TERRAVIA HOLDINGS, INC.

FORM 10-Q
(Quarterly Report)

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Industry	Food Processing
Sector	Consumer Non-Cyclicals
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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-Q

(Mark One)

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

For the quarterly period ended March 31, 2017

OR

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

For the Transition Period from ______to ______

Commission File Number: 001-35189

TerraVia Holdings, Inc.

(Exact name of Registrant as specified in its charter)

Delaware	**33-1077078**
(State or Other Jurisdiction of Incorporation or Organization)	**(I.R.S. Employer Identification Number)**

TerraVia Holdings, Inc.
225 Gateway Boulevard
South San Francisco, CA 94080
(650) 780-4777
(Address and telephone number principal executive offices)

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

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

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

Large accelerated filer	☐	Accelerated filer	☒
Non-accelerated filer	☐	Smaller reporting company	☐
		Emerging growth company	☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

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

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date

Class	Outstanding at May 1, 2017
Common Stock, $0.001 par value per share	108,304,526 shares

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PART I: FINANCIAL INFORMATION

Item 1. Financial Statements.

TERRAVIA HOLDINGS, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
In thousands, except per share amounts
Unaudited

	March 31, 2017	December 31, 2016
ASSETS		
Current assets:		
Cash and cash equivalents	$ 44,813	$ 63,509
Marketable securities available-for-sale	—	522
Accounts receivable, net	1,823	284
Inventories	2,093	2,345
Prepaid expenses and other current assets	1,079	1,339
Total current assets	49,808	67,999
Property, plant and equipment, net	21,393	22,674
Equity method investments	46,082	43,856
Other assets	1,100	1,180
Total assets	$ 118,383	$ 135,709
LIABILITIES, CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' DEFICIT		
Current liabilities:		
Accounts payable	$ 2,489	$ 4,159
Accrued liabilities	10,045	8,856
Current portion of convertible debt	167,881	—
Deferred revenue	3,666	3,272
Total current liabilities	184,081	16,287
Noncurrent portion of convertible debt	—	174,620
Other liabilities	—	1,395
Total liabilities	184,081	192,302
Commitments and contingencies (Note 13)		
Convertible preferred stock, par value $0.001—5,000 shares authorized; 12 and 26.8 shares issued and outstanding at March 31, 2017 and December 31, 2016, respectively	11,508	25,653
Stockholders' deficit:		
Common stock, par value $0.001—225,000 shares authorized; 108,305 and 96,436 shares issued and outstanding at March 31, 2017 and December 31, 2016, respectively	108	96
Additional paid-in capital	672,389	645,927
Accumulated other comprehensive loss	(15,655)	(16,808)
Accumulated deficit	(734,048)	(711,461)
Total stockholders' deficit	(77,206)	(82,246)
Total liabilities, convertible preferred stock and stockholders' deficit	$ 118,383	$ 135,709

See accompanying notes to the unaudited condensed consolidated financial statements.

TERRAVIA HOLDINGS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
In thousands, except per share amounts
Unaudited

	Three Months Ended March 31,	
	2017	**2016**
Revenues:		
Product revenues	$ 815	$ 1,301
Research and development programs	3,704	3,587
Total revenues	4,519	4,888
Costs and operating expenses:		
Cost of product revenues	1,249	1,304
Research and development	6,968	8,231
Sales, general and administrative	9,188	11,642
Restructuring charges	626	1,190
Arbitration award	(2,369)	—
Total costs and operating expenses	15,662	22,367
Loss from continuing operations before other income (expense):	(11,143)	(17,479)
Other income (expense):		
Interest and other income, net	515	291
Interest expense	(3,000)	(3,489)
Debt conversion expense	(2,436)	—
Loss from equity method investments	(6,523)	(4,872)
Gain from change in fair value of derivative liabilities	—	82
Total other expense, net	(11,444)	(7,988)
Loss from continuing operations	(22,587)	(25,467)
Loss from discontinued operations, net of tax	—	(1,045)
Net loss	$ (22,587)	$ (26,512)
Net loss per share, basic and diluted:		
Continuing operations	$ (0.23)	$ (0.31)
Discontinued operations	—	(0.01)
Net loss per share, basic and diluted:	$ (0.23)	$ (0.32)
Weighted average number of common shares used in net loss per share computation, basic and diluted	98,950	81,950

See accompanying notes to the unaudited condensed consolidated financial statements.

TERRAVIA HOLDINGS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
In thousands
Unaudited

	Three Months Ended March 31,	
	2017	**2016**
Net loss	$ (22,587)	$ (26,512)
Other comprehensive income, net:		
Change in unrealized gain/loss on available-for-sale securities	—	4
Foreign currency translation adjustment	1,153	3,085
Other comprehensive income	1,153	3,089
Total comprehensive loss	$ (21,434)	$ (23,423)

See accompanying notes to the unaudited condensed consolidated financial statements.

TERRAVIA HOLDINGS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
In thousands
Unaudited

	Three Months Ended March 31, 2017	2016
Operating activities:		
Net loss	$ (22,587)	$ (26,512)
Loss from discontinued operations	—	(1,045)
Loss from continuing operations	(22,587)	(25,467)
Adjustments to reconcile net loss from continuing operations to net cash used in operating activities:		
Depreciation and amortization	1,183	1,174
Amortization of debt discount and loan fees	577	666
Debt conversion expense	2,436	—
Stock-based compensation expense	1,663	2,527
Loss from equity method investments	6,523	4,872
Other	129	(14)
Changes in operating assets and liabilities:		
Accounts receivable	(2,602)	(601)
Inventories	253	(516)
Prepaid expenses and other assets	341	479
Accounts payable	(1,568)	(1,259)
Accrued liabilities	181	(1,671)
Deferred revenue	394	1,003
Other current and long-term liabilities	(270)	192
Net cash used in operating activities — continuing operations	(13,347)	(18,615)
Net cash used in operating activities — discontinued operations	—	(474)
Net cash used in operating activities	(13,347)	(19,089)
Investing activities:		
Purchases of property, plant and equipment	(27)	(311)
Purchases of marketable securities	—	(1,283)
Proceeds from maturities of marketable securities	540	9,311
Proceeds from sales of marketable securities	—	3,016
Capital contributions in unconsolidated joint ventures	(6,569)	(2,361)
Net cash provided by (used in) investing activities — continuing operations	(6,056)	8,372
Net cash used in investing activities — discontinued operations	—	(55)
Net cash provided by (used in) investing activities	(6,056)	8,317
Financing activities:		
Proceeds from the issuance of common stock	690	263
Proceeds from issuance of preferred stock, net of offering costs	—	27,293
Net cash provided by financing activities	690	27,556
Effect of exchange rate changes on cash and cash equivalents	17	70
Net increase (decrease) in cash and cash equivalents	(18,696)	16,854
Cash and cash equivalents — beginning of period	63,509	46,966
Cash and cash equivalents — end of period	$ 44,813	$ 63,820
Supplemental disclosures of cash flow information:		
Interest paid in cash	$ 976	$ 1,851
Noncash investing and financing activities:		
Non-cash issuance of common stock options for offering costs	$ —	$ 335
Conversion of preferred stock to common stock	$ 14,145	$ —
Exchange of convertible debt for common stock pursuant to inducement:		
Convertible debt exchanged	$ 7,567	$ —
Issuance of common stock	$ 9,869	$ —

See accompanying notes to the unaudited condensed consolidated financial statements.

TERRAVIA HOLDINGS, INC.
NOTES TO THE UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

1. THE COMPANY

Nature of Business —TerraVia Holdings, Inc. (We or the Company) was incorporated in the State of Delaware on March 31, 2003. We produce food, nutrition and specialty ingredients from algae.

Our proprietary technology uses microalgae to produce high-value triglyceride oils, proteins, fibers, micronutrients and other ingredients. We have developed and are commercializing food, nutrition and specialty ingredient products with sustainability benefits that can replace or enhance products derived from the world's three existing oil sources: petroleum, plants and animal fats. Our technology platform harnesses the oil and protein-producing characteristics of microalgae and we are able to tailor the composition of our oils, powders and other bioproducts to address specific customer requirements. We use standard fermentation equipment to convert sugars into the desired end product. By feeding plant-based sugars to our proprietary microalgae in enclosed fermentation tanks, we are in effect utilizing "indirect photosynthesis."

We are involved in a highly competitive industry that is characterized by the risks of changing technologies, market conditions and regulatory requirements. Penetration into markets requires investment of considerable resources and continuous development efforts. Our future success depends upon several factors, including the technological quality, price, and performance of our products relative to those of our competitors, scaling up of production for commercial sale, ability to secure adequate project financing at appropriate terms, and the nature of regulation in our target markets.

We own 50.1% of Solazyme Bunge Renewable Oils Cooperatief U.A., (SB Oils JV), which wholly owns Solazyme Bunge Produtos Renováveis Ltda. (SB Oils), which operates a commercial production facility in Brazil. Bunge Global Innovation, LLC owns the remaining 49.9% of the SB Oils JV. References to the SB Oils JV include activities of SB Oils unless otherwise noted.

The chief operating decision maker is our Chief Executive Officer, and we have one operating segment, Ingredients and Other. Prior to the sale of our Algenist business, we had two operating segments for financial statement reporting purposes: Algenist, and Ingredients and Other.

Discontinued Operations —As further described in Note 16 , on August 16, 2016 we sold our Algenist skincare business to TCP Algenist LLC, an affiliate of Tengram Capital Partners and Algenist Holdings, Inc. in exchange for $20.2 million in cash (before $1.4 million of closing costs), 19.9% of the fully diluted equity of Algenist Holdings, Inc. and the assumption of substantially all of the liabilities related to the Algenist skincare business by Algenist Holdings, Inc. The Algenist skincare business was previously presented as an operating segment. The results of operations and financial position of Algenist have been presented as discontinued operations for all periods. Unless otherwise noted, the notes to the unaudited condensed consolidated financial statements pertain to continuing operations.

2 . SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES AND RECENT ACCOUNTING PRONOUNCEMENTS

Basis of Presentation - The accompanying unaudited interim condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (GAAP) and include all adjustments necessary for the fair presentation of our condensed consolidated financial position, results of operations and cash flows for the periods presented. The unaudited interim condensed consolidated financial statements include our accounts and our wholly-owned subsidiaries. All intercompany accounts and transactions have been eliminated in consolidation.

Our investment in equity method investments comprised as follows (in thousands):

	March 31, 2017	December 31, 2016
SBO Oils JV (Note 4)	$ 44,893	$ 42,373
Algenist Holdings, Inc. (Note 16)	1,189	1,483
Total equity method investments	$ 46,082	$ 43,856

The unaudited interim condensed consolidated financial statements have been prepared on the same basis as the audited consolidated financial statements and, in the opinion of management, reflect all adjustments of a normal recurring nature (except our convertible debt exchange as described in note 7 and our arbitration award as described in note 13) considered necessary to present fairly our interim financial information. Certain reclassifications and changes in presentation were made to the 2016 condensed consolidated financial statements to conform to the 2017 presentation.

The results of operations for the three months ended March 31, 2017 are not necessarily indicative of the results that may be expected for the year ending December 31, 2017 , or for other interim periods or future years.

These unaudited interim condensed consolidated financial statements should be read in conjunction with the consolidated financial statements and notes thereto included in our Annual Report on Form 10-K for the year ended December 31, 2016 , as filed with the United States Securities and Exchange Commission ("SEC") on March 16, 2017. The December 31, 2016 unaudited interim condensed consolidated balance sheet included herein was derived from the audited consolidated financial statements as of that date, but does not include all disclosures, including notes required by GAAP for complete financial statements.

Significant Accounting Policies **–** There have been no changes to our significant accounting policies since our Annual Report on Form 10-K for the year ended December 31, 2016 .

Recently Adopted Accounting Standards —In March 2016, the FASB issued ASU 2016-09, *Compensation, Stock Compensation (Topic 718)* , a new standard simplifying certain aspects of accounting for share-based payments. The key provision of the new standard requires that excess tax benefits and shortfalls be recorded as income tax benefit or expense in the income statement, rather than in stockholders' equity. We adopted the ASU in the three months ending March 31, 2017. We are continuing to estimate forfeitures for awards with a requisite service period, basing the accrual of compensation cost on the estimated number of awards that will vest. The adoption of this new guidance did not have a material impact on our condensed consolidated financial statements.

Recent Accounting Pronouncements —In May 2014, the FASB issued Accounting Standards Update (ASU) 2014-09, *Revenue from Contracts with Customers (Topic 606)* (ASU 2014-09), which supersedes the revenue recognition requirements in FASB ASC 605, *Revenue Recognition* . ASU 2014-09 is based on the principle that revenue is recognized to depict the transfer of goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. ASU 2014-09 also requires additional disclosure about the nature, amount, timing and uncertainty of revenue and cash flows arising from customer contracts, including significant judgments and changes in judgments and assets recognized from costs incurred to obtain or fulfill a contract. In addition, in March and April 2016, the FASB issued ASU No. 2016-08, *Revenue from Contracts with Customers (Topic 606)* and ASU No. 2016-10, *Revenue from Contracts with Customers (Topic 606),* which clarify the guidance in ASU 2014-09 and have the same effective date as the original standard. This guidance requires the recognition of revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration expected in exchange for those goods or services. In May 2016, the FASB issued ASU No. 2016-12, *Narrow Scope Improvements and Practical Expedients* , which provides for improvements to the guidance on collectability, noncash consideration and completed contracts, and provides a practical expedient for contract modifications upon adoption of the updated guidance under ASC 606. This new guidance is effective for interim and annual reporting periods beginning after December 15, 2017, with early adoption permitted, and is required to be adopted by taking either a full retrospective or a modified retrospective approach. We are currently assessing the potential impact of this new guidance on our consolidated financial statements. A portion of our revenues relate to the sale of finished product to various customers and we do not believe that the adoption of the new standard will have a material impact on these transactions. We are continuing to evaluate the impact on collaborative research and development arrangements with our strategic partners. We expect to adopt the standard in 2018 using the modified retrospective approach.

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)* which, for operating leases, requires a lessee to recognize a right-of-use asset and a lease liability, initially measured at the present value of the lease payments, in its balance sheet. The standard also requires a lessee to recognize a single lease cost, calculated so that the cost of the lease is allocated over the lease term, on a generally straight-line basis. The ASU is effective for public companies for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. Early adoption is permitted. We are in the process of evaluating the impact of the adoption of this new guidance on our consolidated financial statements.

3 . GOING CONCERN UNCERTAINTY

We have incurred substantial net losses since our inception; we incurred net losses of $22.6 million and $26.5 million in the three months ended March 31, 2017 and 2016 , respectively. Accumulated deficit was $734.0 million as of March 31, 2017 . Net cash used in operating activities was $13.3 million and $19.1 million in the three months ended March 31, 2017 and 2016 , respectively. Cash and cash equivalents were $44.8 million as of March 31, 2017 .

We are a growth company with a limited operating history. We only recently began commercializing our products. To date, a substantial portion of revenues has consisted of funding from third party collaborative research agreements and government grants. We have generated limited revenues from commercial sales. We intend to focus on growing product revenues primarily in the unconsolidated SB Oils JV in 2017. As a result, we expect our reported consolidated revenues to decrease in 2017 compared to 2016, primarily due to lower research and development programs revenues as certain funded programs shift toward commercial product revenue in the unconsolidated SB Oils JV.

Net losses are expected to continue as we build out our product pipeline. We expect to incur additional costs and expenses related to the continued development and focused commercial strategy on food and specialty personal care ingredients. These activities will include operations at our Peoria facility as we explore strategic opportunities to partner our AlgaVia ® line of products, and support the operations of the SB Oils JV plant.

As of March 31, 2017 , there was $32.5 million of convertible notes (2018 Notes), due on February 1, 2018, and $140.5 million of convertible notes (2019 Notes), due on October 1, 2019. Accordingly, we had $32.5 million due in 10 months from March 31, 2017 or approximately 9 months from May 5, 2017 (the date of the filing of this Form 10-Q), and $140.5 million due in 2.5 years from March 31, 2017 or 2.4 years from May 5, 2017 . Cash and cash equivalents and forecasted cash flows from operations are not sufficient to sustain our operations and meet such obligations through May 31, 2018.

On February 24, 2017, we announced that we had retained Rothschild Inc. (Rothschild) as our financial advisor and that we were in discussions with a number of potential investors to raise additional capital and/or recapitalize our outstanding convertible senior subordinated notes. However, no agreements have been made and such discussions may not lead to a transaction.

We have directed Rothschild to assist us in the following objectives:

- restructure or refinance a substantial portion of our 2018 and 2019 Notes;
- raise additional capital via a combination of the following potential activities
  - Issuance of new equity
  - Issuance of new debt
  - Entering partnerships for our AlgaVia® food powders and/or our Thrive® Consumer businesses;
- and/or the outright sale of certain other assets.

In addition to the above activities, we may also execute a combination of the following:

- sell additional equity through an existing effective registration statement;
- convert individual holders of the convertible 2018 and 2019 Notes into our common stock through induced conversions (in the three months ended March 31, 2017, we exchanged 2019 Notes totaling approximately $7.6 million by issuing 3.62 million shares (including 2.40 million inducement shares); and/or
- further streamline operations which may result in further reduction in headcount and other expenses. In March 2017 we reduced our workforce by approximately 25% .

As further discussed in note 17 , on April 3, 2017, we exercised our right to use a grace period to defer payment of interest of approximately $3.5 million on our 2019 Notes. On May 2, 2017 we amended our SVB Loan agreement with respect to restricted collateral accounts, and on May 3, 2017 we entered into a forbearance agreement with certain holders of our 2019 Notes. Accordingly, we have classified the 2019 Notes as current liabilities on our unaudited condensed consolidated balance sheet as of March 31, 2017 .

The accompanying unaudited condensed consolidated financial statements have been prepared assuming that we will continue as a going concern. There is significant uncertainty regarding our ability to meet our obligations and sustain our operations through May 31, 2018. These conditions raise substantial doubt as to our ability to continue as a going concern. Management's plans concerning these matters are discussed above. The accompanying unaudited condensed consolidated financial statements do not include any adjustments that might result from the outcome of this going concern uncertainty.

4 . INVESTMENT IN SB OILS JV

Background and Operations

In April 2012, we formed the SB Oils JV with Bunge to build, own and operate the SB Oils JV Plant, a commercial-scale renewable algae oils production facility adjacent to Bunge's Moema sugarcane mill in Brazil, leveraging our technology. SB Oils JV is governed by a six member board, three from each investor.

The SB Oils JV's operational focus from inception to date has been primarily to support the construction, ramp up and optimization of the commercial-scale production facility. While the SB Oils JV has incurred significant losses to date, we believe that long-term profitability will drive positive cash flows sufficient for us to recover our investment.

In October 2015, we entered into an amended and restated joint venture agreement with Bunge to expand the SB Oils JV to add a worldwide focus on human food and animal nutrition. Also in October 2015, we entered into an amended and restated Development Agreement with Bunge under which we granted to the SB Oils JV a worldwide royalty-bearing, field-limited license to all of our technology that is necessary or useful for the manufacture of certain algae oil products. Concurrently with the entry into such agreements, we entered into two funded research programs with the SB Oils JV targeted at completing the development of additional products for the SB Oils JV. Pursuant to these agreements:

The SB Oils JV will:

- continue to use our proprietary technology to produce a range of algae-based oils and products from cane sugar through microbe-based catalysis;
- pay us a royalty for certain products sold by the joint venture; and
- pay us a technology maintenance fee in recognition of our ongoing research investment in technology.

We will:

- provide sales, marketing and application development for certain oils and technical expertise in regard to the implementation of our technology;
- provide access to our proprietary technology for the production of certain oils and structuring fats for the food and animal nutrition markets; and
- retain co-primary sales rights for certain products.

Bunge will:

- continue to provide cane sugar feedstock and utilities to the SB Oils JV Plant from Bunge's adjacent sugar cane processing mill;
- provide sales, marketing and application development for certain food oils and will also provide oil processing, global distribution and logistics;
- serve as the primary sales channel for some of the joint venture's products, with us as an additional sales channel, in each case in exchange for a distribution fee; and

In addition, we are in discussions with Bunge to extend the maturity date of the revolving loan facility under which Bunge has been providing working capital to SB Oils. The maturity date of the facility was April 2, 2017, with repayment of amounts outstanding thereunder due on May 3, 2017 (taking into account waivers granted by Bunge to SB Oils).

Equity Accounting

We account for our interest in the SB Oils JV under the equity method of accounting. Our equity investment in the SB Oils JV was $44.9 million and $42.4 million as of March 31, 2017 and December 31, 2016 , respectively. During the three months ended March 31, 2017 and 2016 , we recognized $6.2 million and $4.9 million of losses, respectively, related to our equity method investment in the SB Oils JV.

We contributed $6.6 million and $2.4 million to the SB Oils JV in the three months ended March 31, 2017 and 2016 , respectively. We also contributed $1.1 million and $1.1 million to the SB Oils JV in the three months ended March 31, 2017 and 2016 , respectively, through a reduction in our receivables due from the SB Oils JV.

We have determined that the SB Oils JV is a VIE based on the insufficiency of each party's equity investment at risk to absorb their respective share of the expected losses of the SB Oils JV. The optimization and ramping up of the SB Oils JV Plant is the activity of the SB Oils JV that most significantly impacts its current economic performance. Although we have the obligation to absorb losses and the right to receive benefits of the SB Oils JV that could potentially be significant to the SB Oils JV, we have equal shared decision–making powers with Bunge over certain significant activities of the SB Oils JV, including those related to the construction, optimization and ramping up of the SB Oils JV. Therefore, through and as of March 31, 2017 , we do not consider ourselves to be the SB Oils JV's primary beneficiary, and as such have not consolidated the financial results of the SB Oils JV. Consolidation may be required in the future due to changes in events and circumstances impacting the power to direct the activities that most significantly affect the SB Oils JV's economic performance. We will continue to reassess our designation as the primary beneficiary of the SB Oils JV.

The following table summarizes the carrying amounts of the assets and the fair value of the liabilities included in our condensed consolidated balance sheets and the maximum loss exposure related to our interest in the SB Oils JV as of March 31, 2017 and December 31, 2016 (in thousands):

	As of March 31, 2017				
	Assets			Liabilities	
	Accounts Receivable	Unbilled Revenues	Investments in Unconsolidated Joint Ventures	Loan Guarantee	Maximum Exposure to Loss (1)
SB Oils JV	$ —	$ —	$ 44,893	$ —	$ 56,584

	As of December 31, 2016				
	Assets			Liabilities	
	Accounts Receivable	Unbilled Revenues	Investments in Unconsolidated Joint Ventures	Loan Guarantee	Maximum Exposure to Loss (2)
SB Oils JV	$ —	$ —	$ 42,373	$ —	$ 54,162

(1) Includes maximum exposure to loss attributable to our bank guarantee required to be provided for the SB Oils JV of $11.2 million and non-cancelable purchase obligations of $0.5 million (based on the exchange rate at March 31, 2017).

(2) Includes maximum exposure to loss attributable to our bank guarantee required to be provided for the SB Oils JV of $10.8 million and non-cancelable purchase obligations of $0.9 million (based on the exchange rate at December 31, 2016).

We may be required to contribute additional capital to the SB Oils JV which would increase our maximum exposure to loss. These future contribution amounts cannot be quantified at this time.

Summarized Financial Information

Summarized information on the SB Oils JV's balance sheets and income statements as of March 31, 2017 and December 31, 2016 , and for the three months ended March 31, 2017 and 2016 respectively, was as follows (in thousands):

	As of March 31, 2017	As of December 31, 2016
Current assets	$ 19,784	$ 15,492
Property, plant and equipment, net	117,159	115,012
Recoverable taxes [1]	21,072	20,278
Spare parts	2,005	1,858
Total assets	$ 160,020	$ 152,640
Current liabilities	$ 31,630	$ 31,802
Noncurrent liabilities	37,980	39,910
JV's partners' capital, net	90,410	80,928
Total liabilities and partners' capital, net	$ 160,020	$ 152,640

[1] Recoverable taxes are comprised of value-added taxes paid upon the acquisition of property, plant and equipment items and other goods and services, and other transactional taxes which can be recovered in cash or as compensation against income taxes or other taxes owed by the SB Oils JV in Brazil. The realization of these recoverable tax payments could take in excess of five years.

	Three months ended March 31,	
	2017	2016
Net sales	$ 2,932	$ 1,059
Gross loss	$ (2,652)	$ (1,976)
Net loss	$ (14,038)	$ (9,354)

Impairment Assessment

We assessed the recoverability of our equity investment in the SB Oils JV as of December 31, 2016 using a discounted cash flow analysis. We also compared the discounted cash flow analysis to a market approach based upon relevant market multiples. Our analysis was performed using the guidance from ASC 323, *Investments - Equity Method and Joint Ventures, Subsequent Measurement,* which states that a loss in value of an investment that is an other than temporary decline shall be recognized. A current fair value of an investment that is less than its carrying amount may indicate a loss in value of the investment. However, a decline in the quoted market price below the carrying amount or the existence of operating losses is not necessarily indicative of a loss in value that is other than temporary. With consideration to the above guidance, we evaluated our ongoing business activities at the SB Oils JV and concluded there was no impairment of our investment in the SB Oils JV as of December 31, 2016. The process of evaluating the potential impairment is subjective and requires significant estimates and assumptions. Our estimated future cash flows are based on assumptions that are consistent with our annual planning process and include estimates for revenue and operating margins and future economic and market conditions. Actual future results may differ significantly from those estimates. Changes in assumptions or circumstances could result in an impairment in the period the change occurs and in future years. Management's conclusion that our equity investment in SB Oils JV was not impaired as of December 31, 2016 was based upon the following critical estimates and assumptions:

Revenues

- material increases in product revenues from $10 million in 2016 to over $200 million in 2021 and future years, primarily from AlgaPrime™ DHA sales;
- maintain current average selling prices based on current contracted prices;

Costs

- maintain access to cane sugar feedstock;

- increase production volumes by optimizing plant throughput and increasing yields, drying rates and final recovery rates;
- reduction of production costs through increased fermentation and recovery efficiencies combined with increasing volumes;
- increase in contribution margins;

Capital Expenditures

- capital expenditure of $3 million in 2017 on dryer refurbishment;
- additional capital investment of $20 million to $30 million over the next five years to improve throughput rates and increase capacity;

Other

- discount rate of approximately 14% ; and
- no significant adverse change in the regulatory or economic environment in Brazil or other countries, as applicable.

We also performed independent breakeven sensitivity analyses, and determined there would be no impairment as of December 31, 2016, as follows:

- If sales volume were 37% less than forecast in the years 2017 through 2030;
- If the contribution margin was 47% less than forecast in the years 2017 through 2030; or
- If the discount rate was increased to approximately 20% .

The estimates used for cash flow forecasts required significant exercise of judgment and are subject to change in future reporting periods as facts and circumstances change. Additionally, we may make changes to our and the SB Oils JV business plans that could result in changes to the expected cash flows. As a result, it is possible that impairments may be required in 2017 or future reporting periods. As of March 31, 2017 , we did not identify impairment indicators for our investment in the SB Oils JV.

Revenues from SB Oils JV

Revenues from research and development programs with the SB Oils JV (net of intercompany eliminations) were $2.9 million and $2.8 million in the three months ended March 31, 2017 and 2016, respectively.

5. RESTRUCTURING CHARGES

On March 29, 2017, we took steps to decrease operating expenses through a reduction in workforce of approximately 25% , a planned suspension of operations at our Peoria facility as we explore strategic opportunities to partner our AlgaVia® line of products, and other cost-cutting measures. These initiatives are not expected to impact operations at our SB Oils JV and were designed to enhance focus on the scale-up of strategic products, including AlgaPrime™ DHA. In addition to the $0.6 million we have incurred through March 31, 2017 , we expect to incur additional restructuring charges related to these initiatives of between $1.5 million and $2.0 million . Restructuring activities for the three months ended March 31, 2017 were as follows (in thousands):

	Liability as of December 31, 2016	2017 Expense	Deductions/Payments	Liability as of March 31, 2017
Other exit costs	$ —	$ 129	$ (129)	$ —
Employee termination costs	—	497	(58)	439
Total	$ —	$ 626	$ (187)	$ 439

In October 2015, we made a strategic decision to terminate our manufacturing agreements at the Archer Daniels Midland Company (ADM) Clinton and American Natural Processors (ANP) Galva facilities to better align our immediate production assets with our operating strategy while minimizing production costs. As part of our continuing strategy to focus our operations on targeted, higher-value product categories, we streamlined operations by reducing workforce by approximately 20% in January 2016. As a result, we incurred restructuring charges of $1.2 million for the three months ended March 31, 2016 .

6 . BASIC AND DILUTED NET LOSS PER SHARE

Basic net loss per share is computed by dividing our net loss by the weighted-average number of common shares outstanding during the period. Diluted net loss per share is computed by giving effect to all potentially dilutive securities, including conversion of our debt or preferred stock into common stock, stock options, common stock issuable pursuant to restricted stock units and common stock warrants. Basic and diluted net loss per share was the same for all periods presented as the inclusion of all potentially dilutive securities outstanding was anti-dilutive.

The following outstanding shares of potentially dilutive securities were excluded from the calculation of diluted net loss per share for the periods presented as the effect was anti-dilutive (in thousands):

	March 31,	
	2017	2016
Shares of common stock to be issued upon conversion of convertible debt (Notes)	14,579	18,791
Shares of common stock to be issued upon conversion of Series A Preferred Stock	6,000	13,925
Options to purchase common stock	12,173	13,166
Restricted stock units	1,405	1,714
Warrants to purchase common stock	750	750
Total	34,907	48,346

The table above does not reflect early conversion payment features of the Notes (see Note 7) that may be settled, at our election, in cash or, subject to satisfaction of certain conditions, in shares of our common stock.

7 . CONVERTIBLE DEBT

A summary of our convertible debt as of March 31, 2017 and December 31, 2016 was as follows (in thousands):

	March 31, 2017	December 31, 2016
Convertible debt:		
2018 Notes, due February 1, 2018	$ 32,485	$ 32,485
2019 Notes, due October 1, 2019	140,506	148,073
Total principal outstanding	172,991	180,558
Less:		
Unamortized debt discount	(4,877)	(5,668)
Debt issuance costs	(233)	(270)
Total debt carrying amount	$ 167,881	$ 174,620
Current portion of convertible debt	$ 167,881	$ —
Noncurrent portion of convertible debt	—	174,620
Total debt carrying amount	$ 167,881	$ 174,620

We were in compliance with all debt covenants as of December 31, 2016 . As further discussed in note 17 , on April 3, 2017, we exercised our right to use a grace period to defer payment of interest of approximately $3.5 million on our 2019 Notes and on May 3, 2017 we elected not to make the interest payment at the end of the grace period, thus creating an Event of Default under the Indenture for the 2019 Notes. On May 3, 2017 we also entered into a forbearance agreement with certain holders of our 2019 Notes related to that Event of Default. However, because these holders have the right to accelerate payment of our 2019 Notes after the forbearance agreement terminates, and the forbearance agreement does not extend past March 31, 2018, we have classified the 2019 Notes as current liabilities on our unaudited condensed consolidated balance sheet as of March 31, 2017 .

Convertible Senior Subordinated Notes -2018 Notes —As of March 31, 2017 , we had $32.5 million aggregate principal amount outstanding of 6.00% Convertible Senior Subordinated Notes due 2018 (2018 Notes). The 2018 Notes bear interest at a fixed rate of 6.00% per year, payable semiannually in arrears on August 1 and February 1 of each year. The 2018 Notes are convertible into our common stock and may be settled as described below. The 2018 Notes will mature on February 1, 2018, unless earlier repurchased or converted. We may not redeem the 2018 Notes prior to maturity.

The 2018 Notes are convertible at the option of the holders at any time prior to the close of business on the scheduled trading day immediately preceding February 1, 2018 into shares of our common stock at a conversion rate of 121.1240 shares of common stock per $1,000 principal amount of 2018 Notes (equivalent to an initial conversion price of approximately $8.26 per share of common stock).

Convertible Senior Subordinated Notes - 2019 Notes — As of March 31, 2017 , we had $140.5 million aggregate principal amount outstanding of 5.00% Convertible Senior Subordinated Notes due 2019 (2019 Notes). The 2019 Notes bear interest at a fixed rate of 5.00% per year, payable semiannually in arrears on April 1 and October 1 of each year. The 2019 Notes are convertible into our common stock and may be settled early as described below. The 2019 Notes will mature on October 1, 2019, unless earlier repurchased or converted. We may not redeem the 2019 Notes prior to maturity.

The 2019 Notes are convertible at the option of the holders on any day prior to and including the scheduled trading day prior to October 1, 2019. The 2019 Notes are convertible at a conversion rate of 75.7576 shares of our Common Stock per $1,000 principal amount of 2019 Notes (equivalent to an initial conversion price of $13.20 per share of our Common Stock), subject to adjustment upon the occurrence of certain events. With respect to any conversion prior to January 1, 2018 (other than conversions in connection with certain fundamental changes where we may be required to increase the conversion rate as described below), in addition to the shares deliverable upon conversion, holders are entitled to receive an early conversion payment equal to $83.33 per $1,000 principal amount of 2019 Notes surrendered for conversion that may be settled, at our election, in cash or shares of our common stock.

Convertible Debt Exchange —During the three months ended March 31, 2017 , we exchanged 2019 Notes totaling approximately $7.6 million by issuing approximately 3.62 million new shares (including approximately 2.40 million inducement shares) of our common stock. We recorded a non-cash debt conversion expense of approximately $2.4 million related to the exchange in three months ended March 31, 2017 .

8. STOCK-BASED COMPENSATION

The following table summarizes the components and classification of stock-based compensation expense related to stock options, restricted stock units and awards and our Employee Stock Purchase Plan (ESPP) for the three months ended March 31, 2017 and 2016 (in thousands):

	Three Months Ended March 31,	
	2017	2016
Stock options	$ 1,223	$ 1,925
RSUs	453	905
ESPP	(13)	(303)
Stock-based compensation expense	$ 1,663	$ 2,527
Research and development	$ 482	$ 544
Sales, general and administrative	1,181	1,983
Stock-based compensation expense	$ 1,663	$ 2,527

9. CHANGES IN ACCUMULATED OTHER COMPREHENSIVE LOSS

Changes in accumulated other comprehensive loss, by component, are as follows (in thousands):

	Foreign Currency Translation Adjustments	Change in Unrealized Gain/(Loss) on Available-For-Sale Securities	Total Accumulated Other Comprehensive Loss
Balance at December 31, 2016	$ (16,808)	$ —	$ (16,808)
Other comprehensive income	1,153	—	1,153
Balance at March 31, 2017	$ (15,655)	$ —	$ (15,655)

10. INVENTORIES

Inventories consisted of the following (in thousands):

	March 31, 2017	December 31, 2016
Raw materials	$ 64	$ 25
Work in process	1,196	773
Finished goods	833	1,547
Total inventories	$ 2,093	$ 2,345

11. PROPERTY, PLANT AND EQUIPMENT—NET

Property, plant and equipment—net consisted of the following (in thousands):

	March 31, 2017	December 31, 2016
Plant equipment	$ 24,560	$ 25,269
Building and improvements	5,810	5,810
Lab equipment	7,088	7,088
Leasehold improvements	3,003	2,993
Computer equipment and software	3,980	3,968
Other	1,087	1,076
Total	45,528	46,204
Less: accumulated depreciation and amortization	(24,135)	(23,530)
Property, plant and equipment—net	$ 21,393	$ 22,674

12. ACCRUED LIABILITIES

Accrued liabilities consisted of the following (in thousands):

	March 31, 2017	December 31, 2016
Accrued compensation and related liabilities	$ 3,075	$ 4,379
Accrued interest	3,837	2,663
Accrued restructuring costs	439	—
Deferred rent	973	—
Other accrued liabilities	1,721	1,814
Total accrued liabilities	$ 10,045	$ 8,856

13 . COMMITMENTS AND CONTINGENCIES

Legal Matters

Norfolk Securities Class Action Litigation

In June 2015, a securities class action complaint entitled Norfolk County Retirement System v. Solazyme, Inc. et al., was filed against the Company, its then CEO, Jonathan Wolfson, its CFO/COO, Tyler Painter, certain of its current and former directors, and the underwriters of its March 2014 equity and debt offerings, Goldman, Sachs & Co., Inc. and Morgan Stanley & Co. LLC, in the U.S. District Court for the Northern District of California (the "Norfolk Securities Class Action"). The complaint asserted claims for alleged violations of Sections 11, 12(a)(2), and 15 of the Securities Act of 1933, as well as Sections 10(b) and 20(a) of the Securities Exchange Act of 1934. The complaint sought unspecified damages on behalf of a purported class that would comprise all individuals who acquired our securities (i) between February 27, 2014 and November 5, 2014 and (ii) pursuant and/or traceable to our public equity and debt offerings in March 2014. The complaint alleged that investors were misled by statements made during that period about the construction progress, development, and production capacity associated with the production facility located in Brazil owned by SB Oils. A consolidated complaint was filed in December 2015. In December 2016, the court dismissed the complaint with leave to amend.

In February 2017, the plaintiffs in the Norfolk Securities Class Action filed an amended complaint against the Company, its former CEO, Jonathan Wolfson and its current CFO/COO, Tyler Painter. The complaint asserts claims for alleged violations of Sections 10(b) and 20(a) of the Securities Exchange Act of 1934. The amended complaint seeks unspecified damages on behalf of a purported class that would comprise all individuals who acquired our securities between February 27, 2014 and November 5, 2014. The amended complaint alleges that investors were misled by statements made during that period about the construction progress, development, and production capacity associated with the production facility located in Brazil owned by SB Oils. We filed a Motion to Dismiss the amended and restated complaint on March 17, 2017 and the plaintiffs filed their Opposition to our Motion to Dismiss on April 17, 2017. The hearing for the Motion to Dismiss is scheduled for June 1, 2017. We believe the complaint lacks merit, and intend to defend ourselves vigorously.

Derivative Litigation Related to Norfolk Class Action Litigation

In July 2015, a complaint entitled Jim Bertonis, derivatively on behalf of Solazyme, Inc. v. Jonathan Wolfson et al. was filed in the Superior Court of California, County of San Mateo. In May 2016, a second, related derivative complaint, captioned Ben Wang, derivatively on behalf of Solazyme, Inc. v. Jonathan Wolfson et al, was filed in the same court. Both actions have been consolidated going forward as In re TerraVia Holdings, Inc. f/k/a Solazyme, Inc. Shareholder Litigation (the “Bertonis State Derivative Action”). The complaints seek unspecified damages, purportedly on our behalf, from certain of our current and former directors and officers. The complaints assert claims against these defendants for breach of fiduciary duty, unjust enrichment, and aiding and abetting. The complaints allege that these defendants are liable for making allegedly false and misleading statements and omitting certain material facts in our securities filings and other public disclosures. The Bertonis State Derivative Action is based on substantially the same facts as the Norfolk Securities Class Action described above. The Bertonis State Derivative Action is presently stayed by court order through July 1, 2017. Based on a review of the plaintiffs’ allegations, we believe that the plaintiffs have not demonstrated standing to sue on our behalf.

In August 2015, a complaint entitled Gregory M. Miller, derivatively on behalf of Solazyme, Inc. v. Jonathan S. Wolfson et al. was filed in the U.S. District Court for the Northern District of California (the “Miller Federal Derivative Action”). The complaint seeks unspecified damages, purportedly on our behalf from certain of our current and former directors and officers. The complaint asserts claims against these defendants for breach of fiduciary duty and aiding and abetting. The complaint alleges that these defendants are liable for making allegedly false and misleading statements and omitting certain material facts in our securities filings and other public disclosures. The Miller Federal Derivative Action is based on substantially the same facts as the Norfolk Securities Class Action and the Bertonis State Derivative Action described above. The Miller Federal Derivative Action is presently stayed pending resolution of the motion to dismiss in the Norfolk Securities Class Action. Based on a review of the plaintiffs’ allegations, we believe that the plaintiff has not demonstrated standing to sue on our behalf.

Perales Securities Class Action Litigation

In November 2016, a securities class action complaint entitled Ruben Perales v. TerraVia Holdings, Inc. et al. was filed against the Company, its former CEO, Jonathan Wolfson, its current CEO, Apu Mody and its CFO/COO, Tyler Painter, in the U.S. District Court for the Northern District of California. In December 2016, a second, related securities class action complaint, captioned Dimitrios Daniil v. TerraVia Holdings, Inc. et al, was filed in the same court. The two cases were consolidated on April 7, 2017 (the “Perales Securities Class Action”) and an amended and restated complaint was filed on April 26, 2017. The plaintiffs assert claims for alleged violations of Sections 10(b) and 20(a) of the Securities Exchange Act of 1934. The plaintiffs seek unspecified damages on behalf of a purported class that would comprise all individuals who acquired our securities between May 4, 2016 and November 6, 2016. The plaintiffs allege that investors were misled by statements made during that period about our AlgaVia algae products and as a result our statements about our business, operations and prospects were false and misleading and/or lacked a reasonable basis. We intend to file a Motion to Dismiss the complaint by May 26, 2017. We believe the complaint lacks merit, and intends to defend ourselves vigorously.

Derivative Litigation Related to Perales Class Action Litigation

In February 2017, a complaint entitled Avery Daniel Robinson, derivatively on behalf of TerraVia Holdings, Inc. v. Jonathan S. Wolfson et al. was filed in the Superior Court of California, County of San Francisco (the “Robinson State Derivative Action”). The complaint seeks unspecified damages, purportedly on our behalf from our current directors and its CFO/COO, Tyler Painter. The complaint asserts claims against these defendants for breach of fiduciary duty, unjust enrichment, waste, and aiding and abetting. The complaint alleges that these defendants are liable for making allegedly false and misleading statements and omitting certain material facts in our securities filings and other public disclosures. The Robinson State

Derivative Action is based on substantially the same facts as the Perales Securities Class Action described above. Based on a review of the plaintiffs' allegations, we believe that the plaintiff has not demonstrated standing to sue on our behalf.

Roquette Frères, S.A.

In September 2013, an arbitration (the "Roquette Arbitration") was initiated with Roquette Frères, S.A. ("Roquette") in connection with the dissolution of a joint venture between the Company and Roquette known as Solazyme Roquette Nutritionals L.L.C. ("SRN"). We sought a declaration that, in accordance with the terms of the joint venture agreement between the parties, we should be assigned all improvements made by or on behalf of SRN to our intellectual property. In February 2015 the arbitration panel released its decision, ordering, inter alia, the assignment to the Company of (i) all SRN patent applications, (ii) all SRN know-how related to high lipid algae flour and high protein algae powder and (iii) all Roquette patent applications filed since November 2010 relating to algae food and food ingredients, as well as methods for making and using them. In addition, the arbitration panel ordered Roquette to pay to us $2.3 million in legal costs and fees. The arbitration award was confirmed by order of the U.S. District Court for the District of Delaware in December 2015. Roquette appealed the confirmation of the arbitration award to the U.S. Court of Appeals for the Third Circuit. In December 2016 the U.S. Court of Appeals for the Third Circuit upheld the confirmation of the panel's award. Roquette has paid a portion of the award and the parties are discussing the remainder of the award, including the assignment by Roquette to the Company of all Roquette patent applications filed since November 2010 relating to algae food and food ingredients, as well as methods for making and using them. The stay entered in January 2016 by the U.S. District Court for the District of Delaware, which enjoined Roquette from pursuing any further commercialization of any technology arguably within the ambit of the arbitral decision, including the sale of products, remains in place. In connection with the arbitration award, we received a payment of $2.4 million in February 2017 from Roquette. This payment was recognized as a reduction in total costs and operating expenses in our unaudited condensed consolidated financial statements for the three months ended March 31, 2017.

In November 2014, Roquette filed an action against the Company in U.S. District Court for the District of Delaware for declaratory judgment related to the Roquette Arbitration. Roquette sought a declaration that (i) the arbitrators in the Roquette Arbitration exceeded their authority by failing to render a timely arbitration award, (ii) any award issued by the arbitrators is void and (iii) all intangible assets of SRN should be assigned jointly to Roquette and us. Other than seeking its attorney fees and costs in the action, Roquette did not make any monetary claims against us. We filed an Answer to the Complaint in January 2015, denying substantially all of Roquette's claims and all of its prayers for relief.

In February 2015 Roquette filed a second action against us in U.S. District Court for the District of Delaware for declaratory judgment related to the Roquette Arbitration. Roquette sought a declaration that (A) the order of the arbitrators in the Roquette Arbitration for more discovery and new hearings was unenforceable and (B) in the alternative, the proposed new discovery and hearings concerned an issue that was outside the scope of the arbitration. Other than seeking its attorney fees and costs in the action, Roquette did not make any monetary claims against us. The two Delaware actions were consolidated in February 2015. We filed our Answer to the second Complaint in February 2015, denying all claims made in the Complaint and all related prayers for relief. In addition, we counterclaimed for damages for misappropriation of our trade secrets and breach of contract. In April 2015 Roquette added counterclaims against us for misappropriation of certain Roquette trade secrets and for breach of contract. Also in April 2015, Roquette filed motions for summary judgment in each of the two declaratory judgment actions commenced by Roquette, as well as on our counterclaim against Roquette for trade secret misappropriation. The summary judgment motions made by Roquette on the declaratory judgment claims were denied by the court in December 2015 and judgment on those claims was entered in our favor. The court postponed deciding Roquette's summary judgment motions directed to our trade secret misappropriation claim against Roquette until a resolution on the arbitration award is reached. All further proceedings in the district court actions are currently stayed.

We may be involved, from time to time, in additional legal proceedings and claims arising in the ordinary course of our business. Such matters are subject to many uncertainties and outcomes are not predictable with assurance. We accrue amounts, to the extent they can be reasonably estimated, that we believe are adequate to address any liabilities related to legal proceedings and other loss contingencies that we believe will result in a probable loss. While there can be no assurances as to the ultimate outcome of any legal proceeding or other loss contingencies involving us, management does not believe any pending matters individually and in the aggregate will be resolved in a manner that would have a material effect on our consolidated financial position, results of operations or cash flows.

SVB Standby Letter of Credit and Loan and Security Agreement

In the second quarter of 2016, we entered into an agreement with Silicon Valley Bank (SVB Agreement) that provides for a $12.9 million letter of credit facility (the Facility) denominated in U.S. dollars or a foreign currency. On April 29, 2016, Silicon Valley Bank issued a standby letter of credit (SVB SLOC) to support a bank guarantee issued on our behalf to the

Brazilian Development Bank (BNDES) in connection with the loan agreement entered into in 2013 between BNDES and the SB Oils JV. The SVB SLOC is being supported by a bank confirmation issued by the Bank of Nova Scotia (the Scotia Bank Confirmation) on behalf of Silicon Valley Bank. We are required to pay fees of 1.5% and 0.7% of the collateral per annum related to the SVB SLOC and the Scotia Bank Confirmation, respectively. We are also required to pay a fee of 1.99% of the collateral per annum for the issuance of the bank guarantee to BNDES.

Under the SVB Agreement, we are subject to financial covenants and covenants related to our 2018 Notes and 2019 Notes, as well as customary negative covenants. The SVB Agreement also contains certain customary representations and warranties, affirmative covenants and provisions relating to events of default. We have not recorded any liability for this guarantee as of March 31, 2017, as performance is not considered probable.

As detailed in note 17 , on May 2, 2017 we amended and restated the SVB Agreement.

14 . CONVERTIBLE PREFERRED STOCK

In March 2016, we issued 27,850 shares of Convertible Preferred Stock for cash proceeds of $27.0 million , net of issuance costs of $0.8 million . Shares of the Series A Preferred Stock are convertible at the option of the holders into shares of our common stock, at an initial conversion price of $2.00 per share, subject to customary adjustments in the event of stock splits and certain other changes to our capitalization.

During the three months ended March 31, 2017 , holders of preferred stock converted 14,750 shares of Convertible Preferred Stock into 7,375,000 shares of our common stock. These transactions resulted in an increase to common stock and additional paid in capital, and a decrease to convertible preferred stock of approximately $14.1 million . We have classified the convertible preferred stock as temporary equity in our condensed consolidated balance sheet as of March 31, 2017 due to the existence of certain change in control provisions that are not solely within our control. As of March 31, 2017 , 12,000 shares of Convertible Preferred Stock were outstanding.

15. FAIR VALUE OF FINANCIAL INSTRUMENTS

Assets and liabilities recorded at fair value in the unaudited condensed consolidated financial statements are categorized based upon the level of judgment associated with the inputs used to measure their fair value. Hierarchical levels that are directly related to the amount of subjectivity associated with the inputs to the valuation of these assets or liabilities are as follows:

- Level 1—Observable inputs, such as quoted prices in active markets for identical assets or liabilities.
- Level 2—Observable inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities, quoted prices in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.
- Level 3—Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities. Level 3 assets and liabilities include those whose fair value measurements are determined using pricing models, discounted cash flow methodologies or similar valuation techniques and significant management judgment or estimation.

The following tables present our financial instruments that were measured at fair value on a recurring basis as of March 31, 2017 and December 31, 2016 by level within the fair value hierarchy (in thousands):

	March 31, 2017			
	Level 1	Level 2	Level 3	Total
Financial Assets				
Cash equivalents	$ 3,112	$ —	$ —	$ 3,112
Total	$ 3,112	$ —	$ —	$ 3,112

	December 31, 2016			
	Level 1	Level 2	Level 3	Total
Financial Assets				
Cash equivalents	$ 21,834	$ —	$ —	$ 21,834
Marketable securities:				
Corporate bonds	—	522	—	522
Total	$ 21,834	$ 522	$ —	$ 22,356

Cash Equivalents and Marketable Securities – Cash equivalents and marketable securities classified within Level 2 of the fair value hierarchy are valued based on other observable inputs, including broker or dealer quotations or alternative pricing sources. When quoted prices in active markets for identical assets or liabilities are not available, we rely on non-binding quotes, which are based on proprietary valuation models of independent pricing services. These models generally use inputs such as observable market data, quoted market prices for similar instruments, historical pricing trends of a security as relative to its peers and internal assumptions of the independent pricing services. We corroborate the reasonableness of non-binding quotes received from the independent pricing services by comparing them to quotes of identical or similar instruments from other pricing sources. During the three months ended March 31, 2017 and 2016 , we did not record impairment charges related to our cash equivalents and marketable securities, and we did not have any transfers between Level 1, Level 2 and Level 3 of the fair value hierarchy.

As of March 31, 2017 and December 31, 2016 , the carrying values of our accounts receivables and secured and unsecured debt obligations, excluding the Notes, approximated their fair values. We have estimated the fair value of the Notes to be $80.3 million at March 31, 2017 , compared to a principal outstanding value of $173.0 million . These estimates are based upon Level 2 inputs using the market price of the Notes derived from actual trades quoted from Bloomberg.

16 . SALE OF ALGENIST AND DISCONTINUED OPERATIONS

On August 16, 2016, we sold our Algenist skincare business to TCP Algenist LLC, an affiliate of Tengram Capital Partners and Algenist Holdings, Inc., in exchange for $18.8 million in cash, net of closing costs, 19.9% of the fully diluted equity of Algenist Holdings, Inc. and the assumption of substantially all of the liabilities related to the Algenist skincare business by Algenist Holdings, Inc.

The summary comparative financial results of the Algenist discontinued operations were as follows (in thousands):

	Three Months Ended March 31,	
	2017	2016
Total revenues	$ —	$ 5,971
Costs and operating expenses:		
Cost of product revenues	—	1,913
Sales, general and administrative	—	5,126
Total costs and operating expenses	—	7,039
Loss before other expense	—	(1,068)
Other income	—	23
Loss from discontinued operations	$ —	$ (1,045)

After the sale, we consider that we have sufficient influence over Algenist Holdings, Inc. to require equity accounting. Hence we recognize our proportionate share of the earnings (losses) of Algenist Holdings, Inc. under the equity method of accounting within results of continuing operations. Our investment in Algenist Holdings, Inc. included in equity method investment assets on our consolidated balance sheet was $1.2 million as of March 31, 2017 , and our equity loss from our investment in Algenist Holdings, Inc. for the three months ended March 31, 2017 was $0.3 million .

Summarized financial information

Summarized financial information for the Algenist Holdings, Inc. income statement for the three months ended March 31, 2017 was as follows (in thousands):

		Three months ended March 31, 2017
Net sales	$	5,434
Gross profit	$	3,265
Net loss	$	(1,613)

17 . SUBSEQUENT EVENTS

Forbearance agreement

The next interest payment on our 2019 Notes of approximately $3.5 million was due April 3, 2017. We decided not to pay the interest payment on April 3, 2017 and, as provided for in the Indenture, dated as of April 1, 2014 (2019 Indenture), by and between us and Wells Fargo Bank, National Association, as trustee (including its successor or assign as trustee under the Indenture, the Trustee) that governs the 2019 Notes, commenced a 30-day grace period to make such payment. We did not make such interest payment on May 3, 2017, which was the last day of such 30-day grace period. Our failure to pay this interest payment on May 3, 2017 results in an event of default under the 2019 Indenture governing the 2019 Notes. While the event of default is continuing under the 2019 Indenture, the Trustee or holders of at least 25% in aggregate principal amount of the 2019 Notes may, among other things, accelerate 100% of the principal of, and accrued and unpaid interest on, the 2019 Notes to be due and payable immediately upon such acceleration and seek immediate repayment in full of such amounts. However, on May 3, 2017, we entered into a Forbearance Agreement (Forbearance Agreement) with certain beneficial owners and/or investment advisors or managers of discretionary accounts for such beneficial owners (Holders) of approximately 69% in aggregate principal amount of our 2019 Notes (Consenting Holders). With the support of the Consenting Holders, we are engaged in a process to sell all, substantially all, or a portion of the company by or before the conclusion of the Forbearance Period (as defined below). We are also concurrently in negotiations with our noteholders to restructure or equitize their debt if the sales process is not ultimately successful in this time frame.

Pursuant to the Forbearance Agreement, each Consenting Holder has agreed that, during the “Forbearance Period” (as defined below) and subject to certain termination events, it will not, among other things, (i) take any action, enforce any of its rights or remedies or accelerate the obligations under the 2019 Indenture, the 2019 Notes or otherwise, or (ii) direct the Trustee to take any action, enforce any rights or remedies or accelerate the obligations under the 2019 Indenture, the 2019 Notes or otherwise, against us, our affiliates or, in each case, any assets thereof, in each case solely with respect to our failure to make the interest payment due on April 3, 2017 on the 2019 Notes.

As defined in the Forbearance Agreement, the “Forbearance Period” ends on the earlier of June 28, 2017 and the occurrence of any of the specified early termination events described therein, which include (i) a further default or event of default under the 2019 Indenture and (ii) acceleration of the principal of the 2019 Notes. The Forbearance Period may also be terminated by the Consenting Holders upon the occurrence of certain specified events described therein, which include, among other things, (i) material payments, transactions or expenditures outside the ordinary course of business, (ii) material payments to any subsidiary or affiliate of us other than a direct or indirect payment to or for the benefit of SB Oils for the purpose of funding the ordinary course operating-related expenses of SB Oils, (iii) failure to take all reasonable efforts in good faith to reduce expenditures, (iv) incurrence of any indebtedness for borrowed money or any indebtedness that is secured by liens senior in right of payment or priority to the 2019 Notes, (v) we do not work diligently to advance both (a) the ongoing marketing process to sell all, substantially all, or a portion of, our business (M&A Process), and (b) to obtain an exit financing facility to support a possible restructuring of our obligations under the 2019 Notes and our 2018 Notes (Exit Financing Search), (vi) failure to establish May 31, 2017 as a firm deadline for the delivery of non-binding indications of interest in the M&A Process and non-binding financing proposals in the Exit Financing Search, or (vii) if, prior to May 26, 2017, we and the Consenting Holders have not agreed to the material terms of a potential restructuring.

In furtherance of the foregoing, during the Forbearance Period, we have agreed to provide the Consenting Holders (or, in the event that such information is or may be non-public or otherwise restricting, the Consenting Holders’ legal and financial advisors) with (i) information relating to (a) any action or development that has or reasonably could have a material adverse effect on us or the Consenting Holders, and (b) any action or development that constitutes or reasonably could constitute an event that could terminate the Forbearance Period, (ii) any information reasonably requested by the Consenting Holders’ legal and financial advisors, (iii) weekly updates on our ongoing sale and financing processes, and (iv) beginning no later than May 12, 2017, a 13-week cash flow forecast and, thereafter, weekly updates thereto. Our failure to provide any of information set forth in the foregoing clauses (i) through (iv) allows the Consenting Holders to terminate the Forbearance Period if such failure is not cured within three (3) days thereof.

In addition, and notwithstanding anything in the Forbearance Agreement or in the 2019 Indenture to the contrary, solely during the Forbearance Period, the incurrence of any indebtedness that is secured by liens senior in right of payment or priority to the 2019 Notes (with respect to indebtedness greater than $10 million incurred outside of the ordinary course by us or any of our subsidiaries other than SB Oils) is prohibited by the Forbearance Agreement and upon such prohibited action occurring, 100% of the 2019 Obligations shall become and shall automatically be immediately due and payable, without notice to us or any other action by any Consenting Holder. Notwithstanding the preceding sentence, we and any of our subsidiaries may incur senior and/or secured indebtedness during the Forbearance Period without triggering any such acceleration so long as the Consenting Holders are provided written notice of the terms of any such proposed financing and given seven days in which to match in writing such terms in their entirety (subject to definitive documentation consistent with such terms).

As a result of the terms described above, we have classified the 2019 Notes as current liabilities on our unaudited condensed consolidated balance sheet as of March 31, 2017

SVB agreement

On June 28, 2016, we entered into a loan and security agreement (SVB Agreement) with Silicon Valley Bank (SVB) that provides for a $12.9 million letter of credit facility (Facility). The Facility supports the standby letter of credit issued on April 29, 2016 by SVB (SVB SLOC) in favor of Itaú Unibanco S.A. (Itaú) to support a bank guarantee issued by Itaú on our behalf to BNDES in connection with the loan agreement entered into in 2013 between BNDES and SB Oils. On May 2, 2017 we amended and restated the SVB Agreement (Amended SVB Agreement). The Amended SVB Agreement, and related Bank Services Pledge Agreement, set up a restricted collateral account with the SVB that will contain not less than 110% of the dollar equivalent of the face amount of all outstanding letters of credit under the Facility (Restricted Cash). The initial balance in the restricted collateral account is $12.2 million . The Amended SVB Agreement also provides that we will keep not less than $5 million in a separate account at SVB that will also be part of the collateral package but is not restricted cash (Designated Deposit Account). We are subject to customary negative covenants under the Amended SVB Agreement, including a covenant that places limitations on change in control transactions. The Amended SVB Agreement contains certain customary representations and warranties, affirmative covenants and provisions relating to events of default. If an event of default occurs and continues, SVB may declare all outstanding obligations under the Facility immediately due and payable, with all obligations being immediately due and payable without any action by SVB if we (i) fail to be solvent (as defined in the Amended SVB Agreement), or (ii) begin an insolvency proceeding or an insolvency proceeding is begun against us that is not dismissed or stayed within 45 days. If an event of default occurs and continues, SVB may also transfer into the restricted collateral account funds from the Designated Deposit Account such that the total balance in the restricted collateral account equals 125% of the dollar equivalent of the face amount of all outstanding letters of credit under the Facility. If a demand for payment is made under any letter of credit issued under the Facility the principal amount paid by SVB shall accrue interest at a floating per annum rate equal to 2.0% above the prime rate, which interest shall be payable on demand. We will pay SVB an annual fee of 1.00% per annum with respect to letters of credit issued.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Forward-Looking Statements

The following discussion and analysis should be read together with our unaudited condensed consolidated financial statements and the other financial information appearing elsewhere in this Quarterly Report on Form 10-Q. This discussion contains forward-looking statements reflecting our current expectations and involves risks and uncertainties. In some cases, you can identify forward-looking statements by terminology such as "may," "will," "should," "expect," "plan," "anticipate," "believe," "estimate," "predict," "intend," "potential" or "continue" or the negative of these terms or other comparable terminology. For example, statements regarding our strategy and expectations as to future financial and operating performance and focus, future selling prices and margins for our products, attributes and performance of our products, manufacturing capacity, expense levels, liquidity sources and our expectations regarding certain legal matters are forward-looking statements. Our actual results and the timing of events may differ materially from those discussed in our forward-looking statements as a result of various factors, including those discussed below and those discussed in the section entitled "Risk Factors" included in this Quarterly Report on Form 10-Q and in our other filings with the Securities and Exchange Commission (SEC).

Overview

We are a food, nutrition and specialty ingredients company that harnesses the power of algae, the origin of all plants. Our innovative platform uses microalgae to produce high-value triglyceride oils, proteins, fibers, micronutrients and other ingredients. The inherent flexibility of our technology platform and the broad usage of these materials across multiple industries allow us to approach a wide range of customers across myriad end markets. We have streamlined our strategy to focus on food, nutrition and specialty ingredient products and began to more broadly commercialize these products in 2015.

The unique composition of our oils, powders and other algae-derived products addresses specific customer requirements. We are commercializing high-value oils and powder products with companies that primarily use them as ingredients. We have developed and are commercializing food, nutrition and specialty ingredient products with sustainability benefits that can replace or enhance products derived from the world's three existing oil sources: petroleum, plants and animal fats. Over our history, we have also invested in and developed products, technology and market opportunities in the industrials area, which includes fuels, industrial oils, and the oilfield/Encapso ® business. We believe we are being opportunistic in our pursuit of strategic alternatives for the AlgaVia ® food powders and Thrive ® consumer oils business, looking to partner with organizations who have the operational and financial capabilities needed to realize the potential of these businesses.

Our food oils are formulated to offer a variety of functional benefits such as enhanced structuring capabilities and stability while providing robust formulation and process flexibility. These food oils, which have the potential to improve upon conventionally utilized specialty fats and oils, include our high oleic algae oil and our Algae Butter. These food oils have received FDA generally recognized as safe (GRAS) "No Questions" letters, including our Algae Butter as of April 2017. Currently, our high oleic algae oil is commercially available in our consumer culinary Thrive ® oil brand and our Algae Butter is currently being sampled in our AlgaWise ® branded food oil platform.

In addition, we have developed novel methods of preparing powdered forms of triglyceride oils and vegan proteins, and our powdered ingredients are composed of unmodified whole algae cells. AlgaVia ® Lipid Powder (commonly known as whole algae flour) and AlgaVia ® Protein (commonly known as whole algae protein) are whole algae ingredients that can improve the nutritional profile of foods and beverages. AlgaVia ® Lipid Powder is a new fat source that allows for the reduction or replacement of dairy fats, oils, and eggs. AlgaVia ® Protein is a new vegan source of protein that is free of known allergens and gluten. Both AlgaVia ® Lipid Powder and Protein can be used across a range of applications such as beverages (ready-to-drink and powdered), bakery, snacks, bars, dressings, sauces and frozen desserts and each ingredient received a FDA GRAS "No Questions" letter.

In May 2016, we and Bunge announced the launch of a native, whole algae DHA, docosahexaenoic acid, a long chain omega-3 fatty acid as a sustainable specialty feed ingredient, prioritizing the aquaculture market. In March 2017, we announced as part of a focused commercial strategy, a planned suspension of operations at our Peoria facility as we explore strategic opportunities to partner our AlgaVia ® line of products.

Our manufacturing process is compatible with commercial-scale, widely-available fermentation and oil recovery equipment. We operate our lab and pilot fermentation and recovery equipment as scaled-down versions of our large commercial engineering designs, such as those used to perform development work under certain agreements with strategic partners and to fulfill commercial supply agreements. We have scaled up our technology platform and have successfully operated at lab (5-15 liter), pilot (600-1,000 liter), demonstration/small commercial (120,000 liter) and large commercial (approximately 500,000 liter and above) fermenter scale.

Since 2011, we have entered into multiple Joint Development Agreements (JDAs) with Bunge to jointly develop microbe-derived oils, powders and biomass products, and explore the production of such products from Brazilian sugarcane feedstock. In April 2012, we formed with Bunge Solazyme Bunge Renewable Oils Cooperatief U.A., (SB Oils JV) which wholly owns Solazyme Bunge Produtos Renováveis Ltda. (SB Oils). SB Oils operates a commercial-scale renewable algae oils production facility adjacent to Bunge's Moema sugar mill in Brazil. In addition, the SB Oils plant has been designed to be expanded for further production in line with market demand. Additional capital expenditures may be required to reach nameplate capacity depending on the product mix produced at the plant. We own 50.1% of the SB Oils JV and Bunge Global Innovation, LLC owns the remaining 49.9%. We account for the SB Oils JV under the equity method of accounting and the SB Oils JV results are not consolidated with our operations. On February 28, 2017, Bunge Limited filed its 2016 Annual Report on Form 10-K in which it reported equity investment impairment charges of $44 million in the fourth quarter of 2016 that included an impairment charge of Bunge’s equity investment in the SB Oils JV. See Note 4 to our unaudited condensed consolidated financial statements for our analysis of our equity investment in the SB Oils JV.

In August 2016 we sold our Algenist skincare business to TCP Algenist LLC, an affiliate of Tengram Capital Partners and Algenist Holdings, Inc. Upon closing, we received approximately $18.8 million in cash, net of closing costs, and a 19.9% ownership interest in Algenist Holdings Inc., which is accounted for under the equity method. We expect to supply active ingredients formulated in the Algenist product line to Algenist. We have presented the historical results of Algenist as discontinued operations for all periods presented in this filing.

Our business has not been generating sufficient cash flow from operations, and funds may not be available in an amount sufficient to enable us to pay our indebtedness, or to fund our other liquidity needs, and we could utilize our available financial resources sooner than we currently expect. We may not be able to raise sufficient additional funds on terms that are favorable to us, if at all. If we fail to raise adequate funds and continue to incur losses, we will not be able to fund our operations or continue our business as a going concern. For additional information, see Note 3 to our unaudited condensed consolidated financial statements.

On April 3, 2017, we exercised our right to use a grace period to defer payment of interest of approximately $3.5 million on our 2019 Notes and on May 3, 2017 we elected not to make the interest payment at the end of the grace period, thus creating an Event of Default under the Indenture for the 2019 Notes. On May 3, 2017 we also entered into a forbearance agreement with certain holders of our 2019 Notes related to that Event of Default. However, because these holders have the right to accelerate payment of our 2019 Notes after the forbearance agreement terminates, and the forbearance agreement does not extend past March 31, 2018, we have classified the 2019 Notes as current liabilities on our unaudited condensed consolidated balance sheet as of March 31, 2017 .

With the support of certain beneficial owners and/or investment advisors or managers of discretionary accounts for such beneficial owners of approximately 69% in the aggregate principal amount of our 2019 Notes (the Consenting Holders), we are engaged in a process to sell all, substantially all, or a portion of the company by or before the conclusion of the Forbearance Period (as defined in note 17 to our unaudited condensed consolidated financial statements). We are also concurrently in negotiations with our noteholders to restructure or equitize their debt if the sales process is not ultimately successful in this time frame.

On May 2, 2017 we amended and restated our SVB loan and security agreement with respect to restricted collateral accounts as described below.

Critical Accounting Policies and Estimates

Critical accounting policies are those accounting policies that management believes are important to the portrayal of our financial condition and results and require management’s most difficult, subjective or complex judgments, often as a result of the need to make estimates about the effect of matters that are inherently uncertain. Our 2016 Annual Report on Form 10-K includes a description of certain critical accounting policies, including those with respect to revenue recognition, inventories, stock-based compensation and income taxes. There have been no material changes to our critical accounting policies described in our 2016 Annual Report on Form 10-K.

Results of Operations

Comparison of Three Months Ended March 31, 2017 and 2016

Revenues

	Three Months Ended March 31,		
	2017	2016	$ Change
	(In thousands)		
Revenues:			
Product revenues	$ 815	$ 1,301	$ (486)
Research and development programs	3,704	3,587	117
Total revenues	$ 4,519	$ 4,888	$ (369)

Total revenues

Total revenues of $4.5 million decreased by $0.4 million in the three months ended March 31, 2017 compared to the same period last year, due to the changes in product and research and development revenues noted below. We intend to focus on growing product revenues primarily in the unconsolidated SB Oils JV in 2017. As a result, we expect our reported consolidated revenues to decrease in 2017 compared to 2016, primarily due to lower research and development programs revenues as certain funded programs shift toward commercial product revenue in the unconsolidated SB Oils JV. The focus of the production at the SB Oils plant in the immediate future will be on a narrow set of food and nutritional and specialty products, and we believe this strategic decision will better align our immediate production assets with our operating strategy while minimizing production costs.

Product Revenues and Cost of Product Revenues

Product revenues and cost of product revenues for the three months ended March 31, 2017 and 2016 were as follows:

	Three Months Ended March 31,		
	2017	2016	Change
	(In thousands)		
Product revenues	$ 815	$ 1,301	$ (486)
Cost of product revenues	1,249	1,304	(55)
Gross loss	$ (434)	$ (3)	$ (431)
Gross loss %	(53)%	— %	(53)%

Product revenues decreased $0.5 million in the three months ended March 31, 2017 compared to the same period last year primarily due to decreased revenues related to our fuels marketing and commercial development program, in line with our strategy to focus on focus on food, nutrition and specialty ingredient products.

During scale-up of the manufacturing process at the Archer Daniels Midland Company Clinton and American Natural Processors Galva facilities in 2015, and in our Peoria facility in 2016 and 2017, certain production costs were charged to research and development and selling, general and administrative expenses in line with applicable accounting standards. Gross margins would have been lower if such production costs had been charged to cost of product revenues.

Production volumes have not fully covered fixed costs at our production facilities in the periods presented, and the gross margin was negative 53% in the three months ended March 31, 2017 compared to a negative 0% gross margin in the same period last year, primarily due to changes in product mix and write downs of inventories in the three months ended March 31, 2017.

Research and Development Programs Revenue

Revenues from research and development programs (net of intercompany eliminations) of $3.7 million increased by $0.1 million in the three months ended March 31, 2017 compared to the same period last year. We are currently engaged in development activities with multiple strategic partners and the SB Oils JV, and we expect research and development program revenues to comprise a significant portion of overall revenue for 2017.

Operating Expenses

	Three Months Ended March 31,		
	2017	2016	$ Change
	(In thousands)		
Operating expenses:			
Research and development	$ 6,968	$ 8,231	$ (1,263)
Sales, general and administrative	9,188	11,642	(2,454)
Restructuring charges	626	1,190	(564)
Arbitration award	(2,369)	—	(2,369)
Total operating expenses	$ 14,413	$ 21,063	$ (6,650)

Research and Development Expenses

Research and development expenses decreased $1.3 million in the three months ended March 31, 2017 compared to the same period last year, due primarily to decreases in personnel-related costs of $0.7 million, and laboratory supplies of $0.3 million. Personnel-related costs include non-cash stock-based compensation expense of $0.5 million in both the three months ended March 31, 2017 and 2016 .

Sales, General and Administrative Expenses

Sales, general and administrative expenses decreased $2.5 million in the three months ended March 31, 2017 compared to the same period last year primarily due to lower personnel-related costs of $1.6 million, sales and marketing costs of $0.3 million and bad debt expense of $0.3 million. Personnel-related costs include non-cash stock-based compensation expense of $1.2 million in the three months ended March 31, 2017 compared to $2.0 million in the same period last year.

We expect overall sales, general and administrative expenses to decrease in 2017 compared to 2016, primarily due to lower employee costs and other cost reductions.

Restructuring charges

Restructuring charges expenses decreased $0.6 million in the three months ended March 31, 2017 compared to the same period last year primarily due to lower restructuring charges in the current period. On March 29, 2017, we took steps to decrease operating expenses through a reduction in workforce of approximately 25% , a planned suspension of operations at our Peoria facility as we explores strategic opportunities to partner our AlgaVia® line of products, and other cost-cutting measures. In addition to the $0.6 million we have incurred through March 31, 2017 , we expect to incur additional restructuring charges of between $1.5 million and $2.0 million , and anticipate a reduction in annualized cash operating expenses of at least $8.0 million.

Arbitration award

In connection with an arbitration award, we received a payment of $2.4 million in February 2017 from Roquette, as further described in note 13 to our unaudited condensed consolidated financial statements. This payment was recognized as a reduction in total costs and operating expenses in our unaudited condensed consolidated financial statements for the three months ended March 31, 2017.

Other Expense, net

	Three Months Ended March 31,		
	2017	2016	$ Change
	(In thousands)		
Interest and other income, net	$ 515	$ 291	$ 224
Interest expense	(3,000)	(3,489)	489
Debt conversion expense	(2,436)	—	(2,436)
Loss from equity method investments	(6,523)	(4,872)	(1,651)
Gain from change in fair value of derivative liabilities	—	82	(82)
Total other expense, net	$ (11,444)	$ (7,988)	$ (3,456)

Interest Expense

Interest expense decreased to $3.0 million in the three months ended March 31, 2017 compared to $3.5 million in the same period last year, primarily due to lower outstanding convertible debt balances.

Debt Conversion Expense

During the three months ended March 31, 2017 , we exchanged 2019 Notes totaling approximately $7.6 million by issuing approximately 3.62 million new shares (including approximately 2.40 million inducement shares) of our common stock. We recorded a non-cash debt conversion expense of approximately $2.4 million related to the exchange in three months ended March 31, 2017 .

Loss From Equity Method Investments

Loss from equity method investments increased to $6.5 million in the three months ended March 31, 2017 compared to $4.9 million in the same period last year, primarily due to higher operating expenses and product mix. We expect the loss from our equity method investments to decrease in 2017 compared to 2016 due to reduced production costs and increased commercial sales.

Liquidity and Capital Resources

Cash and cash equivalents and marketable securities available-for-sale were as follows:

	March 31, 2017	December 31, 2016
	(In thousands)	
Cash and cash equivalents	$ 44,813	$ 63,509
Marketable securities available-for-sale	—	522
Total cash and cash equivalents and marketable securities	$ 44,813	$ 64,031

Cash and cash equivalents and marketable securities decreased by $19.2 million in the three months ended March 31, 2017 , primarily due to cash used in operating activities of $13.3 million and $6.6 million of capital contributed to the SB Oils JV, partially offset by proceeds from sale of common stock of $0.7 million .

A summary of our cash flows from continuing operations for the periods indicated was as follows:

	Three Months Ended March 31,	
	2017	2016
	(In thousands)	
Net cash used in operating activities	$ (13,347)	$ (18,615)
Net cash provided by (used in) investing activities	(6,056)	8,372
Net cash provided by financing activities	690	27,556

Cash Flows from Operating Activities from Continuing Operations

Cash used in operating activities from continuing operations was $13.3 million in the three months ended March 31, 2017 , primarily due to a loss of $22.6 million offset by non-cash charges. Non-cash charges included a $6.5 million loss from equity method investments, debt conversion expense, stock-based compensation, depreciation and amortization, net amortization of premiums on marketable securities and debt discount and loan fee amortization.

Cash used in operating activities from continuing operations was $18.6 million in the three months ended March 31, 2016 primarily due to a loss of $25.5 million , offset by aggregate non-cash charges of $9.2 million . Non-cash charges included a $4.9 million loss from equity method investments, debt conversion expense, stock-based compensation, depreciation and amortization, net amortization of premiums on marketable securities and debt discount and loan fee amortization.

Cash Flows from Investing Activities

Cash used in investing activities from continuing operations was $6.1 million in the three months ended March 31, 2017 , primarily due to $6.6 million of cash contributed to the SB Oils JV partially offset by $0.5 million net proceeds from marketable securities.

Cash provided by investing activities from continuing operations in the three months ended March 31, 2016 , was $8.4 million , primarily due to $11.0 million of net marketable securities maturities, partially offset by $2.4 million of cash contributed to the SB Oils JV.

Cash Flows from Financing Activities

Cash provided by financing activities was $0.7 million in the three months ended March 31, 2017 , primarily due to net proceeds received of $0.7 million from the issuance of common stock.

Cash provided by financing activities was $27.6 million in the three months ended March 31, 2016 , primarily due to net proceeds received from the convertible preferred stock issuance in March 2016.

Liquidity

We are a growth company with a limited operating history. We only recently began commercializing our products. To date, a substantial portion of revenues has consisted of funding from third party collaborative research agreements and government grants. We have generated limited revenues from commercial sales. We intend to focus on growing product revenues primarily in the unconsolidated SB Oils JV in 2017. As a result, we expect our reported consolidated revenues to decrease in 2017 compared to 2016, primarily due to lower research and development programs revenues as certain funded programs shift toward commercial product revenue in the unconsolidated SB Oils JV.

Net losses are expected to continue as we build out our product pipeline. We expect to incur additional costs and expenses related to the continued development and focused commercial strategy on food and specialty personal care ingredients. These activities will include operations at our Peoria facility as we explore strategic opportunities to partner our AlgaVia ® line of products, and support the operations of the SB Oils JV plant.

We, along with our development and commercialization partners, need to develop products successfully, cost effectively produce them in large quantities and market and sell such products profitably. Our failure to generate sufficient revenues, achieve planned gross margins, control operating costs or raise sufficient additional funds may require us to modify, delay or abandon our planned operations, which could have a material adverse effect on the business, operating results, financial condition and ability to achieve intended business objectives. We may be required to seek additional funds through collaborations, public or private debt or equity financings or government programs, and may also seek to reduce expenses related to our operations. There can be no assurance that any financing will be available or on acceptable terms.

As of March 31, 2017 , there was $32.5 million of convertible notes (2018 Notes), due on February 1, 2018, and $140.5 million of convertible notes (2019 Notes), due on October 1, 2019. Accordingly, we had $32.5 million due in 10 months from March 31, 2017 or approximately 9 months from May 5, 2017 (the date of the filing of this Form 10-Q), and $140.5 million due in 2.5 years from March 31, 2017 or 2.4 years from May 5, 2017 . Cash and cash equivalents and forecasted cash flows from operations are not sufficient to sustain our operations and meet such obligations through May 31, 2018.

On February 24, 2017, we announced that we had retained Rothschild Inc. (Rothschild) as our financial advisor and that we were in discussions with a number of potential investors to raise additional capital and/or recapitalize our outstanding convertible senior subordinated notes.

We have directed Rothschild to assist us in the following objectives:

- restructure or refinance a substantial portion of our 2018 and 2019 Notes;
- raise additional capital via a combination of the following potential activities
  - Issuance of new equity
  - Issuance of new debt
  - Entering partnerships for our AlgaVia® food powders and/or our Thrive® Consumer businesses;

- and/or the outright sale of certain other assets.

In addition to the above activities, we may also execute a combination of the following:

- sell additional equity through an existing effective registration statement;
- convert individual holders of the convertible 2018 and 2019 Notes into our common stock through induced conversions (in the three months ended March 31, 2017, we exchanged 2019 Notes totaling approximately $7.6 million by issuing 3.62 million shares (including 2.40 million inducement shares); and/or
- further streamline operations which may result in further reduction in headcount and other expenses. In March 2017 we reduced our workforce by approximately 25% , which we expect will reduce our annualized cash operating expenses by at least $8 million.

On April 3, 2017, we exercised our right to use a grace period to defer payment of interest of approximately $3.5 million on our 2019 Notes, and on May 3, 2017 we entered into a forbearance agreement with certain holders of our 2019 Notes. On May 2, 2017 we amended and restated our SVB loan and security agreement with respect to restricted collateral accounts as described below. With the support of the Consenting Holders, we are engaged in a process to sell all, substantially all, or a portion of the company by or before the conclusion of the Forbearance Period (as defined in note 17 to our unaudited condensed consolidated financial statements). We are also concurrently in negotiations with our noteholders to restructure or equitize their debt if the sales process is not ultimately successful in this time frame.

The accompanying unaudited condensed consolidated financial statements have been prepared assuming that we will continue as a going concern. There is significant uncertainty regarding our ability to meet our obligations and sustain our operations through May 31, 2018. These conditions raise substantial doubt as to our ability to continue as a going concern. Management's plans concerning these matters are discussed above. Our independent registered public accounting firm, Deloitte & Touche LLP, included a going concern uncertainty explanatory paragraph in its Report of Independent Registered Public Accounting Firm issued to us in connection with our 2016 Annual Report on Form 10-K filed with the Securities and Exchange Commission on March 16, 2017. The accompanying unaudited condensed consolidated financial statements do not include any adjustments that might result from the outcome of this going concern uncertainty.

BNDES Loan

In February 2013, SB Oils entered a loan agreement with the Brazilian Development Bank (BNDES) under which it could borrow up to R$245.7 million (approximately USD $78.0 million based on the exchange rate as of March 31, 2017). As of March 31, 2017 , approximately $51.2 million was outstanding under the BNDES loan based on the exchange rate as of March 31, 2017 . We have provided a bank guarantee equal to 14.39% of the total amount available under the BNDES Loan and may be required to provide a corporate guarantee equal to 35.71% of the total amount available under the BNDES Loan (with the total amount covered by the guarantees not to exceed our ownership percentage in the SB Oils JV). We expect to evaluate the optimal amount of SB Oils JV-related capital expenditures that we agree to fund on a case-by-case basis. These events may require us to access additional capital through equity or debt offerings. If we are unable to access additional capital, our growth may be limited due to the inability to build out additional manufacturing capacity.

SVB Letter of Credit and Loan and Security Agreement

In the second quarter of 2016, we entered into a loan and security agreement (SVB Agreement) with Silicon Valley Bank (SVB) that provides for a $12.9 million letter of credit facility (the Facility) denominated in U.S. dollars or a foreign currency. The Facility supports the standby letter of credit issued on April 29, 2016 by SVB (SVB SLOC) in favor of Itaú Unibanco S.A. (Itaú) to support a bank guarantee issued by Itaú on our behalf to the Brazilian Development Bank (BNDES) in connection with the loan agreement entered into in 2013 between BNDES and SB Oils. The SVB SLOC is being supported by a bank confirmation issued by the Bank of Nova Scotia (the Scotia Bank Confirmation) on behalf of Silicon Valley Bank. On May 2, 2017 we amended and restated the SVB Agreement (Amended SVB Agreement). The Amended SVB Agreement, and related Bank Services Pledge Agreement, set up a restricted collateral account with the SVB that will contain not less than 110% of the dollar equivalent of the face amount of all outstanding letters of credit under the Facility (Restricted Cash). The initial balance in the restricted collateral account is $12.2 million. The Amended SVB Agreement also provides that we will keep not less than $5 million in a separate account at SVB that will also be part of the collateral package but is not restricted cash.

Convertible Debt

2018 Notes —In January 2013, we issued $125.0 million aggregate principal amount of 2018 Notes that will mature on February 1, 2018. We had $32.5 million aggregate principal amount of 2018 Notes outstanding as of March 31, 2017 .

2019 Notes —On April 1, 2014, we issued $149.5 million aggregate principal amount of 2019 Notes that will mature on October 1, 2019. We had $140.5 million aggregate principal amount of 2019 Notes outstanding as of March 31, 2017 .

Contractual Obligations and Commitments

There have been no significant changes to our contractual obligations and commitments since our Annual Report on Form 10-K for the year ended December 31, 2016 .

Off-Balance Sheet Arrangements

For information on variable interest entities and guarantees, refer to Note 4 in the accompanying notes to our unaudited condensed consolidated financial statements.

Recent Accounting Pronouncements

Refer to Note 2 in the accompanying notes to our unaudited condensed consolidated financial statements for a discussion of recent accounting pronouncements.

Item 3. Quantitative and Qualitative Disclosures about Market Risk.

We are exposed to financial market risks, primarily changes in interest rates, currency exchange rates and commodity prices. All of the potential changes noted below are based on sensitivity analyses performed on our financial positions as of March 31, 2017 . Actual results may differ materially.

Interest Rate Risk

Our exposure to market risk for changes in interest rates relates primarily to our investment portfolio and our outstanding debt obligations. As of March 31, 2017 , our investment portfolio was not significant, and hence we believe we do not have material exposure to changes in fair value as a result of changes in interest rates. Our outstanding debt as of March 31, 2017 consists of fixed-rate debt, and therefore, is not subject to fluctuations in market interest rates.

Foreign Currency Risk

Our operations include manufacturing and sales activities primarily in the United States, as well as research activities primarily in the United States. We own 50.1% of Solazyme Bunge Renewable Oils Cooperatief U.A., a holding company that owns SB Oils. As we expand internationally, our results of operations and cash flows will become increasingly subject to fluctuations due to changes in foreign currency exchange rates. For example, our operations in Brazil and/or potential expansion elsewhere in Latin America or increasing Euro denominated product sales to European distributors, will result in our use of currencies other than the U.S. dollar. In addition, the local currency is the functional currency of our Brazil subsidiary and SB Oils (an unconsolidated joint venture). The assets and liabilities of the Brazil subsidiary are translated from its functional currency to U.S. dollars at the exchange rate in effect at the balance sheet date, with resulting foreign currency translation adjustments recorded in accumulated other comprehensive income (loss) in our condensed consolidated statements of comprehensive loss. The assets and liabilities of SB Oils are also translated to U.S. dollars similar to our Brazil subsidiary, and we adjust our investment in SB Oils and cumulative translation adjustment in equity for our ownership portion of the cumulative translation gain or loss recognized on SB Oils' financial statements. As a result, our comprehensive income (loss), cash flows and expenses are subject to fluctuations due to changes in foreign currency exchange rates. In periods when the U.S. dollar declines in value as compared to the foreign currencies in which we incur expenses, our foreign-currency based expenses increase when translated into U.S. dollars. A hypothetical 10% adverse change in foreign currency exchange rate would have had a $0.3 million impact on our net loss for the three months ended March 31, 2017 . We have not hedged our foreign currency since the exposure has not been material to our historical operating results. Although substantially all of our sales are currently denominated in U.S. dollars, future fluctuations in the value of the U.S. dollar may affect the price competitiveness of our products outside the United States. We may consider hedging our foreign currency risk as we continue to expand internationally.

Commodity Price Risk

Our exposure to market risk for changes in commodity prices currently relates primarily to our purchases of plant sugar feedstock. A hypothetical 10% change in the cost of plant sugar feedstock would have had approximately a $0.1 million impact on our share of loss from equity method investment in the SB Oils JV for the three months ended ended March 31, 2017 . We have not historically hedged the price volatility of plant sugar feedstock. Also, fluctuations in the prices of petroleum or certain plant oils may also impact our business to the extent our products compete with petroleum or plant-oil-derived products. In the future, we may manage our exposure to these risks by hedging the price volatility of such products, principally through futures contracts, and entering into joint venture agreements that would enable us to obtain secure access to feedstock. See also “Risk Factors-Risks Related to Our Business and Industry," A decline in the price of petroleum and petroleum-based products, plant oils or other commodities may reduce demand for our products and may otherwise adversely affect our business.

Item 4. Controls and Procedures.

Our management, including our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of March 31, 2017 . The term “disclosure controls and procedures,” as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable, and not absolute, assurance of achieving the desired objectives. In reaching a reasonable level of assurance, management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of March 31, 2017 at the reasonable assurance level.

Changes in Internal Control Over Financial Reporting

There was no change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) that occurred during the quarterly period ended March 31, 2017 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II: OTHER INFORMATION

Item 1. Legal Proceedings.

We may be involved, from time to time, in legal proceedings and claims arising in the course of our business. Such matters are subject to many uncertainties and there can be no assurance that such legal proceedings will not have a material adverse effect on our business, results of operations, financial position or cash flows. The information relating to "Legal Matters" set forth under Note 13 - Commitments and Contingencies of the notes to the unaudited condensed consolidated financial statements of this Quarterly Report on Form 10-Q is incorporated into this item by reference.

Item 1A. Risk Factors.

You should carefully consider the risks and uncertainties described below before investing in our securities. Additional risks and uncertainties not presently known to us or that our management currently deems immaterial also may impair our business operations. If any of the risks described below were to occur, our business, financial condition, operating results, and cash flows could be materially adversely affected. In such an event, the trading price of our common stock could decline and you could lose all or part of your investment. In assessing these risks and uncertainties, you should also refer to the other information contained in this Report, including our unaudited condensed consolidated financial statements and related notes. The risks and uncertainties discussed below also include forward-looking statements, and our actual results may differ substantially from those discussed in these forward-looking statements. See Management's Discussion and Analysis of Financial Condition and Results of Operations-Forward-Looking Statements.

Risks Related to Our Business and Industry

We have incurred significant losses to date, anticipate continuing to incur losses and may never achieve or sustain profitability. We have failed to make scheduled interest payments and are in negotiations with holders of certain of our convertible notes.

We are a company with a limited operating history. We only recently began commercializing our products. To date, a substantial portion of our revenues has consisted of funding from third party collaborative research agreements and government grants. We have generated only limited revenues from commercial sales, the majority of which were derived from sales of our skin and personal care products through our Algenist business, which we sold to a third party in August 2016. We expect a significant portion of our future revenues to come from commercial sales in food, including aquaculture, nutrition, and specialty personal care ingredients.

We have incurred substantial net losses since our inception, including a net loss of $22.6 million during the three months ended March 31, 2017 . We expect these losses may continue as we ramp up our manufacturing capacity and build out our product pipeline. As of March 31, 2017 , we had an accumulated deficit of $734.0 million . We expect to incur additional costs and expenses related to the continued development and expansion of our business, including research and development and the ramp up and operation of the Solazyme Bunge Produtos Renováveis Ltda. (SB Oils) production facility (described below). As a result, our annual and quarterly operating losses may continue.

In April 2012, we entered into a Joint Venture Agreement with Bunge Global Innovation and certain of its affiliates (Bunge), forming Solazyme Bunge Renewable Oils Coöperatief U.A. (SB Oils JV) which wholly owns SB Oils. We, along with our development and commercialization partners, will need to develop products successfully, cost effectively produce them in large quantities, and market and sell them profitably. If we fail to become profitable, or if we are unable to fund our continuing losses, we may be unable to continue our business operations. There can be no assurance that we will ever achieve or sustain profitability.

Our independent registered public accounting firm, Deloitte & Touche LLP included a going concern uncertainty explanatory paragraph in its Report of Independent Registered Public Accounting Firm issued to us in connection with our 2016 Annual Report on Form 10-K filed with the Securities and Exchange Commission in March 2017. Our business has not been generating sufficient cash flow from operations, and funds may not be available in an amount sufficient to enable us to pay our indebtedness, or to fund our other liquidity needs, and we could utilize our available financial resources sooner than we currently expect. We may not be able to raise sufficient additional funds on terms that are favorable to us, if at all. If we fail to raise adequate funds and continue to incur losses, we will not be able to fund our operations or continue our business as a going concern. In addition, if our indebtedness is accelerated by our lenders or noteholders, all of such debt would become immediately due and payable and we will not have sufficient capital to pay those accelerated amounts, potentially leading to a restructuring or bankruptcy of the company. For additional information, see Note 3 - Going Concern Uncertainty - of the notes to the unaudited interim condensed consolidated financial statements.

We are in the process of analyzing various strategic alternatives to address our sources of liquidity and capital structure, including strategic and refinancing alternatives through a private restructuring of our indebtedness, seeking additional debt or equity financing, assets sales and a filing under Chapter 11 of the U.S. Bankruptcy Code. Seeking bankruptcy court protection could have a material adverse effect on our business, financial condition, results of operations and liquidity. So long as a proceeding related to a Chapter 11 proceeding continues, our senior management would be required to spend a significant amount of time and effort dealing with the reorganization instead of focusing on our business operations. Bankruptcy court protection also might make it more difficult to retain management and other key personnel necessary to the success and growth of our business. In addition, the longer a proceeding related to a Chapter 11 proceeding continues, the more likely it is that our customers and suppliers would lose confidence in our ability to reorganize our businesses successfully and would seek to establish alternative commercial relationships. There is no certainty that we will be able to implement any such options, and we can provide no assurance that any refinancing or changes in our debt or equity capital structure would be possible or that additional equity or debt financing could be obtained on acceptable terms, if at all.

We require additional financing and may not be able to obtain such financing on favorable terms, if at all, which could force us to delay, reduce or eliminate our research and development or commercialization activities.

To date, we have financed our operations primarily through our initial public offering, completed in June 2011, public and private placements of our equity and convertible debt securities, credit facilities, government grants and funding from strategic partners. In January 2013 we issued $125.0 million aggregate principal amount of convertible senior subordinated notes due 2018 (the 2018 Notes). The 2018 Notes bear interest at a rate of 6.00% per year, payable in cash semi-annually. In April 2014 we issued 5,750,000 shares of our common stock and $149.5 million aggregate principal amount of convertible senior subordinated notes due 2019 (the 2019 Notes). The 2019 Notes bear interest at a rate of 5.00% per year, payable in cash semi-annually. As of March 31, 2017 , approximately $32.5 million aggregate principal amount of the 2018 Notes was outstanding and approximately $140.5 million aggregate principal amount of the 2019 Notes was outstanding.

The next interest payment on our 2019 Notes of approximately $3.5 million was due April 3, 2017. We decided not to pay the interest payment on April 3, 2017 and, as provided for in the Indenture, dated as of April 1, 2014 (2019 Indenture), by and between the Company and Wells Fargo Bank, National Association, as trustee (including its successor or assign as trustee under the Indenture, the Trustee) that governs the 2019 Notes, commenced a 30-day grace period to make such payment. We did not make such interest payment on May 3, 2017, which was the last day of such 30-day grace period. Our failure to pay this interest payment on May 3, 2017 results in an event of default under the 2019 Indenture governing the 2019 Notes. While the event of default is continuing under the 2019 Indenture, the Trustee or holders of at least 25% in aggregate principal amount of the 2019 Notes may, among other things, accelerate 100% of the principal of, and accrued and unpaid interest on, the 2019 Notes to be due and payable immediately upon such acceleration and seek immediate repayment in full of such amounts. However, on May 3, 2017, we entered into a Forbearance Agreement (Forbearance Agreement) with certain beneficial owners and/or investment advisors or managers of discretionary accounts for such beneficial owners (Holders) of approximately 69% in aggregate principal amount of our 2019 Notes (Consenting Holders). With the support of the Consenting Holders, we are engaged in a process to sell all, substantially all, or a portion of the company by or before the conclusion of the Forbearance Period. We are also concurrently in negotiations with our noteholders to restructure or equitize their debt if the sales process is not ultimately successful on this time frame. The terms of the Forbearance Agreement are described in Note 17 in the accompanying notes to our unaudited interim condensed consolidated financial statements.

Pursuant to the Forbearance Agreement, each Consenting Holder has agreed that, during the “Forbearance Period” (as defined below) and subject to certain termination events, it will not, among other things, (i) take any action, enforce any of its rights or remedies or accelerate the obligations under the 2019 Indenture, the 2019 Notes or otherwise, or (ii) direct the Trustee to take any action, enforce any rights or remedies or accelerate the obligations under the 2019 Indenture, the 2019 Notes or otherwise, against us, our affiliates or, in each case, any assets thereof, in each case solely with respect to our failure to make the interest payment due on April 3, 2017 on the 2019 Notes. As defined in the Forbearance Agreement, the “Forbearance Period” ends on the earlier of June 28, 2017 and the occurrence of any of the specified early termination events described therein. If we fail to comply with the terms of the Forbearance Agreement and/or fail, among other things, to meet the deliverables specified therein in the applicable time frame, the Forbearance Period will terminate and the Consenting Holders may, or may direct the Trustee to, accelerate 100% of the principal of, and accrued and unpaid interest on, the 2019 Notes to be due and payable immediately upon such acceleration and seek immediate repayment in full of such amounts.

If lenders or noteholders accelerate our outstanding indebtedness, our borrowings will become immediately payable and we will not have sufficient liquidity to repay those accelerated amounts. If we are unable to reach an agreement with lenders and noteholders to address any such defaults, we would likely pursue a variety of solutions that may include strategic and refinancing alternatives through a private restructuring of our indebtedness, seeking additional debt or equity financing, assets sales or a filing under Chapter 11 of the U.S. Bankruptcy Code, which could include a restructuring of our various debt obligations. There can be no assurance that we will be successful in completing any such transaction or restructuring, or will do so on terms that result in any payment or value to the holders of our equity securities.

In March 2016, we issued $27,850,000 aggregate principal amount of our Series A Convertible Preferred Stock. The terms of our Series A Convertible Preferred Stock are described in Note 14 in the accompanying notes to our unaudited interim condensed consolidated financial statements.

In June 2016, we entered into a loan and security agreement (SVB Agreement) with Silicon Valley Bank (SVB) that provides for a $12.9 million letter of credit facility (the Facility) denominated in U.S. dollars or a foreign currency. The Facility supports the standby letter of credit issued on April 29, 2016 by SVB (SVB SLOC) in favor of Itaú Unibanco S.A. (Itaú) to support a bank guarantee issued by Itaú on our behalf to the Brazilian Development Bank (BNDES) in connection with the loan agreement entered into in 2013 between BNDES and SB Oils. The SVB SLOC is being supported by a bank confirmation issued by the Bank of Nova Scotia (the Scotia Bank Confirmation) on behalf of Silicon Valley Bank. On May 2, 2017 we amended and restated the SVB Agreement (Amended SVB Agreement). The Amended SVB Agreement, and related Bank Services Pledge Agreement, set up a restricted collateral account with SVB that will contain not less than 110% of the dollar equivalent of the face amount of all outstanding letters of credit under the Facility (Restricted Cash). The initial balance in the restricted collateral account is $12.2 million. The Amended SVB Agreement also provides that we will keep not less than $5 million in a separate account at SVB that will also be part of the collateral package but is not restricted cash. We are subject to customary negative covenants under the Amended SVB Agreement, including a covenant that places limitations on change in control transactions. The Amended SVB Agreement contains certain customary representations and warranties, affirmative covenants and provisions relating to events of default. If an event of default occurs and continues, SVB may declare all outstanding obligations under the Facility immediately due and payable, with all obligations being immediately due and payable without any action by SVB if we (i) fail to be solvent (as defined in the Amended SVB Agreement), or (ii) begin an insolvency proceeding or an insolvency proceeding is begun against us that is not dismissed or stayed within 45 days. If an event of default occurs and continues, SVB may also transfer into the restricted collateral account funds from the Designated Deposit Account such that the total balance in the restricted collateral account equals 125% of the dollar equivalent of the face amount of all outstanding letters of credit under the Facility. If a demand for payment is made under any letter of credit issued under the Facility the principal amount paid by SVB shall accrue interest at a floating per annum rate equal to 2.0% above the prime rate, which interest shall be payable on demand.

Some of our previous funding has come from government grants; however, our future ability to obtain government grants is uncertain due to the competitive bid process and other factors. In addition, we expect to raise additional funds through public or private debt or equity financings to meet our capital requirements, including our portion of joint venture funding requirements. For example, if SB Oils needs and is unable to secure additional financing, we will be required to fund our portion of SB Oils' capital requirements from existing sources or seek additional financing. In addition, the working capital requirements of SB Oils may increase as SB Oils increases production due to an increase in inventory and the manufacture of out-of-specification product during the ramp-up of commercial production. Furthermore, Bunge has been providing working capital to SB Oils through a revolving loan facility with a maturity date of April 2, 2017, with repayment of amounts outstanding thereunder due on May 3, 2017 (taking into account waivers granted by Bunge to SB Oils). In addition, we are in discussions with Bunge to extend the maturity date of the revolving loan facility under which Bunge has been providing working capital to SB Oils. If Bunge does not further extend the maturity date of the revolving loan facility or if the parties cannot come to an agreement on the repayment of the revolving loan facility, SB Oils would need to find alternative sources of financing. SB Oils may not be able to obtain such financing on favorable terms, or at all, which may lead to increased equity investments in the SB Oils JV by TerraVia and Bunge.

Our independent registered public accounting firm, Deloitte & Touche LLP included a going concern uncertainty explanatory paragraph in its Report of Independent Registered Public Accounting Firm issued to us in connection with our 2016 Annual Report on Form 10-K filed with the Securities and Exchange Commission in March 2017. Our business has not been generating sufficient cash flow from operations, and funds may not be available in an amount sufficient to enable us to pay our indebtedness, or to fund our other liquidity needs, and we could utilize our available financial resources sooner than we currently expect. We may not be able to raise sufficient additional funds on terms that are favorable to us, if at all. If we fail to raise adequate funds and continue to incur losses, we will not be able to fund our operations or continue our business as a going concern. For additional information, see Note 3 - Going Concern Uncertainty - of the notes to the unaudited interim condensed consolidated financial statements.

Servicing our debt requires a significant amount of cash, and we may not have sufficient cash flow from our business to pay amounts due under our indebtedness.

As of March 31, 2017 , our total consolidated indebtedness was $173.0 million . Of our $173.0 million of indebtedness, none is currently secured. As of March 31, 2017 , we had a cash and marketable securities balance of $44.8 million . The 2019 Notes mature on October 1, 2019 and the 2018 Notes mature on February 1, 2018. We also may be required to provide a corporate guarantee with respect to the portion of the JV BNDES loan that, when added to our bank guarantee, does not exceed our percentage ownership in the SB Oils JV.

The next interest payment on our 2019 Notes of approximately $3.5 million was due April 3, 2017. We decided not to pay the interest payment on April 3, 2017 and, as provided for in the 2019 Indenture, by and between the Company and Wells Fargo Bank, National Association, as trustee (including its successor or assign as trustee under the Indenture, the Trustee) that governs the 2019 Notes, commenced a 30-day grace period to make such payment. We did not make such interest payment on May 3, 2017, which was the last day of such 30-day grace period. Our failure to pay this interest payment on May 3, 2017 results in an event of default under the 2019 Indenture governing the 2019 Notes. While the event of default is continuing under the 2019 Indenture, the Trustee or holders of at least 25% in aggregate principal amount of the 2019 Notes may, among other things, accelerate 100% of the principal of, and accrued and unpaid interest on, the 2019 Notes to be due and payable immediately upon such acceleration and seek immediate repayment in full of such amounts. However, on May 3, 2017, we entered into a Forbearance Agreement with Consenting Holders. With the support of the Consenting Holders, we are engaged in a process to sell all, substantially all, or a portion of the company by or before the conclusion of the Forbearance Period. We are also concurrently in negotiations with our noteholders to restructure or equitize their debt if the sales process is not ultimately successful on this time frame. The terms of the Forbearance Agreement are described in Note 17 in the accompanying notes to our unaudited interim condensed consolidated financial statements.

Pursuant to the Forbearance Agreement, each Consenting Holder has agreed that, during the “Forbearance Period” (as defined below) and subject to certain termination events, it will not, among other things, (i) take any action, enforce any of its rights or remedies or accelerate the obligations under the 2019 Indenture, the 2019 Notes or otherwise, or (ii) direct the Trustee to take any action, enforce any rights or remedies or accelerate the obligations under the 2019 Indenture, the 2019 Notes or otherwise, against us, our affiliates or, in each case, any assets thereof, in each case solely with respect to our failure to make the interest payment due on April 3, 2017 on the 2019 Notes. As defined in the Forbearance Agreement, the “Forbearance Period” ends on the earlier of June 28, 2017 and the occurrence of any of the specified early termination events described therein. If we fail to comply with the terms of the Forbearance Agreement and/or fail, among other things, to meet the deliverables specified therein in the applicable time frame, the Forbearance Period will terminate and the Consenting Holders may, or may direct the Trustee to, accelerate 100% of the principal of, and accrued and unpaid interest on, the 2019 Notes to be due and payable immediately upon such acceleration and seek immediate repayment in full of such amounts. We could be forced to seek bankruptcy protection to restructure our business and capital structure, in which case we could be forced to liquidate our assets at potentially depressed valuations and may receive less than the value at which those assets are carried on our financial statements. There can be no assurance that we will be successful in negotiating a transaction or sale of the company on terms that are favorable and the holders of our equity securities may receive little or no payment or value in respect of their investment in the company.

We have generated limited revenues from the sale of our products, and our business may fail if we are not able to successfully commercialize these products.

We have had only limited product revenues to date, with historic positive gross margins principally derived from the commercial sale of skin and personal care products through our Algenist business, which we sold to a third party in August 2016, and negative gross margins on certain other commercial product sales. Sales of our ingredients and other products have not historically generated positive gross margins. If we are not successful in replacing sales of Algenist products with sales of our other products at acceptable prices, further advancing our existing commercial arrangements with strategic partners, developing new arrangements, ramping up or otherwise increasing manufacturing capacity at the SB Oils production facility and securing reliable access to sufficient volumes of low-cost feedstock, we will be unable to generate meaningful revenues from our products. We are subject to the substantial risk of failure facing businesses seeking to develop products based on a new technology.

Certain factors that could, alone or in combination, prevent us from successfully commercializing our products include:

- our ability to secure reliable access to sufficient volumes of low-cost feedstock;
- our ability to achieve commercial-scale production of our products on a cost-effective basis and in a timely manner;
- our ability to generate sufficient cash flows to fund our operations and continue as a going concern;

- our ability to secure consistent and reliable supplies of power and steam for production facilities;
- technical or operational challenges with our manufacturing processes or with development, scaling up or ramping production of new products that we are not able to overcome;
- our ability to secure capacity for the manufacture of our products once operations at our Peoria production facility are suspended;
- our ability to consistently manufacture our products within specifications;
- our ability to establish and maintain successful relationships with development, feedstock, manufacturing and commercialization partners;
- our ability to gain market acceptance of our products with customers and maintain customer relationships;
- our ability to sell our products at an acceptable price;
- our ability to manage our growth;
- our ability to meet applicable regulatory requirements for the production, distribution and sale of our products and to comply with applicable laws and regulations;
- actions of direct and indirect competitors that may seek to enter the markets in which we expect to compete or that may seek to impose barriers to one or more markets that we intend to target; and
- public concerns about the ethical, legal, environmental and social ramifications of the use of targeted recombinant technology, land use and the potential diversion of resources from food production.

The production of our microalgae-based products requires fermentable feedstock. The inability to obtain feedstock in sufficient quantities or in a timely and cost-effective manner may limit our ability to produce our products.

A critical component of the production of our microalgae-based products is access to feedstock in sufficient quantities and at an acceptable price to enable commercial production and sale. Other than as described below, we currently purchase feedstock, such as sugarcane-based sucrose and corn-based dextrose, for the production of our products at prevailing market prices.

We do not have any long-term supply agreements or other guaranteed access to feedstock other than for the supply of feedstock to SB Oils by our partner, Bunge, pursuant to our joint venture arrangement that includes a feedstock supply agreement. As we scale our production, we anticipate that the production of our microalgae-based products will require large volumes of feedstock, and we may not be able to contract with feedstock producers to secure sufficient quantities of feedstock at reasonable costs or at all. For example, sugarcane-based sucrose for the SB Oils production facility in Moema, Brazil is being provided by Bunge. Sugar and corn are traded as commodities and are subject to price volatility. While we may seek to manage our exposure to fluctuations in the price of sugar and corn-based dextrose by entering into hedging transactions directly or through our joint venture arrangement, we may not be successful in doing so. If we cannot access feedstock in the quantities we need at acceptable prices, we may not be able to successfully commercialize our food ingredients, including aquaculture, nutrition, specialty personal care products and other products, and our business will suffer. If we do not succeed in entering into long-term supply contracts when necessary or successfully hedge against our exposure to fluctuations in the price of feedstock, our costs and profit margins may fluctuate from period to period as we will remain subject to prevailing market prices.

Although our plan is to enter into partnerships, such as the SB Oils JV, with feedstock providers to supply the feedstock necessary to produce our products, we cannot predict the future availability or price of such feedstock or be sure that our feedstock partners will be able to supply such feedstock in sufficient quantities or in a timely manner. The prices of feedstock depend on numerous factors outside of our or our partners' control, including weather conditions, government programs and regulations, changes in global demand, rising or falling commodities and equities markets, and availability of credit to producers. Crop yields and sugar content depend on weather conditions such as rainfall and temperature. Variable weather conditions have historically caused volatility in feedstock crop prices due to crop failures or reduced harvests. For example, excessive rainfall can adversely affect the supply of feedstock available for the production of our products by reducing the sucrose content of feedstock and limiting growers' ability to harvest. Crop disease and pestilence can also occur from time to time and can adversely affect feedstock crop growth, potentially rendering useless or unusable all or a substantial portion of affected harvests. The limited amount of time during which feedstock crops keep their sugar content after harvest poses a risk of spoilage. Also, the fact that many feedstock crops are not themselves traded commodities limits our ability to substitute supply in the event of such an occurrence. If our ability to obtain feedstock crops is adversely affected by these or other conditions, our ability to produce our products will be impaired, and our business will be adversely affected. In the near term we believe Brazilian sugarcane-based sucrose will be an important feedstock for us. Along with the risks described above, Brazilian sugarcane prices may also increase due to, among other things, changes in the criteria set by the Conselho dos Produtores de Cana, Açúcar e Álcool (Council of Sugarcane, Sugar and Ethanol Producers), known as Consecana. Consecana is an industry association of producers of sugarcane, sugar and ethanol that sets market terms and prices for general supply, lease and partnership agreements and may change such prices and terms from time to time. Moreover, Brazil has a developed industry for producing ethanol from sugarcane, and if we have manufacturing operations in Brazil that do not have a partner providing the sugarcane feedstock, such as Bunge as part of the SB Oils JV, we will need to compete for sugarcane feedstock with ethanol producers. Such changes and competition could result in higher sugarcane prices and/or a significant decrease in the volume of sugarcane available for the production of our products, which could adversely affect our business and results of operations.

We have entered into joint venture arrangements with Bunge to produce microalgae-based products in Brazil using Bunge's sugarcane feedstock, and if we are not able to successfully execute our strategy under these arrangements in a timely manner, or at all, our business will be adversely affected.

SB Oils produces microalgae-based products in Brazil using our proprietary technology and sugarcane feedstock provided by Bunge. SB Oils' production facility is located adjacent to a sugarcane processing mill in Brazil that is owned by Bunge. SB Oils purchased the facility site from Bunge. The purchase of any additional land by SB Oils would be complex, subject to multiple approvals from governmental authorities and take time to complete. The construction of SB Oils' production facility began in June 2012, and the first commercial product from the SB Oils production facility was produced in the second quarter of 2014. Manufacturing operations and processes continue to be optimized as the facility is ramped up. In addition, we have entered into a series of research and development agreements with Bunge and with SB Oils to, among other things, develop additional products for SB Oils. The current funded projects extend through December 2018.

Due to the termination of certain contracts relating to third party manufacturing facilities in the United States and the planned suspension of operations at our Peoria production facility, some customers that previously had received our products from such facilities may need to qualify products that are now to be produced at the SB Oils production facility. A failure by the products manufactured at the SB Oils production facility to qualify or otherwise meet the requirements of our customers would adversely affect our business.

Our pursuit of new product opportunities may not be technologically feasible or cost effective, which would limit our ability to expand our product line and sources of revenues.

We have committed, and intend to continue to commit, substantial resources, alone or with collaboration partners, to the development and analysis of new oils and other microalgae-based products by applying classical and recombinant technology to our microalgae strains. There is no guarantee that we will be successful in creating new oil profiles, or other microalgae-based products, that we, our customers, our partners or their customers desire. There are significant technological hurdles in successfully applying recombinant and other technology to microalgae, and if we are unsuccessful at developing microalgae strains that produce desirable oils and other microalgae-based products, the number and size of the markets we will be able to address will be limited, our expected profit margins could be reduced and the potential profitability of our business could be compromised.

The successful development of our business depends on our ability to efficiently and cost-effectively produce microalgae-based products at large commercial scale.

Two of the significant drivers of our production costs are the level of productivity and conversion yield of our microalgae strains. For example, with respect to oil, productivity is principally a function of the amount of oil that can be obtained from a given volume over a particular time period. Conversion yield refers to the amount of the desired oil that can be produced from a fixed amount of feedstock. We may not be able to meet our currently expected production cost profile as we ramp up large commercial manufacturing facilities. If we cannot do so, our business could be materially and adversely affected.

Production of both current and future oils and other microalgae-based products will require that our technology and processes be scalable from laboratory, pilot and demonstration projects to large commercial-scale production. We have limited experience constructing, ramping up or managing large, commercial-scale manufacturing facilities. We may not have identified all of the factors that could affect our manufacturing processes. Our technology may not perform as expected when applied at large commercial scale, or we may encounter operational challenges for which we are unable to identify a workable solution. For example, contamination in the production process, equipment failure or accidents, problems with consistent and reliable plant utilities, human error, issues arising from process modifications to reduce costs and adjust product specifications, and other similar challenges could decrease process efficiency, create delays and increase our costs. To date we have employed our technology using fermenters with a capacity of up to approximately 625,000 liters. However, we still need to demonstrate that we can reach our target cost structure, including the achievement of target yields and productivities at approximately 625,000 liter scale in Brazil. We may not be able to scale up our production in a timely manner, on commercially reasonable terms, or at all. If we are unable to manufacture products at a large commercial scale, our ability to commercialize our technology will be adversely affected, and, with respect to any products that we do bring to market, we may not be able to achieve and maintain an acceptable production cost profile, which would adversely affect our ability to reach, maintain and increase the profitability of our business.

We rely in part on third parties for the production and processing of our products. If these parties do not produce and process our products at a satisfactory quality, in a timely manner, in sufficient quantities and at an acceptable cost, our development and commercialization efforts could be delayed or otherwise negatively impacted.

We do not wholly own facilities that can produce and process our products other than at small scale other than our Peoria production facility, where we plan to suspend operations. As such, we rely, and we expect to continue to rely, at least partially, on third parties (including partners and contract manufacturers) for the production and processing of our products. We currently have only one manufacturing arrangement for large-scale commercial fermentation: an agreement for the manufacture of certain products by SB Oils pursuant to a joint venture arrangement.

In addition, we have manufacturing agreements relating to other aspects of our production process. Our current and anticipated future dependence upon our partners and contract manufacturers for the production and processing of our products may adversely affect our ability to develop products on a timely and competitive basis. The failure of any of our counterparties, including SB Oils, to provide acceptable products at required volumes could delay the development and commercialization of our products or disrupt our operations or the operations of SB Oils. We or our partners will need to enter into additional agreements for the commercial development, manufacturing and sale of our products. There can be no assurance that we or our partners can do so on favorable terms, if at all. Even if we reach agreements with manufacturing partners to produce and process our products, initially the partners will be unfamiliar with our technology and production processes. We cannot be sure that the partners will have or develop the operational expertise needed to run the equipment and processes required to manufacture our products. Further, we may have limited control over the amount or timing of resources that any partner is able or willing to devote to production and processing of our products.

To date, our products have been produced and processed in quantities sufficient for our development work and initial commercial sales. Even if there is demand for our products at commercial scale, we or our partners may not be able to successfully increase the production capacity for any of our products in a timely or economic manner or at all. In addition, to the extent we are relying on contract manufacturers to produce and process our products, we cannot be sure that such contract manufacturers will have capacity available when we need their services, that they will be willing to dedicate a portion of their production and/or processing capacity to our products or that we will be able to reach acceptable price and other terms with them for the provision of their production and/or processing services. If we, our partners or our contract manufacturers are unable to increase the production capacity for a product when and as needed, the commercial launch of that product may be delayed, or there may be a shortage of supply, which could limit sales, cause us to lose customers and sales opportunities and impair the growth of our business.

In addition, if a production facility or the equipment in a production facility that produces and/or processes our products is significantly damaged, destroyed or otherwise becomes unavailable, we or our partners may be unable to replace the manufacturing capacity quickly or cost effectively. The inability to enter into manufacturing agreements, the damage or destruction of a production facility upon which we or our partners rely for manufacturing or any other delays in obtaining supply would delay or prevent us and/or our partners from further developing and commercializing our products.

We may experience significant delays and/or cost overruns in financing, designing, constructing and ramping up large commercial manufacturing facilities, which could result in harm to our business and prospects.

In order to meet our financial requirements for manufacturing facilities, we may have to raise additional funds and may be unable to do so in a timely manner, in sufficient amounts and on terms that are favorable to us, if at all. If we fail to raise sufficient funds, our ability to ramp up the SB Oils production facility or construct additional manufacturing facilities could be significantly limited. If this happens, we may be forced to delay the commercialization of our products and we will not be able to successfully execute our business plan, which would harm our business.

Manufacturing operations have begun at the SB Oils production facility adjacent to Bunge's Moema sugarcane mill in Brazil. The first products from the SB Oils production facility were produced in the second quarter of 2014, and manufacturing operations at this facility are in the process of being optimized and ramped up. We do not expect this facility to reach target nameplate capacity in the near term as SB Oils continues to optimize manufacturing operations and focuses production on high margin products, and additional capital expenditures may be required to reach nameplate capacity depending on the product mix produced at the SB Oils production facility. Under the joint venture agreements, Bunge has agreed to provide feedstock as well as utility services to the SB Oils production facility. The production facility has experienced, and may continue to experience, intermittent interruptions of supply of power and steam from Bunge. Bunge and SB Oils have completed a number of power and steam improvement projects, including the construction of an electrical grid tie-in and the tie-in and activation of a second steam boiler. SB Oils continues to evaluate the performance of these projects and may take additional actions in the future to further improve power and steam reliability, if necessary. Without consistent and reliable supplies of power and steam to the production facility, production yields will be lower, the ramp up and optimization of the SB Oils production facility will be delayed, our costs will increase and our business and results of operations will be adversely affected.

In February 2013, SB Oils entered into the JV BNDES Loan for project financing. Funds borrowed under the loan agreement have supported the production facility in Brazil, including a portion of the construction costs of the facility. In April 2016, the SVB SLOC was issued in favor of Itaú to support a bank guarantee issued to BNDES by Itaú on our behalf in connection with the JV BNDES Loan. The SVB SLOC is supported by the Facility, denominated in U.S. dollars or a foreign currency. The SVB SLOC is being supported by the Scotia Bank Confirmation on behalf of Silicon Valley Bank. On May 2, 2017 we entered into the Amended SVB Agreement. The Amended SVB Agreement, and related Bank Services Pledge Agreement, set up a restricted collateral account with SVB that will contain not less than 110% of the dollar equivalent of the face amount of all outstanding letters of credit under the Facility (Restricted Cash). The initial balance in the restricted collateral account is $12.2 million. The Amended SVB Agreement also provides that we will keep not less than $5 million in a separate account at SVB that will also be part of the collateral package but is not restricted cash. We are subject to customary negative covenants under the Amended SVB Agreement, including a covenant that places limitations on change in control transactions. The Amended SVB Agreement contains certain customary representations and warranties, affirmative covenants and provisions relating to events of default. If an event of default occurs and continues, SVB may declare all outstanding obligations under the Facility immediately due and payable, with all obligations being immediately due and payable without any action by SVB if we (i) fail to be solvent (as defined in the Amended SVB Agreement), or (ii) begin an insolvency proceeding or an insolvency proceeding is begun against us that is not dismissed or stayed within 45 days. If an event of default occurs and continues, SVB may also transfer into the restricted collateral account funds from the Designated Deposit Account such that the total balance in the restricted collateral account equals 125% of the dollar equivalent of the face amount of all outstanding letters of credit under the Facility. If a demand for payment is made under any letter of credit issued under the Facility the principal amount paid by SVB shall accrue interest at a floating per annum rate equal to 2.0% above the prime rate, which interest shall be payable on demand.

In addition to the bank guarantee, we may be required to provide a corporate guarantee of a portion of the JV BNDES Loan (in an amount that, when added to the amount supported by our bank guarantee, does not exceed our ownership percentage in the SB Oils JV). Negotiating the terms of the corporate guarantee documentation may take longer than anticipated and may contain terms that are not favorable to us. SB Oils may in the future seek additional financing and may not be able to raise sufficient additional funds on favorable terms, if at all. If SB Oils is unable to secure additional financing, we will be required to fund our portion of SB Oils' capital requirements either from existing sources or seek additional financing. SB Oils also purchased the facility site from Bunge. The purchase of any additional land by SB Oils would be complex, subject to multiple approvals of governmental authorities and take time to complete.

We may need to construct, or otherwise secure access to, and fund, additional capacity greater than what we currently have as we continue to commercialize our products. Some of our customers may ultimately require that we acquire access to additional production facilities in order to diversify our manufacturing base. In addition, we have limited experience in the management of manufacturing operations at large scale. We may not be successful in producing the amount and quality of oil or other microalgae-based products we anticipate in the production facilities and our results of operations may suffer as a result. We have limited experience producing our products at commercial scale, and we will not succeed if we cannot maintain or decrease our production costs and effectively scale our technology and manufacturing processes.

We face financial risk associated with ramping up production to reduce our per-unit production costs. To reduce per-unit production costs, we must increase production to achieve economies of scale. However, if we do not sell production output in a timely manner or in sufficient volumes at sufficient prices, our investment in production will harm our cash position and generate losses. Due to decreases in the prices of petroleum and certain plant oils, on which products competitive with our own depend, we have determined not to manufacture certain of our products because the production and sale of such products at a loss would adversely affect our business. Therefore, we expect the time required to ramp up the SB Oils production facility and to achieve positive cash flows at such facility will be more than we previously anticipated. Further delays would materially adversely affect our business.

Our transition to a food, including aquaculture, nutrition and specialty ingredients company may not go as planned.

In 2016, changed our name from Solazyme, Inc. to TerraVia Holdings, Inc. and sold Algenist, our skin care business, to a third party. We are focusing on the commercialization of food ingredients, consumer food brands, animal nutrition and specialty personal care ingredients. In March 2017, we announced our plans to suspend operations at our Peoria production facility and look for strategic opportunities to partner our AlgaVia® line of products, as well as our Thrive® consumer oil business. We may not succeed in finding strategic alternatives that we believe appropriately value these businesses. We and our management may spend more resources than anticipated in evaluating strategic alternatives or continuing these businesses, which could negatively impact our overall business. Moreover, the minority interest we have in the Algenist business, which may not be successful, may lose some or all of its value.

If we fail to maintain and successfully manage our existing, or enter into new, strategic collaborations, we may not be able to develop and commercialize many of our products and achieve or sustain profitability.

Our ability to enter into, maintain and manage collaborations in our target markets is important to the success of our business. We currently have joint venture, research and development, supply and/or distribution agreements with various strategic partners. We currently rely on our partners, in part, for manufacturing, sales and marketing services and intend to continue to do so for the foreseeable future, and we intend to enter into other strategic collaborations to produce, market and sell other products we develop. However, we may not be successful in entering into collaborative arrangements with third parties for the production, sale and marketing of other products. Any failure to enter into collaborative arrangements on favorable terms could delay or hinder our ability to develop and commercialize our products and could increase our costs of development and commercialization.

In the food, animal nutrition and chemicals markets, we have entered into a joint venture arrangement with Bunge that is focused on the manufacture of products in Brazil and development agreements with various other partners. In addition, we have entered into a commercial supply agreement with Unilever for specialty personal care ingredients and SB Oils has entered into a commercial supply agreement with BioMar for use of AlgaPrime™ DHA in aquaculture. There can be no guarantee that we can successfully manage these strategic collaborations. Moreover, the exclusivity provisions of certain strategic arrangements limit our ability to commercialize our products outside of these arrangements.

Pursuant to the agreements described above and similar arrangements that we may enter into in the future, we may have limited or no control over the amount or timing of resources that any partner is able or willing to devote to our products or collaborative efforts. Any of our partners may fail to perform their obligations as expected. These partners may breach or terminate their agreements with us or otherwise fail to conduct their collaborative activities successfully and in a timely manner. Further, our partners may not develop products arising out of our arrangements or devote sufficient resources to the development, manufacture, marketing, or sale of our products. Dependence on collaborative arrangements will also subject us to other risks, including:

- we may be required to relinquish important rights, including intellectual property, marketing and distribution rights;
- we may disagree with our partners as to rights to intellectual property we develop, or their research programs or commercialization activities;
- we may have lower revenues than if we were to market and distribute such products ourselves;
- a partner could separately develop and market a competing product either independently or in collaboration with others, including our competitors;
- a partner could divest assets that are critical to our or our joint venture's operations to a third party that is less willing to cooperate with us or is less incentivized or able to manage such assets in a way that helps us achieve our operational and financial goals;

- our partners could become unable or less willing to expend their resources on research and development, commercialization efforts or the maintenance or supply of production services due to general market conditions, their financial condition or other circumstances beyond our control;
- we may be unable to manage multiple simultaneous partnerships or collaborations; and
- our partners may operate in countries where their operations could be adversely affected by changes in the local regulatory environment or by political unrest.

Moreover, disagreements with a partner or former partner could develop, and any conflict with a partner or former partner could reduce our ability to enter into future collaboration agreements and negatively impact our relationships with one or more existing partners. If any of these events occurs, or if we fail to maintain our agreements with our partners, we may not be able to commercialize our existing and potential products, grow our business or generate sufficient revenues to support our operations. In addition, disagreements with a partner or former partner could result in disputes or litigation. Formal dispute resolution and litigation can require substantial time and resources, and the resolution of disputes and litigation may result in settlements or judgments that have a materially adverse impact on our results of operations or our financial condition. We are currently engaged in legal proceedings with our former partner Roquette Frères, S.A. (Roquette). For additional information regarding the Roquette proceedings, see Note 13 - Commitments and Contingencies of the notes to the unaudited interim condensed consolidated financial statements.

Additionally, our business could be negatively impacted if any of our partners undergoes a change of control or were to otherwise assign the rights or obligations under any of our agreements to a competitor of ours or to a third party who is not willing to work with us on the same terms or commit the same resources as the current partner.

Our relationship with our strategic partner Bunge may not prove successful.

We have entered into a joint venture with Bunge that is focused on the production of certain microalgae-based products in Brazil. In connection with the establishment of SB Oils, we entered into a development agreement and other agreements with Bunge and SB Oils. Since originally establishing the SB Oils JV, we have expanded the products and fields in which the joint venture is operating.

Our ability to generate value from the SB Oils JV depends on, among other things, our ability to work cooperatively with Bunge and SB Oils for the commercialization of the products manufactured at the SB Oils production facility. We may not be able to do so. For example, under the joint venture agreements, Bunge has agreed to provide feedstock as well as utility services to the SB Oils production facility.

In addition, Bunge has announced that it is actively pursuing strategic alternatives for its Brazilian sugarcane business, which could involve the divestment, in whole or in part, of the assets of such business. While a new controlling entity would remain subject to the terms of the feedstock and utility supply agreements, that entity may be less willing to cooperate with us or SB Oils, which may adversely affect the development and commercialization of the products manufactured at the SB Oils production facility.

Moreover, in March 2017, the SB Oils JV's independent registered public accounting firm, Deloitte Touche Tohmatsu Auditores Independentes included a going concern uncertainty explanatory paragraph in its Independent Auditors' Report issued to the SB Oils JV. The SB Oils JV's business has not been generating sufficient cash flow from operations, and funds may not be available in an amount sufficient to enable it to pay its indebtedness, or to fund other liquidity needs, and it could utilize its available financial resources sooner than it currently expects. The SB Oils JV may not be able to raise sufficient additional funds on terms that are favorable to it, if at all. If the SB Oils JV fails to raise adequate funds and continues to incur losses, it will not be able to fund its operations or continue its business as a going concern.

We and Bunge each provide various administrative services to SB Oils, and Bunge also provides working capital to SB Oils through a revolving loan facility with a maturity date of April 2, 2017, which maturity date has been extended to May 3, 2017 by Bunge (taking into account waivers granted by Bunge to SB Oils). We are in discussions with Bunge to extend the maturity date of the revolving loan facility. If Bunge does not further extend the maturity date of the revolving loan facility or if the parties cannot come to an agreement on repayment of the revolving loan facility, SB Oils would need to find alternative sources of financing. SB Oils may not be able to obtain such financing on favorable terms, or at all, which may lead to increased equity investments in the SB Oils JV by us and Bunge, which we may not be able to fund. If we are unable to fund our financial obligations under the SB Oils JV arrangements, then SB Oils may not be able to continue as a going concern and this would have a material adverse effect on each of our and SB Oils' financial condition and results of operations. Furthermore, Bunge does not have previous experience working with our technology, and we cannot be sure that SB Oils will be successful in commercializing its products. In addition, there may be delays or cost overruns in connection with the ramp up and optimization of the SB Oils production facility. There may also be delays in our negotiation of the corporate guarantee in connection with the JV BNDES Loan. In addition, we will be required to maintain the required license, granted by the São Paulo State Environmental Department, to operate the SB Oils production facility. Any negative event with respect to these issues would delay the development and commercialization of the products manufactured at the SB Oils production facility. Furthermore, the agreements governing our partnership are complex and cover a range of future activities, and disputes may arise between us and Bunge that could delay the ramp up of the SB Oils production facility, the expansion of SB Oils' production capacity and/or the development and commercialization of the products manufactured at the SB Oils production facility or cause the dissolution of the SB Oils JV. In addition, on February 28, 2017, Bunge Limited filed its 2016 Annual Report on Form 10-K in which it reported equity investment impairment charges of $44 million in the fourth quarter of 2016 that included an impairment charge of Bunge's equity investment in the SB Oils JV. See Note 4 to our unaudited interim condensed consolidated financial statements for our analysis of our $44.9 million equity investment in the SB Oils JV.

Our joint venture with Roquette has been dissolved. We are currently in litigation with Roquette and we may have other disputes with Roquette related to the joint venture's business.

In 2010, we entered into a 50/50 joint venture with Roquette Frères, S.A. (Roquette). As part of this relationship, we and Roquette formed Solazyme Roquette Nutritionals, LLC (SRN) through which both we and Roquette agreed to pursue certain opportunities in microalgae-based products for the food, nutraceuticals and animal feed markets. In June 2013, we and Roquette agreed to dissolve SRN and in July 2013, SRN was dissolved. As a result of the dissolution, the joint venture and operating agreement between us and Roquette, and the license agreement, whereby we licensed to SRN certain of our intellectual property, automatically terminated.

We and Roquette engaged in an arbitration proceeding concerning the proper assignment of the intellectual property of SRN. In February 2015 the arbitration panel awarded all such intellectual property to us, and this award was confirmed by the U.S. District Court for the District of Delaware in December 2015 and this confirmation was upheld by the U.S. Court of Appeals for the Third Circuit in December 2016. In addition, Roquette commenced two separate actions in the U.S. District Court for the District of Delaware for declarations that, among other things, the arbitrators exceeded their authority by failing to render a timely arbitration award and as a result any orders or awards issued by the arbitrators are void. Summary judgment in these matters requested by Roquette was denied by the U.S. District Court for the District of Delaware in December 2015. We have counterclaimed for damages for misappropriation of trade secrets and breach of contract. In turn Roquette has counterclaimed that we have misused certain Roquette trade secrets. The proceedings are ongoing. See Note 13 - Commitments and Contingencies of the notes to the unaudited interim condensed consolidated financial statements for more information regarding our proceedings with Roquette. We cannot be sure that other disputes will not arise between us and Roquette related to the joint venture's business. Such disagreements and disputes are costly, time-consuming to resolve and distracting to our management.

Disputes regarding our intellectual property rights, and the rights of others (including Roquette) to manufacture and sell the products included in the SRN joint venture could delay or negatively impact our commercialization of products in the markets SRN was targeting. Any such disputes could be costly, time-consuming to resolve and distracting to our management. In addition, if our commercialization in these markets is delayed or unsuccessful, our financial results could be negatively impacted.

We cannot be sure that our products will meet necessary standards or be approved or accepted by customers in our target markets.

If we are unable to convince our potential customers or end users of our products that we are a reliable supplier, that our products are comparable or superior to the products that they currently use, or that the use of our products is otherwise beneficial to them, we will not be successful in entering our target markets and our business will be adversely affected.

In the food and nutrition market and in the animal nutrition market, our food ingredients and products will compete with oils and other food ingredients currently in use. Potential customers may not perceive a benefit to microalgae-based ingredients as compared to existing ingredients or may be otherwise unwilling to adopt their use. In addition, our branded food product is marketed directly to potential consumers, but we cannot be sure that consumers will continue to be attracted to our brand, be attracted to our new brands or products, or purchase our products on an ongoing basis. As a result, our branded products may not be successful, distribution partners may decide to discontinue marketing our products and our business will be adversely affected. If consumer packaged goods companies do not accept our food ingredients as ingredients for their finished products, or if end customers are unwilling to purchase finished products made using our products, we will not be successful in competing in the nutrition market and our business will be adversely affected. Customers in the nutrition market also may require lengthy and complex qualification procedures with respect to our products, our manufacturing capabilities, regulatory issues and other matters. Likewise, in the animal nutrition market, if customers are not willing to integrate our products into their animal nutrition products, our business will be adversely affected.

In the specialty personal care ingredients market, the potential customers for our or SB Oils' products are generally companies that have well-developed manufacturing processes and arrangements with suppliers for the components of their products and may resist changing these processes and components. These potential customers frequently impose lengthy and complex product qualification procedures on their suppliers, influenced by consumer preference, manufacturing considerations, supplier operating history, regulatory issues, product liability and other factors, many of which are unknown to, or not well understood by, us. Satisfying these processes may take many months or years.

We have entered into a limited number of binding, definitive commercial supply agreements. We also periodically enter into non-binding letters of intent with third parties regarding purchase of our products, but these agreements do not unconditionally obligate the other party to purchase any quantities of any products at this time. There can be no assurance that non-binding letters of intent will lead to unconditional definitive agreements to purchase our products.

We have limited experience in structuring arrangements with customers for the purchase of our microalgae-based products, and we may not be successful in this essential aspect of our business.

We expect that our customers will include large companies that sell food products, including aquaculture, nutrition products and specialty personal care products. Because we have only recently begun to commercialize ingredients for specialty personal care products and our own food and food ingredient products, including aquaculture, and are still in the process of developing products and ingredients for the food, aquaculture, nutrition and specialty personal care markets, we have limited experience operating in our customers' industries and interacting with the customers that we intend to target. Developing the necessary expertise may take longer than we expect and will require that we expand and improve our sales and marketing capability, which could be costly. These activities could delay our ability to capitalize on the opportunities that we believe our technology and products present, and may prevent us from successfully commercializing our products. Further, we ultimately aim to sell large amounts of our products, and this will require that we effectively negotiate and manage contracts for these purchase and sale relationships. The companies with which we aim to have arrangements are generally much larger than we are and have substantially longer operating histories and more experience in their industries than we have. As a result, we may not succeed in establishing relationships with these companies and, if we do, we may not be effective in negotiating or managing the terms of such relationships, which could adversely affect our future results of operations.

We may be subject to product liability claims and other claims of our customers, partners and third parties.

The design, development, production and sale of our products involve an inherent risk of product liability claims and the associated adverse publicity. Because some of our ultimate products in each of our target markets are used by consumers, and because use of those ultimate products may cause injury to those consumers and damage to property, we are subject to a risk of claims for such injuries and damages, claims from consumer packaged goods companies for the costs of removing finished products containing one or more of our ingredients from the market and costs to remove our branded food products from the market. In addition, we may be named directly in product liability suits relating to our products or third-party products integrating our products, even for defects resulting from errors of our partners, contract manufacturers or other third parties working with our products. These claims could be brought by various parties, including customers who are purchasing products directly from us or other users who purchase products from our customers or partners. We could also be named as co-parties in product liability suits that are brought against manufacturing partners that produce our products.

In addition, our customers, partners and third parties may bring suits against us alleging damages for the failure of our products to meet stated claims, specifications, warranties or other requirements. Any such suits, even if not successful, could be costly, disrupt the attention of our management and damage our negotiations with other partners and/or customers. Although we often seek to limit our product liability in our contracts, such limits may not be enforceable or may be subject to exceptions. Our current product liability and umbrella insurance for our business may be inadequate to cover all potential liability claims. Insurance coverage is expensive and may be difficult to obtain. Also, insurance coverage may not be available in the future on acceptable terms and may not be sufficient to cover potential claims. We cannot be sure that our contract manufacturers or manufacturing partners who produce our ultimate products will have adequate insurance coverage to cover against potential claims. If we experience a large insured loss, it may exceed our coverage limits, or our insurance carrier may decline to further cover us or may raise our insurance rates to unacceptable levels, any of which could impair our financial position and potentially cause us to go out of business.

We will face risks associated with our international business in developing countries and elsewhere.

For the foreseeable future, our business plan will likely subject us to risks associated with essential manufacturing, sales and operations in developing countries. We have limited experience to date manufacturing and selling internationally and such expansion will require us to make significant expenditures, including the hiring of local employees and establishing facilities, in advance of generating any revenue. The economies of many of the countries in which we or our joint venture, partners or customers operate or will operate have been characterized by frequent and occasionally extensive government intervention and unstable economic cycles.

In addition, in Brazil, where SB Oils is located, there are restrictions on the foreign ownership of land, which may affect SB Oils' ownership rights in the production facility site or in any additional land purchased.

International business operations are subject to local legal, political, regulatory and social requirements and economic conditions and our business, financial performance and prospects may be adversely affected by, among others, the following factors:

- political, economic, diplomatic or social instability;
- land reform movements;
- tariffs, export or import restrictions, restrictions on remittances abroad or repatriation of profits, duties or taxes that limit our ability to move our products out of these countries or interfere with the import of essential materials into these countries;
- inflation, changing interest rates and exchange controls;
- tax burden and policies;
- delays or failures in securing licenses, permits or other governmental approvals necessary to build and operate facilities and use our microalgae strains to produce products;
- the imposition of limitations on products or processes and the production or sale of those products or processes;
- uncertainties relating to foreign laws, including labor laws, regulations and restrictions, and legal proceedings;
- foreign ownership rules and changes in regard thereto;
- an inability, or reduced ability, to protect our intellectual property, including any effect of compulsory licensing imposed by government action;
- successful compliance with U.S. and foreign laws that regulate the conduct of business abroad, including the Foreign Corrupt Practices Act;
- insufficient investment in developing countries in public infrastructure, including transportation infrastructure, and disruption of transportation and logistics services; and
- difficulties and costs of staffing and managing foreign operations.

These and other factors could have a material adverse impact on our results of operations and financial condition.

Our international operations may expose us to the risk of fluctuation in currency exchange rates and rates of foreign inflation, which could adversely affect our results of operations.

We currently incur some costs and expenses in Brazilian Reals and expect in the future to incur additional expenses in these and other foreign currencies, and also derive a portion of our revenues in the local currencies of customers throughout the world. As a result, our revenues and results of operations are subject to foreign exchange fluctuations, which we may not be able to manage successfully. During the past few decades, the Brazilian currency in particular has faced frequent and substantial exchange rate fluctuations in relation to the U.S. dollar and other foreign currencies. For example, the value of the Brazilian Real has fluctuated significantly against the U.S. dollar over the past few years. There can be no assurance that the Real will not significantly appreciate or depreciate against the U.S. dollar in the future. We bear the risk that the rate of inflation in the foreign countries where we incur costs and expenses or the decline in value of the U.S. dollar compared to those foreign currencies will increase our costs as expressed in U.S. dollars. Future measures by foreign governments to control inflation, including interest rate adjustments, intervention in the foreign exchange market and changes to the fixed value of their currencies, may trigger increases in inflation. We may not be able to adjust the prices of our products to offset the effects of inflation on our cost structure, which could increase our costs and reduce our net operating margins. If we do not successfully manage these risks through hedging or other mechanisms, our revenues and results of operations could be adversely affected.

We may encounter difficulties managing our business as it evolves, and we will need to properly prioritize our efforts in our target markets as our business grows. If we are unable to do so, our business, financial condition and results of operations may be adversely affected.

Our business has encountered periods of rapid growth and evolution. Rapid growth or evolution places a strain on our human and capital resources. If we grow or evolve too rapidly or if our headcount or other aspects of our operating structure become misaligned with our strategy, we may need to reduce headcount or other operating costs. For example, in December 2014, as part of an adjustment to our operating and expense strategy related to the ramping up of SB Oils' production facility, we announced the intention to decrease operating expenses through a reduction in workforce and other cost-cutting measures. See the risk factor titled “We may experience significant delays and/or cost overruns in financing, designing, constructing and ramping up large commercial manufacturing facilities, which could result in harm to our business and prospects” above for more information. In addition, in January 2016, as part of our continuing strategy to focus operations on targeted, higher-value product categories, we streamlined operations by reducing our workforce and in March 2017, we announced a planned suspension of operations at our Peoria production facility as well as a further reduction of our workforce. Such reductions in workforce can have an adverse effect on our business.

Furthermore, we intend to conduct our business internationally and anticipate business operations in the United States, Europe, Latin America and elsewhere. These diversified, global operations place increased demands on our limited resources and may require us to expand the capabilities of our administrative and operational resources and will require us to attract, train, manage and retain qualified management, technicians, scientists and other personnel. As our operations shift or expand domestically and internationally, we will need to continue to manage multiple locations and additional relationships with various customers, partners, suppliers and other third parties across several product categories and markets.

In the past, our business has taken place across several target markets: food and nutrition, skin and personal care, fuels and chemicals, and oil field services. We will be required to prioritize our limited financial and managerial resources as we pursue particular development and commercialization efforts in our target markets of food, including aquaculture, nutrition and specialty personal care ingredients. Any resources we expend on one or more of these efforts could be at the expense of other potentially profitable opportunities. If we focus our efforts and resources on one or more of our target markets and they do not lead to commercially viable products, our revenues, financial condition and results of operations could be adversely affected. Furthermore, as our operations grow or evolve, the simultaneous management of development, production and commercialization across our target markets could become increasingly complex and may result in less than optimal allocation of management and other administrative resources, increase our operating expenses and harm our operating results.

Our ability to effectively manage our operations, growth and various projects across our target markets will require us to make additional investments in our infrastructure to continue to improve our operational, financial and management controls and our reporting systems and procedures and to attract and retain sufficient numbers of talented employees, which we may be unable to do effectively. We may be unable to successfully manage our expenses in the future, which may negatively impact our gross margins or operating margins in any particular quarter.

In addition, we may not be able to improve our management information and control systems, including our internal control over financial reporting, to a level necessary to manage our growth or evolution and we may discover deficiencies in existing systems and controls that we may not be able to remediate in an efficient or timely manner.

We are involved, and may become involved in the future, in legal proceedings that, if adversely adjudicated or settled, could adversely affect our financial results.

We, and certain of our officers and directors, are involved, and may be involved in the future, in legal proceedings and claims arising in the course of our business. Such matters are subject to many uncertainties and there can be no assurance that such legal proceedings will not have a material adverse effect on our business, results of operations, financial position or cash flows. See Note 13 - Commitments and Contingencies of the notes to the unaudited interim condensed consolidated financial statements of this report for a description of the material legal proceedings in which we are currently engaged.

We cannot predict the outcome of any legal proceeding in which we are engaged. Moreover, any conclusion of legal proceedings in a manner adverse to us could have an adverse effect on our financial condition and business. Even if we are successful in litigation, we could incur substantial costs, suffer a significant adverse impact on our reputation and divert management’s attention and resources from other priorities, including the execution of business plans and strategies that are important to our ability to grow our business, any of which could have an adverse effect on our business. Legal proceedings may result in significant legal expenses, settlement costs or damage awards that are not covered by, or exceed the limits of, our liability insurance, which could adversely impact our financial condition, results of operations or cash flow.

Our success depends in part on recruiting and retaining key personnel and, if we fail to do so, it may be more difficult for us to execute our business strategy.

Our success depends on our continued ability to attract, retain and motivate highly qualified management, business development, manufacturing and scientific personnel and directors, and on our ability to develop and maintain important relationships with leading academic institutions and scientists. We are dependent upon a number of key members of our senior management, including executive, manufacturing, business development and scientific personnel, and on our directors. If any of such persons left, our business could be harmed. All of our employees and directors are at-will and may resign at any time. The loss of the services of one or more of our key employees or directors could delay or have an impact on the successful commercialization of our products. We do not maintain any key man insurance. Competition for qualified personnel in the biotechnology field is intense, particularly in the San Francisco Bay Area. We may not be able to attract and retain qualified personnel on acceptable terms given the competition for such personnel. In addition, the restructurings that we implemented in December 2014, January 2016 and March 2017 could have an adverse impact on our ability to retain and recruit qualified personnel. If we are unsuccessful in our recruitment efforts, we may be unable to execute our strategy.

We may not be able to meet applicable regulatory requirements for the sale of our microalgae-based products and the operation of production facilities, and, even if requirements are met, complying on an ongoing basis with the numerous regulatory requirements applicable to our various product categories and facilities will be time-consuming and costly.

Our food and nutrition products are subject to regulation by various government agencies, including the U.S. Food and Drug Administration (FDA), state and local agencies and similar agencies outside the United States. In the U.S., food ingredients are regulated either as food additives or as substances generally recognized as safe, or GRAS. A GRAS self-determination can be made with respect to a substance by its manufacturer upon the receipt of an opinion from a panel of qualified experts who determine that the substance is GRAS for its intended conditions of use. A GRAS Notice for one algae oil was submitted to the FDA in June 2011, and a “no questions” letter was received from the FDA in June 2012. A GRAS Notice for each of whole algae flour and whole algae protein was submitted to the FDA, and a “no questions” letter was received from the FDA in 2013 for whole algae flour, in 2014 for whole algae protein and in 2015 for our second algae oil, an oleic algae oil. If the FDA were to disagree with the conclusions in future GRAS Notices, they could ask that the products be voluntarily withdrawn from the market or could initiate legal action to halt their sale. Such actions by the FDA could have an adverse effect on our business, financial condition, and results of our operations. Food ingredients that are not GRAS are regulated as food additives and require FDA approval prior to commercialization. The food additive petition process is generally expensive and time consuming with approval, if secured, taking years. In Brazil, we submitted applications to the Brazilian Health Surveillance Agency (ANVISA) for approval of various food products. We received food approval with no restrictions for our whole algae flour in July 2015. In Canada, we received a Letter of No Objection for whole algae flour in February 2016 and for whole algae protein in December 2016. Other products may or may not be approved in the future. Any significant delay or disapproval of our food products by ANVISA, Health Canada or other government agencies in these or other countries would adversely affect our food and nutrition business in these and other countries.

The sale of ingredients for use in animal feed is regulated by agencies including the FDA's Center for Veterinary Medicine. Regulatory requirements for suitability must be met by providing data from studies, which may cause delays and the incursion of additional costs. Any significant delay or disapproval by government agencies of our animal nutrition products would have an adverse effect on our business.

Our chemical products may be subject to government regulation in our target markets. In the United States, the EPA administers the Toxic Substances Control Act (TSCA), which regulates the commercial registration, distribution, and use of chemicals. TSCA requires us to comply with the Microbial Commercial Activity Notice (MCAN) process to manufacture and distribute products made from our recombinant microalgae strains. An MCAN is not required for non-recombinant strains. To date, we have filed MCANs for certain of our recombinant microalgae strains, all of which have been dropped from review. Our subsequent filing of Notices of Commencement (NOC) relating to previously filed MCANs allows us to commercially use these strains. We expect to file additional MCANs in the future.

Before we can manufacture or distribute significant volumes of a chemical, we need to determine whether that chemical is listed in the TSCA inventory. If the substance is listed, then manufacture or distribution can commence immediately. If not, then a pre-manufacture notice (PMN) must be filed with the EPA for a review period of up to 90 days excluding extensions. We have filed PMNs for certain of our products and expect to file additional PMNs in the future. Some of the products we produce or plan to produce are already on the TSCA inventory due to our successful PMN submissions and filed NOCs. Others are not yet listed. We may not be able to expediently receive approval from the EPA to list the chemicals we would like to make on the TSCA inventory, resulting in delays or significant increases in testing requirements. A similar program exists in the European Union, called REACH (Registration, Evaluation, Authorization, and Restriction of Chemical Substances). We are required to register some of our products with the European Commission, and this process could cause delays or significant costs. We have determined that some of our algae oils are exempt from REACH registration requirements. To the extent that other geographies, such as Brazil, may rely on the TSCA or REACH for chemical registration in their geographies, delays with the U.S. or European authorities may subsequently delay entry into these markets as well. Furthermore, other geographies may have their own chemical inventory requirements, which may delay entry into these markets, irrespective of U.S. or European approval.

Changes in regulatory requirements, laws and policies, or evolving interpretations of existing regulatory requirements, laws and policies, may result in increased compliance costs, delays, capital expenditures and other financial obligations that could adversely affect our business or financial results.

We expect to encounter regulations in most if not all of the countries in which we may seek to sell our products, and we cannot be sure that we will be able to obtain necessary approvals in a timely manner or at all. If our products do not meet applicable regulatory requirements in a particular country or at all, then we may not be able to commercialize them and our business will be adversely affected. The various regulatory schemes applicable to our products will continue to apply following initial approval for sale. Monitoring regulatory changes and ensuring our ongoing compliance with applicable requirements is time-consuming and may affect our results of operations. If we fail to comply with such requirements on an ongoing basis, we may be subject to fines or other penalties, or may be prevented from selling our products, and our business may be harmed.

The construction and operation of our, our partners’ or our joint venture's production facilities are likely to require government approvals. If we are not able to obtain or maintain the necessary approvals in a timely manner or at all, our business will be adversely affected. In February 2014, the São Paulo State Environmental Department granted a license to operate the SB Oils production facility, which was necessary to begin commercial production.

We may incur significant costs complying with environmental, health and safety laws and regulations, and failure to comply with these laws and regulations could expose us to significant liabilities.

We use hazardous chemicals and radioactive and biological materials in our business and are subject to a variety of federal, state, local and international laws and regulations governing, among other matters, the use, generation, manufacture, transportation, storage, handling, disposal of, and human exposure to, these materials both in the U.S. and outside the U.S., including regulation by governmental regulatory agencies, such as the Occupational Safety and Health Administration and the EPA. We have incurred, and will continue to incur, capital and operating expenditures and other costs in the ordinary course of our business in complying with these laws and regulations.

Although we have implemented safety procedures for handling and disposing of these materials and waste products in an effort to comply with these laws and regulations, we cannot be sure that our safety measures will be compliant or capable of eliminating the risk of injury or contamination from the generation, manufacturing, use, storage, transportation, handling, disposal of, and human exposure to, hazardous materials. Failure to comply with environmental, health and safety laws could subject us to liability and resulting damages. There can be no assurance that violations of environmental, health and safety laws will not occur as a result of human error, accident, equipment failure or other causes. Compliance with applicable environmental laws and regulations may be expensive, and the failure to comply with past, present, or future laws could result in the imposition of fines, regulatory oversight costs, third party property damage, product liability and personal injury claims, investigation and remediation costs, the suspension of production, or a cessation of operations, and our liability may exceed our total assets. Liability under environmental laws, such as the Comprehensive Environmental Response Compensation and Liability Act in the United States, can impose liability for the full amount of damages, without regard to comparative fault for the investigation and cleanup of contamination and impacts to human health and for damages to natural resources. Contamination at properties we own and operate, and at properties to which we send hazardous materials, may result in liability for us under environmental laws and regulations.

Our business and operations will be affected by other new environmental, health and safety laws and regulations, which may affect our research and development and manufacturing programs, and environmental laws could become more stringent over time, requiring us to change our operations, or resulting in greater compliance costs and increasing risks and penalties associated with violations, which could impair our research, development or production efforts and harm our business. The costs of complying with environmental, health and safety laws and regulations, and any claims concerning noncompliance or liability with respect to contamination in the future, could have a material adverse effect on our financial condition or operating results.

We may face risks relating to the use of our targeted recombinant microalgae strains, and if we are not able to meet applicable regulatory requirements for the use of these strains or if we face material ethical, legal and social concerns about our use of targeted recombinant technology, our business could be adversely affected.

The use of microorganisms designed using targeted recombinant technology, such as some of our microalgae strains, is subject to laws and regulations in many states and countries, some of which are new and still evolving and interpreted by fact specific application. In the U.S. the EPA regulates the commercial use of microorganisms designed using targeted recombinant technology as well as potential products derived from them.

We expect to encounter regulations of microorganisms designed using targeted recombinant technology in most if not all of the countries in which we may seek to establish manufacturing operations, and the scope and nature of these regulations will likely be different from country to country. For example, in the U.S., when used in an industrial process, our microalgae strains designed using targeted recombinant technology may be considered new chemicals under the TSCA, administered by the EPA. We will be required to comply with the EPA's process. In Brazil, microorganisms designed using targeted recombinant technology are regulated by the National Biosafety Technical Commission, or CTNBio. In March 2013, we submitted an application for approval from CTNBio to use a specific microalgae strain designed using targeted recombinant technology in a contained environment in order to use these microalgae for research and development and commercial production purposes in any facilities we establish in Brazil. We obtained approval for this application from CTNBio in October 2013, and we have since received several approvals related to additional applications we had submitted. In February 2014, CTNBio granted a CQB (Certificate of Quality in Biosafety) to the SB Oils production facility for activities including industrial production, import and export, disposal and storage of our key production organisms. If we cannot meet the applicable requirements in countries in which we intend to produce microalgae-based products, or if it takes longer than anticipated to obtain such approvals, our business could be adversely affected.

The subject of organisms designed using targeted recombinant technology has received negative publicity, which has aroused public debate. Public attitudes about the safety and environmental hazards of, and ethical concerns over, genetic research and microorganisms designed using targeted recombinant technology could influence public acceptance of our technology and products. In addition, shifting public attitudes regarding, and potential changes to laws governing, ownership of genetic material could harm our intellectual property rights with respect to our genetic material and discourage collaborators from supporting, developing, or commercializing our products, processes and technologies. Governmental reaction to negative publicity concerning organisms designed using targeted recombinant technology could result in greater government regulation of or trade restrictions on imports of genetic research and derivative products. If we and/or our collaborators are not able to overcome the ethical, legal, and social concerns relating to the use of targeted recombinant technology, our products and processes may not be accepted or we could face increased expenses, delays or other impediments to their commercialization.

We expect to face competition for our food and nutrition, animal nutrition and specialty personal care ingredients and products from other companies in these fields, many of whom have greater resources and experience than we do. If we cannot compete effectively against these companies or their products, we may not be successful in selling our ingredients or products or further growing our business.

We expect that our food, nutrition, animal nutrition and specialty personal care ingredients and products will compete with providers in the specialty, mass food ingredient and animal nutrition markets. Many of these companies, such as Cargill, Incorporated, Monsanto Company, Syngenta AG and Roquette Frères, S.A., are substantially larger than we are, have well-developed distribution systems and networks for their products, and valuable historical relationships with the potential customers and distributors we hope to serve and have substantially greater resources than we do. We may also compete with companies seeking to produce food, nutrition and animal nutrition products based on renewable oils, including DSM Food Specialties and DuPont Nutrition & Health. Our success in the development of food, nutrition and animal nutrition products will depend on our ability to effectively compete with established companies and successfully commercialize our products. We believe the primary competitive factors in the food, nutrition, animal nutrition and specialty personal care ingredient and product markets are product performance, cost-in-use, sustainability, and availability of supply.

We expect to face competition for our products in the specialty personal care market from providers of products based on petroleum, plant oils and animal fats and from other companies seeking to provide alternatives to these products, many of whom have greater resources and experience than we do. If we cannot compete effectively against these companies or products, our business could be harmed and certain of our strategic alternatives could be adversely impacted.

In the specialty personal care market, we will compete with the established providers of oils currently used in specialty personal care products. Producers of these incumbent products include global oil companies, including those selling agricultural products such as palm oil, palm kernel oil, shea butter, cacao butter, argan oil, almond oil and sunflower oil, large international personal care companies and other companies specializing in specific products or essential oils. We may also compete in one or more of these markets with manufacturers of other products such as highly refined mineral oils and other petroleum-based fluids, as well as new market entrants.

We believe the primary competitive factors in the specialty personal care market are product price, product performance, sustainability, availability of supply and compatibility of products with existing formulations.

Companies with whom we compete and expect to compete are much larger than we are, have, in most cases, well-developed distribution systems and networks for their products, have valuable historical relationships with the potential customers we are seeking to serve and have much more extensive sales and marketing programs in place to promote their products. Some of our competitors may use their influence to impede the development and acceptance of our products. Our limited resources relative to many of our competitors may cause us to fail to anticipate or respond adequately to new developments and other competitive pressures. In the nascent markets for renewable oils, it is difficult to predict which, if any, market entrants will be successful, and we may lose market share to competitors producing new or existing renewable products. If we are unsuccessful in competing in the specialty personal care market, our business could be harmed and certain of our strategic alternatives could be adversely impacted.

A decline in the price of petroleum and petroleum-based products, plant oils or other commodities may reduce demand for our products and may otherwise adversely affect our business.

We anticipate that many of our oils will be marketed as alternatives to corresponding products based on petroleum and plant oils. When the price of any of these oils falls, as they have recently, we may be unable to produce algae oils or other products that are cost-effective alternatives to their petroleum or plant oil-based counterparts. Declining oil prices, or the perception of a future decline in oil prices, may adversely affect the prices we can obtain from our potential customers or prevent potential customers from entering into agreements with us to buy our products. During sustained periods of lower oil prices we may be unable to sell our products, which could materially and adversely affect our operating results. For example, in part as a result of the recent drop in the prices of petroleum and certain plant oils, the ramp up of the SB Oils production facility in Brazil will be slower than, and the mix of products manufactured in that facility will be different from, what we previously anticipated as production will be focused primarily on higher margin products.

Prices of plant oils have experienced significant volatility, and this volatility is expected to persist. If prices for plant oils remain at low levels, there may be less demand for oil alternatives, which could reduce demand for our products and harm our business. The prices of commodities that serve as food ingredients have also been volatile. To the extent that the prices of these commodities decline and remain at lower levels for extended periods of time, the demand for our food, including aquaculture, nutrition and specialty personal care ingredients and products may be reduced, and our ability to successfully compete in this market may be harmed.

Our information technology systems, processes and sites may suffer a significant breach or disruption that may adversely affect our ability to conduct our business.

Our information technology systems, some of which are dependent on services provided by third parties, provide critical data and services for internal and external users, including procurement and inventory management, transaction processing, financial, commercial and operational data, human resources management, website management, legal and tax compliance information and other information and processes necessary to operate and manage our business. Our information technology and infrastructure may experience attacks by hackers, breaches or other failures or disruptions that could compromise our systems and the information stored there. A variety of methods may be used against us to obtain unauthorized access to our systems, disable or degrade service or induce employees, users, partners or customers to disclose sensitive information. While we have implemented security measures and disaster recovery plans designed to protect the security and continuity of our networks and critical systems, these measures may not provide absolute security and may not adequately prevent adverse events such as breaches or failures from occurring or mitigate their severity if they do occur. In addition, because the techniques used in these breaches or attacks change frequently and have become more sophisticated over time and often are not known until actually launched, we may be unable to anticipate the techniques used and thus may be unable to implement appropriate security measures. If our information technology systems are breached, damaged or fail to function properly due to any number of causes, such as security breaches or cyber-based attacks, systems implementation difficulties, catastrophic events or power outages, and our security, contingency or disaster recovery plans do not effectively mitigate these occurrences on a timely basis, we may experience a material disruption in our ability to manage our business operations, as well as possible damage to our market reputation and brand. We may also be subject to legal claims or proceedings, liability under laws that protect the privacy of personal information, potential regulatory penalties and damage to our reputation. The occurrence of any of these events may adversely affect our business, results of operations and financial condition, as well as our competitive position and may be expensive to remedy.

Our facilities in California are located near an earthquake fault, and an earthquake or other natural disaster or resource shortage could disrupt our operations.

Important documents and records, such as hard copies of our laboratory books and records for our products and some of our manufacturing operations, are located in our corporate headquarters in South San Francisco, California, near active earthquake zones. In the event of a natural disaster, such as an earthquake, drought or flood, or localized extended outages of critical utilities or transportation systems, we do not have a formal business continuity or disaster recovery plan, and could therefore experience a significant business interruption. In addition, California from time to time has experienced shortages of water, electric power and natural gas. Future shortages and conservation measures could disrupt our operations and could result in additional expense. Although we maintain business interruption insurance coverage, we do not maintain earthquake or flood coverage.

Risks Related to Our Intellectual Property

Our competitive position depends on our ability to effectively obtain and enforce patents related to our products, manufacturing components and manufacturing processes. If we or our licensors fail to adequately protect this intellectual property, our ability and/or our partners' ability to commercialize products could suffer.

Our success depends in part on our ability to obtain and maintain patent protection sufficient to prevent others from utilizing our manufacturing components, manufacturing processes or marketing our products, as well as to successfully defend and enforce our patents against infringement by others. In order to protect our products, manufacturing components and manufacturing processes from unauthorized use by third parties, we must hold patent rights that cover our products, manufacturing components and manufacturing processes.

The patent position of biotechnology and bio-industrial companies can be highly uncertain because obtaining and determining the scope of patent rights involves complex legal and factual questions. The standards applied by the U.S. Patent and Trademark Office and foreign patent offices in granting patents are different and not always applied uniformly or predictably. There is no uniform worldwide policy regarding patentable subject matter, the scope of claims allowable in biotechnology and bio-industrial patents, or the formal requirements to obtain such patents. Consequently, patents may not issue from our pending patent applications. Furthermore, in the process of seeking patent protection or even after a patent is granted, we could become subject to expensive and protracted proceedings, including patent interference, opposition, post-grant review and re-examination proceedings, which could invalidate or narrow the scope of our patent rights. As such, we do not know nor can we predict the scope and/or breadth of patent protection that we might obtain on our products and technology.

Changes in patent laws, whether new or related to the America Invents Act, or in interpretations of patent laws in the United States and other countries may diminish the value of our intellectual property rights or may affect our ability to obtain, defend or enforce our intellectual property. In the U.S., depending on the decisions and actions taken by the U.S. Congress, the federal courts, and the U.S. Patent and Trademark Office, the laws and regulations governing patents could change in unpredictable ways that could weaken our ability to obtain new patents or to enforce our existing patents and patents that we might obtain in the future. In foreign jurisdictions, depending on the decisions and actions taken by the foreign government, the judicial system of the jurisdiction, and its patent office, the laws and regulations governing patents could change in unpredictable ways that could weaken our ability to obtain new patents or to enforce our existing patents or patents that we might obtain in the future. Changes to patent law may increase the costs of prosecution and enforcement of U.S. patents and our ability to obtain, defend or enforce our patents. Such changes could have an adverse impact on the operation of our business and may favor companies able to dedicate more resources to patent filings and challenges.

Risks associated with enforcing our intellectual property rights in the United States and elsewhere.

If we were to initiate legal proceedings against a third party to enforce a patent claiming one of our technologies, the defendant could counterclaim that our patent is invalid and/or unenforceable or assert that the patent does not cover its manufacturing processes, manufacturing components or products. Proving patent infringement may be difficult, especially where it is possible to manufacture a product by multiple processes or when a patented process is performed by multiple parties. Patent litigation is also costly, time-consuming and distracting to our management. Furthermore, in patent litigation in the United States or elsewhere, defendant counterclaims alleging both invalidity and unenforceability are commonplace. Although we believe that we have conducted our patent prosecution in accordance with the duty of candor and in good faith, the outcome following legal assertions of invalidity and unenforceability during patent litigation is unpredictable. With respect to the validity of our patent rights, we cannot be certain, for example, that there is no invalidating prior art, of which we and the patent examiner were unaware during prosecution. If a defendant were to prevail on a legal assertion of invalidity and/or unenforceability, we would not be able to exclude others from practicing the inventions claimed therein. Such a loss of patent protection could have a material adverse effect on our business. Defendant counterclaims of antitrust or other anti-competitive conduct are also commonplace.

Even if our patent rights are found to be valid and enforceable, patent claims that survive litigation may not cover commercially viable products or prevent competitors from importing or marketing products similar to our own, or using manufacturing processes or manufacturing components similar to our own.

Although we believe we have obtained valid assignments of patent rights from all inventors, if an inventor did not adequately assign their patent rights to us, a third party could obtain a license to the patent from such inventor. This could preclude us from enforcing the patent against such third party.

We may not be able to enforce our intellectual property rights throughout the world.

The laws of some foreign countries where we intend to produce and use our proprietary strains in collaboration with sugar mills or other feedstock suppliers do not protect intellectual property rights to the same extent as the laws of the United States. Many companies have encountered significant problems in protecting and defending intellectual property rights in certain foreign jurisdictions. The legal systems of certain countries, including Brazil, do not favor the enforcement of patents and other intellectual property protection, particularly those relating to biotechnology and/or bio-industrial technologies. This could make it difficult for us to stop the infringement of our patents or misappropriation of our intellectual property rights in these countries. Proceedings to enforce our patent rights in certain foreign jurisdictions are unpredictable and could result in substantial costs and divert our efforts and attention from other aspects of our business. Accordingly, our efforts to protect our intellectual property rights in such countries may be inadequate.

Third parties may misappropriate our proprietary strains, information, or trade secrets despite a contractual obligation not to do so.

Third parties (including joint venture, collaboration, development and feedstock partners and former partners, contract manufacturers, and other contractors and shipping agents) often have custody or control of our proprietary microbe strains. If our proprietary microbe strains were stolen, misappropriated or reverse engineered, they could be used by other parties who may be able to use our strains or reverse-engineered strains for their own commercial gain. It is difficult to prevent misappropriation or subsequent reverse engineering. In the event that our proprietary microbe strains are misappropriated, it could be difficult for us to challenge the misappropriation or prevent reverse engineering, especially in countries with limited legal and intellectual property protection.

Confidentiality agreements with employees and third parties may not prevent unauthorized disclosure of proprietary information and trade secrets.

In addition to patents, we rely on confidentiality agreements to protect our technical know-how and other proprietary information. Confidentiality agreements are used, for example, when we talk to potential strategic partners. In addition, each of our employees signed a confidentiality agreement upon joining our company. Nevertheless, there can be no guarantee that an employee or an outside party will not make an unauthorized disclosure or use of our proprietary confidential information. This might happen intentionally or inadvertently. It is possible that a competitor will make use of such information, and that our competitive position will be compromised, in spite of any legal action we might take against persons making such unauthorized disclosures.

We also keep as trade secrets certain technical and proprietary information where we do not believe patent protection is appropriate, desirable or obtainable. However, trade secrets are difficult to protect. Although we use reasonable efforts to protect our trade secrets, our employees, consultants, contractors, outside scientific collaborators, partners, former partners and other advisors may unintentionally or willfully disclose our trade secrets to competitors or otherwise use misappropriated trade secrets to compete with us. It can be expensive and time consuming to enforce a claim that a third party illegally obtained and is using our trade secrets. Furthermore, the outcome of such claims is unpredictable. In addition, courts outside the United States may be less willing to or may not protect trade secrets. Moreover, our competitors may independently design around our intellectual property or develop equivalent knowledge, methods and know-how without misappropriating or otherwise violating our trade secret rights. Where a third party independently designs around our intellectual property or develops equivalent knowledge, methods and know-how without misappropriating or otherwise violating our trade secret rights, they may be able to seek patent protection for such equivalent knowledge, methods and know-how. This could prohibit us from practicing our trade secrets.

Claims by patent holders that our products or manufacturing processes infringe their patent rights could result in costly litigation or could require substantial time and money to resolve, whether or not we are successful, and an unfavorable outcome in these proceedings could have a material adverse effect on our business.

Our ability to commercialize our technology depends on our ability to develop, manufacture, market and sell our products without infringing the proprietary rights of patent holders or their authorized agents. An issued patent does not guarantee us the right to practice or utilize the patented inventions or commercialize the patented product. Third parties may have blocking patents that may prevent us from commercializing our patented products and utilizing our patented manufacturing components and manufacturing processes. In the event that we are made aware of blocking third party patents, we cannot be sure that licenses to the blocking third-party patents would be available or obtainable on terms favorable to us or at all.

Numerous U.S. and foreign issued patents and pending patent applications, which are owned by third parties, relate to (1) the production of bio-industrial products, including edible ingredients, oils, chemicals and drilling fluids, and (2) the use of microalgae strains, such as microalgae strains containing genes to alter their oil composition. As such, there could be existing valid patents that our manufacturing processes, manufacturing components, or products may inadvertently infringe. There could also be existing invalid or unenforceable patents that could nevertheless be asserted against us and would require expenditure of resources to defend against. In addition, there are pending patent applications that are currently unpublished and therefore unknown to us that may later result in issued patents that are infringed by our products, manufacturing processes or other aspects of our business.

We may be exposed to future litigation based on claims that our products, manufacturing processes or manufacturing components infringe the intellectual property rights of others. There is inevitable uncertainty in any litigation, including patent litigation. Defending against claims of patent infringement is costly and time consuming, regardless of the outcome. Thus, even if we were to ultimately prevail, or to settle at an early stage of litigation, such litigation could burden us with substantial unanticipated costs. Some of our competitors are larger than we are and have substantially greater resources. These competitors are, therefore, likely to be able to sustain the costs of complex patent litigation longer than we could. In addition, the costs and uncertainty associated with patent litigation could have a material adverse effect on our ability to continue our internal research and development programs, in-license needed technology, or enter into strategic partnerships that would help us commercialize our technologies. In addition, litigation or threatened litigation could result in significant demands on the time and attention of our management team, distracting them from the pursuit of other company business.

If a party successfully asserts a patent or other intellectual property rights against us, we might be barred from using certain of our manufacturing processes or manufacturing components, or from developing and commercializing related products. Injunctions against using specified processes or components, or prohibitions against commercializing specified products, could be imposed by a court or by a settlement agreement between us and a third party. In addition, we may be required to pay substantial damage awards to the third party, including treble or enhanced damages if we are found to have willfully infringed the third party's intellectual property rights. We may also be required to obtain a license from the third party in order to continue manufacturing and/or marketing the products that were found to infringe. It is possible that the necessary license will not be available to us on commercially acceptable terms, or at all. This could limit our ability to competitively commercialize some or all of our products.

During the course of any patent litigation, there could be public announcements of the results of hearings, rulings on motions, and other interim proceedings in the litigation. If securities analysts or investors regard these announcements as negative, the perceived value of our products, technology or intellectual property could be diminished. Accordingly, the market price of our common stock may decline.

We have received government funding in connection with the development of certain of our proprietary technologies, which could negatively affect our intellectual property rights in such technologies.

Some of our proprietary technology was developed with U.S. federal government funding. When new technologies are developed with U.S. government funding, the government obtains certain rights in any resulting patents, including a nonexclusive license authorizing the government to use the invention for non-commercial purposes. These rights may permit the government to disclose our confidential information to third parties and to exercise "march-in" rights to use or allow third parties to use our patented technology. The government can exercise its march-in rights if it determines that action is necessary because we fail to achieve practical application of the U.S. government-funded technology, because action is necessary to alleviate health or safety needs, to meet requirements of federal regulations, or to give preference to U.S. industry. In addition, U.S. government-funded inventions must be reported to the government and U.S. government funding must be disclosed in any resulting patent applications. In addition, our rights in such inventions are subject to government license rights and foreign manufacturing restrictions. Any exercise by the government of such rights could harm our competitive position or impact our operating results.

In addition, some of our technology was funded by a grant from the State of California. Inventions funded by this grant may be subject to forfeiture if we do not seek to patent or practically apply them. Any such forfeiture could have a materially adverse effect on our business. For proprietary technology developed with funding from the State of California, certain confidential information may be disclosed to third parties by the State of California. Our rights in such inventions are subject to State of California license and march-in rights. Any exercise by the State of California of such rights could harm our competitive position or impact our operating results.

Risks Related to Our Finances and Capital Requirements

Our financial results could vary significantly from quarter to quarter and are difficult to predict.

Our revenues and results of operations could vary significantly from quarter to quarter because of a variety of factors, many of which are outside of our control. As a result, comparing our results of operations on a period-to-period basis may not be meaningful. Factors that could cause our quarterly results of operations to fluctuate include:

- achievement, or failure to achieve, technology or product development milestones needed to allow us to enter target markets on a cost effective basis;
- delays or greater than anticipated expenses or time associated with the completion of new manufacturing facilities and the ramp up to nameplate capacity and optimization of production following completion of a new manufacturing facility;
- delays or greater than anticipated expenses associated with the provision of key support and/or operational services to manufacturing facilities;
- our capital requirements or capital requirements of our joint ventures;
- our ability to effectively manage larger working capital positions as we increase commercial production and distribution of our products;
- disruptions in the production process at any facility where we produce our products, including due to equipment failure or accidents;
- the timing, size and mix of sales to customers for our products;
- increases in price or decreases in availability of feedstocks such as sucrose from sugarcane and/or dextrose from corn;
- fluctuations in the price of, and demand for, products based on petroleum or other oils for which our products are alternatives;
- the unavailability of contract manufacturing capacity altogether or at anticipated cost;
- fluctuations in foreign currency exchange rates;
- seasonal production and sale of our products;

- the effects of competitive pricing pressures, including decreases in average selling prices of our products;
- unanticipated expenses associated with changes in governmental regulations and environmental, health and safety requirements;
- reductions or changes to existing regulations and policies that impact the food (including aquaculture), nutrition or specialty personal care markets;
- departure of key employees;
- business interruptions, such as earthquakes and other natural disasters;
- our ability to integrate businesses that we may acquire;
- our ability to transition out of businesses that we may divest;
- risks associated with the international aspects of our business; and
- changes in general economic, industry and market conditions, both domestically and in foreign markets in which we operate.

Due to these factors and others the results of any quarterly or annual period may not meet our expectations or the expectations of our investors and may not be meaningful indications of our future performance.

We expect to require additional financing in the future and may not be able to obtain such financing on favorable terms, if at all, which could force us to delay, reduce or eliminate our research and development or commercialization activities.

To date, we have financed our operations primarily through our initial public offering, completed in June 2011, public and private placements of our equity and convertible debt securities, credit facilities, government grants and funding from strategic partners. In January 2013 we issued $125.0 million aggregate principal amount of convertible senior subordinated notes due 2018 (the 2018 Notes). The 2018 Notes bear interest at a rate of 6.00% per year, payable in cash semi-annually. In April 2014 we issued 5,750,000 shares of our common stock and $149.5 million aggregate principal amount of convertible senior subordinated notes due 2019 (the 2019 Notes). The 2019 Notes bear interest at a rate of 5.00% per year, payable in cash semi-annually. As of March 31, 2017 , approximately $32.5 million aggregate principal amount of the 2018 Notes was outstanding and approximately $140.5 million aggregate principal amount of the 2019 Notes was outstanding. In March 2016, we issued $27,850,000 aggregate principal amount of our Series A Convertible Preferred Stock. The terms of our Series A Convertible Preferred Stock are described in Note 14 in the accompanying notes to our unaudited interim condensed consolidated financial statements. In the second quarter of 2016, we entered into a loan and security agreement (SVB Agreement) with Silicon Valley Bank that provides for a $12.9 million letter of credit facility (the Facility) denominated in U.S. dollars or a foreign currency. The Facility supports the standby letter of credit issued on April 29, 2016 by SVB (SVB SLOC) in favor of Itaú Unibanco S.A. (Itaú) to support a bank guarantee issued by Itaú on our behalf to the Brazilian Development Bank (BNDES) in connection with the loan agreement entered into in 2013 between BNDES and SB Oils. The SVB SLOC is being supported by a bank confirmation issued by the Bank of Nova Scotia (the Scotia Bank Confirmation) on behalf of Silicon Valley Bank. On May 2, 2017 we amended and restated the SVB Agreement (Amended SVB Agreement). The Amended SVB Agreement, and related Bank Services Pledge Agreement, set up a restricted collateral account with SVB that will contain not less than 110% of the dollar equivalent of the face amount of all outstanding letters of credit under the Facility (Restricted Cash). The initial balance in the restricted collateral account is $12.2 million. The Amended SVB Agreement also provides that we will keep not less than $5 million in a separate account at Silicon Valley Bank that will also be part of the collateral package but is not restricted cash.

While we plan to enter into relationships with partners or collaborators for them to provide some portion or all of the capital needed to build production facilities, we may determine that it is more advantageous for us to provide some portion or all of the financing for new production facilities. Some of our previous funding has come from government grants; however, our future ability to obtain government grants is uncertain due to the competitive bid process and other factors.

In addition, we expect to continue to seek additional funds through public or private debt or equity financings to meet our capital requirements, including our portion of joint venture funding requirements. For example, if the SB Oils JV needs and is unable to secure additional financing, we will be required to fund our portion of the SB Oils JV's capital requirements from existing sources or seek additional financing. In addition, the working capital requirements of the SB Oils JV may increase as the SB Oils JV increases production due to an increase in inventory and the manufacture of out-of-specification product during the ramp-up of commercial production.

We may not be able to raise or obtain sufficient funds to continue as a going concern on terms that are favorable to us, if at all. If we fail to raise or obtain sufficient funds and continue to incur losses, our ability to fund our operations, take advantage of strategic opportunities, develop and commercialize products or technologies, or otherwise respond to competitive pressures could be significantly limited. If this happens, we may be forced to delay or terminate research and development programs or the commercialization of products resulting from our technologies, curtail or cease operations or obtain funds through collaborative and licensing arrangements that may require us to relinquish commercial rights, or grant licenses on terms that are not favorable to us. If adequate funds are not available, we will not be able to successfully execute our business plan or continue as a going concern.

Servicing our debt will require a significant amount of cash, and we may not have sufficient cash flow from our business to pay amounts due under our indebtedness.

As of March 31, 2017 , our total consolidated indebtedness was $173.0 million . Of our $173.0 million of indebtedness, none is currently secured. We also may be required to provide a corporate guarantee with respect to the portion of the JV BNDES loan that, when added to our bank guarantee, does not exceed our percentage ownership in the SB Oils JV.

The next interest payment on our 2019 Notes of approximately $3.5 million was due April 3, 2017. We decided not to pay the interest payment on April 3, 2017 and, as provided for in the 2019 Indenture, by and between the Company and Wells Fargo Bank, National Association, as trustee (including its successor or assign as trustee under the Indenture, the Trustee) that governs the 2019 Notes, commenced a 30-day grace period to make such payment. We did not make such interest payment on May 3, 2017, which was the last day of such 30-day grace period. Our failure to pay this interest payment on May 3, 2017 results in an event of default under the 2019 Indenture governing the 2019 Notes. While the event of default is continuing under the 2019 Indenture, the Trustee or holders of at least 25% in aggregate principal amount of the 2019 Notes may, among other things, accelerate 100% of the principal of, and accrued and unpaid interest on, the 2019 Notes to be due and payable immediately upon such acceleration and seek immediate repayment in full of such amounts. However, on May 3, 2017, we entered into a Forbearance Agreement with Consenting Holders. With the support of the Consenting Holders, we are engaged in a process to sell all, substantially all, or a portion of the company by or before the conclusion of the Forbearance Period. We are also concurrently in negotiations with our noteholders to restructure or equitize their debt if the sales process is not ultimately successful on this time frame. The terms of the Forbearance Agreement are described in Note 17 in the accompanying notes to our unaudited interim condensed consolidated financial statements.

Pursuant to the Forbearance Agreement, each Consenting Holder has agreed that, during the “Forbearance Period” (as defined below) and subject to certain termination events, it will not, among other things, (i) take any action, enforce any of its rights or remedies or accelerate the obligations under the 2019 Indenture, the 2019 Notes or otherwise, or (ii) direct the Trustee to take any action, enforce any rights or remedies or accelerate the obligations under the 2019 Indenture, the 2019 Notes or otherwise, against us, our affiliates or, in each case, any assets thereof, in each case solely with respect to our failure to make the interest payment due on April 3, 2017 on the 2019 Notes. As defined in the Forbearance Agreement, the “Forbearance Period” ends on the earlier of June 28, 2017 and the occurrence of any of the specified early termination events described therein. If we fail to comply with the terms of the Forbearance Agreement and/or fail, among other things, to meet the deliverables specified therein in the applicable time frame, the Forbearance Period will terminate and the Consenting Holders may, or may direct the Trustee to, accelerate 100% of the principal of, and accrued and unpaid interest on, the 2019 Notes to be due and payable immediately upon such acceleration and seek immediate repayment in full of such amounts.

We expect that our business will not continue to generate cash flow from operations sufficient to service our debt and make necessary capital expenditures for the foreseeable future. If we are unable to generate such cash flow, we may be required to adopt one or more alternatives, such as selling assets, restructuring debt or obtaining additional equity capital on terms that may be onerous or highly dilutive. We are currently pursuing each of these alternatives, though we may not be successful in such efforts. Our ability to refinance our indebtedness will depend on the capital markets and our financial conditions at such time. We may not be able to engage in any of these activities or engage in these activities on desirable terms, which could result in a default on our debt obligations.

Despite our current debt levels, we may still incur substantially more debt or take other actions that would intensify the risks discussed above.

Despite our current consolidated debt levels, we and our subsidiaries may be able to incur substantial additional debt in the future, subject to the restrictions contained in our debt instruments, some of which may be secured debt. We are not restricted under the terms of the indentures governing the 2018 Notes and 2019 Notes from incurring additional debt, securing existing or future debt, recapitalizing our debt or taking a number of other actions that are not limited by the terms of the indentures governing the 2018 Notes and the 2019 Notes that could have the effect of diminishing our ability to make payments on the notes when due. The SVB Facility restricts our ability to incur additional indebtedness, including secured indebtedness, but if the facility matures or is repaid, we may not be subject to such restrictions under the terms of any subsequent indebtedness.

The sale of our Algenist business involves risks, and we may not be able to realize the anticipated benefits from the transaction, which could have a material adverse effect on our results of operations or financial condition.

In August 2016, we closed the sale of our Algenist business to TCP Algenist LLC, a Delaware limited liability company ("Buyer") and Algenist Holdings, Inc., a Delaware corporation ("Algenist Holdings") in exchange for $18.8 million in cash, net of closing costs, 601,969 shares of common stock of Algenist Holdings (amounting to 19.9% of its outstanding capital stock) and the assumption of substantially all of the liabilities related to the Algenist business by Algenist Holdings.

We expect to continue to supply active ingredients formulated in the Algenist product line to Algenist Holdings. We may not, however, be able to realize the anticipated benefits from our minority holdings or this supply arrangement, as we do not control the Algenist business, including with respect to the operation of the business and the amount or timing of resources that Buyer devotes to the Algenist business or this supply arrangement. Our minority interest in the Algenist business and supply arrangement with Algenist Holdings may not provide us with a return on investment and our investment may lose some or all of its value.

In addition, under the terms of the sale agreement, subject to certain limitations, we agreed to indemnify Buyer and certain other parties against breaches of our representations, warranties or covenants in the sale agreement and other specified damages. If Buyer makes a claim for indemnification against us, we may incur expenses to contest or resolve the claim (including indemnifiable damages for third party claims, if adversely decided) that could adversely affect our financial results.

If we engage in any acquisitions, we will incur a variety of costs and may potentially face numerous risks that could adversely affect our business and operations.

If appropriate opportunities become available, we may seek to acquire additional businesses, assets, technologies or products to enhance our business. In connection with any acquisitions, we could issue additional equity or equity-linked securities such as the 2018 Notes or 2019 Notes, which would dilute our stockholders, incur substantial debt to fund the acquisitions, or assume significant liabilities.

Acquisitions involve numerous risks, including problems integrating the purchased operations, technologies or products, unanticipated costs and other liabilities, diversion of management's attention from our core businesses, adverse effects on existing business relationships with current and/or prospective collaborators, customers and/or suppliers, risks associated with entering markets in which we have no or limited prior experience and potential loss of key employees. Acquisitions may also require us to record goodwill and non-amortizable intangible assets that will be subject to impairment testing on a regular basis and potential periodic impairment charges, incur amortization expenses related to certain intangible assets, and incur write offs and restructuring and other related expenses, any of which could harm our operating results and financial condition. If we fail in our integration efforts with respect to any of our acquisitions and are unable to efficiently operate as a combined organization, our business and financial condition may be adversely affected.

Raising additional funds may cause dilution to our stockholders or require us to relinquish valuable rights.

If we elect to raise additional funds through equity offerings or offerings of equity-linked securities, our stockholders would likely experience dilution. Debt financing, if available, may subject us to restrictive covenants that could limit our flexibility in conducting future business activities. For example, the SVB Facility contains financial covenants that, if breached, would require us to secure our obligations thereunder. To the extent that we raise additional funds through collaboration and licensing arrangements, it may be necessary for us to share a portion of the margin from the sale of our products. We may also be required to relinquish or license on unfavorable terms our rights to technologies or products that we otherwise would seek to develop or commercialize ourselves.

If we fail to maintain an effective system of internal controls, we might not be able to report our financial results accurately or prevent fraud; in that case, our stockholders could lose confidence in our financial reporting, which would harm our business and could negatively impact the price of our stock.

Effective internal controls are necessary for us to provide reliable financial reports and prevent fraud. In addition, Section 404 of the Sarbanes-Oxley Act of 2002 requires us and our independent registered public accounting firm to evaluate and report on our internal control over financial reporting, and have our chief executive officer and chief financial officer certify as to the accuracy and completeness of our financial reports. The process of implementing our internal controls and complying with Section 404 is expensive and time consuming, and requires significant attention from management. We cannot be certain that these measures will ensure that we implement and maintain adequate controls over our financial processes and reporting in the future.

Our management has concluded that there were no material weaknesses in our internal controls over financial reporting as of December 31, 2016, and there was no change in our internal control over financial reporting that occurred during the quarterly period ended March 31, 2017 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting. However, there can be no assurance that our controls over financial processes and reporting will be effective in the future or that material weaknesses or significant deficiencies in our internal controls will not be discovered in the future. Because of its inherent limitations, internal control over financial reporting may not prevent or detect fraud or misstatements. Failure to implement required new or improved controls, or difficulties encountered in their implementation, could harm our results of operations or cause us to fail to meet our reporting obligations. If we or our independent registered public accounting firm discover a material weakness, the disclosure of that fact, even if quickly remedied, could reduce the market's confidence in our financial statements and harm our stock price.

Risks Relating to Securities Markets and Investment in Our Stock

The price of our common stock may be volatile.

Stock markets have experienced extreme volatility that has often been unrelated to the operating performance of particular companies. These broad market fluctuations may adversely affect the trading price of our common stock. In addition, the average daily trading volume of the securities of small companies, particularly small technology companies, can be very low. Limited trading volume of our stock may contribute to its volatility. Price declines in our common stock could result from general market and economic conditions and a variety of other factors, including any of the risk factors described in this report.

These broad market and industry factors may seriously harm the market price of our common stock, regardless of our operating performance. The market price of our common stock could also be affected by possible sales of our common stock by investors who view our convertible notes as a more attractive means of equity participation in us and by hedging or arbitrage trading activity that we expect involving our common stock.

The sale or issuance by us of substantial amounts of our common stock could adversely impact the trading price of our common stock.

A substantial number of shares of our common stock may be issued in connection with the exercise of options outstanding under our equity incentive plans, the vesting of restricted stock awards and restricted stock units, the exercise of outstanding warrants, the conversion of or exchange for outstanding 2018 Notes and 2019 Notes, and the conversion of our Series A preferred stock. See Note 6 in the accompanying notes to our unaudited interim condensed consolidated financial statements for additional information regarding the number of outstanding shares of potentially dilutive securities. Also see Note 7 in the accompanying notes to our unaudited interim condensed consolidated financial statements for information regarding the possible conversion of the 2018 Notes and 2019 Notes into shares of our common stock. In addition, we expect to issue additional shares under our equity incentive plans and employee stock purchase plan in the future. In the future, we may issue additional shares of common stock or other equity-linked securities to raise additional capital.

Any future sale or issuance of common stock could adversely impact the trading price of our common stock.

If the market price of our common stock were to cease to be quoted on a national exchange, the market price of our common stock and our reputation would be negatively impacted.

In April 2017, we received a letter from The NASDAQ Stock Market LLC notifying us that we are not in compliance for continued listing on The NASDAQ Global Select Market as a result of the closing bid price of our common stock being below $1.00 for 30 consecutive business days. If our common stock were delisted from the NASDAQ Global Select Market, among other things, this could result in a number of negative implications, including reduced price and liquidity in our common stock as a result of the loss of market efficiencies associated with NASDAQ and the loss of federal preemption of state securities laws, as well as the potential loss of confidence by suppliers, customers and employees, the loss of institutional investor interest, the loss of the ability to raise future capital, less coverage by analysts, fewer business development opportunities and greater difficulty in obtaining financing. The threat of delisting may also lead to a "reverse split" to increase the per share price of our common stock.

Our certificate of incorporation, our bylaws and Delaware law contain provisions that could discourage another company from acquiring us and may prevent attempts by our stockholders to replace or remove our current management.

Provisions of Delaware law (where we are incorporated), our certificate of incorporation and bylaws may discourage, delay or prevent a merger or acquisition that stockholders may consider favorable, including transactions in which you might otherwise receive a premium for your shares. In addition, these provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace or remove our board of directors. These provisions include:

- authorizing the issuance of "blank check" preferred stock without any need for action by stockholders;
- requiring supermajority stockholder voting to effect certain amendments to our certificate of incorporation and bylaws;
- eliminating the ability of stockholders to call special meetings of stockholders;
- prohibiting stockholder action by written consent;
- establishing advance notice requirements for nominations for election to the board of directors or for proposing matters that can be acted on by stockholders at stockholder meetings; and
- dividing our board of directors into three classes so that only one third of our directors will be up for election in any given year.

In addition, we are subject to Section 203 of the Delaware General Corporation Law, which, under certain circumstances, may make it more difficult for a person who would be an "interested stockholder," as defined in Section 203, to effect various business combinations with us for a three-year period. Our certificate of incorporation and bylaws do not exclude us from the restrictions imposed under Section 203. These provisions could impede a merger, takeover or other business combination involving us or discourage a potential acquirer from making a tender offer for our common stock, which, under certain circumstances, could reduce the market price of our common stock.

We incur significant expenses as a result of being a public company.

As a public company, we incur significant additional legal, accounting and other expenses. For example, as a public company, we have adopted internal and disclosure controls and procedures and bear all of the internal and external costs of preparing and distributing periodic public reports in compliance with our obligations under applicable securities laws.

In addition, changing laws, regulations and standards relating to corporate governance and public disclosure, including the Sarbanes-Oxley Act of 2002 and related regulations implemented by the SEC and the NASDAQ-GS, create uncertainty for public companies, increasing legal and financial compliance costs and making some activities more time consuming. We evaluate and monitor developments with respect to new and proposed rules and cannot predict or estimate the amount of additional costs we may incur or the timing of such costs. These laws, regulations and standards are subject to varying interpretations, in many cases due to their lack of specificity, and, as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices. We intend to invest resources to comply with evolving laws, regulations and standards, and this investment may result in increased general and administrative expenses and a diversion of management's time and attention from revenue-generating activities to compliance activities. If our efforts to comply with new laws, regulations and standards differ from the activities intended by regulatory or governing bodies due to ambiguities related to practice, regulatory authorities may initiate legal proceedings against us and our business may be harmed. These factors could also make it more difficult for us to attract and retain qualified members of our board of directors, particularly to serve on our audit committee and compensation committee, and attract and retain qualified executive officers. If these requirements divert our management's attention from other business concerns, they could have a material adverse effect on our business, financial condition and results of operations.

If securities or industry analysts do not continue to publish research or publish inaccurate or unfavorable research about our business, our stock price and trading volume could decline.

The trading market for our common stock depends in part on the research and reports that securities or industry analysts publish about us or our business. If securities or industry analysts do not continue coverage of our company, the trading price for our common stock would be negatively impacted. If one or more of the analysts who cover us downgrade our common stock or publish inaccurate or unfavorable research about our business, the price of our common stock would likely decline. If one or more of these analysts cease coverage of our company or fail to publish reports on us regularly, demand for our common stock could decrease, which might cause the price of our common stock and its trading volume to decline.

We do not anticipate paying cash dividends, and accordingly, stockholders must rely on stock appreciation for any return on their investment.

We do not anticipate paying cash dividends in the foreseeable future. As a result, only appreciation of the price of our common stock, which may never occur, would provide a return to stockholders. Our SVB Facility restricts our ability to pay cash dividends, and we may be subject to additional dividend restrictions under the terms of future indebtedness. Investors seeking cash dividends should not invest in our common stock.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.

None

Item 3. Defaults Upon Senior Securities.

See Form 8-K filed by the company on May 3, 2017.

Item 4. Mine Safety Disclosures.

Not applicable.

Item 5. Other Information.

None.

Item 6. Exhibits.

Exhibit Number	Description	Incorporated by Reference Form	File No.	Filing Date	Exhibit	Filed Herewith
31.1	Certification of the Chief Executive Officer, as required by Section 302 of the Sarbanes-Oxley Act of 2002					X
31.2	Certification of the Chief Financial Officer, as required by Section 302 of the Sarbanes-Oxley Act of 2002					X
32.1 *	Certification of the Chief Executive Officer and Chief Financial Officer, as required by Section 906 of the Sarbanes-Oxley Act of 2002					X
10.1	Resignation letter dated March 3, 2017, by and between TerraVia Holdings, Inc. and Jonathan Wolfson					X
101	The following financial statements, formatted in XBRL: (i) Condensed Consolidated Balance Sheets as of March 31, 2017 and December 31, 2016, (ii) Condensed Consolidated Statements of Operations for the three months ended March 31, 2017 and 2016; (iii) Condensed Consolidated Statements of Comprehensive Loss for the three months ended March 31, 2017 and 2016 (iv) Condensed Consolidated Statements of Cash Flows for the three months ended March 31, 2017 and 2016; and (v) Notes to Unaudited Condensed Consolidated Financial Statements.					X

* This certification shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liability of that Section, nor shall it be deemed incorporated by reference into any filing under the Securities Act of 1933, as amended or the Exchange Act of 1934, as amended.

SIGNATURES

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

TerraVia Holdings, Inc.

By: /s/ TYLER W. PAINTER

Tyler W. Painter

Chief Operating Officer and Chief Financial Officer

(Principal Financial and Accounting Officer and duly authorized signatory)

Date: May 5, 2017

Jonathan Wolfson
Portola Valley, CA

March 3, 2017

Apu Mody
Chief Executive Officer
TerraVia Holdings, Inc.
225 Gateway Boulevard
South San Francisco, CA 94080
Dear Apu:

This letter agreement confirms my understanding and agreement with TerraVia Holdings, Inc. (the "Company" or "TerraVia") regarding my final day of employment with the Company. I have currently been employed as Executive Chairman of the Company. Subject to the Company's agreement to the terms of this letter agreement, my employment with the Company will cease and I will be deemed to have resigned employment as of the date hereof (the "Effective Date"), but for financial purposes my employment compensation shall be deemed to have terminated on January 13,2017. The Company shall pay me on the Effective Date my accrued but unused vacation balance as of the Effective Date, which the parties agree is in the amount of $66,576. The Company shall also pay me within 10 business days of the Effective Date, a bonus payment in the amount of $200,000 in respect of my service to the Company for 2016. I confirm that, other than the obligations set forth in this letter agreement, I have received all salary and other payments as of the Effective Date and that my status as an employee of the Company will end as of the Effective Date. From and after the Effective Date, I will continue on as a member of the Board of Directors and Chairman of the Board of the Company, which is a non-executive position. From and after the Effective Date, my status will be as a non-employee director and I will receive the same level of compensation and benefits as are provided by the Company to its outside directors commencing as of the Effective Date, which amounts shall begin to accrue on the Effective Date and shall be paid in accordance with standard practices of the Company for compensation of directors. Despite my change in status from employee to non-employee director, there will be no interruption in my Continuous Service Status (as defined in the TerraVia 2004 Equity Incentive Plan and the TerraVia 2011 Equity Incentive Plan). From and after the Effective Date, the Company will pay for my COBRA premiums for calendar year 2017, provided that I timely and effectively enroll in COBRA coverage within the time period instructed.

In connection with my change of status, and notwithstanding the foregoing definition of Continuous Service Status, I agree that as January 13, 2017 (i) all of my then unvested TerraVia stock options shall be cancelled for no value and (ii) all of my then unvested TerraVia restricted stock units shall be cancelled for no value.

The Company further agrees that I may pursue a hair care business based on the AlgaPro concept I developed while at TerraVia and may also, subject to my fiduciary obligations as a director, pursue other business opportunities notwithstanding my continuing service as a director of the Company. I also acknowledge that should I pursue an opportunity that is competitive with the Company's business that it would be in the best interests of me and the Company to resign my position on the Board. I also acknowledge that the above approval does not authorize me to use any intellectual property, trade secrets or confidential information of the Company other than (a) materials, images and branding developed for the AlgaPro hair care concept, or (b) as may otherwise be agreed by the Company. I understand, and the Company agrees, that the Indemnification Agreement dated April 29, 2011 by and between the Company and me remains in force.

The Company shall reimburse me for reasonable expenses for legal representation in connection with this letter agreement in an amount not to exceed $10,000.

This letter agreement may be executed in counterparts.

Sincerely,

/s/ Jonathan Wolfson

Jonathan Wolfson

Agreed and accepted to by the Company in all respects.

TerraVia Holdings, Inc.

By: /s/ Apu Mody
Apu Mody
Chief Executive Officer

Exhibit 31.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER
(Pursuant to Rule 13a -14(a) or Rule 15d-14(a) of the
Securities Exchange Act of 1934, as amended,
as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002)

I, Apurva S. Mody, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of TerraVia Holdings, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 5, 2017

/s/ Apurva S. Mody

Apurva S. Mody
Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER
(Pursuant to Rule 13a -14(a) or Rule 15d-14(a) of the
Securities Exchange Act of 1934, as amended,
as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002)

I, Tyler W. Painter, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of TerraVia Holdings, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a015(f) and 15d-15(f) for the registrant and have:
   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 5, 2017

/s/ Tyler W. Painter

Tyler W. Painter
Chief Operating Officer and
Chief Financial Officer
(Principal Financial Officer)

Exhibit 32.1

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

In connection with the Quarterly Report of TerraVia Holdings, Inc. (the "Company") on Form 10-Q for the quarter ended March 31, 2017 , as filed with the Securities and Exchange Commission (the "Report"), each of Apurva S. Mody, Chief Executive Officer and Tyler W. Painter, Chief Operating Officer and Chief Financial Officer of the Company, respectively, do each hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to the best of his knowledge:

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

/s/ APURVA S. MODY

Apurva S. Mody
Chief Executive Officer

Date: May 5, 2017

/s/ Tyler W. Painter

Tyler W. Painter
Chief Operating Officer and
Chief Financial Officer

Date: May 5, 2017

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

This certification accompanies the Report to which it relates, is not deemed filed with the SEC and is not to be incorporated by reference into any filing of the Company under the Securities Act of 1933, as amended, whether made before or after the date of the Report and irrespective of any general incorporation language contained in such filing.