served). In 2016, each director attended at least 75% of the aggregate meetings held by all committees of the board of directors on which such director served (during the period that such director served). Our board of directors' policy is that directors are encouraged to attend our annual meetings of stockholders. Seven directors then serving attended our 2016 annual meeting of stockholders.

We have three principal standing committees of the board of directors: the audit committee, the compensation committee and the nominating and corporate governance committee. Members of each committee are appointed by the board of directors and the authority, duties and responsibilities of each committee are governed by written charters approved by the board of directors. These charters can be found in the Corporate Governance section of the Investors section of our website at

www.terravia.com. In addition to regular meetings of the board of directors and committees, we have regularly scheduled closed sessions for directors only, as well as regularly scheduled executive sessions for non-management directors only.

The current membership for each of the standing committees is as follows:

<u>Audit Committee</u>	<u>Compensation Committee</u>	<u>Nominating and Corporate Governance Committee</u>
Gary M. Pfeiffer (Chair)	Ian T. Clark (Chair)	Jerry Fiddler (Chair)
Jerry Fiddler	Michael V. Arbige	Michael V. Arbige
James R. Craigie	James R. Craigie	Ian T. Clark
	Irene Chang Britt	

#### **Audit Committee**

Our board of directors has determined that, during 2016, all members of our audit committee satisfied the independence and financial literacy requirements of Rule 10A-3 of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and the applicable NASDAQ listing standards. Our board of directors has also determined that Mr. Pfeiffer is an audit committee “financial expert” as defined under the SEC rules implementing Section 407 of the Sarbanes-Oxley Act of 2002 and satisfies the financial sophistication requirements of the NASDAQ listing standards. In making this determination, our board of directors considered the nature and scope of experience he has had with reporting companies, and his prior experience, including being or having been a chief executive officer, chief financial officer or other senior officer with financial oversight responsibilities. Our audit committee met four times in 2016.

The primary purpose of the audit committee is to discharge the responsibilities of our board of directors with respect to our accounting and financial reporting processes, our internal control over financial reporting processes and audits of financial statements and to oversee the performance and independence of our independent registered public accounting firm. Specific responsibilities of our audit committee include:

- evaluating the performance of our independent registered public accounting firm and determining whether to retain or terminate their services;
- determining and pre-approving the engagement of our independent registered public accounting firm to perform audit services and any permissible non-audit services;
- monitoring the rotation of the partners of the independent registered public accounting firm;
- reviewing and discussing with management and our independent registered public accounting firm the results of the annual audit and the independent registered public accounting firm’s review of our annual and quarterly financial statements and reports;
- reviewing with management and our independent registered public accounting firm significant issues that arise regarding accounting principles and financial statement presentation;
- conferring with management and our independent registered public accounting firm regarding the scope, adequacy and effectiveness of our disclosure controls and procedures and internal control over financial reporting; and
- establishing procedures for the receipt, retention and treatment of complaints received by us regarding accounting, internal accounting control or auditing matters.

#### **Compensation Committee**

Our board of directors has determined that each member of the compensation committee meets the independence requirements of the applicable NASDAQ listing standards, is a “non-employee director” as defined in Rule 16b-3 promulgated under the Exchange Act and is an “outside director” as that term is defined in Section 162(m) of the Internal Revenue Code of 1986, as amended, or the Code. The purpose of our compensation committee is to discharge the responsibilities of our board of directors to oversee our executive compensation and benefits policies and to review and determine the compensation to be paid to our executive officers, as well as to prepare and review the compensation committee report included in our annual proxy statement in accordance with applicable rules and regulations of the SEC. The compensation committee met six times during 2016. Specific responsibilities of our compensation committee include:

- determining the compensation and other terms of employment of our executive officers and reviewing and approving corporate performance goals and objectives relevant to such compensation;
- reviewing and evaluating our executive compensation and benefits policies;

- reviewing and approving the terms of any employment agreements, severance arrangements, change-of-control protections and any other compensatory arrangements for our executive officers; and
- evaluating the efficacy of our compensation policy and strategy in achieving expected benefits to us and otherwise furthering the compensation committee's policies.

As described in the "Compensation Discussion and Analysis" section below, our compensation committee retained Pearl Meyer & Partners, LLC (Pearl Meyer), an independent executive compensation consulting firm, to provide executive officer compensation consulting services to our compensation committee during 2016. Pearl Meyer also provided general observations on our compensation programs and recommendations on executive officer compensation, but it did not determine the amount or form of compensation for the named executive officers. Please see the "Compensation Discussion and Analysis" section below for more information regarding the compensation committee's processes and procedures.

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

Our board of directors has determined that all members of the nominating and corporate governance committee meet the independence requirements of the applicable NASDAQ listing standards. The nominating and corporate governance committee met four times during 2016 and met after the end of the fiscal year to recommend to the full board of directors each of the nominees as Class III directors for terms expiring at the 2020 annual meeting of stockholders for election to our board of directors. The specific responsibilities of our nominating and corporate governance committee include:

- identifying, reviewing, evaluating and recommending for selection, candidates for membership on our board of directors;
- reviewing, evaluating and considering the recommendation for nomination of incumbent members of our board of directors for re-election to our board of directors and monitoring the size of our board of directors;
- evaluating nominations by stockholders of candidates for election to our board of directors;
- reviewing, discussing and reporting to our board of directors an assessment of our board's performance;
- reviewing and rejecting or approving related-party transactions; and
- determining adherence to our corporate governance documents, including our Code of Business Conduct and Ethics and Corporate Governance Guidelines.

The nominating and corporate governance committee considers director candidates suggested by directors, senior management and stockholders and evaluates all nominees for director in the same manner. Stockholders may recommend individual nominees for consideration by the nominating and corporate governance committee by communicating with the committee as discussed below in "Stockholder Communications with our Board of Directors." Our board of directors ultimately determines individuals to be nominated at each annual meeting. Stockholders must comply with the procedures for stockholder proposals and nominations described below under "Stockholder Proposals and Nominations." From time-to-time, the nominating and corporate governance committee may retain a third party search firm to identify director candidates and the committee has sole authority to select the search firm and approve the terms and fees of any director search engagement.

### **Risk Oversight by our Board of Directors**

While risk management is primarily the responsibility of our management team, our board of directors is responsible for the overall supervision of our risk management activities. Our board of directors generally oversees corporate risk in its review and deliberations relating to our activities, including financial and strategic risk relevant to our operations. The board implements its risk oversight function both at the full board of directors level and through delegation to its standing committees. Management provides updates throughout the year to the respective committees regarding the management of the risks they oversee and each committee meets regularly and reports on risk to the full board of directors at regular meetings of our board. While each committee is responsible for evaluating certain risks and overseeing the management of such risks, the entire board of directors is regularly informed through committee reports about such risks. The audit committee oversees management of financial risks. The compensation committee is responsible for overseeing the management of risks relating to our executive compensation plans and arrangements and employee retention. The nominating and corporate governance committee manages risks associated with the independence of our board of directors and potential conflicts of interest.

With respect to risk related to compensation matters, our management assesses and discusses with our compensation committee our compensation policies and practices for our employees as they relate to our risk management and, based upon this assessment, we believe that any risks arising from such policies and practices are not reasonably likely to have a material adverse effect on us in the future. In particular:

- Our employees' base salaries are fixed in amount and thus we do not believe that they encourage excessive risk-taking. While performance-based cash bonuses and sales-based compensation focus on achievement of short-

term or annual goals, which may encourage the taking of short-term or annual risks at the expense of long-term results, we believe that our compensation policies help mitigate this risk and our performance-based cash bonuses and sales-based compensation are limited, representing a small portion of the total compensation opportunities available to most employees. We also believe that our performance-based cash bonuses and sales-based compensation appropriately balance risk and the desire to focus our employees on specific short-term goals important to our success, and do not encourage unnecessary or excessive risk-taking.

- A portion of the compensation provided to our employees is in the form of long-term equity-based incentives that we believe are important to help further align our employees' interests with those of our stockholders. We do not believe that these equity-based incentives encourage unnecessary or excessive risk taking because their ultimate value is tied to our stock price and because awards are staggered and subject to long-term vesting schedules to help ensure that our employees have significant value tied to long-term stock price performance.

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

Our board of directors has adopted a Code of Business Conduct and Ethics that applies to all of our employees, officers and directors. The full text of our Code of Business Conduct and Ethics is posted in the Corporate Governance section of the Investors section of our website at [www.terravia.com](http://www.terravia.com). The Code of Business Conduct and Ethics is available in print to any person without charge, upon request sent to our Corporate Secretary, at TerraVia Holdings, Inc., 225 Gateway Boulevard, South San Francisco, California 94080. We will disclose, in accordance with all applicable laws and regulations, amendments to provisions of our Code of Business Conduct and Ethics, or waivers of such provisions, that are applicable to any principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions or any member of our board of directors on our web site identified above.

### **Policy against Hedging Transactions**

Our Insider Trading Policy provides that directors, officers and employees shall not engage in hedging transactions or transactions involving derivative securities, including puts and calls, based on our securities.

### **Corporate Governance Guidelines**

Our board of directors has adopted Corporate Governance Guidelines for us. The full text of the Corporate Governance Guidelines is posted in the Corporate Governance section of the Investors section of our website at [www.terravia.com](http://www.terravia.com). The Corporate Governance Guidelines address a number of corporate governance issues, including director qualifications, director independence, director service on other public company boards and the separation of roles between chief executive officer and chair of the board, among others.

### **Non-Employee Director Compensation**

Each member of our board of directors who is not our employee receives the following compensation for board services, as applicable:

- \$50,000 per year for service as a board member;
- \$25,000 per year for service as non-employee chair of the board or lead director;
- \$25,000 per year for service as chair of the audit committee;
- \$25,000 per year for service as chair of the compensation committee;
- \$7,500 per year for service as chair of the nominating and corporate governance committee;
- \$15,000 per year for service as a non-chair member of the audit or compensation committee; and
- \$5,000 per year for service as a non-chair member of the nominating and corporate governance committee.

In addition, we reimburse our non-employee directors for expenses incurred in attending board and committee meetings.

Upon initially joining our board of directors, each non-employee director is granted an option to acquire 80,000 shares of our common stock, with an exercise price equal to the then fair market value of our common stock. Initial equity award grants to new members of our board of directors vest according to the following schedule: one-third at 12 months from the grant date, followed by a series of 24 successive equal monthly installments.

On the date of each annual meeting of our stockholders, each non-employee director is granted a stock option to acquire 32,000 shares of our common stock, with an exercise price equal to the then fair market value of our common stock, or a number of restricted stock units based on the then-current ratio (the option equivalent ratio), currently 2:1, of options to

restricted stock units used to determine option equivalents for employees. These annual equity award grants vest in a series of 12 successive equal monthly installments measured from the date of grant.

In addition, on the date of each annual meeting of our stockholders, the non-employee chair of the board, in addition to his or her cash compensation for service as a board member and the initial and annual equity grants received by non-employee directors, is granted an option to acquire 10,000 shares of our common stock, with an exercise price equal to the then fair market value of our common stock, or a number of restricted stock units based on the then-current option equivalent ratio. This annual equity award grant vests in a series of 12 successive equal monthly installments measured from the date of grant.

A newly elected/appointed non-employee director and/or non-employee board chair receives a prorated portion of the most recent annual grant to non-employee directors and/or non-employee board chair (prorated to the next June 1) with a vesting schedule concluding as of the first June 1 after election/appointment.

All director stock options granted under our 2011 Equity Incentive Plan have a term of 10 years. All equity awards granted to a non-employee director vest in full immediately and automatically upon a change in control of the company.

In March 2016, our nominating and corporate governance committee worked with Pearl Meyer to conduct a review of our non-employee director compensation, considering a variety of factors including compensation paid to non-employee directors of the peer group adopted by our compensation committee in 2015, as described in the section entitled "Compensation Discussion and Analysis" below, with the cash retainer for service as non-employee chair of the board and the increase in the initial grant to newly elected/appointed non-employee directors effective as of March 8, 2016, and the increase in the size of annual equity grants implemented at our 2016 Annual Meeting of Stockholders.

The following table shows, for the year ended December 31, 2016, certain information with respect to the compensation of all of our non-employee directors.

**2016 Director Compensation Table**

Name	Fees Earned or Paid in Cash (\$)	Stock Awards (\$)(1)(3)	Option Awards (\$)(1)(3)	Total (\$)
Michael V. Arbige	70,000	—	54,435	124,435
Ian T. Clark	80,000	—	54,435	134,435
Jerry Fiddler	92,863	—	71,446	164,309
Gary M. Pfeiffer	75,000	—	54,435	129,435
James R. Craigie	80,000	—	54,435	134,435
Irene Chang Britt	49,050	—	146,308(2)	195,358

- (1) The dollar amounts in this column reflect the grant date fair value of stock option awards granted in 2016. These amounts have been calculated in accordance with Financial Accounting Standard Board Accounting Standards Codification No. 718, *Compensation-Stock Compensation*, or FASB ASC Topic 718, using the Black-Scholes option-pricing model. Pursuant to SEC rules, the amounts shown exclude the impact of estimated forfeitures related to service-based vesting conditions. For a discussion of valuation assumptions, see the notes to our financial statements included in our Annual Report on Form 10-K.
- (2) In addition to Ms. Chang Britt's annual grant, the above amount includes an option granted upon her appointment as a director in March 2016 (as described above), with a grant date fair value of \$91,873.
- (3) As of December 31, 2016, the following non-employee directors each held stock awards and stock options covering the following aggregate numbers of shares:

Name	Outstanding Option Awards (Shares) (#)	Outstanding Stock Awards (Shares) (#)
Michael V. Arbige	228,213	—
Ian T. Clark	210,000	—
Jerry Fiddler	277,000	—
Gary M. Pfeiffer	156,000	—
James R. Craigie	175,300	—
Irene Chang Britt	116,500	—

**Stockholder Communications with our Board of Directors**

Stockholders and interested parties may communicate with our board of directors by sending correspondence to the board of directors, a specific committee of our board of directors or a director c/o our Corporate Secretary, at TerraVia Holdings, Inc., 225 Gateway Boulevard, South San Francisco, California 94080 or by sending email to CorporateSecretary@terravia.com.

Our Corporate Secretary reviews all communications to determine whether the contents include a message to a director and will provide a summary and copies of all correspondence (other than solicitations for services, products or publications) to the applicable directors at each regularly scheduled meeting. The Corporate Secretary will alert individual directors to items that warrant a prompt response from the individual director prior to the next regularly scheduled meeting. Items warranting prompt response, but not addressed to a specific director, will be routed to the applicable committee chairperson.

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

None of the members of the compensation committee is currently or has been at any time one of our officers or employees, nor has served as a member of the board of directors or compensation committee of any entity that has one or more officers serving as a member of our board of directors or compensation committee. None of our officers currently serve, nor have served during the last completed fiscal year, as a member of the board of directors or compensation committee of any entity that has one or more officers serving as a member of our board of directors or compensation committee.

### **Executive Officers**

The following sets forth information regarding our executive officers as of February 28, 2017. Information pertaining to Mr. Mody, who is both a director and an executive officer of TerraVia, may be found in the section entitled “Continuing Directors with Terms Expiring in 2019 (Class II).”

<u>Name</u>	<u>Age</u>	<u>Position</u>
Apu S. Mody	50	Chief Executive Officer & Director
Tyler W. Painter	45	Chief Financial Officer & Chief Operating Officer
Peter J. Licari	53	Chief Technology Officer
Paul T. Quinlan	54	Chief Legal Officer, General Counsel & Corporate Secretary

#### ***Tyler W. Painter***

Tyler W. Painter has served as our Chief Financial Officer since 2007 and our Chief Operating Officer since 2014. Prior to joining us, Mr. Painter served as interim Corporate Controller for PMC-Sierra (PMCS), a provider of broadband communications and internet infrastructure semiconductor solutions, from May 2007 through October 2007. From 2001 to 2007, Mr. Painter served as Vice President of Finance and Investor Relations and Corporate Treasurer for Wind River Systems, Inc., a software company. Prior to joining Wind River Systems, Inc., Mr. Painter held a variety of positions in finance at CarsDirect, Inc., an online automobile sales company, and at Gap, Inc., a retail clothing company. Mr. Painter obtained a B.S. in Business Administration/Finance from California Polytechnic State University, San Luis Obispo.

#### ***Peter J. Licari***

Peter J. Licari has served as our Chief Technology Officer since 2012. From 2010 to 2012, he served as our Executive Vice President, Research and Development. He served as our Senior Vice President, Research and Development from 2008 until 2010. From 1998 to 2008, Dr. Licari held various positions at Kosan Biosciences, Inc., a biopharmaceutical company. In his last position at Kosan Biosciences, Inc. he served as Senior Vice President, Manufacturing and Operations responsible for the process development and manufacturing of Kosan’s clinical compounds. From 1993 to 1996, Dr. Licari served as the Director of Vaccine Manufacturing and Development at Massachusetts Biologic Laboratories, a part of the University of Massachusetts, an academic institution. Prior to joining Massachusetts Biologic Laboratories, Dr. Licari held a variety of research positions at BASF Bioresearch Corporation, a biopharmaceutical company, and Merck & Co., Inc., a pharmaceutical company. Dr. Licari obtained his Ph.D. in Chemical Engineering from the California Institute of Technology and obtained an M.B.A. from Pepperdine University.

***Paul T. Quinlan***

Paul T. Quinlan has served as our General Counsel and Corporate Secretary since 2010 and our Chief Legal Officer since 2016. From 2005 to 2010 Mr. Quinlan was General Counsel at Metabolex, Inc., a biopharmaceutical company. In this position, he was responsible for overseeing the legal affairs of Metabolex, Inc. From 2000 to 2005, Mr. Quinlan held various positions in the legal department at Maxygen, Inc., a biopharmaceutical company, most recently that of Chief Corporate Securities Counsel. Prior to joining Maxygen, Inc., Mr. Quinlan was an associate at Cooley LLP, a law firm, and Cravath, Swaine & Moore LLP, a law firm. Mr. Quinlan obtained a law degree from Columbia University Law School and a M.Sc. in Medical Biophysics from the University of Toronto.

## SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND OFFICERS AND DIRECTORS

Unless otherwise indicated, the following table sets forth information about the beneficial ownership of our common stock as of February 28, 2017 for:

- each person, or group of affiliated persons, known to us to be the beneficial owner of more than 5% of our common stock;
- each named executive officer;
- each of our directors and nominees for director; and
- all of our executive officers and directors as a group.

Unless otherwise noted below, the address of each beneficial owner listed on the table is c/o TerraVia Holdings, Inc., 225 Gateway Boulevard, South San Francisco, CA 94080. We have determined beneficial ownership in accordance with the rules of the SEC. Except as indicated by the footnotes below, we believe, based solely on our review of SEC filings, that the persons and entities named in the tables below have sole voting and investment power with respect to all shares of common stock that they beneficially own, subject to applicable community property laws. The percentage ownership information under the column entitled “Percent of Common Stock Outstanding” is based on 99,294,716 shares of common stock outstanding as of February 28, 2017. In computing the number of shares of common stock beneficially owned by a person and the percentage ownership of that person, we deemed outstanding shares of common stock subject to options or warrants held by that person that are currently exercisable or exercisable within 60 days of February 28, 2017 and restricted stock units that will become vested within 60 days of February 28, 2017. We did not deem these shares outstanding, however, for the purpose of computing the percentage ownership of any other person. The percentage ownership information under the column entitled “Percent of Preferred Stock Outstanding” is based on 26,750 shares of Series A Preferred Stock outstanding as of February 28, 2017.

<b>Beneficial Owner</b>	<b>Shares of Common Stock Beneficially Owned</b>	<b>Percent of Common Stock Outstanding (%)</b>	<b>Shares of Preferred Stock Beneficially Owned</b>	<b>Percent of Preferred Stock Outstanding (%)</b>	<b>Voting Power (%) (1)</b>
PRIMECAP Management Company(2) 177 E. Colorado Blvd., 11th Floor Pasadena, CA 91105	12,608,921	12.7	—	—	10.8
Morgan Stanley; Morgan Stanley Smith Barney LLC(3) 1585 Broadway New York, NY 10036	7,243,436	7.3	—	—	6.2
Blackrock, Inc.(4) 55 East 52nd Street New York, NY 10055	5,119,817	5.2	—	—	4.4
Glenhill Capital Overseas Master Fund LP; Glenhill Long Fund LP; Glenn J. Krevlin Revocable Trust(5) 600 Fifth Avenue, 11th Floor New York, NY 10020	230,933	*	14,750	55.1	6.5
Acre Venture Partners, L.P.(6) 566 Stassi Lane Santa Monica, CA 90402	—	—	5,000	18.7	2.1
VMG Partners III, L.P., VMG Partners Mentors Circle III, L.P. (7) 39 Mesa Street, Suite 310 San Francisco, CA 94129	—	—	3,000	11.2	1.3
Jonathan S. Wolfson(8)	3,263,601	3.3	—	—	2.8
Apurva S. Mody(9)	331,250	*	—	—	*
Tyler W. Painter(10)	979,047	*	—	—	*
Peter J. Licari(11)	618,749	*	—	—	*
Paul T. Quinlan(12)	445,976	*	—	—	*
Jerry Fiddler(13)	3,776,957	3.8	—	—	3.2
Michael V. Arbige(14)	434,215	*	—	—	*
Irene Chang Britt(15)	60,054	*	—	—	*
Ian T. Clark(16)	190,166	*	—	—	*
James R. Craigie(17)	160,266	*	—	—	*
Gary M. Pfeiffer (18)	124,166	*	—	—	*
<b>All Executive Officers and Directors as a Group (11 persons)(19)</b>	<b>10,384,447</b>	<b>10.1</b>	<b>—</b>	<b>—</b>	<b>8.9</b>

\* Represents beneficial ownership of less than one percent of our outstanding common stock.

- (1) Holders of the Series A Preferred Stock are generally entitled to vote together as a single class with the holders of our common stock on all matters submitted for a vote by holders of our common stock, with each such holder of Series A Preferred Stock being entitled to cast a number of votes equal to the number of whole shares of common stock issuable upon conversion of such Series A Preferred Stock.
- (2) Based solely upon Schedule 13G/A, filed February 9, 2017 and reporting beneficial ownership as of December 31, 2016, the reporting entity had sole voting power with respect to 10,410,300 shares and sole dispositive power with respect to 12,608,921 shares.
- (3) Based solely upon Schedule 13G, filed February 13, 2017 and reporting beneficial ownership as of December 31, 2016, Morgan Stanley had shared dispositive power with respect to 6,680,596 shares, shared voting power with respect to 6,540,972 shares and sole voting power with respect to 259,808 shares. The aggregate amount of shares beneficially owned by Morgan Stanley was 7,243,436. In accordance with the Securities and Exchange Commission Release No. 34-39538, the Schedule 13G reflected the securities beneficially owned, or that may be deemed to be beneficially owned, by certain operating units of Morgan Stanley and its subsidiaries and affiliates. Further to that, per the Schedule 13G, Morgan Stanley Smith Barney LLC reported beneficial ownership of shared dispositive power with respect to

- 6,422,000 shares, shared voting power with respect to 6,540,972 shares and sole voting power with respect to 1,212 shares.
- (4) Based solely upon Schedule 13G/A, filed January 27, 2017 and reporting beneficial ownership as of December 31, 2016, BlackRock, Inc., BlackRock Advisors, LLC, BlackRock Asset Management Canada Limited, BlackRock Financial Management, Inc., BlackRock Fund Advisors, BlackRock Institutional Trust Company, N.A., BlackRock Investment Management, LLC, and FutureAdvisor, Inc. collectively reported that the reporting entity had sole voting power with respect to 4,991,269 shares and sole dispositive power with respect to 5,119,817 shares.
  - (5) Based solely upon Schedule 13G/A, filed February 14, 2017 and reporting beneficial ownership as of December 31, 2016, Glenhill Capital Advisors, LLC is the investment manager of Glenhill Capital Overseas Master Fund LP and Glenhill Long Fund LP. Glenn J. Krevlin is the President and CEO of Glenhill Capital Advisors, LLC. Glenn J. Krevlin is the trustee of of Glenn J. Krevlin Revocable Trust.
  - (6) The company is not aware of any shares of common stock held by the holder. Gareth Asten is the Managing Partner of Acre Venture Partners, L.P.
  - (7) The company is not aware of any shares of common stock held by the holder. Kara M. Roell and Michael L. Mauze are Managing Directors of VMG Partners III GP, LLC, the general partner of VMG Partners III GP, L.P. VMG Partners III GP, L.P. is the general partner of VMG Partners III, L.P. and VMG Partners Mentors Circle III, L.P.
  - (8) Includes (i) 52,500 shares of common stock owned by Mr. Wolfson, (ii) 2,269,850 shares of common stock held by The Jonathan S. Wolfson Revocable Trust dated August 12, 2010, (iii) 158,751 shares of common stock held by The Wolfson Revocable Trust dated August 12, 2010 and 782,500 shares that Mr. Wolfson has the right to acquire pursuant to outstanding options and restricted stock units (RSUs) that are fully vested and exercisable within 60 days of February 28, 2017.
  - (9) Includes (i) 50,000 shares of common stock owned by Mr. Mody and (ii) 281,250 shares that Mr. Mody has the right to acquire pursuant to outstanding options and RSUs that are fully vested and exercisable within 60 days of February 28, 2017.
  - (10) Includes (i) 251,004 shares of common stock owned by Mr. Painter and (ii) 728,043 shares that Mr. Painter has the right to acquire pursuant to outstanding options and RSUs that are fully vested and exercisable within 60 days of February 28, 2017.
  - (11) Includes (i) 141,156 shares of common stock owned by Dr. Licari and (ii) 477,593 shares that Dr. Licari has the right to acquire pursuant to outstanding options and RSUs that are fully vested and exercisable within 60 days of February 28, 2017.
  - (12) Includes (i) 29,778 shares of common stock owned by Mr. Quinlan and (ii) 416,198 shares that Mr. Quinlan has the right to acquire pursuant to outstanding options and RSUs that are fully vested and exercisable within 60 days of February 28, 2017.
  - (13) Includes (i) 47,925 shares of common stock owned by Mr. Fiddler, (ii) 252,500 shares that Mr. Fiddler has the right to acquire pursuant to outstanding options that are fully vested and exercisable within 60 days of February 28, 2017, (iii) 2,492,210 shares of common stock owned by Jazem I Family Partners, L.P. (Jazem I), (iv) 54,861 shares of common stock owned by the AAF 2006 Trust, (v) 54,861 shares of common stock owned by the ESF 2006 Trust, (vi) 54,861 shares of common stock owned by the ZUF 2006 Trust, and (vii) 819,739 shares of common stock owned by The Fiddler and Alden Family Trust (The Fiddler Trust). Mr. Fiddler is a General Partner of Jazem I, the trustee of The Fiddler Trust, and the co-trustee of the AAF 2006 Trust, the ESF 2006 Trust, and the ZUF 2006 Trust.
  - (14) Includes (i) 87,049 shares of common stock owned by the Arbige and Stuart 2004 Trust, (ii) 141,787 shares of common stock owned by Dr. Arbige and (iii) 205,379 shares which Dr. Arbige has the right to acquire pursuant to outstanding options that are fully vested and exercisable within 60 days of February 28, 2017.
  - (15) Includes 60,054 shares that Ms. Chang Britt has the right to acquire pursuant to outstanding options that are fully vested and exercisable within 60 days of February 28, 2017.
  - (16) Includes (i) 3,000 shares of common stock owned by Mr. Clark and (ii) 187,166 shares that Mr. Clark has the right to acquire pursuant to outstanding options that are fully vested and exercisable within 60 days of February 28, 2017.
  - (17) Includes (i) 3,900 shares of common stock owned by the BJC 2012 Trust, (ii) 3,900 shares of common stock owned by the CBC 2012 Trust and (iii) 152,466 shares that Mr. Craigie has the right to acquire pursuant to outstanding options that are fully vested and exercisable within 60 days of February 28, 2017.
  - (18) Includes 124,166 shares that Mr. Pfeiffer has the right to acquire pursuant to outstanding options that are fully vested and exercisable within 60 days of February 28, 2017.
  - (19) Includes (i) 6,790,606 shares of common stock beneficially owned by our directors and executive officers, and (ii) 3,667,315 shares that our directors and executive officers have the right to acquire pursuant to outstanding options and RSUs that are fully vested and exercisable within 60 days of February 28, 2017 .

## Equity Compensation Plan Information

The table below sets forth certain information, as of December 31, 2016, concerning shares of our common stock authorized for issuance under all of our equity compensation plans.

<u>Plan Category</u>	<u>Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)</u>	<u>Weighted-average exercise price of outstanding options, warrants and rights (b)</u>	<u>Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)</u>
Equity compensation plans approved by security holders(1)(2)	13,980,996	\$ 3.56	(3) 14,060,034
Total	13,980,996	\$ 3.56	(3) 14,060,034

- (1) Includes the 2004 Equity Incentive Plan, as amended, the 2011 Equity Incentive Plan and, for column (c), the 2011 Employee Stock Purchase Plan.
- (2) The 2011 Equity Incentive Plan contains an “evergreen” provision pursuant to which the number of shares of common stock reserved for issuance under such plan shall be increased on the first day of each year beginning in 2012 and ending in 2021, equal to the least of (A) 7,000,000 shares, (B) five percent (5%) of the outstanding shares of stock on the last day of the immediately preceding fiscal year and (C) such lesser number of shares of stock as determined by our board of directors. The 2011 Employee Stock Purchase Plan contains an “evergreen” provision pursuant to which the number of shares of common stock reserved for issuance under such plan shall be increased on the first day of each year beginning in 2012 and ending in 2021, equal to the least of (A) 1,500,000 shares, (B) one percent (1%) of the outstanding shares of stock on the last day of the immediately preceding fiscal year and (C) such lesser number of shares of stock as determined by our board of directors. Our board of directors determined that the increase to the number of shares of common stock reserved for issuance under the 2011 Equity Incentive Plan and the 2011 Employee Stock Purchase Plan as of January 1, 2017 due to the evergreen would be zero shares.
- (3) Excludes restricted stock units, which have no exercise price.

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

Section 16(a) of the Exchange Act requires our officers and directors, and persons who own more than ten percent of a registered class of our equity securities, to file reports of securities ownership and changes in such ownership with the SEC. Officers, directors and greater than ten percent shareholders also are required by SEC rules to furnish us with copies of all Section 16(a) forms they file.

Based solely upon a review of the copies of such forms furnished to us or written representations that no report was required to be filed, we believe that all Section 16(a) filing requirements were timely met during 2016.

## EXECUTIVE COMPENSATION

### Compensation Committee Report

*The following report of the Compensation Committee shall not be deemed to be “soliciting material” or to otherwise be considered “filed” with the SEC, nor shall such information be incorporated by reference into any future filing under the Securities Act of 1933 (the “Securities Act”) or the Exchange Act except to the extent that TerraVia specifically incorporates it by reference into such filing.*

Our compensation committee has reviewed and discussed with management the disclosures contained in the following section entitled “Compensation Discussion and Analysis.” Based on this review and discussion, our compensation committee recommended to our board of directors that the “Compensation Discussion and Analysis” be included in this proxy statement for the Annual Meeting.

#### The Compensation Committee

Ian T. Clark (Chair)

Michael V. Arbige

Irene Chang Britt

James R. Craigie

### Compensation Discussion and Analysis

#### Introduction

The purpose of this compensation discussion and analysis section is to provide information for the fiscal year ended December 31, 2016 about the material elements of compensation that were paid, awarded to or earned by our “named executive officers,” who consist of our principal executive officer, former principal executive officer, principal financial officer and the three most highly compensated other executive officers (or, for fiscal 2016, our only other executive officers during the year). Our named executive officers for fiscal 2016 were:

- Apu S. Mody, Chief Executive Officer and member of the Board;
- Jonathan S. Wolfson, former Chief Executive Officer, former Executive Chairman and current member of the Board;
- Tyler W. Painter, Chief Financial Officer and Chief Operating Officer;
- Peter J. Licari, Chief Technology Officer; and
- Paul T. Quinlan, Chief Legal Officer, General Counsel and Corporate Secretary.

In August 2016, Mr. Mody joined the company as our new Chief Executive Officer, at which time Mr. Wolfson ceased to be our Chief Executive Officer and became our Executive Chairman.

#### Executive Summary

During 2016, our company and executives undertook continued operational streamlining as we moved to a strategy focused on food, nutrition and specialty ingredient products, and in May 2016, we changed our name from “Solazyme, Inc.” to “TerraVia Holdings, Inc.” In August 2016, Mr. Mody joined the company as our new Chief Executive Officer, at which time Mr. Wolfson ceased to be our Chief Executive Officer and became our Executive Chairman. In March 2017, Mr. Wolfson resigned as an employee of the company and as Executive Chairman of the board of directors, but remains a member of the board of directors. Reallocating capital and management attention away from activities in the markets we previously served while seeking strategic alternatives with respect to those businesses, transitioning to a new chief executive officer, and executing a operating strategy focused on food, nutrition and specialty ingredient products has been difficult, requiring continued determination from our employees (including our named executive officers), and has required us to motivate employees (including our named executive officers) with appropriate long-term incentives designed to enable achievement of key goals for the company.

#### Compensation Philosophy and Objectives

Our executive compensation program is intended to balance short-term and long-term goals with a combination of cash payments and equity awards designed to effectively attract, motivate, reward and retain our executive officers. We favor a “pay-for-performance” compensation philosophy that is driven by individual and corporate performance. We also continue to review what we believe are best practices with respect to compensation and benefits and review market data in order to

maintain external competitiveness for our key talent. As we further focus the company on food, nutrition and specialty products, we expect that the specific direction, emphasis and components of our executive compensation program will continue to evolve.

Our executive compensation program is designed to:

- attract and retain talented and experienced executives who strategically address our short-term and long-term needs;
- align the interests of our executive officers with stockholders by motivating executive officers to increase stockholder value and reward executive officers when stockholder value increases;
- compensate our executives in a manner that motivates them to manage our business to meet our short-term and long-term objectives and create stockholder value;
- reward executives whose knowledge, skills and performance are critical to our success; and
- foster a shared commitment among executives by aligning their individual goals with the goals of the executive management team and our stockholders.

To help achieve these objectives, the compensation committee ties a substantial portion of the executives' overall compensation to key strategic business, financial and operational goals, such as business development and commercialization, strategic transactions, manufacturing and cash management metrics.

Our executive compensation program rewards corporate achievement, as well as both team and individual accomplishments, by emphasizing a combination of corporate results and individual accountability. A significant portion of total compensation is placed at risk through annual performance bonuses and long-term equity incentives. We use a mix of annual performance bonuses, restricted stock units (RSUs) and stock options to optimize the alignment of the interests of our executives with those of our stockholders. This combination of cash and equity incentives is designed to balance annual business and operating objectives, and our financial performance, with longer-term stockholder value creation.

We also seek to promote a long-term commitment to TerraVia by our executives. We believe that there is great value to having a team of long-tenured, seasoned managers. All of our named executive officers other than Mr. Mody have been with the company since before our initial public offering in 2011. Our team-focused culture and management practices are designed to foster this commitment. In addition, the typical vesting schedule for equity awards is based upon continued employment for multiple years (four years on average) following the grant, and is intended to retain our executives and reinforce this long-term commitment.

#### ***Executive Compensation Procedures***

Our compensation committee is responsible for both the performance evaluation of executives that are subject to the provisions of Section 16 of the Exchange Act of 1934 (including all of our named executive officers) (Section 16 officers) and the setting of their compensation. In addition, the compensation committee administers our executive compensation programs and initiatives. The compensation committee takes into consideration input from our Chief Executive Officer regarding performance of the other named executive officers and recommendations for their compensation amounts. The compensation committee makes the final decision with respect to amounts approved and meets outside the presence of the Chief Executive Officer when determining his compensation.

Our compensation committee periodically seeks input from its outside compensation consultant, Pearl Meyer & Partners LLC (Pearl Meyer), on a range of external market factors, including evolving compensation trends, appropriate peer companies and market survey data. As further described below under "Consideration of Market Data", in the third quarter of 2015, our compensation committee retained Pearl Meyer to conduct a review and analysis of our current executive compensation program to be considered by the compensation committee in establishing the 2016 compensation levels for our named executive officers, and in the third quarter of 2016, our compensation committee again retained Pearl Meyer to conduct a review and analysis of our current executive compensation program to be considered by the compensation committee in establishing the 2017 compensation levels for our named executive officers. Our compensation committee also retained Pearl Meyer in connection with the appointment of Mr. Mody as our new Chief Executive Officer to conduct a review and analysis of market survey data to be considered by the compensation committee in establishing his initial compensation. The compensation arrangements for Mr. Mody are described below under "New Chief Executive Officer Compensation Arrangement".

We held an advisory stockholder vote on our executive compensation practices (say-on-pay) at our 2015 annual meeting of stockholders, as required by the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank legislation). Approximately 57% of the votes cast on the say-on-pay proposal at that meeting were voted in favor of the proposal. Our compensation committee reviewed, consulted with its independent compensation consultant regarding, and discussed the voting results of the say-on-pay proposal, the key challenges facing the company and the importance of keeping the executive team in

place to execute against substantive challenges and determined not to make significant changes to the compensation program for our named executive officers at this time. In addition, at our 2012 annual meeting, we held the first advisory stockholder vote on the frequency of future stockholder advisory votes to approve named executive officer compensation, as required by the Dodd-Frank legislation. Approximately 81% of the votes cast on the frequency proposal at that meeting were voted in favor of a three-year frequency for future stockholder advisory votes to approve named executive officer compensation. Our board of directors adopted our stockholders' recommendation to hold an advisory say-on-pay vote every three years and, therefore, our next advisory say-on-pay vote will occur at our 2018 annual meeting of stockholders, in addition to our next advisory stockholder vote on the frequency of future stockholder advisory votes to approve named executive officer compensation.

### ***Elements of Compensation and Pay Mix***

For 2016, executive compensation generally consisted of the following elements (discussed in detail below) to promote our pay-for-performance philosophy and compensation goals and objectives:

- base salary;
- annual cash incentive awards linked to company performance;
- periodic grants of long-term equity-based compensation; and
- health and retirement benefits generally available to all employees.

We combine these elements in order to formulate compensation packages that provide competitive pay, reward the achievement of financial, operational and strategic objectives and align the interests of our executive officers and other senior personnel with those of our stockholders. We also provide our executive officers with severance and double-trigger change in control benefits as described below.

Although we do not have a policy to allocate specific percentages of compensation to any particular element, we believe the combination of elements provides a well-proportioned mix of secure compensation, retention value and at-risk compensation that produces short-term and long-term performance incentives and rewards. By following this approach, we intend to motivate our executives to focus on business results that will produce a high level of short-term and long-term performance for us and potential long-term value creation for our executives and our stockholders, as well as reducing the risk of recruitment of top executive talent by competitors. We do not have a formula for determining the amount of each element of compensation. Instead, each element for 2016 was determined based on a combination of the factors described under "Short-Term Incentives," "Long-Term Incentives," and "2016 Compensation Actions for Our Named Executive Officers." Except as otherwise described in these sections, there was no particular primary factor in determining the amount of any element and instead, our compensation decisions were based on judgments about appropriate amounts after considering the factors listed in these sections.

### ***Base Salary and Short-Term Incentives***

**Base Salary.** Base salary is designed to provide our executive officers with steady cash flow during the course of the year that is not contingent on short-term variations in our corporate performance. The setting of salaries also includes an evaluation as to appropriate levels taking into account each individual's job duties, responsibilities, performance and experience plus comparisons to the salaries of our other executive officers. Base salaries are reviewed at least annually and may be recommended for adjustment from time to time based on the results of that review. Salary increases may be determined using a combination of relevant competitive market data, scope of responsibilities and assessment of individual performance.

**Cash Bonuses.** We have an annual cash bonus plan under which cash bonuses may be paid to each of our employees, including our named executive officers, after the end of each calendar year. Bonus payout to named executive officers is based on the compensation committee's assessment of our collective accomplishments, performance and achievements as measured against our business and financial goals, and is consistent across the named executive officers except as otherwise described below with respect to Mr. Mody. Corporate goals and targets are set at the beginning of the fiscal year and are approved by our compensation committee.

Target bonus amounts are determined based on competitive benchmark data derived from the peer group review described below relative to the executive officer's specific position. Our compensation committee set target bonus amounts at levels the committee felt were within market practice based on the data provided by Pearl Meyer, recognizing that actual payouts would be dependent on actual performance. Other than Mr. Quinlan (as described below), our compensation committee did not adjust the target bonus amounts (as a percentage of base salary) for named executive officers because the compensation committee determined they offered sufficient incentives, thus the target bonus amounts remained unchanged as follows: 70% for our former Chief Executive Officer; 50% for our Chief Financial Officer/Chief Operating Officer; and 45% for our Chief Technology Officer. Mr. Quinlan's target bonus amount was increased from 40% to 45% in connection with his appointment as the company's chief legal officer, general counsel and corporate secretary to maintain competitive benchmark levels and reflect

his increased responsibilities as a result of the addition of the role chief legal officer to his position as general counsel. Mr. Mody's bonus target was set at 70% by the compensation committee; however, in accordance with his offer letter (due to his hiring during the second half of the year after goals for the year were determined), and in lieu of a bonus related to his 2016 performance, Mr. Mody received a commitment and true-up payment equal to 70% of the total amount of base salary he received from August 22, 2016, his first day of employment with the company to (and including) December 31, 2016, which guaranteed payment applies for 2016 only.

Bonuses relating to 2016 performance for our named executive officers other than Mr. Mody were based on the compensation committee's assessment of overall company performance with respect to the combination of business and financial objectives and manufacturing, commercial, cash management and strategic goals previously approved by the compensation committee. When established, the compensation committee viewed the corporate objectives as aggressive but obtainable, and believed that the named executive officers, if they continued to perform at a level consistent with past performance, would have the opportunity to accomplish a meaningful number of the objectives.

In December 2016, the compensation committee assessed our accomplishments and overall performance against the targets and goals and determined the payout for our named executive officers other than Mr. Mody was generally 51% of target, due to its determination that some, but not all, goals were met. These payouts under our 2016 bonus plan were based on the compensation committee's assessment of collective achievements, particularly in the following areas:

- *Business Strategy* : This factor was comprised of two components: raising capital and executing on strategic initiatives related to our transition to a food and specialty ingredients company. The compensation committee recognized the significant accomplishments made in raising capital through the issuance of the company's series A preferred shares, the sale of the company's Algenist business, and the issuance of the company's common stock through at-the-market transactions, as well as the entry of the SB Oils JV into a commercial arrangement with a major aquaculture feed company; however, our compensation committee felt management did not achieve either strategic component at a level sufficient to warrant full credit under our 2016 bonus plan.
- *Revenue* : This was a key factor comprised of commercial revenue targets. The compensation committee recognized the commercial accomplishments in certain key target markets; however, our compensation committee felt management did not achieve the commercial revenue targets at a level sufficient to warrant significant credit under our 2016 bonus plan.
- *Manufacturing* : This was a key factor comprised of multiple components: supply commitments, meeting commercial deliveries at certain volume levels on-time and on-specification, and achieving variable cost targets for certain products manufactured at the SB Oils JV plant in Brazil. The compensation committee recognized the entry into a key commercial supply agreement with Unilever and improvements in production costs at the SB Oils JV plant; however, our compensation committee felt management achieved two of the components but did not achieve the other component at a level sufficient to warrant full credit under our 2016 bonus plan for such components.
- *Fiscal Management* : This was a key factor comprised of two components: total cash burn targets for 2016 and year-end cash balance targets. The compensation committee recognized the significant accomplishment made in reducing operating expenses over 2015 levels and meeting year-end cash balance targets to a certain extent; however, our compensation committee felt management did not achieve the total cash burn component at a level sufficient to warrant credit under our 2016 bonus plan for such component, as overall cash burn exceeded the target maximum total cash burn level.
- *Other* : The compensation committee also considered the company's achievement in entering into a strategic food partnership, giving credit for this accomplishment.

The compensation committee has not yet adopted a policy for recovering bonuses from our executive officers if the performance outcomes that led to the bonus determination were to be restated or found not to have been met to the extent originally believed by the compensation committee. We will comply with applicable law and adopt an appropriate recoupment policy if rules are issued under the Dodd-Frank legislation.

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

*Long-Term Equity Compensation* . Our equity incentive program is intended to reward longer-term performance and to help align the interests of our executive officers with those of our stockholders. We believe that long-term performance is achieved through an ownership culture that rewards such performance by our executive officers through the use of equity incentives. We believe that our equity incentive program is an important retention tool for our employees, including our executive officers. Our equity incentive program includes time-based RSUs, as the committee believes, based in part on the volatility of our stock price and the continued challenges facing the company, that time-vesting RSUs, in combination with stock options that directly require increased stock performance for realization, continue to be appropriate for long-term retention value that is combined with stock price performance.

The individual grants described below were determined by our compensation committee, considering the executive's role in achieving our current and future corporate goals and targets, the anticipated difficulty to replace the individual, the competitive market for similar positions, the retentive power of existing unvested equity held by the individual, our chief executive officer's recommendation, and review of the executive compensation survey prepared by Pearl Meyer. As part of this review, Pearl Meyer provided an analysis of equity holdings and resulting retention value for each named executive officer other than Mr. Mody. In early 2016, for each of our then-current named executive officers, the compensation committee determined individual equity award amounts, setting award levels the committee felt were within market practice based on the data provided by Pearl Meyer. The compensation committee also considered each executive's performance, relative unvested equity holdings, and our overall equity use in determining individual grants. Annual equity grants were a combination of options and RSUs in order to align with the external benchmarks and balance short and long-term interests. The committee believed that time-based vesting was appropriate at this time because of the strategic and operational changes and challenges faced by our business. The committee believed that combining RSUs with options, which have a built-in performance measure of stock price appreciation because of the exercise price, was appropriate to focus our executives on our strategic and long-term goals.

The compensation committee adopted a policy wherein the grant date for annual option grants to Section 16 officers would be set as the date of the first regularly scheduled meeting of our board of directors in each calendar year. In accordance with this policy, stock options were granted on March 8, 2016 to each of our named executive officers (other than Mr. Mody) under the annual equity grant program, with the stock options vesting monthly over four years from January 2016 and having a maximum term of 10 years. In addition, RSUs were granted on March 8, 2016 under the annual equity grant program, vesting over a total of four years with an initial vesting date as to 1/4 of the RSU grant in March 2017 and vesting as to 1/8 of the RSU grant on approximately each six (6) month anniversary thereafter.

#### ***New Chief Executive Officer Compensation Arrangement***

As described above, in August 2016 Mr. Mody joined the company as our new Chief Executive Officer. In connection with his appointment, our compensation committee retained Pearl Meyer to conduct a review and analysis of market survey data to be considered by the compensation committee in establishing 2016 compensation for Mr. Mody. In determining his compensation, our compensation committee reviewed and discussed with Pearl Meyer the results of Pearl Meyer's competitive review and analysis of our current executive compensation program as well as market data for the biotechnology and life sciences companies included as part of the peer group of companies adopted by the compensation committee in late 2015 in establishing the 2016 compensation levels for our then-current named executive officers. Our compensation committee set the total compensation package for Mr. Mody at a level it believed, based on the data presented by Pearl Meyer, to be competitive and would provide adequate incentive to Mr. Mody. The initial equity grants to Mr. Mody were a combination of options and RSUs, as described below, in order to align with the external benchmarks and balance short and long-term interests.

#### ***Other Compensation and Benefits***

*Other Employee Benefits* . We maintain an employee stock purchase plan in which substantially all of our employees in the United States are eligible to participate. The purchase price of the common stock under the employee stock purchase plan is 85% of the lower of the fair market value of a share of common stock on the first day of the offering period or the last day of the purchase period. We also maintain a 401(k) plan in which substantially all of our employees in the United States are entitled to participate. Employees contribute their own funds, as salary deductions, on a pre-tax basis. Contributions may be made up to plan limits, subject to government limitations. The plan permits us to make matching contributions if we choose. To date we have not made matching contributions although we may choose to do so in the future. We provide the same health care, dental, vision, life insurance and disability benefits to all full-time U.S. employees, including our executive officers, and similar benefits to our non-U.S. employees. We also have a flexible benefits healthcare plan and a flexible benefits childcare plan under which U.S. employees can set aside pre-tax funds to pay for qualified health care expenses and qualified childcare expenses not reimbursed by insurance. These benefits are available to all employees, subject to applicable laws. Other than as described below, we do not provide perquisites to executive officers that are not available to all of our employees on the same terms.

*Severance and Change of Control Benefits* . Each of our named executive officers is entitled to the severance and change of control benefits described in detail below under "Potential Payments Upon Termination or Change of Control and Separation Agreements." We believe that "double-trigger" change of control benefits (that is, providing severance compensation and equity acceleration if an executive officer is terminated in connection with a change of control transaction) are appropriate to further promote the ability of our executive officers to act in the best interests of our stockholders even though they could be terminated as a result of a change of control transaction. The severance and change of control benefits do not influence and are not influenced by the other elements of compensation, as these benefits serve different objectives. We believe that the severance benefits are appropriate in order to provide us with flexibility to make a change in executive management or corporate structure

if such a change is in our stockholders' best interests. As a result, we believe these severance and change of control benefits are an important element of our executive compensation program and assist us in recruiting and retaining talented individuals.

*New Chief Executive Officer* . As part of his negotiated compensation arrangement, Mr. Mody is entitled to reimbursement for his relocation costs, receives amounts to defray his commuting costs and was reimbursed for legal expenses incurred in connection with his offer letter.

#### **Consideration of Market Data**

*Review of Market Data* . In August 2015, based on its own analysis and the recommendation of Pearl Meyer, our compensation committee adopted a peer group of companies, which includes public companies in the alternative energy industry and the broader life sciences space, some of which have significant operations in the San Francisco Bay Area. This peer group is the same as the peer group adopted in late 2014, as it was determined by Pearl Meyer and our compensation committee after additional review and analysis that the peer group remained appropriate, and consists of the following companies:

Affymetrix, Inc.	Genomic Health Systems, Inc.
Amyris, Inc.	Nektar Therapeutics
Balchem Corporation	Raptor Pharmaceutical Corp.
BioAmber Inc.	Rentech, Inc.
Cambrex Corporation	Rigel Pharmaceuticals, Inc.
Codexis, Inc.	Senomyx, Inc.
Durect Corporation	XenoPort, Inc.
Exelixis, Inc.	

#### **Individual Named Executive Officer Compensation.**

*Apu S. Mody-Chief Executive Officer* . Mr. Mody's first day of employment as Chief Executive Officer of the company was August 22, 2016 and his salary and bonus target were set at \$600,000 and 70%, respectively. On Mr. Mody's first day of employment, our compensation committee granted him stock options exercisable for an aggregate of 1,500,000 shares and 300,000 RSUs. The stock option vested as to 250,000 shares on August 22, 2016, 312,500 shares vest on August 22, 2017, and the remaining 937,500 shares vest in 36 equal monthly installments, with the first monthly installment vesting on September 22, 2017. The RSUs vested as to 50,000 RSUs on August 22, 2016, 62,500 RSUs will vest in September 2017, and the remaining 187,500 RSUs will vest in six equal installments of 31,250 RSUs on approximately each six (6) month anniversary thereafter. The stock options and RSUs that vested on Mr. Mody's first day of employment were part of his negotiated compensation arrangement and provided the added benefit of causing him to immediately be incentivized to improve stock price and be aligned with stockholders.

*Jonathan S. Wolfson-Former Chief Executive Officer* . Our compensation committee increased Mr. Wolfson's base salary effective as of January 1, 2016 to \$577,000 per year, which represented an approximately 3% increase over his December 31, 2015 base salary to maintain competitive benchmark levels. Our compensation committee also granted him stock options exercisable for an aggregate of 700,000 shares and 140,000 RSUs as part of the 2016 annual equity grant program. Mr. Wolfson resigned as Chief Executive Officer in August 2016 and resigned as Executive Chairman in March 2017.

*Tyler W. Painter-Chief Financial Officer/Chief Operating Officer* . Our compensation committee increased Mr. Painter's base salary effective as of January 1, 2016 to \$463,500 per year, which represented an approximately 3% increase over his December 31, 2015 base salary to maintain competitive benchmark levels. Our compensation committee also granted him stock options exercisable for an aggregate of 275,000 shares and 50,000 RSUs as part of the 2016 annual equity grant program.

*Peter J. Licari-Chief Technology Officer* . Our compensation committee increased Dr. Licari's base salary effective as of January 1, 2016 to \$400,500 per year, which represented an approximately 8% increase over his December 31, 2015 based salary to maintain competitive benchmark levels. Our compensation committee also granted him stock options exercisable for an aggregate of 275,000 shares and 50,000 RSUs as part of the 2016 annual equity grant program.

*Paul T. Quinlan-Chief Legal Officer, General Counsel and Corporate Secretary*. Our compensation committee increased Mr. Quinlan's base salary effective as of January 1, 2016 to \$385,000 per year, which represented an approximately 15% increase over his December 31, 2015 base salary, and increased his target bonus amount from 40% to 45%, each in connection with his appointment as Chief Legal Officer, General Counsel and Corporate Secretary and to maintain competitive benchmark levels. Our compensation committee also granted him stock options exercisable for an aggregate of 350,000 shares and 62,500 RSUs as part of the 2016 annual equity grant program.

#### **2017 Compensation Actions for Our Named Executive Officers**

As described above, in the third quarter of 2016 our compensation committee retained Pearl Meyer as an independent executive compensation consultant. In September 2016, based on its own analysis and the recommendation of Pearl Meyer, our compensation committee adopted a peer group of companies, which includes public companies in the food, personal care, chemical and broader life sciences space, some of which have significant operations in the San Francisco Bay Area. This peer group differs significantly from the peer group adopted in the third quarter of 2015, with almost half of the 2015 peer group companies being removed and new companies added to reflect the company's current size and operations and its shift in strategic focus to food, nutrition and specialty ingredient products. The adopted peer group consists of the following companies:

American Vanguard Corporation	MusclePharm Corporation
Amyris, Inc.	Nature's Sunshine Products, Inc.
BioAmber Inc.	Nektar Therapeutics
Codexis, Inc.	Nutraceutical International Corporation
Durect Corporation	Omega Protein Corporation
Exelixis, Inc.	Raptor Pharmaceutical Corp.
Landec Corporation	Reliv' International, Inc.
Lifevantage Corporation	RiceBran Technologies
Lifeway Foods, Inc.	Rigel Pharmaceuticals, Inc.
Medifast Inc.	Senomyx, Inc.
MGP Ingredients, Inc.	Twinlab Consolidated Holdings, Inc.

In determining 2017 compensation for our named executive officers, our compensation committee reviewed and discussed with Pearl Meyer the results of Pearl Meyer's competitive review and analysis of our current executive compensation program as well as market data for the peer group of companies.

Our compensation committee set total cash compensation and equity compensation at levels the compensation committee felt were within market practice based on the data provided by Pearl Meyer. Annual equity grants were a combination of options and RSUs in order to align with the external benchmarks and balance short and long-term interests.

Our compensation committee did not adjust the target bonus amounts (as a percentage of base salary) for named executive officers because the compensation committee determined they were at the appropriate peer group level and offered sufficient incentives, thus the target bonus amounts remained unchanged as follows: 70% for our Chief Executive Officer; 50% for our Chief Financial Officer/Chief Operating Officer; 45% for our Chief Technology Officer; and 45% for our Chief Legal Officer, General Counsel and Corporate Secretary.

In accordance with the policy adopted by the compensation committee, stock options were granted to our named executive officers under the annual equity grant program on February 6, 2017, the date of the first regularly scheduled meeting of our board of directors in calendar year 2017, with the stock options vesting monthly over four years from January 2017 and having a maximum term of 10 years. RSUs were also granted on February 6, 2017 under the annual equity grant program, vesting over four years with an initial vesting date as to 1/4 of the RSU grant in March 2018 and vesting as to 1/8 of the RSU grant on approximately each six (6) month anniversary thereafter.

In addition, in an effort to maintain competitive benchmark levels without using cash, our compensation committee determined to grant additional RSUs to our executive officers in lieu of a merit increase, leaving base salary levels unchanged for 2017. These merit replacement RSUs vest in full in March 2018 and were granted on February 6, 2017 along with the stock options and RSUs described above. Mr. Mody was not granted merit replacement RSUs as he had recently joined the company.

*Apu S. Mody-Chief Executive Officer* . Our compensation committee left Mr. Mody's base salary unchanged at \$600,000 per year. Our compensation committee granted him stock options exercisable for an aggregate of 500,000 shares and 200,000 RSUs as part of the 2017 annual equity grant program.

*Tyler W. Painter-Chief Financial Officer/Chief Operating Officer* . Our compensation committee left Mr. Painter's base salary unchanged at \$463,500 per year. Our compensation committee granted him stock options exercisable for an aggregate of 200,000 shares and 100,000 RSUs as part of the 2017 annual equity grant program, as well as 20,000 merit replacement RSUs.

*Peter J. Licari-Chief Technology Officer* . Our compensation committee left Mr. Licari's base salary unchanged at \$400,500 per year. Our compensation committee granted him stock options exercisable for an aggregate of 200,000 shares and 100,000 RSUs as part of the 2017 annual equity grant program, as well as 20,000 merit replacement RSUs.

*Paul T. Quinlan-Chief Legal Officer, General Counsel and Corporate Secretary* . Our compensation committee left Mr. Quinlan's base salary unchanged at \$385,000 per year. Our compensation committee granted him stock options exercisable for an aggregate of 200,000 shares and 100,000 RSUs as part of the 2017 annual equity grant program, as well as 23,000 merit replacement RSUs.

### ***Tax Considerations***

Section 162(m) of the Internal Revenue Code of 1986 (Code), which only applies to public companies, limits the deduction for federal income tax purposes to not more than \$1 million of compensation paid to certain executive officers in a calendar year. Compensation above \$1 million may be deducted if it is "performance-based compensation." The compensation committee has not adopted a policy that requires all compensation to be deductible.

## Summary Compensation Table

The following table shows, for fiscal years 2016, 2015 and 2014, all of the compensation awarded to, earned by, or paid to our former principal executive officer, principal executive officer, principal financial officer and our two other highest paid executive officers (or, for fiscal 2016, our only other executive officers during the year). The officers listed in the table below are referred to in this proxy statement as the “named executive officers.”

### 2016 Summary Compensation Table

<u>Name and Principal Position</u>	<u>Year</u>	<u>Salary (\$)</u>	<u>Bonus (\$)</u>	<u>Stock Awards (\$)(1)</u>	<u>Option Awards (\$)(1)</u>	<u>Non-Equity Incentive Plan Compensation (\$)(2)</u>	<u>All Other Compensation (\$)(3)</u>	<u>Total (\$)</u>
Jonathan S. Wolfson	2016	577,000	—	232,400	766,010	200,000	21,934	1,797,344
Former Chief Executive Officer (4)	2015	426,521	—	173,600	219,883	254,800	21,012	1,095,816
	2014	560,000	—	858,900	1,425,179	98,000	18,775	2,960,854
Apurva S. Mody, Chief Executive Officer (5)	2016	219,231	153,462(6)	786,000	2,601,750	—	41,285(7)	3,801,728
Tyler W. Painter	2016	463,500	—	83,000	300,933	118,193	21,934	987,560
Chief Financial Officer and Chief Operating Officer	2015	407,096	—	62,000	136,225	146,250	21,012	772,583
	2014	410,400	—	2,210,750	1,626,560	48,983	18,775	4,315,468
Peter J. Licari	2016	400,500	—	83,000	300,933	91,915	21,550	897,898
Chief Technology Officer	2015	335,447	—	62,000	128,730	108,459	20,961	655,597
	2014	370,800	—	306,750	749,727	41,715	18,095	1,487,087
Paul T. Quinlan	2016	385,000	—	103,750	383,005	88,358	21,560	981,673
Chief Legal Officer, General Counsel and Corporate Secretary	2015	303,060	—	62,000	122,086	87,100	20,961	595,207
	2014	335,000	—	306,750	593,393	33,500	18,095	1,286,738

- (1) The dollar amounts in this column represent the grant date fair value for stock awards and option awards granted in 2016, 2015 and 2014, calculated in accordance with FASB ASC Topic 718. The valuation assumptions used in determining such amounts are described in Note 2 to our consolidated financial statements included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2016. Option awards in 2016 primarily relate to option awards granted on March 3, 2016 as the equity portion of the bonus for 2015 performance.
- (2) Represents cash performance bonuses for 2016, 2015 and 2014 paid in March 2017, March 2016 and March 2015, respectively.
- (3) Represents health, life and disability insurance premiums paid on behalf of the listed named executive officer.
- (4) Mr. Wolfson ceased to be our Chief Executive Officer concurrent with Mr. Mody’s commencement of employment on August 22, 2016.
- (5) Mr. Mody was appointed as our Chief Executive Officer on August 22, 2016.
- (6) In accordance with his offer letter and in lieu of a bonus related to his 2016 performance, represents a commitment and true up payment equal to 70% of the total amount of base salary Mr. Mody received from August 22, 2016 to (and including) December 31, 2016, which was paid in March 2017.
- (7) Includes \$30,258 for commuting expenses and \$3,190 for reimbursed legal expenses related to Mr. Mody’s employment commencement.

## Grants of Plan-Based Awards in Fiscal 2016

The following table sets forth certain information regarding grants of plan-based awards to the named executive officers during the year ended December 31, 2016.

**2016 Grants of Plan-Based Awards Table**

<b>Name</b>	<b>Grant Date</b>	<b>Estimated Future Payouts Under Non-Equity Incentive Plan Awards(1)</b>	<b>All Other Stock Awards: Number of Shares of Stock or Units (#)</b>	<b>All Other Option Awards: Number of Securities Underlying Options (#)</b>	<b>Exercise Price or Base Price of Option Awards (\$/Sh)</b>	<b>Grant Date Fair Value of Stock and Option Awards \$(3)</b>
Jonathan S. Wolfson	3/8/2016	403,900	140,000 (4)	700,000	1.66	998,410
Apurva S. Mody	8/22/2016	150,740 (6)	300,000 (5)	1,500,000	2.62	3,387,750
Tyler W. Painter	3/8/2016	231,750	50,000 (4)	275,000	1.66	383,933
Peter J. Licari	3/8/2016	180,225	50,000 (4)	275,000	1.66	383,933
Paul T. Quinlan	3/8/2016	173,250	62,500 (4)	350,000	1.66	486,755

- (1) We do not provide for thresholds or maximums as part of our performance bonus program. Our performance bonus program is described above in “Compensation Discussion and Analysis—Short Term Incentives.”
- (2) Amounts shown in the “Target” column reflect the amount of cash target set for bonus for each named executive officer under the 2016 cash bonus program. Actual cash bonuses were paid in March 2017 and are shown in the 2016 Summary Compensation Table.
- (3) Total stock-based compensation as determined under FASB ASC Topic 718. Amounts are amortized over the requisite service period for each award. For a discussion of valuation assumptions, see notes to our financial statements included in our annual report on Form 10-K.
- (4) The grant vests as to 1/4 of the shares on March 9, 2017 and thereafter shall vest as to 1/8 of the shares on each of September 14, 2017, March 8, 2018, September 14, 2018, March 1, 2019, September 11, 2019 and March 11, 2020.
- (5) The grant vests as to 50,000 shares on August 22, 2016, as to 62,500 shares on September 14, 2017 and the remaining 187,500 shares vest in six equal installments of 31,250 shares on each of March 8, 2018; September 14, 2018; March 1, 2019; September 11, 2019; March 2, 2020 and September 14, 2020.
- (6) Mr. Mody joined the Company on August 22, 2016. In lieu of a 2016 bonus, this commitment and true-up payment equal to 70% of the total amount of base salary received in 2016 was paid contemporaneously with 2016 bonus payments made to the then-current named executive officers in March 2017.

### Outstanding Equity Awards at Fiscal Year-End 2016 Table

The following table shows, for the year ended December 31, 2016, certain information regarding outstanding equity awards at fiscal year-end for our named executive officers.

Name	Option Awards				Stock Awards	
	Number of Securities Underlying Unexercised Options Exercisable (#)	Number of Securities Underlying Unexercised Options Unexercisable (#)	Option Exercise Price (\$/Sh)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested (\$)
Jonathan S. Wolfson	110,000	—	2.35	6/13/2020 (1)	—	—
	75,000	—	2.58	3/8/2021 (1)	—	—
	125,000	—	2.58	2/10/2022 (1)	—	—
	68,542	1,459	2.58	2/24/2023 (1)	—	—
	51,041	18,960	2.58	2/11/2024 (1)	—	—
	167,708	182,292	2.46	12/17/2024 (1)	—	—
	160,416	539,584	1.66	3/7/2026 (1)	—	—
	—	—	—	—	8,750 (2)	10,063
	—	—	—	—	26,250 (3)	30,188
	—	—	—	—	43,750 (4)	50,313
				140,000 (5)	161,000	
Apurva S. Mody	250,000	1,250,000	2.62	8/22/2026 (1)	—	—
					250,000 (6)	287,500
Tyler W. Painter	25,000	—	0.86	9/16/2018 (1)	—	—
	70,000	—	0.86	6/8/2019 (1)	—	—
	55,000	—	2.35	6/13/2020 (1)	—	—
	100,000	—	2.35	10/6/2020 (1)	—	—
	50,000	—	6.79	12/15/2020 (1)	—	—
	25,000	—	2.58	3/8/2021 (1)	—	—
	50,000	—	2.58	2/10/2022 (1)	—	—
	24,479	522	2.58	2/24/2023 (1)	—	—
	21,874	8,126	2.58	2/11/2024 (1)	—	—
	64,582	35,418	2.58	5/21/2024 (1)	—	—
	65,885	71,615	2.46	12/17/2024 (1)	—	—
	33,098	—	2.48	3/2/2025 (1)	—	—
	63,020	211,980	1.66	3/7/2026 (1)	—	—
	—	—	—	—	3,125 (2)	3,594
	—	—	—	—	9,375 (3)	10,781
—	—	—	—	75,000 (8)	86,250	
—	—	—	—	15,625 (4)	17,969	
—	—	—	—	50,000 (5)	57,500	
Peter J. Licari	5,000	—	0.86	11/4/2018 (1)	—	—
	5,000	—	1.01	12/17/2019 (1)	—	—
	48,784	—	2.35	9/14/2020 (1)	—	—
	25,000	—	2.58	12/15/2020 (1)	—	—
	25,000	—	2.58	3/8/2021 (1)	—	—
	50,000	—	2.58	2/10/2022 (1)	—	—
	24,479	522	2.58	2/24/2023 (1)	—	—
	21,874	8,126	2.58	2/11/2024 (1)	—	—
	103,020	111,980	2.46	12/17/2024 (1)	—	—
	28,186	—	2.48	3/2/2025 (1)	—	—
	63,020	211,980	1.66	3/7/2026 (1)	—	—
	—	—	—	—	3,125 (2)	3,594
	—	—	—	—	9,375 (3)	10,781

	—	—	—	—		15,625 (4)	17,969
						50,000 (5)	57,500
Paul T. Quinlan	22,000	—	2.35	6/13/2020 (1)		—	—
	20,000	—	2.58	12/15/2020 (1)		—	—
	30,000	—	2.58	3/8/2021 (1)		—	—
	50,000	—	2.58	2/10/2022 (1)		—	—
	24,479	522	2.58	2/24/2023 (1)		—	—
	20,051	7,449	2.58	2/11/2024 (1)		—	—
	65,885	71,615	2.46	12/17/2024 (1)		—	—
	22,636	—	2.48	3/2/2025 (1)		—	—
	80,208	269,792	1.66	3/7/2026 (1)		—	—
	—	—	—	—		3,125 (2)	3,594
	—	—	—	—		9,375 (3)	10,781
	—	—	—	—		15,625 (4)	17,969
						62,500 (5)	71,875

- (1) Shares subject to the stock option generally vest or vested monthly over a four-year period from the vesting commencement date.
- (2) The unvested shares vest in full on March 6, 2017.
- (3) 1/3 of the unvested shares shall vest on each of March 9, 2017, September 14, 2017 and March 8, 2018.
- (4) 1/5 of the unvested shares shall vest on each of March 9, 2017, September 14, 2017, March 8, 2018, September 14, 2018 and March 1, 2019.
- (5) 1/4 of the unvested shares shall vest on March 9, 2017 and thereafter shall vest as to 1/8 of the shares on each of September 14, 2017, March 8, 2018, September 14, 2018, March 1, 2019, September 11, 2019 and March 11, 2020.
- (6) 62,500 of the unvested shares shall vest on September 14, 2017 and the remaining 187,500 shares vest in six equal installments of 31,250 shares on each of March 8, 2018; September 14, 2018; March 1, 2019; September 11, 2019; March 2, 2020 and September 14, 2020.
- (7) 1/4 of the unvested shares shall vest on June 1, 2015, and thereafter vests as to 1/8 of the shares on each of December 7, 2015, June 6, 2016, December 5, 2016, June 5, 2017, December 4, 2017 and June 4, 2018.
- (8) 1/3 of the unvested shares shall vest on each of June 5, 2017, December 4, 2017 and June 4, 2018.

## Option Exercises and Stock Vested in 2016

None of our executive officers exercised stock options in 2016. The table below sets forth information regarding RSUs vesting during 2016 for each of our named executive officers.

Name	Stock vested	
	Number of Shares Acquired on Vesting (#)	Value realized on Vesting (\$)
Jonathan S. Wolfson	61,250	127,838
Apurva S. Mody	50,000	131,000
Tyler W. Painter	71,875	142,406
Peter J. Licari	21,875	45,656
Paul T. Quinlan	21,875	45,656

## Nonqualified Deferred Compensation

During the year ended December 31, 2016, our named executive officers did not contribute to, or earn any amounts with respect to, any defined contribution or other plan sponsored by us that provides for the deferral of compensation on a basis that is not tax-qualified.

## Potential Payments Upon Termination or Change of Control and Separation Agreements

### *Cash Severance Payments in Connection with Termination of Employment*

In March 2011, our board of directors approved arrangements, which provide that if we terminate certain named executive officers' employment without cause or if such named executive officer resigns for good reason, the named executive officer is entitled, subject to our receipt of an effective waiver and release of claims executed by the named executive officer, to the following cash severance payments:

- Lump sum cash, in an amount equal to 15 months (for Mr. Mody) or 12 months (for Mr. Painter, Dr. Licari and Mr. Quinlan) of the named executive officer's base salary at the time of termination;
- COBRA premiums for 15 months (for Mr. Mody) or 12 months (for Mr. Painter, Dr. Licari and Mr. Quinlan), subject in each case to discontinuance upon obtaining full-time employment; and
- Lump sum cash, in an amount equal to 15 months (for Mr. Mody) or 12 months (for Mr. Painter, Dr. Licari and Mr. Quinlan) of the named executive officer's target bonus determined as if all performance targets had been met.

The following table estimates the amount of compensation that would have been payable to Mr. Mody, Mr. Painter, Dr. Licari and Mr. Quinlan in the event of a termination as described above, in each case as if the named executive officer's employment had terminated on December 31, 2016, the last day of our prior fiscal year. The actual amounts that would be paid out in any termination event can only be determined at the time of the termination of the named executive officer's employment with us. This table also excludes any payments required by law that are available to all employees, such as accrued vacation time, and does not reflect standard payroll withholdings and deductions that would be taken in accordance with our standard payroll practices.

Name	Salary Payment (\$)	COBRA Premiums (\$)	Bonus Payment for the Year of Termination (\$)
Apurva S. Mody	750,000	31,299	525,000
Tyler W. Painter	463,500	25,039	231,750
Peter J. Licari	400,500	24,084	180,225
Paul T. Quinlan	385,000	24,084	173,250

### *Vesting Acceleration in Connection with Termination of Employment*

In March 2011, our board of directors approved arrangements, which provide that if we terminate certain named executive officers' employment without cause or if such named executive officer resigns for good reason, the vesting (or lapse in any right of repurchase) of all equity compensation awards held by the named executive officer will be accelerated by 15 months (for Mr. Mody) or 12 months (for Mr. Painter, Dr. Licari and Mr. Quinlan), subject to our receipt of an effective

waiver and release of claims executed by the named executive officer. In addition, if the termination is in connection with a change of control of our company, all equity compensation awards held by such named executive officer will be accelerated in full.

The following table estimates the value of the vesting acceleration provisions described above with respect to Mr. Mody, Mr. Painter, Dr. Licari and Mr. Quinlan in the event of a termination as described above, in each case as if the named executive officer's employment had terminated on December 31, 2016, the last day of our prior fiscal year. The actual value of vesting acceleration in any termination event can only be determined at the time of the termination of the named executive officer's employment with us.

<u>Name</u>	<b>Value of Option and Awards Acceleration - Termination Not Related to Change of Control(\$)(1)</b>	<b>Value of Option and Awards Acceleration - Termination Related to Change of Control (\$)(1)</b>
Apurva S. Mody	107,813	287,500
Tyler W. Painter	97,031	176,094
Peter J. Licari	39,531	89,844
Paul T. Quinlan	44,921	104,219

(1) The value of vesting acceleration is calculated using the closing price of our common stock on the NASDAQ Global Select Market on December 31, 2016 with respect to unvested option and award shares subject to acceleration, minus the exercise price of these unvested option shares.

Our arrangements with our named executive officers do not provide for any excise tax gross-up. Instead, if any of the named executive officers is to receive any payment or distribution in the nature of compensation (within the meaning of Section 280G(b)(2) of the Code) to or for the benefit of such named executive officer, whether under an employment agreement or otherwise, and would be subject to the excise tax imposed by Section 4999 of the Code, or the Code (together with any interest or penalties imposed with respect to such excise tax), then such payments will be reduced to the greatest amount that could be received by the named executive officer without triggering the payment of any excise tax, if such reduction results in the officer retaining a greater after-tax amount.

## CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

### Related Party Transactions

Other than compensation arrangements, which are described where required under “Directors, Executive Officers and Corporate Governance” and “Executive Compensation,” during the fiscal year ended December 31, 2016, there were no, nor were there proposed, any transactions or series of similar transactions to which we have been or will be a party, in which:

- the amounts involved exceeded or will exceed \$120,000; and
- a director, executive officer, beneficial holder of more than 5% of our capital stock or any member of their immediate family had or will have a direct or indirect material interest.

Below we also describe certain other transactions with our directors, executive officers and stockholders.

### Indemnification of Executive Officers and Directors

Our amended and restated certificate of incorporation and our amended and restated bylaws provide that we will indemnify each of our directors and executive officers to the fullest extent permitted by the Delaware General Corporation Law. Further, we have entered into indemnification agreements with each of our directors and executive officers, and we have purchased policies of directors’ and officers’ liability insurance that insures our directors and executive officers against the cost of defense, settlement or payment of a judgment under certain circumstances.

### Policies and Procedures for Related Party Transactions

Pursuant to our Related Person Transaction Policy, our executive officers, directors, and principal stockholders, including their immediate family members and affiliates, are not permitted to enter into a related party transaction with us without the prior consent of our nominating and corporate governance committee, or other independent committee of our board of directors in the case it is inappropriate for our nominating and corporate governance committee to review such transaction due to a conflict of interest. Any request for us to enter into a transaction with an executive officer, director, principal stockholder, or any of such persons’ immediate family members or affiliates, in which the amount involved exceeds \$120,000 must first be presented to our nominating and corporate governance committee for review, consideration and approval. All of our directors, executive officers and employees are required to report to our nominating and corporate governance committee any such related party transaction. In approving or rejecting the proposed agreement, our nominating and corporate governance committee considers the relevant facts and circumstances available and deemed relevant to the nominating and corporate governance committee, including, but not limited to the risks, costs and benefits to us, the terms of the transaction, the availability of other sources for comparable services or products, and, if applicable, the impact on a director’s independence. Our nominating and corporate governance committee approves only those agreements that, in light of known circumstances, are in, or are not inconsistent with, our best interests, as our nominating and corporate governance committee determines in the good faith exercise of its discretion.

## AUDIT COMMITTEE REPORT

*The following is the report of our audit committee with respect to TerraVia's audited consolidated financial statements for the year ended December 31, 2016. The information contained in this report shall not be deemed "soliciting material" or otherwise considered "filed" with the SEC, and such information shall not be incorporated by reference into any future filing under the Securities Act or the Exchange Act except to the extent that TerraVia specifically incorporates such information by reference in such filing.*

Our audit committee is comprised entirely of independent directors who meet the independence requirements of the NASDAQ listing standards and the SEC. The audit committee operates pursuant to a charter that is available on the Investor section of our website at [www.terraviva.com](http://www.terraviva.com). To view the charter, select "Investors" then "Corporate Governance" and then "Audit Committee Charter."

The audit committee oversees TerraVia's financial reporting process on behalf of the board of directors. Management is responsible for the preparation, presentation, and integrity of the financial statements. TerraVia's independent auditors are responsible for expressing an opinion as to the conformity of TerraVia's consolidated financial statements with generally accepted accounting principles. In addition, our independent auditors express their own opinion on the effectiveness of our internal control over financial reporting.

In performing its responsibilities, the audit committee has reviewed and discussed with management and our independent registered public accounting firm, the audited consolidated financial statements in our annual report on Form 10-K for the fiscal year ended December 31, 2016, as well as management's assessment and our independent auditors' evaluation of the effectiveness of our internal control over financial reporting. The audit committee has also discussed with our independent auditors the matters required to be discussed by the Statement on Auditing Standards No. 114 (AICPA, Professional Standards, Vol. 1, AU section 380), as adopted by the Public Company Accounting Oversight Board (PCAOB) in Rule 3200T.

Our audit committee received and reviewed the written disclosures and the letter from our independent registered public accounting firm required by applicable requirements of the PCAOB regarding the independent registered public accounting firm's communications with our audit committee concerning independence.

Based on the reviews and discussions referred to above, our audit committee recommended to our board of directors that the audited consolidated financial statements be included in TerraVia's annual report on Form 10-K for the fiscal year ended December 31, 2016 for filing with the SEC.

### **The Audit Committee**

Gary M. Pfeiffer  
(Chair)

Jerry Fiddler

James R. Craigie

**PROPOSAL 1**  
**ELECTION OF DIRECTORS**

Our board of directors has nominated directors Gary M. Pfeiffer and Jonathan S. Wolfson to be elected to serve as Class III directors until the 2020 annual meeting of stockholders and until their successors are duly elected and qualified.

At the Annual Meeting, proxies cannot be voted for a greater number of individuals than the two nominees named in this proxy statement. Holders of proxies solicited by this proxy statement will vote the proxies received by them as directed on the proxy card or, if no direction is made, for the election of our board of directors' two nominees. If any nominee is unable to serve or is otherwise unavailable for election, which is not contemplated, our incumbent board may or may not select a substitute nominee. If a substitute nominee is selected, your shares will be voted for the substitute nominee (unless you give other instructions). If a substitute nominee is not selected, your shares will be voted for the remaining nominees. Proxies will not be voted for more than two nominees.

**Vote Required**

The two nominees receiving the highest number of affirmative votes of the shares of our common stock and preferred stock (on an as-converted basis), voting as one class, present in person or represented by proxy and entitled to vote, up to the two directors to be elected by those shares, will be elected as directors to serve as Class III directors until the 2020 annual meeting of stockholders and until their successors are duly elected and qualified.

**Recommendation of the Board**

*Your Board of Directors unanimously recommends that you vote  
FOR the election of Messrs. Pfeiffer and Wolfson.*

**PROPOSAL 2**  
**AMENDMENT OF OUR AMENDED AND RESTATED CERTIFICATE OF INCORPORATION TO INCREASE AUTHORIZED SHARES OF OUR COMMON STOCK**

Our board of directors has adopted an amendment to our Amended and Restated Certificate of Incorporation to increase the number of shares of capital stock the company is authorized to issue from 230,000,000 (225,000,000 shares of common stock and 5,000,000 shares of preferred stock), par value \$0.001, to 342,500,000 (337,500,000 shares of common stock and 5,000,000 shares of preferred stock), par value \$0.001, and declared its advisability. In order for this amendment to be effective, our stockholders must approve this Proposal 2.

On February 28, 2017, 99,294,716 shares of our common stock were outstanding, 26,750 shares of our Series A preferred stock were outstanding (convertible into 13,375,000 shares of our common stock) and 43,453,188 shares were reserved for issuance upon conversion of our convertible senior subordinated notes due 2018, our convertible senior subordinated notes due 2019, our Series A convertible preferred stock, our employee equity plans and outstanding equity awards, and outstanding warrants to purchase our common stock. Accordingly, as of February 28, 2017, there were approximately 68,877,096 shares of common stock available for general corporate purposes. Upon the approval of this Proposal 2, there would be approximately 181,377,096 authorized and unreserved shares of our common stock available for issuance.

Our board of directors reserves the right, notwithstanding stockholder approval and without further action by stockholders, to elect not to proceed with the increase in the authorized shares of common stock if our board of directors determines that such increase is no longer in the best interests of the company and our stockholders.

If approved, the amendment would amend and restate the first paragraph of ARTICLE IV of the Amended and Restated Certificate of Incorporation as follows:

“The total number of shares of stock that the Corporation shall have authority to issue is 342,500,000, consisting of 337,500,000 shares of Common Stock, par value \$0.001 per share (the “**Common Stock**”), and 5,000,000 shares of Preferred Stock, par value \$0.001 per share (the “**Preferred Stock**”).”

**Reasons for the Proposal**

Our board of directors believes it is in the best interests of the company to increase the number of authorized shares of our common stock in order to provide our company greater flexibility in considering and planning for future corporate needs, including, without limitation, the issuance of shares in connection with the refinancing or exchange of our outstanding debt, the issuance of shares in connection with equity financings, and the issuance of shares in connection with strategic or other general corporate transactions. If the number of authorized shares of our common stock is not increased, as noted above, of February 28, 2017 we would have approximately 68,877,096 shares of our common stock available for such uses. Our board of directors believes that this is an insufficient amount of shares to provide flexibility that could benefit our stockholders. Our board of directors believes that additional authorized shares of common stock will enable the company to take timely advantage of market conditions and favorable financing and strategic opportunities that become available to us without the delay and expense associated with convening a special meeting of our stockholders. We do not have any current commitment, arrangement, understanding or agreement regarding the issuance of the additional shares that would result from adoption of the proposed amendment. However, we are in discussions with a number of potential investors to raise additional capital and/or recapitalize our outstanding convertible senior subordinated notes. This could result in the issuance of additional shares of capital stock or securities exercisable for or convertible into shares of our capital stock. As of the date of this proxy statement, no agreements have been reached with respect to the foregoing, and such discussions may not lead to a transaction.

**Possible Effects of the Proposal**

The proposed amendment to increase the authorized number of share of our common stock could, under certain circumstances, have an anti-takeover effect or delay or prevent a change in control of the company by providing the company the capability to engage in actions that would be dilutive to a potential acquiror, to pursue alternative transactions, or to otherwise increase the potential cost to acquire control of the company. We do not have any current intention, plan, commitment, arrangement, understanding or agreement to employ the additional unissued authorized shares as an anti-takeover device. Our board of directors would act in the best interests of stockholders if any such takeover attempt were made, and is not aware of any such attempt to take control of the company. The proposed amendment has been prompted by business and financial considerations.

The increase in authorized common stock will not have any immediate effect on the rights of existing stockholders or change the number of shares of common stock outstanding. However, our board of directors may issue authorized common stock without requiring future stockholder approval of such issuances, except as may be required by the Certificate of

Incorporation and applicable law and regulations. To the extent that the additional authorized shares are issued in the future other than in connection with a stock dividend, they will decrease the existing stockholders' percentage equity ownership and, depending upon the price at which they are issued as compared to the price paid by existing stockholders for their shares, could be dilutive to our existing stockholders. The holders of common stock and Series A preferred stock have no preemptive rights to subscribe for or purchase any additional shares of common stock that may be issued in the future. The proposed amendment to increase the authorized number of shares of common stock does not change the number of shares of preferred stock that the company is authorized to issue.

**Vote Required**

Approval of this Proposal 2 requires the affirmative vote of the holders of a majority of the outstanding shares of our common stock and our preferred stock entitled to vote thereon, voting together as one class, and a majority of the outstanding shares of our common stock (as a separate class) entitled to vote thereon.

**Recommendation of the Board**

*Your Board of Directors unanimously recommends that you vote FOR the Amendment of our Amended and Restated Certificate of Incorporation to Increase the Authorized Shares of our Common Stock.*

**PROPOSAL 3**  
**RATIFICATION OF APPOINTMENT OF**  
**INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

Our audit committee has appointed Deloitte & Touche LLP to serve as our independent registered public accounting firm for our fiscal year ending December 31, 2017. Deloitte & Touche LLP has audited our financial statements for each fiscal year since, and including, the fiscal year ending December 31, 2007. Representatives of Deloitte & Touche LLP are expected to be present at the Annual Meeting, will have an opportunity to make a statement if they so desire and will be available to respond to appropriate questions.

Stockholder ratification of the appointment of Deloitte & Touche LLP as our independent registered public accounting firm is not required by our bylaws or otherwise. Our board of directors, however, is submitting the selection of Deloitte & Touche LLP to our stockholders for ratification as a matter of good corporate governance. If the stockholders fail to ratify the selection, our audit committee will reconsider whether to retain this firm. Even if the selection is ratified, our audit committee in their discretion may decide to appoint a different independent registered public accounting firm at any time during the year if they determine that such a change would be in the best interests of us and our stockholders.

**Fees Paid to Auditors**

The following table shows the fees billed for the audit and other services provided by Deloitte & Touche LLP, the member firms of Deloitte & Touche Tohmatsu, and their respective affiliates during the fiscal years ended December 31, 2016 and 2015:

	<u>2016 (\$)</u>	<u>2015 (\$)</u>
Audit Fees	1,288,000	1,446,873
Tax Fees	167,438	153,793
All Other Fees	5,000	5,000
Total	<u>1,460,438</u>	<u>1,605,666</u>

The “Audit Fees” category includes aggregate fees billed in the relevant fiscal year for professional services rendered for the audit of annual financial statements, review of financial statements included in Quarterly Reports on Form 10-Q, services rendered in connection with our capital markets transactions and for services that are normally provided in connection with statutory or regulatory filings or engagements for those fiscal years.

The “Tax Fees” category includes aggregate fees billed in the relevant fiscal year for professional services for tax compliance, tax advice and tax planning.

The “All Other Fees” category includes aggregate fees billed in the relevant fiscal year for an online technical accounting library subscription.

**Approval of Audit and Permissible Non-Audit Services**

Our audit committee charter requires the audit committee to review and approve all audit services and all permissible non-audit services to be performed for us by our independent registered public accounting firm. The audit committee will not approve any services that are not permitted by SEC rules.

The audit committee pre-approved all audit and audit related, tax and non-audit related services to be performed for us by our independent registered public accounting firm.

**Vote Required**

The affirmative vote of a majority of the shares of our common stock and preferred stock (on an as-converted basis), voting as one class, present in person or represented by proxy and entitled to vote thereon will be required to ratify the appointment of Deloitte & Touche LLP as our independent registered public accounting firm for our fiscal year ending December 31, 2017.

**Recommendation of the Board**

*Your Board of Directors unanimously recommends that you vote **FOR** the ratification of the appointment of Deloitte & Touche LLP as our independent registered public accounting firm for our fiscal year ending December 31, 2017.*

## ADDITIONAL INFORMATION

### Stockholders List

A list of stockholders entitled to vote at the Annual Meeting will be available for review by our stockholders at the office of our Corporate Secretary, at TerraVia Holdings, Inc., located at 225 Gateway Boulevard, South San Francisco, California 94080, during ordinary business hours for the 10-day period before the meeting.

### Stockholder Proposals and Nominations

#### *Requirements for Stockholder Proposals to be Considered for Inclusion in Next Year's Proxy Materials*

Stockholder proposals to be considered for inclusion in the proxy statement and form of proxy relating to the 2018 annual meeting of stockholders must be received no later than November 28, 2017. In addition, all proposals will need to comply with Rule 14a-8 under the Exchange Act, which lists the requirements for the inclusion of stockholder proposals in company-sponsored proxy materials.

Stockholder proposals must be delivered to the attention of our Corporate Secretary, at TerraVia Holdings, Inc., 225 Gateway Boulevard, South San Francisco, California 94080, by facsimile at (650) 989-1258 or by email at [CorporateSecretary@terravia.com](mailto:CorporateSecretary@terravia.com).

#### *Preferred Stockholder Director Nominees*

Pursuant to the certificate of designations relating to our outstanding preferred stock, for so long as the outstanding shares of preferred stock represent at least 5.00% in the aggregate of the aggregate number of votes that may be cast by holders of our outstanding voting securities, calculated on an as-if converted basis in the case of securities that become voting securities only upon exercise or conversion thereof, the holders of shares of our preferred stock, by the vote or written consent of the holders of a majority in voting power of the outstanding shares of the preferred stock, shall have the right to designate one member to our board of directors to be included in our board of directors' slate of directors in future stockholder meetings; provided that such individual is reasonably acceptable to the board of directors then constituted. We did not receive any notice of designation from the holders of our outstanding preferred stock for the Annual Meeting.

#### *Other Stockholder Proposals for Presentation at Next Year's Annual Meeting*

Notice of any director nomination or other proposal that you intend to present at the 2018 annual meeting of stockholders, but do not intend to have included in the proxy statement and form of proxy relating to the 2018 annual meeting of stockholders, must be delivered to, or mailed and received by, our Corporate Secretary, at TerraVia Holdings, Inc., 225 Gateway Boulevard, South San Francisco, CA 94080, by facsimile at (650) 989-6700 or by email at [CorporateSecretary@terravia.com](mailto:CorporateSecretary@terravia.com) not earlier than the close of business on January 22, 2018 and not later than the close of business on February 21, 2018. However, if the date of the 2018 annual meeting of stockholders is advanced more than 30 days prior to the first anniversary of the 2017 Annual Meeting or delayed more than 70 days after such anniversary date, then such notice must be received by us no earlier than 120 days prior to the date of the 2018 annual meeting of stockholders and no later than the later of 70 days prior to the date of the 2018 annual meeting of stockholders or the tenth day following the day on which public announcement of the date of the meeting was first made by us. In addition, your notice must set forth the information required by our bylaws with respect to each director nomination or other proposal that you intend to present at the 2018 annual meeting of stockholders. Copies of the provisions of our bylaws applicable to stockholder nominations and proposals will be forwarded to any stockholder upon written request.

### Solicitation of Proxies

We will pay the expenses of solicitation of proxies for the Annual Meeting. Solicitations may be made in person or by telephone, without additional compensation, by our officers and employees or by nominees or other fiduciaries who may mail materials to or otherwise communicate with the beneficial owners of shares held by the nominees or other fiduciaries. Upon request, we will reimburse brokers, dealers, banks and trustees, or their nominees, for reasonable expenses incurred by them in forwarding material to beneficial owners of our common stock. We have engaged Georgeson LLC, 1290 Avenue of the Americas, 9th Floor, New York, NY 10104, to assist us in obtaining proxies by mail, facsimile or email, at an estimated fee of approximately \$10,000 plus reasonable out-of-pocket expenses.

We also reimburse brokerage firms and other persons representing beneficial owners of shares held in street name for certain fees associated with:

- Forwarding the Notice to beneficial owners;

- Forwarding printed proxy materials by mail to beneficial owners who specifically request them; and
- Obtaining beneficial owners' voting instructions.

**Electronic Access to Proxy Statement and Annual Report**

Our proxy statement for the 2017 Annual Meeting as well as our Form 10-K for the fiscal year ended December 31, 2016 are available at <http://investors.terravia.com/financials.cfm>.

**OTHER MATTERS**

We know of no other matters to be submitted to the stockholders at our Annual Meeting. If any other matters properly come before the stockholders at our Annual Meeting, it is the intention of the persons named on the proxy to vote the shares represented thereby on such matters in accordance with their best judgment.

Dated: March 27, 2017

TERRAVIA HOLDINGS, Inc.  
 220 BATTERY BOULEVARD  
 SOUTH SAN FRANCISCO, CA 94060

**VOTE BY INTERNET - www.proxyvote.com**

Use the Internet to transmit your voting instructions and for electronic delivery of information up until 11:59 P.M. Eastern Time the day before the cut-off date or meeting date. Have your proxy card in hand when you access the web site and follow the instructions to obtain your records and to create an electronic voting instruction form.

**ELECTRONIC DELIVERY OF FUTURE PROXY MATERIALS**

If you would like to reduce the costs incurred by our company in mailing proxy materials, you can consent to receiving all future proxy statements, proxy cards and annual reports electronically via e-mail or the Internet. To sign up for electronic delivery, please follow the instructions above to vote using the Internet and, when prompted, indicate that you agree to receive or access proxy materials electronically in future years.

**VOTE BY PHONE - 1-800-494-6903**

Use any touch-tone telephone to transmit your voting instructions up until 11:59 P.M. Eastern Time the day before the cut-off date or meeting date. Have your proxy card in hand when you call and then follow the instructions.

**VOTE BY MAIL**

Mark, sign and date your proxy card and return it in the postage-paid envelope we have provided or return it to Vote Processing, c/o Broadridge, 51 Mercedes Way, Edgewood, NY 11717.

TO VOTE, MARK BLOCKS BELOW IN BLUE OR BLACK INK AS FOLLOWS:

KEEP THIS PORTION FOR YOUR RECORDS

THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.

DETACH AND RETURN THIS PORTION ONLY

<p>The Board of Directors recommends you vote FOR the following:</p> <p>1. Election of Directors</p> <p><b>Nominees</b></p> <p>(1) Jonathan S. Whitson      (2) Cary M. Peltner</p> <p>The Board of Directors recommends you vote FOR proposals 2. and 3.</p> <p>2. Approval of an amendment of our Articles and Restated Certificate of Incorporation to increase the authorized shares of our common stock from 225,000,000 shares to 337,500,000 shares.</p> <p>3. Retention of the appointment of Ximette R. Leuche LLP as our independent registered public accounting firm for our fiscal year ending December 31, 2017.</p> <p><b>NOTE:</b> Such other business as may properly come before the meeting or any adjournment thereof.</p>	<table border="0"> <tr> <td style="text-align: center;">For All</td> <td style="text-align: center;">Withhold All</td> <td style="text-align: center;">For All Except</td> <td rowspan="2" style="vertical-align: top; padding-left: 10px;">           To withhold authority to vote for any individual nominee(s), mark "For All Except" and write the number(s) of the nominee(s) on the line below.         </td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table> <table border="0"> <tr> <td style="text-align: center;">For</td> <td style="text-align: center;">Against</td> <td style="text-align: center;">Abstain</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>	For All	Withhold All	For All Except	To withhold authority to vote for any individual nominee(s), mark "For All Except" and write the number(s) of the nominee(s) on the line below.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	For	Against	Abstain	<input type="checkbox"/>					
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Please sign exactly as your name(s) appear(s) herein. When signing as attorney, executor, administrator, or other fiduciary, please give full title as such. Joint owners should each sign personally. All holders must sign. If a corporation or partnership, please sign in full corporate or partnership name, by authorized officer.

Signature [PLEASE SIGN WITHIN BOX]	Signature (Joint Owners)
Date	Date

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Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting: The Notice & Proxy Statement, Form 10-K is/are available at [www.proxyvote.com](http://www.proxyvote.com)

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**TERRAVIA HOLDINGS, INC.**  
**Annual Meeting of Stockholders**  
**May 22, 2017 8:00 AM PDT**  
**This proxy is solicited by the Board of Directors**

The undersigned hereby appoints Apu S. Mody and Tyler W. Painter, and each of them, attorney, agent and proxy of the undersigned, each with power of substitution and revocation, to vote all shares of common stock of TerraVia Holdings, Inc. that the undersigned would be entitled to cast if personally present at the 2017 Annual Meeting of Stockholders of TerraVia Holdings, Inc., to be held at 225 Gateway Boulevard, South San Francisco, California 94080 on Monday, May 22, 2017 at 8:00 a.m. Pacific Daylight Time, and at any postponement(s) or adjournment(s) thereof, as set forth on the reverse side, and according to the discretion of the proxy holders upon any other matters that may properly come before the meeting (and any such postponement(s) or adjournment(s)).

THIS PROXY WILL BE VOTED AS SPECIFIED BY THE UNDERSIGNED OR, IF NO CHOICE IS SPECIFIED, THE PROXY WILL BE VOTED AS TO ALL SHARES OF THE UNDERSIGNED "FOR" THE ELECTION OF ALL NOMINEES FOR DIRECTOR LISTED ON THE REVERSE SIDE; "FOR" PROPOSALS 2 AND 3; AND ACCORDING TO THE DISCRETION OF THE PROXY HOLDERS UPON ANY OTHER MATTERS THAT MAY PROPERLY COME BEFORE THE MEETING AND ANY POSTPONEMENT(S) OR ADJOURNMENT(S) THEREOF.

PLEASE VOTE, SIGN, DATE AND RETURN THIS PROXY CARD PROMPTLY USING THE ENCLOSED ENVELOPE OR VOTE BY TELEPHONE OR THROUGH THE INTERNET.

If you vote by telephone or through the Internet, please DO NOT mail back this proxy card. THANK YOU FOR YOUR VOTE.

**Continued and to be signed on reverse side**

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