AMYRIS, INC.
Form 10-K
March 30, 2016

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington D.C. 20549

FORM 10-K

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2015

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the Transition Period from _____ to

Commission File Number: 001-34885

AMYRIS, INC.

(Exact name of registrant as specified in its charter)

Delaware	**55-0856151**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
5885 Hollis Street, Suite 100, Emeryville, California	**94608**
(Address of principal executive office)	**(Zip Code)**

(510) 450-0761

(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	**Name of each exchange on which registered** **The NASDAQ Stock Market LLC**
Common Stock, $0.0001 par value per share	**(NASDAQ Capital Market)**

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes No

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

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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

Large accelerated filer		Accelerated filer
Non-accelerated filer	(Do not check if a smaller reporting company)	Smaller reporting company

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

As of June 30, 2015, the last business day of the registrant's most recently completed second fiscal quarter, the aggregate market value of the voting stock held by non-affiliates of the registrant was approximately $75.1 million, based on the closing price of the registrant's common stock on the NASDAQ Stock Market on such date.

206,442,603 shares of the registrant's common stock, par value $0.0001 per share, were outstanding as of January 31, 2016.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's proxy statement to be delivered to stockholders in connection with the registrant's 2016 Annual Meeting of Stockholders to be held on or about May 17, 2016 are incorporated by reference into Part III of this Form 10-K. The registrant intends to file its proxy statement within 120 days after its fiscal year end.

AMYRIS, INC.

ANNUAL REPORT ON FORM 10-K

For the Fiscal Year Ended December 31, 2015

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FORWARD-LOOKING STATEMENTS

This report on Form 10-K, including the sections entitled "Item 1. Business," "Item 1A. Risk Factors," and "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations," contains forward-looking statements reflecting our current expectations that involve risks and uncertainties and which are subject to safe harbors under the Securities Act of 1933, as amended, or the Securities Act, and the Securities Exchange Act of 1934, as amended. These forward-looking statements include, but are not limited to, statements concerning our strategy, future production capacity and other aspects of our future operations, ability to launch new products, improve our production efficiencies, future financial position, future revenues, projected costs, expectations regarding demand and acceptance for our technologies, growth opportunities and trends in the market in which we operate, prospects and plans and objectives of management. The words "anticipates," "believes," "estimates," "expects," "intends," "may," "plans," "projects," "will," "would" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements and you should not place undue reliance on our forward-looking statements. These forward-looking statements involve risks and uncertainties that could cause our actual results to differ materially from those in the forward-looking statements, including, without limitation, the risks set forth in Part I, Item 1A, "Risk Factors" in this Annual Report on Form 10-K and in our other filings with the Securities and Exchange Commission. The forward-looking statements contained in this report on Form 10-K are based on information available to us on the date of this report on Form 10-K and, except as required by law, we do not assume any obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise.

TRADEMARKS

Amyris, the Amyris logo, Biofene, Biossance, Dial-A-Blend, Diesel de Cana , Evoshield, µPharm, Muck Daddy, Myralene, Neossance and No Compromise are trademarks or registered trademarks of Amyris, Inc. This report also contains trademarks and trade names of other business that are the property of their respective holders.

ITEM 1. BUSINESS

Overview

Amyris, Inc. (or the "Company," "Amyris," "we," "us," or "our") is a leading integrated industrial biotechnology company that is applying its technology platform to engineer, manufacture and sell high performance, low cost products into a variety of consumer and industrial markets, including cosmetics, flavors & fragrances (or F&F), solvents and cleaners, polymers, lubricants, healthcare products and fuels, and we are seeking to apply our technology to the development of pharmaceuticals products. Our proven technology platform allows us to rapidly engineer microbes and use them as living factories to metabolize renewable, plant-sourced sugars into large volume, high-value hydrocarbon molecules. Using yeast as these living factories, our industrial fermentation process replaces existing complex and expensive chemical manufacturing processes. We believe industrial synthetic biology represents a third industrial revolution, bringing together biology and engineering to generate new, more sustainable materials to meet the growing global demand for bio-based replacements for petroleum, animal- or plant-derived chemicals. We continue to work to build demand for our current portfolio of products through a network of distributors and through direct sales, and are engaged in collaborations across a variety of markets, including personal care, performance chemicals and industrials, to drive additional product sales and partnership opportunities.

Background

Amyris was founded in 2003 in the San Francisco Bay Area by a group of scientists from the University of California, Berkeley. Our first major milestone came in 2005 when, through a grant from the Bill & Melinda Gates Foundation, we developed technology capable of creating microbial strains that produce artemisinic acid - a precursor of artemisinin, an effective anti-malarial drug. In 2008, we granted royalty-free licenses to allow Sanofi-Aventis (or Sanofi) to produce artemisinic acid using our technology. Since 2013, Sanofi has been distributing millions of artemisinin-based anti-malarial treatments incorporating this artemisinic acid. Building on our success with artemisinic acid, in 2007 we began applying our technology platform to develop, manufacture and sell sustainable alternatives to a broad range of materials.

We focused our initial development efforts primarily on the production of Biofene®, our brand of renewable farnesene, a long-chain, branched hydrocarbon molecule that we manufacture through fermentation using engineered microbes. Using farnesene as a first commercial building block molecule, we have developed a wide range of renewable products for our various target markets, including cosmetics, F&F, healthcare products and fuels, and we are pursuing opportunities for the application of our technology in the pharmaceuticals market. Our technology platform allows us to rapidly develop microbial strains to produce other target molecules, and, in 2014, we began manufacturing additional molecules for the F&F industry.

Since inception, we have received equity and debt financing from investors including affiliates of Total S.A. (collectively referred to as Total), the international energy company, and affiliates of Temasek Holdings (Private) Limited, the Singapore sovereign wealth fund (collectively referred to as Temasek), and various venture capital and private equity investors. Our stock is traded on The NASDAQ Stock Market (or NASDAQ) under the symbol AMRS.

Our Platform

Amyris' proprietary microbial engineering and screening technologies have industrialized bioengineering of microbes, and most of our efforts to date have been focused on engineering yeast. Our platform provides predictable and efficient “living factories” that allow us to convert plant-sourced sugars, primarily sugarcane syrup, through fermentation, into high-value hydrocarbon molecules instead of low-value alcohol.

We are able to use a wide variety of feedstocks for production, but have focused on accessing Brazilian sugarcane for our large-scale production because of its renewability, low cost and relative price stability. We have also successfully used other feedstocks such as sugar beets, corn dextrose, sweet sorghum and cellulosic sugars at various manufacturing facilities.

We are currently producing four molecules at our industrial fermentation plant: artemisinic acid, farnesene and two fragrance molecules. We and our partners develop products from these molecules for several target markets, including cosmetics, F&F, solvents, polymers, industrials and healthcare products, and we are pursuing arrangements with a number of drug companies for their use of our molecules to develop pharmaceutical products. We are engaged in collaborations with multiple companies that are leaders within their respective markets, including Total and worldwide leaders in specialty chemicals, consumer care, F&F, food ingredients and health, and who sell our ingredients to hundreds of brands that serve millions of consumers.

Corporate Information

We were founded in 2003 and completed our initial public offering in 2010. As of January 31, 2016, we had 418 employees (including 257 in the United States and 161 in Brazil). Our corporate headquarters and pilot plant are located in Emeryville, California, and our Brazil headquarters and pilot plant are located in Campinas, Brazil. We have two operating subsidiaries, Amyris Brasil Ltda. (or Amyris Brasil) and Amyris Fuels LLC (or Amyris Fuels). Amyris Brasil oversees establishment and expansion of our production in Brazil. Amyris Fuels was originally established to help us develop fuel distribution capabilities in the United States by selling ethanol and reformulated ethanol-blended gasoline. In 2012, we transitioned out of the ethanol and ethanol-blended gasoline business to focus our efforts on production and commercialization of renewable products.

Strategy and Business Model

Our mission is to apply inspired science to deliver sustainable solutions for a growing world. We seek to become the world's leading provider of renewable, high-performance alternatives to non-renewable products. In the past, choosing a renewable product often required producers to compromise on performance or price. With our technology, leading

consumer brands can develop products made from renewable sources that offer equivalent or better performance and stable supply with competitive pricing. We call this our No Compromise® value proposition. We aim to improve the world one molecule at a time by providing the best alternatives to non-renewable products.

We have developed and are operating our company under a business model that generates cash from both collaborations and from product sales. We believe this combination will enable us to realize our vision of becoming the world's leading renewable products company.

Collaborations

Collaborations provide us with funding to develop innovative new products that allow our partners to replace existing supply sources with products with competitive performance and economics. These collaborative technology-based partnerships typically range from three to five years and have funded a substantial portion of our direct research and development expenses since 2012. These collaborations have provided us with a robust pipeline of molecules under development from which we expect to launch production of two to three products annually at our industrial scale facility in Brazil. Our collaborations generate value in several ways, including:

- helping us identify and develop molecules that address critical supply or performance needs for our partners, while receiving collaboration payments for technology access and research and development;
- minimizing risk of product market entry and optimizing our resource prioritization;
- using our integrated manufacturing capabilities to produce and sell collaboration target molecules to our partners;
- participating in additional value-sharing arrangements based on the cost/benefits to our partners of using the molecules we develop; and
- providing opportunities to develop products for markets outside the partner agreements from the research insights gained and intellectual property obtained during the development process.

We believe this collaboration-based business model creates long-term relationships with aligned incentives for success, and allows us to access a portion of the capital and resources necessary to support large-scale production and global distribution of our products.

Product Sales

In addition to our collaborations, for near-term, positive-margin revenues, we have been developing, manufacturing and selling high-value farnesene derivatives such as Neossance® branded emollients for the cosmetics industry. Through our distributor channels for Neossance emollients, we are able to accelerate commercialization of our products. Since its launch in 2011, we have achieved worldwide reach for our Neossance emollients, with our initial high-performance emollient (Neossance squalane) serving as a key ingredient in personal care products for a growing list of cosmetics companies. In 2014, we introduced and began selling our second emollient, Neossance hemisqualane, through our distributors. Hemisqualane is a light emollient with high spreadability and serves as a replacement to petroleum-based paraffins and silicone ingredients. In 2015, we launched our consumer beauty brand, Biossance®, the first product made exclusively from Neossance squalene.

In addition, in 2014 we established sales of F&F ingredients to a collaboration partner, representing our first major product sales of a molecule other than farnesene and, in 2015, we established sales of a second F&F molecule.

We produce and sell renewable diesel for niche markets in Brazil, and renewable jet fuel for early adoption of such jet fuel in specific routes selected by participating airlines. Though these products have not yet generated net cash contributions to our business, we have maintained such sales as part of our industrial-scale manufacturing offtake and to support our ongoing development efforts toward a commercially-viable Biofene-based renewable fuel in collaboration with Total.

Manufacturing

We began industrial-scale production of our products at contract manufacturing facilities in 2011 and, in December 2012, commenced operations at our first purpose-built, large-scale production facility in southeastern Brazil. This multi-product production facility, located in Brotas, in the state of São Paulo, Brazil, is adjacent to an existing sugar and ethanol mill operated by Tonon Bioenergia SA, formerly known as Paraíso Bioenergia (or Tonon). Through 2015, we produced farnesene and an ingredient for the F&F industry at commercial scale. Under our manufacturing agreement, Tonon supplies sugarcane juice and certain utilities. Amyris is solely responsible for maintenance and operation of our biorefinery. Our Brotas facility has six 200,000 liter production fermenters and was designed to process sugarcane juice, or its equivalent, from up to one million tons of raw sugarcane annually. In December 2012, we began production of farnesene at this facility. Our first shipment of farnesene produced at the Brotas facility occurred in February 2013, and our first shipment of a fragrance molecule from the facility occurred in August 2014. We began manufacturing our second fragrance molecule at the Brotas facility in September 2015 and commenced shipping the product in December 2015.

For many of our products, we perform additional distillation or chemical finishing steps to convert initial target molecules into other finished products, such as renewable squalane, F&F ingredients, lubricants, performance polymers and diesel. We have an agreement with Glycotech Inc. (or Glycotech), for use of a Leland, North Carolina facility of Salisbury Partners, LLC to convert Biofene into squalane and other final products. We also have agreements with other facilities in the U.S. and Brazil to perform distillation and hydrogenation steps for other products. We may enter into additional agreements with other facilities for finishing services and to access flexible capacity and an array of services as we develop additional products.

Technology

Synthetic biology uses engineering concepts to leverage the power of biology. We have developed innovative microbial engineering and screening technologies that allow us to transform the way micro-organisms process sugars. Specifically, we engineer yeast and use them as living factories to convert sugarcane syrup, through fermentation, into high-value hydrocarbon molecules instead of ethanol, which is its naturally occurring process. Along with our collaboration partners, we use these molecules as building blocks for a wide range of products in our target markets. This is our foundation for providing high-performance, cost competitive and sustainable alternatives to a wide variety of products.

Research and Development

Our ongoing technology development is focused primarily on improving the performance of our production microbial strains and on developing microbial strains that produce targeted molecules. As described in more detail below, our process consists of a series of steps including:

- identifying new target molecules;

- creating new microbial strains capable of producing the target molecules;

- increasing product yield and productivity from microbial strains through strain modification or fermentation process improvements; and

- translating these steps from lab to commercial scale production consistently.

We devote substantial resources to our research and development efforts. As of January 31, 2016, our research and development organization included approximately 123 employees, 63 of whom held Ph.D.s. Our research and development expenditures were approximately $44.6 million, $49.7 million, and $56.1 million for the fiscal years ended December 31, 2015, 2014 and 2013, respectively.

Strain Engineering and Scale-Up Process

The primary biological pathway within the microbe that we currently use to produce our target molecules is called the isoprenoid or terpenoid pathway. Isoprenoids constitute a large, diverse class of organic chemicals, with current product applications in a wide range of industries. Implementing the classical engineering cycle of "Design-Build-Test-Learn" with investments of more than $400 million to date for research and development, we have reduced strain engineering time to produce target isoprenoid molecules from years to months, opening up the possibility of quickly producing thousands of different target molecules from fermentation.

We have developed a high-throughput strain engineering system that is currently capable of producing and screening more than 100,000 yeast strains per month, which allows us to achieve approximately a 95% lower cost per strain than we achieved in 2009. We generated more than 400,000 farnesene strains in 2015, surpassing 5.0 million unique strains created since our inception, with each strain testing for improved production of the target molecules. In addition, through our lab-scale and pilot-plant fermentation operations, and our proprietary analytical tools, we are now able to predict with high reliability, the industrial performance of candidate strains in our 200,000-liter fermenters at our Brotas plant.

The following summarizes the key steps in our strain engineering and scale-up processes:

1. *Identifying target molecules.* We start our process by identifying, usually based on input from collaborators, a commercial application for which we can deliver an attractive No Compromise® solution. We identify the key

molecular properties that are essential to product performance in a specific commercial application and then analyze the chemical structures that drive those key performance characteristics. Finally, we identify target molecules or derivatives of molecules that contain these key chemical structures and that may be produced by our yeast strains.

2. *Developing initial strains/proof of concept.* We identify the steps required for the target molecule's production in a biological pathway. We then seek to design a pathway to produce the target, either directly or by producing a molecule that can, through simple chemical steps, be synthesized, or converted, into the target. Once this pathway is identified, we undertake to engineer it into our yeast strains by employing the processes discussed below.

3. *Improving strain performance and process development.* To produce the target molecules at industrial scale, a yeast strain must be improved to increase its level of efficiency of production. Initially, we focus primarily on *yield*, a measure of the amount of product produced by a defined amount of sugar as the means to improve strain output. As we advance in our scale-up and commercial scale process development, we also seek to improve production output through improvements in strain *productivity*, the rate at which our product is produced by a given yeast strain, and *titer*, the concentration of product in the fermentation broth. In addition, we seek to develop processes to improve production recovery efficiency, including separation efficiency, a measure of the amount of product that is captured from a fermentation run, cycle-time, which is the time needed to run a full fermentation cycle, and the evolution of batch process methods to semi-continuous and continuous production methods.

4. *Moving production from lab to commercial scale.* Once we have established a pathway and verified that it can produce the target molecule, the yeast strain must be improved to increase the level of efficiency of production, and tested for performance in larger-volume facilities, before it is implemented at our larger-scale manufacturing facilities. Our infrastructure to support this scale-up process includes lab-scale fermenters, operating pilot plants in our facilities in Emeryville, California and Campinas, Brazil, and two 5,000-liter fermenters in our Campinas demonstration facility. Each of these stages mimic the conditions found in larger scale fermentation so that our findings may translate predictably from lab scale to pilot and ultimately to commercial scale.

Products

We are expanding our range of products across several categories divided into consumer and industrial applications. For consumer applications, we are developing and selling personal care products (which include ingredients for cosmetics and F&F), healthcare products, and formulated end-user products like our Biossance™ brand skincare products and our Muck Daddy™ brand hand cleaner product, and we are pursuing arrangements with a number of drug companies for their use of our molecules to develop pharmaceutical products. For industrial applications, our products include performance materials (such as solvents and polymers) and, with our joint venture partners, renewable lubricants and fuels. Our initial portfolio of commercial products has been based on Biofene and Biofene derivatives. In addition, we have produced at scale and commercialized two target molecules for the F&F market.

We are focused on building our renewable-product leadership position, which we established initially with squalane, in our targeted consumer markets and with niche diesel and jet fuel opportunities. We believe that success in these markets will pave the way to accessing more markets and expanding the impact we can have in the longer term.

Consumer Markets

Cosmetics and Skincare

Through basic chemical finishing steps, we are able to convert our farnesene molecule into squalane, which is used today as a premium emollient in cosmetics and other personal care products. Our Neossance squalane offers performance attributes equal or superior to those of squalane derived from conventional sources. The ingredient traditionally has been manufactured from olive oil or extracted from deep-sea shark liver oil, which requires that the shark be killed in order to harvest its liver oil. The relatively high price and unstable supply of squalane in the past meant that its use was generally limited to luxury products or small quantities in mass-market product formulations. With our ability to produce a reliable supply of low-cost squalane that eliminates the need to harvest shark liver oil, we offer this ingredient at a price that we believe will drive increasing adoption by formulators. In addition to Neossance squalane, we have recently introduced a second, lower-cost emollient, Neossance hemisqualane, for the cosmetics market. We currently have Neossance emollient supply agreements with several regional distributors, including those with locations in Japan, South Korea, Europe, Brazil and North America, and, in some cases, directly with cosmetics formulators.

In 2015, we also launched our own consumer brand, Biossance™ skin care products, featuring our Biofene-derived squalane. Under our Biossance brand, we marketing and selling our products directly to retailers and consumers, initially in the United States.

Flavors and Fragrances

Our technology allows us to cost-effectively produce natural oils and aroma chemicals that are commonly used in the F&F market. Many of the natural ingredients used in the F&F market are expensive because there is limited supply and the synthetic alternatives require complex chemical conversions. We offer F&F companies a natural route to procure these high-value ingredients without sacrificing cost or quality.

In late 2013, we commenced commercial production of our first fragrance ingredient for a range of applications, from perfumes to laundry detergent, which is marketed by a collaboration partner which is a global F&F leader. In 2014, we completed our first production campaign of this fragrance ingredient at our Brotas biorefinery and shipped it to this collaboration partner. In late 2015, we commenced production and initial sales of our second fragrance ingredient to the same collaboration partner.

We are working with several collaboration partners to develop and commercialize a variety of F&F ingredients that are either direct fermentation products or derivatives of fermentation products. Under the agreements with our partners, we receive value in a variety of ways: collaboration payments for research and development (or R&D), sales of ingredients that we manufacture; and downstream sales of the ingredients.

Hand Cleaner

In 2015, we launched a high-performance hand cleaner brand, Muck Daddy™, which incorporates Myralene™, a Biofene derivative that functions as a renewable solvent. We are in the process of establishing distribution channels for this product, including an online direct-to-consumer offering and arrangements with distributors and retailers.

Healthcare and Food

In January 2016, we announced the signing of our first Biofene ingredient supply agreement for the global nutraceuticals and vitamins market.

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Industrial Markets

Solvents

We have developed a best-in-class renewable solvent produced from farnesene. In addition to addressing regulatory and safety concerns over Volatile Organic Compounds (or VOCs), our solvent product, which we market under the brand Myralene™, offers strong performance and environmental attributes. In 2015, we received approval from the Environmental Protection Agency (or EPA) under the Toxic Substances Control Act (or TSCA) to market and began commercializing Myralene-based cleaning products as industrial cleaners for the auto service industry and other industrial applications.

Polymers

We are developing applications for our farnesene that include high-performance polymers used in tires and other applications. In 2011, we began collaborating with Kuraray Co., Ltd (or Kuraray) with an initial focus on using farnesene-based polymers to replace petroleum-derived additives in tires. During the collaboration, Kuraray developed farnesene-based liquid rubber (LFR) that reacts with tire rubber more easily than traditional materials and strengthens adhesion of rubber components to improve tire shape, stability and performance. In connection with our collaboration with Kuraray, multiple leading tire manufacturers have conducted and are continuing to conduct performance tests of this liquid rubber in tire formulations. Also, during this period, Kuraray produced and began customer sampling and product evaluation for a new category of elastomer, Hydrogenated Styrenic Farnesene Copolymer (HSFC), which has demonstrated performance attributes that open opportunities for vibration-dampening product applications.

Lubricants

Base oils are the building blocks of lubricating oils and are currently derived from the crude oil refining process. Additives are materials added to base oils to change their properties, characteristics and/or performance (e.g., anti-foam, anti-wear, corrosion inhibitor, detergent, dispersant, pour point depressant, anti-oxidant, or friction modifier). Lubricants are manufactured by combining a base oil with additives required by lubricant product applications, including engine oils, gear oils, hydraulic oils and turbine oils. Farnesene may be chemically modified to serve as a base oil, additive and/or lubricant. We believe the high-purity synthetic base oil and additive molecules that can be made from Biofene could enable lubricant products to perform in harsh environments under extremes of temperature, moisture, dirt and/or wear.

We are pursuing the base oils and lubricants market through Novvi LLC (or Novvi), our joint venture with Cosan Combustíveis e Lubrificantes S.A. and Cosan S.A. Industria e Comércio (such Cosan entities and their affiliates, collectively or individually referred to as Cosan). Additional detail regarding our joint venture with Cosan is provided below under “Business-Joint Ventures.”

Transportation Fuels

We have partnered with Total to develop renewable fuels designed to be optimal transportation fuels. Using farnesene, we produce renewable diesel (a farnesene derivative referred to as farnesane) and jet fuel that delivers energy density, engine performance and storage properties comparable to the best petroleum fuels today. We are currently selling renewable diesel in metropolitan areas in Brazil and, since late 2014, our renewable jet fuel with our partner Total in initial markets globally. In the future, as our development efforts with Total allow us to produce fuels at lower costs, we expect that our farnesane-based fuels business would be conducted through a joint venture we have established with Total (described in more detail below under “Business-Joint Ventures”). We have been limiting jet fuel and diesel sales in recent periods as fuel sales generally do not provide any cash contributions based on the current costs of producing farnesene and current market prices for petroleum products.

- *Jet Fuel*. Our drop-in, renewable jet fuel is compliant with Jet A/A-1 fuel specifications and outperforms conventional petroleum-derived fuel in a range of performance metrics, including fit for purpose and greenhouse gas emission reduction potential, without compromising on performance or quality. In 2014, following extensive testing, we received industry acceptance and regulatory approval for our renewable jet fuel in key U.S., European and Brazilian markets. In late 2014, we began selling our renewable jet fuel to airlines through Total, with limited demonstration and commercial flights using the fuel on an ongoing basis.

- *Diesel*. Our renewable diesel's properties are superior to those of petroleum diesel, allowing it to be used as a drop-in replacement in practically any diesel engine today. In Brazil, Diesel de Cana (as our diesel is called in Brazil) has been used in public transit buses in São Paulo and Rio de Janeiro. Tests carried out by Mercedes-Benz and MAN in Brazil show a significant reduction in the emissions of particulate matter (or PM) and oxides of nitrogen (or NOx) with as little as 10% blends of Amyris Renewable Diesel in standard low sulfur diesel. The US Maritime Division and US Department of Transportation have validated our diesel as a renewable blend with maritime diesel fuel.

Collaborations

We believe that our leadership in the synthetic biology sector is demonstrated by collaboration partners who come to us to access our synthetic biology platform and industrial fermentation expertise. Together we seek to reduce environmental impact, enhance performance, reduce supply and price volatility, and improve profit margins. Our partners include Total, chemical companies such as Braskem S.A. (or Braskem) and Kuraray, F&F companies such as Firmenich S.A. (or Firmenich), agricultural processing companies such as China National Cereals, Oils, and Foodstuff Corporation, and pharmaceutical companies. Our work has also been funded by the U.S. government, including the Department of Energy (or DOE) and the Defense Advanced Research Projects Agency (or DARPA), to develop technologies and processes capable of improving the ability to produce alternatives to petroleum-sourced products.

In addition to our collaborations for co-development of specialty chemical products, we have established collaborations and joint ventures for the development and commercialization of commodity products that will require larger investment of capital and longer lead times for commercialization than our existing portfolio. Most notably, we have established a collaboration and joint venture with Total to commercialize Biofene-based diesel and jet fuels. In connection with this arrangement, Total has provided substantial funding for Biofene research and development. In addition to this arrangement with Total, we have established our Novvi joint venture with Cosan, a leading producer of lubricants in Brazil, for the worldwide development, production and commercialization of renewable base oils for the automotive, industrial and commercial lubricants markets. Additionally, Amyris's proprietary synthetic biology platform may be used to provide the pharmaceutical industry with an integrated discovery and production process for therapeutic compounds for which a natural source is scarce or unavailable, or for which chemical synthesis is not cost-effective. We expect to establish and develop collaboration relationships with pharmaceutical partners in order to generate chemical diversity relevant to therapeutic target identification.

Joint Ventures

Our business strategy is to focus our direct commercialization efforts on higher-value, lower-volume markets while establishing joint ventures to pursue our lower-margin, higher-volume commodity products, including for the commodity fuels and lubricants markets. We believe this approach will facilitate access to capital and resources necessary to support large-scale production and global distribution for our large-market commodity products as we continually improve our technology advantages and costs of production.

Total Amyris BioSolutions B.V.

We have a license, development, research and collaboration agreement with Total that sets forth the terms for the research, development, production and commercialization of chemical and/or fuels products to be agreed on by the parties. The agreement establishes a multi-phased process through which compounds are identified, screened, selected for product feasibility studies, and then ultimately selected as a lead compound for development. To commercialize any strains and compounds that are developed, Amyris and Total expect to form one or more joint ventures, the first of which is the fuels joint venture described below. Both Amyris and Total retain certain rights to make products designed for collaboration efforts independently subject to making royalty payments to the non-producing party, and if we initially decline to collaborate on a project proposed by Total, Total has certain rights to require us to work on a limited number of such projects, subject to various exclusions and at Total's expense. We have retained rights to use jointly-developed technology in the following markets: F&F, cosmetics, pharmaceuticals, consumer packaged goods, food additives and pesticides. The first programs we focused on with Total relate to renewable diesel and jet fuel; however, both parties retain the right to propose other product development programs under these agreements in the future.

We have entered into a series of agreements since 2011 to establish a research and development program and form a joint venture with Total to produce and commercialize Biofene-based diesel and jet fuels, and we formed such joint venture, Total Amyris BioSolutions B.V. (or TAB), in November 2013. With an exception for our fuels business in Brazil, the collaboration and joint venture established the exclusive means for us to develop, produce and commercialize fuels from Biofene. We granted TAB exclusive licenses under certain of our intellectual property to make and sell joint venture products. We also granted TAB, in the event of a buy-out of our interest in the joint venture by Total (which Total is entitled to do under certain circumstances described below), a non-exclusive license to optimize or engineer yeast strains used by us to produce farnesene for the joint venture’s diesel and jet fuels. As a result of these licenses, Amyris generally no longer had an independent right to make or sell Biofene fuels outside of Brazil without the approval of Total.

Our agreements with Total relating to our fuels collaboration created a convertible debt financing structure for funding the research and development program. The collaboration agreements contemplated approximately $105.0 million in financing (or R&D Notes) for the collaboration, which as of January 27, 2015, had been completely funded by Total.

In July 2015, we entered into a Letter Agreement with Total (or, as amended in February 2016, the JVCO Letter Agreement) regarding the restructuring of the ownership and rights of TAB (or the Restructuring), pursuant to which the parties agreed to enter into an Amended & Restated Jet Fuel License Agreement between us and TAB (or the Jet Fuel Agreement), a License Agreement regarding Diesel Fuel in the European Union (or the EU) between us and Total (or the EU Diesel Fuel Agreement, and together with the Jet Fuel Agreement, the Commercial Agreements), and an Amended and Restated Shareholders' Agreement among us, Total and TAB (or, together with the Commercial Agreements, the Restructuring Agreements), and file a Deed of Amendment of Articles of Association of TAB, all in order to reflect certain changes to the ownership structure of TAB and license grants and related rights pertaining to TAB.

On March 21, 2016, we, Total and TAB closed the Restructuring and entered into the Restructuring Agreements.

Under the Jet Fuel Agreement, (a) we granted exclusive (excluding its Brazil jet fuel business), world-wide, royalty-free rights to TAB for the production and commercialization of farnesene- or farnesane-based jet fuel, (b) we granted TAB the option, until March 1, 2018, to purchase our Brazil jet fuel business at a price based on the fair value of the commercial assets and on our investment in other related assets, (c) we granted TAB the right to purchase farnesene or farnesane for its jet fuel business from us on a "most-favored" pricing basis and (d) all rights to farnesene- or farnesane-based diesel fuel previously granted to TAB by us reverted back to us.

Upon all farnesene- or farnesane-based diesel fuel rights reverting back to us, we granted to Total, pursuant to the EU Diesel Fuel Agreement, (a) an exclusive, royalty-free license to offer for sale and sell farnesene- or farnesane-based diesel fuel in the EU, (b) the right to make farnesene or farnesane anywhere in the world, provided Total must (i) use such farnesene or farnesane to produce diesel fuel to offer for sale or sell in the EU and (ii) pay us a to-be-negotiated, commercially reasonable, "most-favored" basis royalty and (c) the right to purchase farnesene or farnesane for its EU diesel fuel business from us on a "most-favored" pricing basis.

In addition, as part of the closing of the Restructuring and pursuant the JVCO Letter Agreement, on March 21, 2016, we sold to Total one half of our ownership stake in TAB (giving Total an aggregate ownership stake of 75% of TAB and giving us an aggregate ownership stake of 25% of TAB) in exchange for Total cancelling (i) approximately $1.3 million of R&D Notes, plus all paid-in-kind and accrued interest under all outstanding R&D Notes (including all such interest that was outstanding as of July 29, 2015) and (ii) a note in the principal amount of Euro 50,000, plus accrued interest, issued to Total in connection with the original TAB capitalization. To satisfy its purchase obligation above, Total surrendered to us the remaining R&D Note of approximately $5 million in principal amount, and we executed and delivered to Total a new, senior convertible note, containing substantially similar terms and conditions other than it is unsecured and its payment terms are severed from TAB's business performance, in the principal amount of $3.7 million.

As a result of, and in order to reflect, the changes to the ownership structure of TAB described above, on March 21, 2016, (a) we, Total and TAB entered into an Amended and Restated Shareholders' Agreement and filed a Deed of Amendment of Articles of Association of TAB and (b) we and Total terminated the Amended and Restated Master Framework Agreement, dated December 2, 2013 and amended on April 1, 2015, between us and Total.

Novvi LLC

In June 2011, we entered into joint venture agreements with Cosan related to the formation of a joint venture to focus on the worldwide development, production and commercialization of base oils made from Biofene for the automotive, commercial and industrial lubricants markets. In September 2011, we formed Novvi, an entity that is jointly owned by Cosan and us. In March 2013, we entered into additional agreements with Cosan to (i) expand our base oils joint venture with Cosan to also include additives and lubricants and (ii) operate the joint venture exclusively through Novvi. Under these agreements, Amyris and Cosan each own 50% of Novvi, and each share equally in any costs and any profits ultimately realized by the joint venture.

SMA Indústria Química S.A.

In April 2010, the Company established SMA Indústria Química (or SMA), a joint venture with São Martinho S.A. (or SMSA), to build a production facility in Brazil.

The Company completed a significant portion of the construction of the new facility in 2012. The Company suspended construction of the facility in 2013 in order to focus on completing and operating the Company's smaller production facility in Brotas, Brazil. In July 2015, the Company announced that it was in discussions with SMSA regarding the continuation of the joint venture. Specifically, the Company and SMSA agreed to continue the joint venture pending discussions through August 31, 2015 in order to evaluate the best investment options available to optimize returns and provide balanced economics for both parties. In September 2015, the Company entered into negotiations with SMSA to agree to terms for the termination of the joint venture and in December 2015, the Company and SMSA entered into a Termination Agreement and a Share Purchase and Sale Agreement relating to the termination of the joint venture. Under the Termination Agreement, the parties agreed that the joint venture would be terminated effective upon the closing of a purchase by AB of SMSA’s shares of SMA. Under the Share Purchase and Sale Agreement, AB agreed to purchase, for R$50,000 (approximately US$12,805 based on the exchange rate as of December 31, 2015), 50,000 shares of SMA (representing all the outstanding shares of SMA held by SMSA), with the closing of such purchase to occur within five days after receipt by the parties of a Brazilian antitrust regulatory approval, which purchase and sale was consummated on January 11, 2016. The Share Purchase and Sale Agreement also provides that Amyris and AB will have 12 months following the closing of the share purchase to remove assets from SMSA’s site, and enter into an extension of the lease for such 12 month period for monthly rental payments of R$9,853 (approximately US$2,523 based on the exchange rate as of December 31, 2015). The Share Purchase and Sale Agreement also clarified that the Company and AB would not be required to demolish or remove the foundation of the work site.

Product Distribution and Sales

We distribute and sell (or intend to distribute and sell) our products directly, to chemical distributors or collaborators, or through joint ventures, depending on the market. For most of our products, we sell directly to our collaboration partners, except for our consumer care products, which we sell to distributors and formulators (other than our Biossance brand, which we sell directly to retailers and consumers in the United States). Generally, our collaboration agreements do not include any specific purchase obligations, and sales are contingent upon achievement of technical and commercial milestones.

For transportation fuels in Brazil, we sell our renewable diesel directly to fuels blenders and distributors. For transportation fuels outside of Brazil, we have typically sold our products to Total or to fuels blenders and distributors. Ultimately, we expect to commercialize commodity products, including large-scale sales of fuels and base oils, through joint venture arrangements with Total and Cosan, respectively.

Renewable product sales to Nikko Chemicals Co. Ltd. and Firmenich and collaboration revenues from Firmenich each accounted for more than 10% of our reported revenues in 2015.

Intellectual Property

Our success depends in large part upon our ability to obtain and maintain proprietary protection for our products and technologies, and to operate without infringing the proprietary rights of others. We seek to avoid the latter by monitoring patents and publications in our product areas and technologies to be aware of developments that may affect our business, and to the extent we identify such developments, evaluate and take appropriate courses of action. With respect to the former, our policy is to protect our proprietary position by, among other methods, filing for patent applications on inventions that are important to the development and conduct of our business with the U.S. Patent and Trademark Office (or the USPTO), and its foreign counterparts.

As of January 31, 2016, we had 413 issued U.S. and foreign patents and 295 pending U.S. and foreign patent applications that are owned by or licensed to us. We also use other forms of protection (such as trademark, copyright, and trade secret) to protect our intellectual property, particularly where we do not believe patent protection is appropriate or obtainable. We aim to take advantage of all of the intellectual property rights that are available to us and believe that this comprehensive approach provides us with a strong proprietary position.

Patents extend for varying periods according to the date of patent filing or grant and the legal term of patents in various countries where patent protection is obtained. The actual protection afforded by patent, which can vary from country to country, depends on the type of patent, the scope of its coverage and the availability of legal remedies in the country. See "*Risk Factors - Risks Related to Our Business - Our proprietary rights may not adequately protect our technologies and product candidates*."

We also protect our proprietary information by requiring our employees, consultants, contractors and other advisers to execute nondisclosure and assignment of invention agreements upon commencement of their respective employment or engagement. Agreements with our employees also prevent them from bringing the proprietary rights of third parties to us. In addition, we also require confidentiality or material transfer agreements from third parties that receive our confidential data or materials.

Competition

We expect that our renewable products will compete with both the traditional, largely petroleum-based specialty chemical and fuels products that are currently being used in our target markets and with the alternatives to these existing products that established enterprises and new companies are seeking to produce.

Chemical Products

In the specialty chemical markets that we initially entered or are seeking to enter, and in other chemical markets that we may seek to enter in the future, we will compete primarily with the established providers of chemicals currently used in products in these markets. Producers of these incumbent products include global oil companies, large international chemical companies and companies specializing in specific products, such as squalane or essential oils. We may also compete in one or more of these markets with products that are offered as alternatives to the traditional petroleum-based or other traditional products being offered in these markets.

Transportation Fuel Products

In the transportation fuels market, we expect to compete with independent and integrated oil refiners, advanced biofuels companies and biodiesel companies. Refiners compete with us by selling traditional fuel products and some are also pursuing hydrocarbon fuel production using non-renewable feedstocks, such as natural gas and coal, as well as processes using renewable feedstocks, such as vegetable oil and biomass. We also expect to compete with companies that are developing the capacity to produce diesel and other transportation fuels from renewable resources in other ways. These include advanced biofuels companies using specific enzymes that they have developed to convert cellulosic biomass, which is non-food plant material such as wood chips, corn stalks and sugarcane bagasse, into fermentable sugars. Similar to us, some companies are seeking to use engineered microbes to convert sugars, in some cases from cellulosic biomass and in others from more refined sugar sources, into renewable diesel and other fuels. Biodiesel companies convert vegetable oils and animal oils into diesel fuel and some are seeking to produce diesel and other transportation fuels using thermochemical methods to convert biomass into renewable fuels.

Petroleum Alternative Companies

With the emergence of many new companies seeking to produce chemicals and fuels from alternative sources, we may face increasing competition from alternative fuels and chemicals companies. As they emerge, some of these companies may be able to establish production capacity and commercial partnerships to compete with us.

Competitive Factors

We believe the primary competitive factors in both the chemicals and fuels markets are:

- product price;
- product performance and other measures of quality;
- infrastructure compatibility of products;
- sustainability; and
- dependability of supply.

We believe that, for our products to succeed in the market, we must demonstrate that our products are comparable or better alternatives to existing products and to any alternative products that are being developed for the same markets based on some combination of product cost, availability, performance, and consumer preference characteristics.

Environmental and Other Regulatory Matters

Our development and production processes involve the use, generation, handling, storage, transportation and disposal of hazardous chemicals and radioactive and biological materials. We are subject to a variety of federal, state, local and international laws, regulations and permit requirements governing the use, generation, manufacture, transportation, storage, handling and disposal of these materials in the United States, Brazil and other countries where we operate or may operate or sell our products in the future. These laws, regulations and permits can require expensive fees, pollution control equipment or operational changes to limit actual or potential impact of our technology on the environment and violation of these laws could result in significant fines, civil sanctions, permit revocation or costs from environmental remediation. We believe we are currently in substantial compliance with applicable environmental regulations and permitting. However, future developments including our commencement of commercial manufacturing of one or more of our products, more stringent environmental regulation, policies and enforcement, the implementation of new laws and regulations or the discovery of unknown environmental conditions may require expenditures that could have a material adverse effect on our business, results of operations or financial condition. See “Risk Factors - Risks Relating to Our Business - We may incur significant costs complying with environmental laws and regulations, and failure to comply with these laws and regulations could expose us to significant liabilities.”

GMM Regulations

The use of genetically-modified microorganisms (or GMMs), such as our yeast strains, is subject to laws and regulations in many countries. In the United States, the EPA regulates the commercial use of GMMs as well as potential products produced from the GMMs. Various states within the United States could choose to regulate products made with GMMs as well. While the strain of genetically modified yeast that we use, *S. cerevisiae*, is eligible for exemption from EPA review because the EPA recognizes it as posing a low risk, we must satisfy certain criteria to achieve this exemption, including but not limited to, use of compliant containment structures and safety procedures. In Brazil, GMMs are regulated by the National Biosafety Technical Commission (or the CTNBio) under its Biosafety Law No. 11.105-2005. We have obtained approval from CTNBio to generally use GMMs under specific conditions in our Campinas facilities and our production plant in Brotas for research and development purposes. In addition, we have received CTNBio approval for commercial use of certain strains of yeast in our Brotas plant.

We expect to encounter GMM regulations in most if not all of the countries in which we may seek to make our products; however, the scope and nature of these regulations will likely vary from country to country. If we cannot meet the applicable requirements in countries in which we intend to produce our products using our yeast strains, then our business will be adversely affected. See "*Risk Factors - Risks Related to Our Business - Our use of genetically-modified feedstocks and yeast strains to produce our products subjects us to risks of regulatory limitations and rejection of our products*."

Chemical Regulations

Our renewable chemical products may be subject to government regulations in our target markets. In the United States, the EPA administers the requirements of the TSCA, which regulates the commercial registration, distribution and use of many chemicals. Before an entity can manufacture or distribute significant volumes of a chemical, it needs 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 in most cases a "Chemical Abstracts Service" number registration and pre-manufacture notice must be filed with the EPA, which has 90 days to review the filing. A similar requirement exists in Europe under the Registration, Evaluation, Authorization and Restriction of Chemical Substances (or REACH) regulation.

Fuel Regulations

Our diesel and jet fuel is subject to regulation by various government agencies. In the United States, this includes the EPA and the California Air Resources Board (or CARB). In Brazil, this includes Brazilian Agência Nacional do Petróleo, Gas Natural e Biocombustíveis (or ANP). We have completed significant steps to validate our ability to produce a market-accepted diesel product:

- By design, our diesel is a hydrocarbon of similar size to many of the hydrocarbons in petroleum-sourced diesel fuel. Due to the similarity of its chemical composition to that of existing petroleum-sourced diesel, our product has the properties required of diesel fuel and thereby satisfies the ASTM D975 Table 1 specifications for petroleum-derived diesel fuel oils. The EPA has registered our diesel for use as a 35% blend rate with petroleum diesel in highway vehicles and non-road equipment, and we are working to obtain registration for a higher blend with petroleum diesel, which compares to a typical 3-10% blend of other bio-diesel products with petroleum diesel.

- In Europe, we obtained REACH registration for importing/manufacturing up to 1,000 metric tons of farnesane (our diesel fuel) per year and are pursuing data validation for greater volumes. REACH registration is required for the sale and use of our fuels within the applicable European jurisdictions.

- We have received required approvals with ANP for specific uses of our fuel in Brazil, have registered our diesel fuel with the CARB and are pursuing registration or approvals with other relevant regulatory bodies.

Our ability to enter the diesel market also depends upon our ability to continue to achieve the required regulatory approvals in the global markets in which we will seek to sell our diesel products. These approvals primarily involve clearance by the relevant environmental agencies in the particular jurisdiction. For instance, in 2013, the EPA registered farnesane as a new chemical substance under the TSCA, clearing the way for us to manufacture and sell farnesane without restrictions in the United States.

For diesel market access, we must also be validated by a sufficient number of diesel engine manufacturers, vehicle manufacturers or operators of large trucking fleets so that our diesel will have an appropriately large and accessible market. These certification processes include fuel analysis modeling and the testing of engines and their components to ensure that the use of our diesel fuel does not degrade performance or reduce the lifecycle of the engine or cause it to fail to meet emissions standards. We have completed successful engine testing of our diesel fuel with numerous manufacturers, including Cummins Engine Company, or Cummins, and Mercedes-Benz Brasil at a blend of up to 10%, and our renewable diesel has received OEM engine warranties from Cummins, Volkswagen AG and Mercedes-Benz Brasil for demonstration purposes. We continue to work with other diesel engine manufacturers to qualify our product for use in their engines.

Jet fuel (aviation turbine fuel) validation and specifications are subject to the ASTM International industry consensus process and the ANP national adoption process. Our farnesane is generally approved for use in jet fuel for commercial flights at blends of up to 10%. This jet fuel blend was approved by the ASTM International in June 2014. ASTM approval is required by U.S. and international regulators before jet fuel can be used commercially. In December 2014, the same jet fuel was approved by ANP, which is an additional step required for Brazil commercialization.

For us to maximize our access to the U.S. fuels market for our fuel products, we will also need to obtain EPA and CARB (and potentially other state agencies) certifications for our feedstock pathway and production facilities, including certification of a feedstock lifecycle analysis relating to greenhouse gas emissions. Any delay in obtaining these additional certifications could impair our ability to sell our renewable fuels to refiners, importers, blenders and other parties that produce transportation fuels as they comply with federal and state requirements to include certified renewable fuels in their products. See "*Risk Factors - Risks Related to Our Business - We may not be able to obtain regulatory approval for the sale of our renewable products*."

Employees

As of January 31, 2016, we had 418 full-time employees. Of these employees, 257 were in the United States and 161 were in Brazil. Except for labor union representation for Brazil-based employees based on labor code requirements in Brazil, none of our employees is represented by a labor union or is covered by a collective bargaining agreement. We have never experienced any employment-related work stoppages and consider relations with our employees to be good.

Financial Information by Geographic Areas

Financial information regarding revenues and long-lived assets by geographic area is included in Note 15, "Reporting Segments" in "Notes to Consolidated Financial Statements" included in this Form 10-K.

Business Background and Available Information

We organized our business in July 2003 as a California corporation under the name Amyris Biotechnologies, Inc. and have maintained our headquarters and research facilities in the San Francisco Bay Area since that time. In June 2010, we reincorporated in Delaware and changed our name to Amyris, Inc. We commenced research activities in 2005, focusing on the development of an alternative source of artemisinic acid for the treatment of malaria, and launched research efforts for production of Biofene in 2006. In 2008, we began to sell third party ethanol to wholesale customers through our Amyris Fuels subsidiary, which generated revenue from the sale of ethanol and reformulated ethanol-blended gasoline to wholesale customers through a network of terminals in the eastern United States. We completed our planned transition out of the ethanol and ethanol-blended gasoline business in the third quarter of 2012, though we continue to maintain the Amyris Fuels subsidiary for activities related to renewable fuel sales. We first established a presence in Brazil in 2008 through the opening of offices and laboratories in Campinas. Our corporate headquarters are located at 5885 Hollis Street, Suite 100, Emeryville, CA 94608, and our telephone number is (510) 450-0761. Our website address is www.amyris.com. The information contained in or accessible through our website or contained on other websites is not deemed to be part of this report on Form 10-K.

We are subject to the filing requirements of the Securities Exchange Act of 1934, as amended (or the Exchange Act). Therefore, we file periodic reports, proxy statements and other information with the SEC. Such reports, proxy statements and other information may be obtained by visiting the Public Reference Room of the SEC at 100 F Street, NE, Washington, D.C. 20549. You may obtain information regarding the operation of the Public Reference Room by calling the Securities and Exchange Commission at 1-800-SEC-0330. In addition, the Securities and Exchange Commission maintains a website (www.sec.gov) that contains reports, proxy and information statements, and other information regarding issuers that file electronically.

We make our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and all amendments to such reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act available free of charge through a link on the Investors section of our website located at www.amyris.com (under “Financial Information-SEC Filings”) as soon as reasonably practicable after they are filed with or furnished to the SEC.

ITEM 1A. RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the risks and uncertainties described below, together with all of the other information set forth in this Annual Report on Form 10-K, including the consolidated financial statements and related notes, which could materially affect our business, financial condition or future results. If any of the following risks actually occurs, our business, financial condition, results of operations and future prospects could be materially and adversely harmed. The trading price of our common stock could decline due to any of these risks, and, as a result, you may lose all or part of your investment.

Risks Related to Our Business

We have incurred losses to date, anticipate continuing to incur losses in the future, and may never achieve or sustain profitability.

We have incurred significant losses in each year since our inception and believe that we will continue to incur losses and negative cash flow from operations into at least 2017. As of December 31, 2015, we had an accumulated deficit of $1,037.1 million and had cash, cash equivalents and short term investments of $13.5 million. We have significant outstanding debt and contractual obligations related to capital and operating leases, as well as purchase commitments of $1.3 million. As of December 31, 2015, our debt totaled $156.0 million, net of discount of $48.6 million, of which $37.6 million is classified as current. Subsequent to December 31, 2015, we issued $20.0 million in aggregate principal amount of unsecured promissory notes, which bear interest at a rate of 13.50% per annum and are due on May 15, 2017, in a private placement transaction. our debt service obligations over the next twelve months are significant, including approximately $15.5 million of anticipated interest payments (excluding interest paid in kind by adding to outstanding principal) and may include potential early conversion payments (assuming all note holders convert) under our outstanding convertible promissory notes sold on May 29, 2014 pursuant to Rule 144A of the Securities Act (or the 2014 144A Notes) (due to the Company's share price trading below the conversion price of the 2014 144A Notes, the potential payment would have been nil both as of December 31, 2015 and the date of issuance of this Form 10-K) and potential early conversion payments of up to approximately $16.9 million (assuming all note holders convert) under our outstanding convertible promissory notes sold on October 20, 2015 pursuant to Rule 144A of the Securities Act (or the 2015 144A Notes). Furthermore, our debt agreements contain various financial and operating covenants, including restrictions on business that could cause us to be at risk of defaults. We expect to incur additional costs and expenses related to the continued development and expansion of our business, including construction and operation of our manufacturing facilities, contract manufacturing, research and development operations, and operation of our pilot plants and demonstration facility. There can be no assurance that we will ever achieve or sustain profitability on a quarterly or annual basis.

Our audited consolidated financial statements as of and for the year ended December 31, 2015 have been prepared on the basis that we will continue as a going concern, which contemplates the realization of assets and satisfaction of liabilities in the normal course of business. We have incurred significant losses since our inception and we expect that we will continue to incur losses as we aim to successfully execute our business plan and will be dependent on

additional public or private financings, collaborations or licensing arrangements with strategic partners, or through additional credit lines or other debt financing sources to fund continuing operations. Based on our cash balances, recurring losses since inception and our existing capital resources to fund our planned operations for a twelve month period, there is substantial doubt about our ability to continue as a going concern. Our operating plan for 2016 contemplates a significant reduction in our net cash outflows resulting from (i) revenue growth from sales of existing and new products with positive gross margins, (ii) reduced production costs as a result of manufacturing and technical developments, (iii) increased cash inflows from collaborations, (iv) reduced operating expenses, and (v) access to various financing commitments. In addition, as noted above, for our 2016 operating plan, we are dependent on funding from sources that are not subject to existing commitments. We will need to obtain additional funding from equity or debt financings, which may require us to agree to burdensome covenants, grant further security interests in our assets, enter into collaboration and licensing arrangements that require us to relinquish commercial rights, or grant licenses on terms that are not favorable. No assurance can be given at this time as to whether we will be able to achieve our expense reduction or fundraising objectives, regardless of the terms. If we are unable to raise additional financing, or if other expected sources of funding are delayed or not received, our ability to continue as a going concern would be jeopardized and we may be forced to delay, scale back or eliminate some of our general and administrative, research and development, or production activities or other operations and reduce investment in new product and commercial development efforts in an effort to provide sufficient funds to continue our operations. If any of these events occurs, our ability to achieve our development and commercialization goals would be adversely affected. In addition, if we are unable to continue as a going concern, we may be unable to meet our obligations under our existing debt facilities, which could result in an acceleration of our obligation to repay all amounts outstanding under those facilities, and we may be forced to liquidate our assets. In such a scenario, the values we receive for our assets in liquidation or dissolution could be significantly lower than the values reflected in our financial statements.

Our audited consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty, which could have a material adverse effect on our financial condition and cause investors to suffer the loss of all or a substantial portion of their investment.

We have limited experience producing our products at commercial scale and may not be able to commercialize our products to the extent necessary to sustain and grow our current business.

To commercialize our products, we must be successful in using our yeast strains to produce target molecules at commercial scale and at a commercially viable cost. If we cannot achieve commercially-viable production economics for enough products to support our business plan, including through establishing and maintaining sufficient production scale and volume, we will be unable to achieve a sustainable integrated renewable products business. Virtually all of our production capacity is through a purpose-built, large-scale production plant in Brotas, Brazil. This plant commenced operations in 2013, and scaling and running the plant has been, and continues to be, a time-consuming, costly, uncertain and expensive process. Given our limited experience commissioning and operating our own manufacturing facilities and our limited financial resources, we cannot be sure that we will be successful in achieving production economics that allow us to meet our plans for commercialization of various products we intend to offer. In addition, until very recently we have only produced Biofene at the Brotas plant. Our attempts to scale production of new molecules at the plant are subject to uncertainty and risk. For example, even to the extent we successfully complete product development in our laboratories and pilot and demonstration facilities, and at contract manufacturing facilities, we may be unable to translate such success to large-scale, purpose-built plants. If this occurs, our ability to commercialize our technology will be adversely affected and we may be unable to produce and sell any significant volumes of our products. Also, with respect to products that we are able to bring to market, we may not be able to lower the cost of production, which would adversely affect our ability to sell such products profitably.

We will require significant inflows of cash from financing and collaboration transactions to fund our anticipated operations and to service our debt obligations and may not be able to obtain such financing and collaboration funding on favorable terms, if at all.

Our planned 2016 and 2017 working capital needs, our planned operating and capital expenditures for 2016 and 2017, and our ability to service our outstanding debt obligations are dependent on significant inflows of cash from existing and new collaboration partners and cash contribution from growth in renewable product sales. We will continue to need to fund our research and development and related activities and to provide working capital to fund production, storage, distribution and other aspects of our business. Some of our anticipated financing sources, such as research and development collaborations, are subject to the risk that we cannot meet milestones, that the collaborations may end prematurely for reasons that may be outside of our control (including technical infeasibility of the project or a collaborator's right to terminate without cause), or the collaborations are not yet subject to definitive agreements or mandatory funding commitments and, if needed, we may not be able to secure additional types of financing in a timely manner or on reasonable terms, if at all. The inability to generate sufficient cash flow, as described above, could have an adverse effect on our ability to continue with our business plans and our status as a going concern.

If we are unable to raise additional financing, or if other expected sources of funding are delayed or not received, our ability to continue as a going concern would be jeopardized and we would take the following actions as early as the second quarter of 2016 to support our liquidity needs through the remainder of 2016 and into 2017:

- Effect significant headcount reductions, particularly with respect to employees not connected to critical or contracted activities across all functions of the Company, including employees involved in general and administrative, research and development, and production activities.

- Shift focus to existing products and customers with significantly reduced investment in new product and commercial development efforts.

- Reduce production activity at our Brotas manufacturing facility to levels only sufficient to satisfy volumes required for product revenues forecast from existing products and customers.

- Reduce expenditures for third party contractors, including consultants, professional advisors and other vendors.

- Reduce or delay uncommitted capital expenditures, including non-essential facility and lab equipment, and information technology projects.

- Closely monitor our working capital position with customers and suppliers, as well as suspend operations at pilot plants and demonstration facilities.

Implementing this plan could have a negative impact on our ability to continue our business as currently contemplated, including, without limitation, delays or failures in our ability to:

- Achieve planned production levels;
- Develop and commercialize products within planned timelines or at planned scales; and
- Continue other core activities.

Furthermore, any inability to scale-back operations as necessary, and any unexpected liquidity needs, could create pressure to implement more severe measures. Such measures could have an adverse effect on our ability to meet contractual requirements, including obligations to maintain manufacturing operations, and increase the severity of the consequences described above.

Future revenues are difficult to predict, and our failure to predict revenue accurately may cause our results to be below our expectations or those of analysts or investors and could result in our stock price declining.

Our revenues are comprised of product revenues and grants and collaborations revenues. We generate the substantial majority of our product revenues from sales to distributors or collaborators and only a small portion from direct sales. Our collaboration and distribution agreements do not include any specific purchase obligations. The sales volume of our products in any given period has been difficult to predict. A significant portion of our product sales is dependent upon the interest and ability of third party distributors to create demand for, and generate sales of, such products to end-users. For example, if such distributors are unsuccessful in creating pull-through demand for our products with their customers, such distributors may purchase less of our products from us than we expect. In addition, many of our new and novel products are intended to be a component of other companies' products; therefore, sales of our products may be contingent on our collaborators' and/or customers' timely and successful development and commercialization of end-use products that incorporate our products. Furthermore, we are beginning to market and sell some of our products directly to end-consumers, initially in the cosmetics and industrial cleaning markets. Because we have no prior experience in marketing and selling directly to consumers, it is difficult to predict how successful our efforts will be and we may not achieve the product sales we expect to achieve in the timeline we anticipate (if at all).

In addition, we have entered into, and continue to look for, research and development collaboration arrangements pursuant to which we receive payments from our collaborators. Some of such collaboration arrangements include advance payments in consideration for grants of exclusivity or research efforts to be performed by us. It has in the past

been difficult for us to know with certainty when we will sign a new collaboration arrangement. As a result, achievement of our quarterly and annual goals, expressed in part via a non-GAAP financial measure that we refer to as cash revenue inflows consisting of GAAP product revenues plus cash payments from collaborations and grants, has been difficult to predict with certainty. Once a collaboration agreement has been signed, receipt of payments and/or recognition of related revenues may depend on our achievement of milestones. In addition, a portion of the revenue we report each quarter results from the recognition of deferred revenue from advance payments we have received from these collaborators during previous quarters. Since our business model depends in part on collaboration agreements with advance payments that we recognize over time, it may also be difficult for us to rapidly increase our revenues through additional collaborations in any period, as revenue from such new collaborations will often be recognized over multiple quarters or years.

These factors have made it difficult to predict future revenues and have resulted in our revenues being below our previously announced guidance or analysts' estimates. For example, in the fourth quarter of fiscal 2015 we were unable to complete processing of an F&F product we produced for sale to a collaboration partner, leading to delays in shipment and lower than expected revenues for such quarter. We continue to face these risks in the future, which may cause our stock price to decline.

A limited number of distributors, customers and collaboration partners account for a significant portion of our revenue, and the loss of major distributors, customers or collaboration partners could harm our operating results.

Our revenues have varied significantly from quarter to quarter and are dependent on sales to, and collaborations with, a limited number of distributors, customers and/or collaboration partners. We cannot be certain that distributors, customers and/or collaboration partners that have accounted for significant revenue in past periods, individually or as a group, will continue to generate similar revenue in any future period. If we fail to renew with, or if we lose a major distributor, customer or collaborator or group of distributors, customers or collaborators, our revenue could decline if we are unable to replace the lost revenue with revenue from other sources.

Our existing financing arrangements may cause significant risks to our stockholders and may impact our ability to pursue certain transactions and operate our business.

As of December 31, 2015, our debt totaled $156.0 million, net of discount of $48.6 million, of which $37.6 million is classified as current. Our cash balance is substantially less than the principal amount of our outstanding debt, and we will be required to generate cash from operations or raise additional working capital through future financings or sales of assets to enable us to repay this indebtedness as it becomes due. There can be no assurance that we will be able to do so.

In addition, we have agreed to significant covenants in connection with our debt financing transactions. For example, our loan facility with Hercules Technology Growth Capital, Inc. (or Hercules) requires us to maintain unrestricted, unencumbered cash in defined U.S. bank accounts in an amount equal to at least 50% of the principal amount outstanding under this facility. Hercules has waived our non-compliance with such covenant as of December 31, 2015 and as of the date hereof. Because of the possibility of the Company breaching the minimum cash covenant required by Hercules during the twelve months following the balance sheet date. Consequently all outstanding amounts under the Hercules Loan Facility agreements are classified as current liabilities at December 31, 2015. We will also be required to pay an approximately 10% end of term charge under such facility. The Hercules loan facility also includes customary events of default, including failure to pay amounts due, breaches of covenants and warranties, material adverse effect events, certain cross defaults and judgments, and insolvency. A failure to comply with the covenants and other provisions of our debt instruments, including any failure to make a payment when required would generally result in events of default under such instruments, which could permit acceleration of such indebtedness and could result in a material adverse effect events on us. If such indebtedness is accelerated, it would generally also constitute an event of default under our other outstanding indebtedness, permitting acceleration of such other outstanding

indebtedness. Any required repayment of our indebtedness as a result of acceleration or otherwise would lower our current cash on hand such that we would not have those funds available for use in our business or for payment of other outstanding indebtedness.

If we are at any time unable to generate sufficient cash flow from operations to service our indebtedness when payment is due, we may be required to attempt to renegotiate the terms of the instruments relating to the indebtedness, seek to refinance all or a portion of the indebtedness or obtain additional financing. There can be no assurance that we will be able to successfully renegotiate such terms, that any such refinancing would be possible or that any additional financing could be obtained on terms that are favorable or acceptable to us. Any debt financing that is available could cause us to incur substantial costs and subject us to covenants that significantly restrict our ability to conduct our business. If we seek to complete additional equity financings, the interests of existing equity holders may be diluted.

In addition, the covenants in our debt agreements materially limit our ability to take certain actions, including our ability to incur indebtedness, pay dividends, make certain investments and other payments, enter into certain mergers and consolidations, and encumber and dispose of assets. For example, the purchase agreement for convertible notes that we sold in separate closings in October 2013 and January 2014, which we refer to as the Tranche Notes, requires us to obtain the consent of a majority of the purchasers of these notes before completing any change-of-control transaction, or purchasing assets in one transaction or a series of related transactions in an amount greater than $20.0 million, in each case while the notes are outstanding. The holders of these notes also have pro rata rights under which they could cancel up to the full amount of their outstanding notes to pay for equity securities that we issue in certain financings, which could delay or prevent us from completing such financings.

Our substantial leverage could adversely affect our ability to fulfill our obligations under our existing indebtedness and may place us at a competitive disadvantage in our industry.

We continue to have substantial debt outstanding and we may incur additional indebtedness from time to time to finance working capital, product development efforts, strategic acquisitions, investments and alliances, capital expenditures or other general corporate purposes, subject to the restrictions contained in our existing indebtedness and in any other agreements under which we incur indebtedness. Our significant indebtedness and debt service requirements could adversely affect our ability to operate our business and may limit our ability to take advantage of potential business opportunities. For example, our high level of indebtedness presents the following risks:

- we will be required to use a substantial portion of our cash flow from operations to pay principal and interest on our indebtedness, thereby reducing the availability of our cash flow to fund working capital, capital expenditures, product development efforts, acquisitions, investments and strategic alliances and other general corporate requirements;

- our substantial leverage increases our vulnerability to economic downturns and adverse competitive and industry conditions and could place us at a competitive disadvantage compared to those of our competitors that are less leveraged;

- our debt service obligations could limit our flexibility in planning for, or reacting to, changes in our business and our industry and could limit our ability to pursue other business opportunities, borrow more money for operations or capital in the future and implement our business strategies;

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- our level of indebtedness and the covenants within our debt instruments may restrict us from raising additional financing on satisfactory terms to fund working capital, capital expenditures, product development efforts, strategic acquisitions, investments and alliances, and other general corporate requirements; and

- our substantial leverage may make it difficult for us to attract additional financing when needed.

If we are at any time unable to generate sufficient cash flow from operations to service our indebtedness when payment is due, we may be required to attempt to renegotiate the terms of the instruments relating to the indebtedness, seek to refinance all or a portion of the indebtedness or obtain additional financing. There can be no assurance that we will be able to successfully renegotiate such terms, that any such refinancing would be possible or that any additional financing could be obtained on terms that are favorable or acceptable to us.

A failure to comply with the covenants and other provisions of our debt instruments, including any failure to make a payment when required, could result in events of default under such instruments, and which could permit acceleration of such indebtedness. If such indebtedness is accelerated, it could also constitute an event of default under our other outstanding indebtedness, permitting acceleration of such other outstanding indebtedness. Any required repayment of our indebtedness as a result of acceleration or otherwise would lower our current cash on hand such that we would not have those funds available for use in our business or for payment of other outstanding indebtedness.

Our GAAP operating results could fluctuate substantially due to the accounting for the early conversion payment features of outstanding convertible promissory notes.

Several of our outstanding convertible debt instruments are accounted for under Accounting Standards Codification 815, Derivatives and Hedging (or ASC 815) as an embedded derivative. For instance, with respect to the 2014 144A Notes, if the holders elect convert their 2014 144A Notes, and if the last reported sale price of our common stock for 20 or more trading days (whether or not consecutive) in a period of 30 consecutive trading days ending within five trading days immediately prior to the date we receive a notice of such election exceeds the conversion price in effect on each such trading day, such converting holders will receive an early conversion payment equal to the present value of the remaining scheduled payments of interest that would have been made on the 2014 144A Notes being converted from the earlier of the date that is three years after the date we receive such notice of conversion and maturity of the 2014 144A Notes. The 2015 144A Notes contain a similar early conversion payment feature. The early conversion payment features of the 2014 144A Notes and the 2015 144A Notes are accounted for under ASC 815 as embedded derivatives. ASC 815 requires companies to bifurcate conversion options from their host instruments and account for them as free standing derivative financial instruments according to certain criteria. The fair value of the derivative is remeasured to fair value at each balance sheet date, with a resulting non-cash gain or loss related to the change in the fair value of the derivative being charged to earnings (loss). We have determined that we must bifurcate and account for the early conversion payment features of the 2014 144A Notes and the 2015 144A Notes as embedded derivatives in accordance with ASC 815. We have recorded these embedded derivative liabilities as non-current liabilities on our consolidated balance sheet with a corresponding debt discount at the date of issuance that is netted against the principal amount of the 2014 144A Notes and the 2015 144A Notes, respectively. The derivative liabilities are remeasured to fair value at each balance sheet date, with a resulting non-cash gain or loss related to the change in the

fair value of the derivative liabilities being recorded in other income or loss. There is no current observable market for this type of derivative and, as such, we determine the fair value of the embedded derivatives using the binomial lattice model. The valuation model uses the stock price, conversion price, maturity date, risk-free interest rate, estimated stock volatility and estimated credit spread. Changes in the inputs for these valuation models may have a significant impact on the estimated fair value of the embedded derivative liabilities. For example, an increase in the Company's stock price results in an increase in the estimated fair value of the embedded derivative liabilities. The embedded derivative liabilities may have, on a GAAP basis, a substantial effect on our balance sheet from quarter to quarter and it is difficult to predict the effect on our future GAAP financial results, since valuation of these embedded derivative liabilities are based on factors largely outside of our control and may have a negative impact on our earnings and balance sheet.

If our major production facilities do not successfully commence or scale up operations, our customer relationships, business and results of operations may be adversely affected.

A substantial component of our planned production capacity in the near and long term depends on successful operations at our large-scale production plant in Brazil. We are in the early stages of operating our first purpose-built, large-scale production plant in Brotas, Brazil and may complete construction of certain other facilities in the coming years. Delays or problems in the construction, start-up or operation of these facilities will cause delays in our ramp-up of production and hamper our ability to reduce our production costs. Delays in construction can occur due to a variety of factors, including regulatory requirements and our ability to fund construction and commissioning costs. For example, in 2012 we determined it was necessary to delay further construction of our large-scale manufacturing facility with São Martinho in order to focus on the construction and commissioning of our Brotas facility. We have since permanently ceased construction of the São Martinho facility, and expect to need to identify additional production capacity as early as 2017 based on anticipated volume requirements. Once our large-scale production facilities are built, we must successfully commission them and they must perform as we have designed them. If we encounter significant delays, cost overruns, engineering issues, contamination problems, equipment or raw material supply constraints, unexpected equipment maintenance requirements, safety issues, work stoppages or other serious challenges in bringing these facilities online and operating them at commercial scale, we may be unable to produce our initial renewable products in the time frame we have planned. For example, we have just begun using our plant at Brotas to produce molecules beyond Biofene, and we have, until recently, only successfully produced Biofene at scale at the plant. In order to produce additional molecules at Brotas, we have been and will be required to perform thorough transition activities, and modify the design of the plant. Any modifications to the production plant could cause complications in the start-up and operations of the plant, which could result in delays or failures in production. We may also need to continue to use contract manufacturing sources more than we expect (e.g., if the modifications to the Brotas plant are not successful or have a negative impact on the plant's operations), which would reduce our anticipated gross margins and may prevent us from accessing certain markets for our products. Further, if our efforts to increase (or commence, as the case may be) production at these facilities are not successful, other mill owners in Brazil or elsewhere may decide not to work with us to develop additional production facilities, demand more favorable terms or delay their commitment to invest capital in our production.

Our reliance on the large-scale production plant in Brotas, Brazil subjects us to execution and economic risks.

Our decision to focus our efforts for production capacity on the manufacturing facility in Brotas, Brazil means that we have limited manufacturing sources for our products in 2016 and beyond. Accordingly, any failure to establish operations at that plant could have a significant negative impact on our business, including our ability to achieve commercial viability for our products. With the facility in Brotas, Brazil, we are, for the first time, operating a commercial fermentation and separation facility ourselves. We may face unexpected difficulties associated with the operation of the plant. For example, we have in the past, at certain contract manufacturing facilities and at the Brotas facility, encountered delays and difficulties in ramping up production based on contamination in the production process, problems with plant utilities, lack of automation and related human error, issues arising from process modifications to reduce costs and adjust product specifications or transition to producing new molecules, and other similar challenges. We cannot be certain that we will be able to remedy all of such challenges quickly or effectively enough to achieve commercially viable near-term production costs and volumes.

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To the extent we secure collaboration arrangements with new or existing partners, we may be required to make significant capital investments at our existing or new facilities in order to produce molecules or other products for such collaborations. Any failure or difficulties in establishing, building up or retooling our operations for these new collaboration arrangements could have a significant negative impact on our business, including our ability to achieve commercial viability for our products, lead to the inability to meet our contractual obligations and could cause us to allocate capital, personnel and other resources from our organization which could adversely affect our business and reputation.

As part of our arrangement to build the plant in Brotas, Brazil we have an agreement with Tonon to purchase from Tonon sugarcane juice corresponding to a certain number of tons of sugarcane per year, along with specified water and vapor volumes. Until this annual volume is reached, we are restricted from purchasing sugarcane juice for processing in the facility from any third party, subject to limited exceptions, unless we pay the premium to Tonon that we would have paid if we bought the juice from them. As such, we will be relying on Tonon to supply such juice and utilities on a timely basis, in the volumes we need, and at competitive prices. If a third party can offer superior prices and Tonon does not consent to our purchasing from such third party, we would be required to pay Tonon the applicable premium, which would have a negative impact on our production cost. Furthermore, we agreed to pay a price for the juice that is based on the lower of the cost of two other products produced by Tonon using such juice, plus a premium. Tonon may not want to sell sugarcane juice to us if the price of one of the other products is substantially higher than the one setting the price for the juice we purchase. While the agreement provides that Tonon would have to pay a penalty to us if it fails to supply the agreed-upon volume of juice for a given month, the penalty may not be enough to compensate us for the increased cost if third-party suppliers do not offer competitive prices. Also, if the prices of the other products produced by Tonon increase, we could be forced to pay those increased prices for production without a related increase in the price at which we can sell our products, reducing or eliminating any margins we can otherwise achieve. If in the future these supply terms no longer provide a viable economic structure for the operation in Brotas, Brazil we may be required to renegotiate our agreement, which could result in manufacturing disruptions and delays. In December 2015, Tonon filed for bankruptcy protection in Brazil. If Tonon is unable to supply sugarcane juice, water and steam in accordance with our agreement, we may not be able to obtain substitute supplies from third parties in necessary quantities or at favorable prices, or at all. In such event, our ability to manufacture our products in a timely or cost-effective manner, or at all, would be negatively affected, which would have a material adverse effect on our business.

Furthermore, as we continue to scale up production of our products, both through contract manufacturers and at our large-scale production plant in Brotas, Brazil, we may be required to store increasing amounts of our products for varying periods of time and under differing temperatures or other conditions that cannot be easily controlled, which may lead to a decrease in the quality of our products and their utility profiles and could adversely affect their value. If our stored products degrade in quality, we may suffer losses in inventory and incur additional costs in order to further refine our stored products or we may need to make new capital investments in shipping, improved storage or sales channels and related logistics.

Loss or termination of contract manufacturing relationships could harm our ability to meet our production goals.

As we have focused on building and commissioning our own plant and improving our production economics, we have reduced our use of contract manufacturing and have terminated relationships with some of our contract manufacturing partners. The failure to have multiple available supply options for farnesene or other target molecules could create a risk for us if a single source or a limited number of sources of manufacturing runs into operational issues. In addition, if we are unable to secure the services of contract manufacturers when and as needed, we may lose customer opportunities and the growth of our business may be impaired. We cannot be sure that contract manufacturers will be available when we need their services, that they will be willing to dedicate a portion of their capacity to our projects, or that we will be able to reach acceptable price and other terms with them for the provision of their production services. If we shift priorities and adjust anticipated production levels (or cease production altogether) at contract manufacturing facilities, such adjustments or cessations could also result in disputes or otherwise harm our business relationships with contract manufacturers. In addition, reducing or stopping production at one facility while increasing or starting up production at another facility generally results in significant losses of production efficiency, which can persist for significant periods of time. Also, in order for production to commence under our contract manufacturing arrangements, we generally must provide equipment, and we cannot be assured that such equipment can be ordered or installed on a timely basis, at acceptable costs, or at all. Further, in order to establish new manufacturing facilities, we need to transfer our yeast strains and production processes from lab to commercial plants controlled by third parties, which may pose technical or operational challenges that delay production or increase our costs.

Our use of contract manufacturers exposes us to risks relating to costs, contractual terms and logistics.

While we have commenced commercial production at the Brotas, Brazil plant, we continue to commercially produce, process and manufacture some specialty molecules through the use of contract manufacturers, and we anticipate that we will continue to use contract manufacturers for the foreseeable future for chemical conversion and production of end-products and, to mitigate cost and volume risks at our large-scale production facilities, for production of Biofene and other fermentation target compounds. Establishing and operating contract manufacturing facilities requires us to make significant capital expenditures, which reduces our cash and places such capital at risk. For example, based on an evaluation of our assets associated with contract manufacturing facilities and anticipated levels of use of such facilities, we recorded a loss of $0.7 million from write-off of assets related to contract manufacturing (included in loss on purchase commitments, impairment of property, plant and equipment and other asset allowances of $1.8 million in the year ended December 31, 2014). No such losses were incurred in 2015. Also, contract manufacturing agreements may contain terms that commit us to pay for capital expenditures and other costs incurred or expected to be earned by the plant operators and owners, which can result in contractual liability and losses for us even if we terminate a particular contract manufacturing arrangement or decide to reduce or stop production under such an arrangement. For example, in June 2013, we entered into a termination agreement with a contract manufacturer that required us to make payments totaling $8.8 million in 2013.

The locations of contract manufacturers can pose additional cost, logistics and feedstock challenges. If production capacity is available at a plant that is remote from usable chemical finishing or distribution facilities, or from customers, we will be required to incur additional expenses in shipping products to other locations. Such costs could

include shipping costs, compliance with export and import controls, tariffs and additional taxes, among others. In addition, we may be required to use feedstock from a particular region for a given production facility. The feedstock available in a particular region may not be the least expensive or most effective feedstock for production, which could significantly raise our overall production cost or reduce our product's quality until we are able to optimize the supply chain.

If we are unable to reduce our production costs, we may not be able to produce our products at competitive prices and our ability to grow our business will be limited.

In order to be competitive in the markets we are targeting, our products must have superior qualities or be competitively priced relative to alternatives available in the market. Currently, our costs of production are not low enough to allow us to offer some of our planned products at competitive prices relative to alternatives available in the market. Our production costs depend on many factors that could have a negative effect on our ability to offer our planned products at competitive prices, including, in particular, our ability to establish and maintain sufficient production scale and volume, and feedstock cost. For example, see "*We have limited experience producing our products at commercial scale and may not be able to commercialize our products to the extent necessary to sustain and grow our current business,*" "*Our manufacturing operations require sugar feedstock, energy and steam, and the inability to obtain such feedstock, energy and steam in sufficient quantities or in a timely manner, or at reasonable prices, may limit our ability to produce products profitably or at all,*" and "*The price of sugarcane and other feedstocks can be volatile as a result of changes in industry policy and may increase the cost of production of our products.*"

We face financial risk associated with scaling up production to reduce our production costs. To reduce per-unit production costs, we must increase production to achieve economies of scale and to be able to sell our products with positive margins. However, if we do not sell production output in a timely manner or in sufficient volumes, our investment in production will harm our cash position and generate losses. Additionally, we may incur added costs in storage and we may face issues related to the decrease in quality of our stored products, which could adversely affect the value of such products. Since achieving competitive product prices generally requires increased production volumes and our manufacturing operations and cash flows from sales are in their early stages, we have had to produce and sell products at a loss in the past, and may continue to do so as we build our business. If we are unable to achieve adequate revenues from a combination of product sales and other sources, we may not be able to invest in production and we may not be able to pursue our business plans.

Key factors beyond production scale and feedstock cost that impact our production costs include yield, productivity, separation efficiency and chemical process efficiency. Yield refers to the amount of the desired molecule that can be produced from a fixed amount of feedstock. Productivity represents the rate at which our product is produced by a given yeast strain. Separation efficiency refers to the amount of desired product produced in the fermentation process that we are able to extract and the time that it takes to do so. Chemical process efficiency refers to the cost and yield for the chemical finishing steps that convert our target molecule into a desired product. In order to successfully enter transportation fuels and certain chemical markets, we must produce those products at significantly lower costs, which will require both substantially higher yields than we have achieved to date and other significant improvements in production efficiency, including in productivity and in separation and chemical process efficiencies. There can be no assurance that we will be able to make these improvements or reduce our production costs sufficiently to offer our planned products at competitive prices, and any such failure could have a material adverse impact on our business and prospects.

Our ability to establish substantial commercial sales of our products is subject to many risks, any of which could prevent or delay revenue growth and adversely impact our customer relationships, business and results of operations.

There can be no assurance that our products will be approved or accepted by customers, that customers will choose our products over competing products, or that we will be able to sell our products profitably at prices and with features sufficient to establish demand. The markets we have entered first are primarily those for specialty chemical products used by large consumer products or specialty chemical companies. In entering these markets, we have sold and we intend to sell our products as alternatives to chemicals currently in use, and in some cases the chemicals that we seek to replace have been used for many years. The potential customers for our molecules generally have well developed manufacturing processes and arrangements with suppliers of the chemical components of their products and may have a resistance to 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 such as process changes and capital and other costs associated with transitioning to alternative components, supplier operating history, established business relationships and agreements, 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. If we are unable to convince these potential customers (and the consumers who purchase products containing such chemicals) that our products are comparable to the chemicals that they currently use or that the use of our products is otherwise to their benefits, we will not be successful in entering these markets and our business will be adversely affected.

In order for our diesel fuel to be accepted in various countries around the world, a significant number of diesel engine manufacturers or operators of large trucking fleets, must determine that the use of our fuels in their equipment will not invalidate product warranties and that they otherwise regard our diesel fuel as an acceptable fuel so that our diesel fuel will have appropriately large and accessible addressable markets. In addition, we must successfully demonstrate to these manufacturers that our fuel does not degrade the performance or reduce the life cycle of their engines or cause them to fail to meet applicable emissions standards. These certification processes include fuel analysis modeling and the testing of engines and their components to ensure that the use of our diesel fuel does not degrade performance or reduce the lifecycle of the engine or cause them to fail to meet applicable emissions standards.

Additionally, we may be subject to product safety testing and may be required to meet certain regulatory and/or product safety standards. Meeting these standards can be a time consuming and expensive process, and we may invest substantial time and resources into such qualification efforts without ultimately securing approval. To date, our diesel fuel has achieved limited approvals from certain engine manufacturers, but we cannot be assured that other engine or vehicle manufacturers or fleet operators, will approve usage of our fuels. To distribute our diesel fuel, we must also meet requirements imposed by pipeline operators and fuel distributors. If these operators impose volume or other limitations on the transport of our fuels, our ability to sell our fuels may be impaired.

Our ability to enter the fuels market is also dependent upon our ability to continue to achieve the required regulatory approvals in the global markets in which we will seek to sell our fuel products. These approvals primarily involve clearance by the relevant environmental agencies in the particular jurisdiction and are described below under the risk

factors, "*Our use of genetically-modified feedstocks and yeast strains to produce our products subjects us to risks of regulatory limitations and rejection of our products*," "*We may not be able to obtain regulatory approval for the sale of our renewable products*," and "*We may incur significant costs complying with environmental laws and regulations, and failure to comply with these laws and regulations could expose us to significant liabilities*."

We expect to face competition for our specialty chemical and transportation fuels products from providers of petroleum-based products and from other companies seeking to provide alternatives to these products, and if we cannot compete effectively against these companies or products we may not be successful in bringing our products to market or further growing our business after we do so.

We expect that our renewable products will compete with both the traditional, largely petroleum-based specialty chemical and fuels products that are currently being used in our target markets and with the alternatives to these existing products that established enterprises and new companies are seeking to produce.

In the specialty chemical markets that we are initially entering, and in other chemical markets that we may seek to enter in the future, we will compete primarily with the established providers of chemicals currently used in products in these markets. Producers of these incumbent products include global oil companies, large international chemical companies and companies specializing in specific products, such as squalane or essential oils. We may also compete in one or more of these markets with products that are offered as alternatives to the traditional petroleum-based or other traditional products being offered in these markets.

In the transportation fuels market, we expect to compete with independent and integrated oil refiners, advanced biofuels companies and biodiesel companies. Refiners compete with us by selling traditional fuel products and some are also pursuing hydrocarbon fuel production using non-renewable feedstocks, such as natural gas and coal, as well as processes using renewable feedstocks, such as vegetable oil and biomass. We also expect to compete with companies that are developing the capacity to produce diesel and other transportation fuels from renewable resources in other ways. These include advanced biofuels companies using specific enzymes that they have developed to convert cellulosic biomass, which is non-food plant material such as wood chips, corn stalks and sugarcane bagasse, into fermentable sugars. Similar to us, some companies are seeking to use engineered microbes, such as yeast, bacteria and algae, to convert sugars, in some cases from cellulosic biomass and in others from more refined sugar sources, into renewable diesel and other fuels. Biodiesel companies convert vegetable oils and animal oils into diesel fuel and some are seeking to produce diesel and other transportation fuels using thermochemical methods to convert biomass into renewable fuels.

With the emergence of many new companies seeking to produce chemicals and fuels from alternative sources, we may face increasing competition from alternative fuels and chemicals companies. As they emerge, some of these companies may be able to establish production capacity and commercial partnerships to compete with us. If we are unable to establish production and sales channels that allow us to offer comparable products at attractive prices, we may not be able to compete effectively with these companies.

We believe the primary competitive factors in both the chemicals and fuels markets are:

- product price;

- product performance and other measures of quality;

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- infrastructure compatibility of products;
- sustainability; and
- dependability of supply.

The oil companies, large chemical companies and well-established agricultural products companies with whom we compete are much larger than us, have, in many 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. In order to be successful, we must convince customers that our products are at least as effective as the traditional products they are seeking to replace and we must provide our products on a cost basis that does not greatly exceed these traditional products and other available alternatives. Some of our competitors may use their influence to impede the development and acceptance of renewable products of the type that we are seeking to produce.

We believe that for our chemical products to succeed in the market, we must demonstrate that our products are comparable alternatives to existing products and to any alternative products that are being developed for the same markets based on some combination of product cost, availability, performance, and consumer preference characteristics. With respect to our diesel and other transportation fuels products, we believe that our product must perform as effectively as petroleum-based fuel, or alternative fuels, and be available on a cost basis that does not greatly exceed these traditional products and other available alternatives. In addition, with the wide range of renewable fuels products under development, we must be successful in reaching potential customers and convincing them that ours are effective and reliable alternatives.

Our relationship with our strategic partner, Total, and certain rights we have granted to Total and other existing stockholders in relation to our future securities offerings have substantial impacts on our company.

We have a license, development, research and collaboration agreement with Total, under which we may develop, produce and commercialize products with Total. Under this agreement, Total has a right of first negotiation with respect to certain exclusive commercialization arrangements that we would propose to enter into with third parties, as well as the right to purchase any of our products on terms not less favorable than those offered to or received by us from third parties in any market where Total or its affiliates have a significant market position. These rights might inhibit potential strategic partners or potential customers from entering into negotiations with us about future business opportunities. Total also has the right to terminate this agreement if we undergo a sale or change of control to certain entities, which could discourage a potential acquirer from making an offer to acquire us.

Under certain other agreements with Total related to its original investment in our capital stock, for as long as Total owns 10% of our voting securities, it has rights to an exclusive negotiation period if our Board of Directors decides to

sell our company. Total also has the right to designate one director to serve on our Board of Directors. Also, in connection with Total's investments, our certificate of incorporation includes a provision that excludes Total from prohibitions on business combinations between Amyris and an "interested stockholder." These provisions could have the effect of discouraging potential acquirers from making offers to acquire us, and give Total more access to Amyris than other stockholders if Total decides to pursue an acquisition.

Additionally, in connection with subsequent investments by Total in Amyris, we granted Total, among other investors, a right of first investment if we propose to sell securities in a private placement financing transaction. With these rights, Total and other investors may subscribe for a portion of any new private placement financing and require us to comply with certain notice periods, which could discourage other investors from participating, or cause delays in our ability to close such a financing. Further, under the purchase agreement for the Tranche Notes, Total and other remaining holders of Tranche Notes have the right to pay for any be securities purchased in connection with an exercise of their right of first investment by cancelling all or a portion of their outstanding Tranche Notes. To the extent Total or other investors exercise these rights, it will reduce the cash proceeds we may realize from the relevant financing.

Our joint venture with Total limits our ability to independently develop and commercialize farnesene-based jet fuels.

In July 2012 and December 2013, we entered into a series of agreements with Total to establish a research and development program regarding farnesene-based diesel and jet fuels and to form a joint venture, Total Amyris BioSolutions B.V., or TAB, to produce and commercialize such products worldwide.

On July 2015, we entered into a Letter Agreement with Total regarding the restructuring of the ownership and rights of TAB, pursuant to which, among other things, the parties agreed to enter into an Amended & Restated Jet Fuel License Agreement between us and TAB, or the Jet Fuel Agreement. We entered into the Jet Fuel Agreement with TAB on March 21, 2016.

Under the Jet Fuel Agreement, (a) we granted exclusive (excluding its Brazil jet fuel business), world-wide, royalty-free rights to TAB for the production and commercialization of farnesene- or farnesane-based jet fuel, (b) we granted TAB the option, until March 1, 2018, to purchase our Brazil jet fuel business at a price based on the fair value of the commercial assets and on our investment in other related assets, (c) we granted TAB the right to purchase farnesene or farnesane for its jet fuel business from us on a “most-favored” pricing basis and (d) all rights to farnesene- or farnesane-based diesel fuel previously granted to TAB by us reverted back to us. As a result of these licenses, we generally no longer have an independent right to make or sell farnesene- or farnesane-based jet fuels outside of Brazil without the approval of Total.

In addition, the Company granted Total an exclusive, royalty-free license for the rights to offer for sale and sell in the European Union (or *EU*) farnesene- or farnesane-based diesel fuel, and the parties agreed that, if Total wishes to purchase farnesene- or farnesane for such business, they will negotiate a supply agreement on a "most-favored" pricing basis. For a to-be-negotiated, commercially reasonable, "most-favored" basis royalty to be paid to Amyris, Total will also have the right to make farnesene- or farnesane anywhere in the world solely for Total to offer for sale and sell it for diesel fuel in the EU.

Our farnesene-based diesel fuels license to Total limits our ability to independently develop and commercialize farnesene-based diesel fuels in the European Union.

Upon all farnesene- or farnesane-based diesel fuel rights reverting back to us pursuant to the Jet Fuel Agreement, we granted to Total, pursuant to a License Agreement regarding Diesel Fuel in the European Union, or the EU, dated March 21, 2016, between us and Total, (a) an exclusive, royalty-free license to offer for sale and sell farnesene- or farnesane-based diesel fuel in the EU, (b) the right to make farnesene or farnesane anywhere in the world, provided Total must (i) use such farnesene or farnesane to produce diesel fuel to offer for sale or sell in the EU and (ii) pay us a to-be-negotiated, commercially reasonable, “most-favored” basis royalty and (c) the right to purchase farnesene or farnesane for its EU diesel fuel business from us on a “most-favored” pricing basis. As a result of these licenses, we generally no longer have an independent right to sell farnesene- or farnesane-based diesel fuels in the EU without the approval of Total. If, for any reason, Total were not successful in selling farnesene-based diesel fuels in the EU and did not allow us to independently pursue selling farnesene-based diesel fuels there, this arrangement could impair our ability to develop and commercialize such diesel fuels in the EU, which could have a material adverse effect on our business and long term prospects.

We have limited control over our joint venture with Total.

As part of the restructuring of TAB in March 2016 as described above, we sold a portion of our interest in TAB to Total, giving Total an aggregate ownership stake of 75% of TAB and us an aggregate ownership stake of 25% of TAB. As a result, we do not have the right or power to direct the management or policies of TAB, and Total may take action contrary to our instructions or requests and against our policies and objectives. If Total or TAB acts contrary to our interest, it could harm our brand, business, results of operations and financial condition. Furthermore, if we were to experience a change of control or fail to make any required capital contribution to TAB, Total has a right to buy out our interest in TAB at fair market value. If Total were to exercise these rights, we would, in effect, relinquish our economic rights to the intellectual property we have exclusively licensed to TAB, and our ability to seek future revenue from farnesene-based jet fuel outside of Brazil would be adversely affected (or completely prevented). This could significantly reduce the value of our product offerings and have a material adverse effect on our ability to grow our business in the future.

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If we do not meet technical, development and commercial milestones in our collaboration agreements, our future revenue and financial results will be adversely impacted.

We have entered into a number of agreements regarding the further development of certain of our products and, in some cases, for ultimate sale of certain products to the customer under the agreement. None of these agreements affirmatively obligates the other party to purchase specific quantities of any products at this time, and most contain important conditions that must be satisfied before additional research and development funding or product purchases would occur. These conditions include research and development milestones and technical specifications that must be achieved to the satisfaction of our collaborators, which we cannot be certain we will achieve. If we do not achieve these contractual milestones, our revenues and financial results will be adversely affected.

We are subject to risks related to our reliance on collaboration arrangements to fund development and commercialization of our products and the success of such products is uncertain.

For most product markets we are trying to address, we either have or are seeking collaboration partners to fund the research and development, commercialization and production efforts required for the target products. Typically we provide limited exclusive rights and revenue sharing with respect to the production and sale of particular types of products in specific markets in exchange for such up-front funding. These exclusivity, revenue-sharing and other similar terms limit our ability to commercialize our products and technology, and may impact the size of our business or our profitability in ways that we do not currently envision. In addition, revenues from these types of relationships are a key part of our cash plan for 2016 and beyond. If we fail to collect expected collaboration revenues, or to identify and add sufficient additional collaborations to fund our planned operations, we may be unable to fund our operations or pursue development and commercialization of our planned products. To achieve our collaboration revenue targets from year to year, we may be forced to enter into agreements that contain less favorable terms. As part of our current and future collaboration arrangements, we may be required to make significant capital investments at our existing or new facilities in order to produce molecules or other products for such collaborations. Any failure or difficulties in establishing, building up or retooling our operations for these collaboration arrangements could have a significant negative impact on our business, including our ability to achieve commercial viability for our products, lead to the inability to meet our contractual obligations and could cause us to allocate capital, personnel and other resources from our organization which could adversely affect our business and reputation.

With respect to pharmaceutical collaborations, our experience in this industry is limited, so we may have difficulty identifying and securing collaboration partners and customers for pharmaceutical applications of our products and services. Furthermore, our success in pharmaceuticals depends primarily upon our ability to identify and validate new small molecule compounds of pharmaceutical interest (including through the use of our discovery platform), and identify, test, develop and commercialize such compounds. Our research efforts may initially show promise in discovering potential new therapeutic candidates, yet fail to yield viable product candidates for clinical development for a number of reasons, including:

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- because our research methodology, including our screening technology, may not successfully identify medically relevant product candidates;

- we may identify and select from our discovery platform novel, untested classes of product candidates for the particular disease indication we are pursuing, which may be challenging to validate because of the novelty of the product candidates or we may fail to validate at all after further research work;

- our product candidates may cause adverse effects in patients or subjects, even after successful initial toxicology studies, which may make the product candidates unmarketable;

- our product candidates may not demonstrate a meaningful benefit to patients or subjects; and

- collaboration partners may change their development profiles or plans for potential product candidates or abandon a therapeutic area or the development of a partnered product.

Research programs to identify new product targets and candidates require substantial technical, financial and human resources. We may focus our efforts and resources on potential discovery efforts, programs or product candidates that ultimately prove to be unsuccessful.

Our manufacturing operations require sugar feedstock, energy and steam, and the inability to obtain such feedstock, energy and steam in sufficient quantities or in a timely manner, or at reasonable prices, may limit our ability to produce our products profitably, or at all.

We anticipate that the production of our products will require large volumes of feedstock. We have relied on a mixture of feedstock sources for use at our contract manufacturing operations, including cane sugar, corn-based dextrose and beet molasses. For our large-scale production facilities in Brazil, we are relying primarily on Brazilian sugarcane. We cannot predict the future availability or price of these various feedstocks, nor can we be sure that our mill partners, which we expect to supply the sugarcane feedstock necessary to produce our products in Brazil, will be able to supply it in sufficient quantities or in a timely manner. For example, in December 2015, Tonon, one of our suppliers of sugarcane juice, filed for bankruptcy protection in Brazil, which may adversely affect its ability to supply us with sugarcane juice in the future. Furthermore, to the extent we are required to rely on sugar feedstock other than Brazilian sugarcane, the cost of such feedstock may be higher than we expect, increasing our anticipated production costs. Feedstock crop yields and sugar content depend on weather conditions, such as rainfall and temperature. Weather conditions have historically caused volatility in the ethanol and sugar industries by causing crop failures or reduced harvests. Excessive rainfall can adversely affect the supply of sugarcane and other sugar feedstock available for the

production of our products by reducing the sucrose content and limiting growers' ability to harvest. Crop disease and pestilence can also occur from time to time and can adversely affect feedstock growth, potentially rendering useless or unusable all or a substantial portion of affected harvests. With respect to sugarcane, our initial primary feedstock, seasonal availability and price, the limited amount of time during which it keeps its sugar content after harvest, and the fact that sugarcane is not itself a traded commodity, increases these risks and limits our ability to substitute supply in the event of such an occurrence. If production of sugarcane or any other feedstock we may use to produce our products is adversely affected by these or other conditions, our production will be impaired, and our business will be adversely affected.

Additionally, our facility in Brotas Brazil depends on large quantities of energy and steam to operate. We have a supply agreement with Cogeração de Energia Elétrica Rhodia Brotas S.A. pursuant to which we receive energy and steam in sufficient amounts to meet our current needs. However, we cannot predict the future availability or price of energy and steam. If, for whatever reason, we must purchase energy or steam from a different supplier, the cost of such energy and steam may be higher than we expect, increasing our anticipated production costs. Droughts or other weather conditions or natural disasters in Brazil may also affect energy and steam production, cost and availability and, therefore, may adversely affect our production. If the supply and access to energy or steam is adversely affected by these or other conditions, our production will be impaired, and our business will be adversely affected.

The price of sugarcane and other feedstocks can be volatile as a result of changes in industry policy and may increase the cost of production of our products.

In Brazil, Conselho dos Produtores de Cana, Açúcar e Álcool (Council of Sugarcane, Sugar and Ethanol Producers or Consecana), an industry association of producers of sugarcane, sugar and ethanol, sets market terms and prices for general supply, lease and partnership agreements for sugarcane. If Consecana makes changes to such terms and prices, this could result in higher sugarcane prices and/or a significant decrease in the volume of sugarcane available for the production of our products. Furthermore, if Consecana were to cease to be involved in this process, such prices and terms could become more volatile. Similar principles apply to pricing of other feedstocks as well. Any of these events could adversely affect our business and results of operations.

Our large-scale commercial production capacity is centered in Brazil, and our business will be adversely affected if we do not operate effectively in that country.

For the foreseeable future, we will be subject to risks associated with the concentration of essential product sourcing and operations in Brazil. The Brazilian government has changed in the past, and may change in the future, monetary, taxation, credit, tariff, labor and other policies to influence the course of Brazil's economy. For example, the government's actions to control inflation have at times involved setting wage and price controls, adjusting interest rates, imposing taxes and exchange controls and limiting imports into Brazil. We have no control over, and cannot predict what policies or actions the Brazilian government may take in the future. Our business, financial performance and prospects may be adversely affected by, among others, the following factors:

- delays or failures in securing licenses, permits or other governmental approvals necessary to build and operate facilities and use our yeast strains to produce products;
- rapid consolidation in the sugar and ethanol industries in Brazil, which could result in a decrease in competition;
- political, economic, diplomatic or social instability in or affecting Brazil;

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- changing interest rates;
- tax burden and policies;
- effects of changes in currency exchange rates;
- any changes in currency exchange policy that lead to the imposition of exchange controls or restrictions on remittances abroad;
- inflation;
- land reform or nationalization movements;
- changes in labor related policies;
- export or import restrictions that limit our ability to move our products out of Brazil or interfere with the import of essential materials into Brazil;
- changes in, or interpretations of foreign regulations that may adversely affect our ability to sell our products or repatriate profits to the United States;
- tariffs, trade protection measures and other regulatory requirements;
- compliance with United States and foreign laws that regulate the conduct of business abroad;
- compliance with anti-corruption laws recently enacted in Brazil;
- an inability, or reduced ability, to protect our intellectual property in Brazil including any effect of compulsory licensing imposed by government action; and
- difficulties and costs of staffing and managing foreign operations.

We cannot predict whether the current or future Brazilian government will implement changes to existing policies on taxation, exchange controls, monetary strategy, labor relations, social security and the like, nor can we estimate the impact of any such changes on the Brazilian economy or our operations.

Brazil’s economy has recently experienced quarters of slow or negative gross domestic product growth and has experienced high inflation and a growing fiscal deficit of its federal government accounts. In addition, in recent months, major corruption scandals involving members of the executive, state-controlled enterprises and large private sector companies have been disclosed and are the subject of ongoing investigation by federal authorities. The final outcome of these investigations and their impact on the Brazilian economy is not yet known.

Our international operations 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 significant costs and expenses in Brazilian real and may in the future incur additional expenses in foreign currencies and 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 United States dollar and other foreign currencies. There can be no assurance that the Brazilian real will not significantly appreciate or depreciate against the United States dollar in the future. We also 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 United States dollar compared to those foreign currencies will increase our costs as expressed in United States dollars. For example, future measures by the Central Bank of Brazil to control inflation, including interest rate adjustments, intervention in the foreign exchange market and actions to fix the value of the real, may weaken the United States dollar in Brazil. Whether in Brazil or otherwise, we may not be able to adjust the prices of our products to offset the effects of inflation or foreign currency appreciation 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.

Our use of genetically-modified feedstocks and yeast strains to produce our products subjects us to risks of regulatory limitations and rejection of our products.

The use of genetically modified microorganisms (or GMMs), such as our yeast strains, is subject to laws and regulations in many countries, some of which are new and some of which are still evolving. Public attitudes about the safety and environmental hazards of, and ethical concerns over, genetic research and GMMs could influence public acceptance of our technology and products. In the United States, the Environmental Protection Agency (or EPA), regulates the commercial use of GMMs as well as potential products produced from the GMMs. Various states or local governments within the United States could choose to regulate products made with GMMs as well. While the strain of genetically modified yeast that we currently use for the development and anticipate using for the commercial production of our target molecules, *S. cerevisiae*, is eligible for exemption from EPA review because it is recognized as posing a low risk, we must satisfy certain criteria to achieve this exemption, including but not limited to use of compliant containment structures and safety procedures, and we cannot be sure that we will meet such criteria in a timely manner, or at all. If exemption of *S. cerevisiae* is not obtained, our business may be substantially harmed. In addition to *S. cerevisiae*, we may seek to use different GMMs in the future that will require EPA approval. If approval of different GMMs is not secured, our ability to grow our business could be adversely affected.

In Brazil, GMMs are regulated by the National Biosafety Technical Commission (or CTNBio). We have obtained approval from CTNBio to use GMMs in a contained environment in our Campinas facilities for research and development purposes as well as at a contract manufacturing facility in Brazil. In addition, we have obtained initial commercial approval from CTNBio for one of our current yeast strains. As we continue to develop new yeast strains and deploy our technology at new production facilities in Brazil, we will be required to obtain further approvals from CTNBio in order to use these strains in commercial production in Brazil. We may not be able to obtain approvals from

relevant Brazilian authorities on a timely basis, or at all, and if we do not, our ability to produce our products in Brazil would be impaired, which would adversely affect our results of operations and financial condition.

In addition to our production operations in the United States and Brazil, we have been party to contract manufacturing agreements with parties in other production locations around the world, including Europe. The use of GMM technology is strictly regulated in the European Union, which has established various directives for member states regarding regulation of the use of such technology, including notification processes for contained use of such technology. We expect to encounter GMM regulations in most, if not all, of the countries in which we may seek to establish production capabilities and/or conduct sales to customers or end-use consumers, and the scope and nature of these regulations will likely be different from country to country. If we cannot meet the applicable requirements in other countries in which we intend to produce products using our yeast strains, or if it takes longer than anticipated to obtain such approvals, our business could be adversely affected. Furthermore, there are various non-governmental and quasi-governmental organizations that review and certify products with respect to the determination of whether products can be classified as "natural" or other similar classifications. While the certification from such non-governmental and quasi-governmental organizations is generally not mandatory, some of our current or prospective customers or distributors may require that we meet the standards set by such organizations as a condition precedent to purchasing or distributing our products. We cannot be certain that we will be able to satisfy the standards of such organizations, and any delay or failure to do so could harm our ability to sell or distribute some or all of our products to certain customers and prospective customers, which could have a negative impact on our business.

We may not be able to obtain regulatory approval for the sale of our renewable products.

Our renewable chemical products may be subject to government regulation in our target markets. In the United States, the EPA administers the Toxic Substances Control Act (or TSCA), which regulates the commercial registration, distribution, and use of many chemicals. Before an entity can manufacture or distribute a new chemical subject to TSCA, it must file a Pre-Manufacture Notice (or PMN) to add the chemical to a product. The EPA has 90 days to review the filing but may request additional data which significantly extends the timeline for approval. As a result we may not receive EPA approval to list future molecules as expeditiously as we would like in order to make on the TSCA registry, resulting in delays or significant increases in testing requirements. A similar program exists in the European Union, called REACH. Under this program, chemicals imported or manufactured in the European Union in certain quantities must be registered with the European Chemicals Agency, and this process could cause delays or significant costs. To the extent that other geographies in which we are selling (or may seek to sell) our products, such as Brazil and various countries in Asia, may rely on TSCA or REACH (or similar laws and programs) for chemical registration in their geographies, delays with the United States or European authorities, or any relevant local authorities in such other geographies, may subsequently delay entry into these markets as well. In addition, some of our Biofene-derived products are sold for the cosmetics market, and some countries may impose additional regulatory requirements or permits for such uses, which could impair, delay or prevent sales of our products in those markets.

Our diesel and jet fuel is subject to regulation by various government agencies, including the EPA, and the California Air Resources Board (or CARB) in the United States and Agência Nacional do Petróleo, Gas Natural e Biocombustíveis (or ANP), in Brazil. To date, we have obtained registration with the EPA for the use of our diesel fuel in the United States at a 35% blend rate with petroleum diesel. Farnesane is also listed on the TSCA inventory. In addition, ANP has authorized the use our diesel fuel at blend rates of 10% and 30% for specific transportation fleets. In Europe, we obtained REACH registration for importing/manufacturing less than 1,000 metric tons of farnesane (for use as diesel and jet fuel) per year and are pursuing data validation to maintain registration. Registration with each of these bodies is required for the import, sale and use of our fuels within their respective jurisdictions. Jet fuel (aviation

turbine fuel) validation and specifications are subject to the ASTM International industry consensus process and the Brazilian ANP national adoption process. Any failure to achieve required validation and certifications for our jet fuel could impair or delay our plans to introduce a jet fuel product in Brazil, which could have a material adverse impact on our renewable product revenues for the year. In addition, for us to achieve full access to the United States fuels market for our fuel products, we will need to obtain EPA and CARB (and potentially other state agencies) certifications for our feedstock pathway and production facilities, including certification of a feedstock lifecycle analysis relating to greenhouse gas emissions. Any delay in obtaining these additional certifications could impair our ability to sell our renewable fuels to refiners, importers, blenders and other parties that produce transportation fuels as they comply with federal and state requirements to include certified renewable fuels in their products.

We expect to encounter regulations in most, if not all, of the countries in which we may seek to sell our renewable chemical and fuel products (and our customers may encounter similar regulations in selling end use products to consumers), and we cannot assure you that we (or our customers) will be able to obtain necessary approvals in a timely manner or at all. If our chemical and fuel products do not meet applicable regulatory requirements in a particular country or at all, then we (or our customers) may not be able to commercialize our products and our business will be adversely affected.

Changes in government regulations, including subsidies and economic incentives, could have a material adverse effect upon our business.

The market for renewable fuels is heavily influenced by foreign, federal, state and local government regulations and policies. Changes to existing or adoption of new domestic or foreign federal, state and local legislative initiatives that impact the production, distribution or sale of renewable fuels may harm our renewable fuels business. In the United States and in a number of other countries, regulations and policies encouraging production and use of alternative fuels have been modified in the past and may be modified again in the future. Any reduction in mandated requirements for fuel alternatives and additives to gasoline or diesel may cause demand for biofuels to decline and deter investment in the research and development of renewable fuels. The market uncertainty regarding this and future standards and policies may also affect our ability to develop new renewable products or to license our technologies to third parties and to sell products to our end customers. Any inability to address these requirements and any regulatory or policy changes could have a material adverse effect on our business, financial condition and results of operations.

Concerns associated with renewable fuels, including land usage, national security interests and food crop usage, continue to receive legislative, industry and public attention. This attention could result in future legislation, regulation and/or administrative action that could adversely affect our business. Any inability to address these requirements and any regulatory or policy changes could have a material adverse effect on our business, financial condition and results of operations.

Furthermore, the production of our products will depend on the availability of feedstock, especially sugarcane. Agricultural production and trade flows are subject to government policies and regulations. Governmental policies affecting the agricultural industry, such as taxes, tariffs, duties, subsidies, incentives and import and export restrictions on agricultural commodities and commodity products, can influence the planting of certain crops, the location and size of crop production, whether unprocessed or processed commodity products are traded, the volume and types of imports and exports, and the availability and competitiveness of feedstocks as raw materials. Future government policies may adversely affect the supply of feedstocks, restrict our ability to use sugarcane or other feedstocks to produce our products, and negatively impact our future revenues and results of operations or could encourage the use of feedstocks more advantageous to our competitors which would put us at a commercial disadvantage.

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We may incur significant costs complying with environmental 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 such materials are subject to a variety of federal, state and local laws and regulations governing the use, generation, manufacture, storage, handling and disposal of these materials in the United States and in Brazil. Although we have implemented safety procedures for handling and disposing of these materials and related waste products in an effort to comply with these laws and regulations, we cannot be sure that our safety measures will prevent accidental injury or contamination from the use, storage, handling or disposal of hazardous materials. In the event of contamination or injury, we could be held liable for any resulting damages, and any liability could exceed our insurance coverage. There can be no assurance that violations of environmental, health and safety laws will not occur in the future 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, 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 can be joint and several, without regard to comparative fault and may be punitive in nature. Environmental laws could become more stringent over time, imposing greater compliance costs and increasing risks and penalties associated with violations, which could impair our research, development or production efforts and harm our business.

A decline in the price of petroleum and petroleum-based products has in the past and may in the future reduce demand for some of our renewable products and may otherwise adversely affect our business.

While many of our products do not compete with, and do not serve as alternatives to, petroleum-based products, we anticipate that some of our renewable products, and in particular our fuels, will be marketed as alternatives to corresponding petroleum-based products. The price of oil has fallen significantly in recent months, and accordingly, we may be unable to produce certain of our products as cost-effective alternatives to petroleum-based products. Declining oil prices, or the perception of a sustained or future decline in oil prices, has adversely affected the prices or demand for such products in the past and may do so in the future. During sustained periods of lower oil prices we may be unable to sell such products at anticipated levels, which could negatively impact our operating results.

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:

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achievement, or failure, with respect to technology, product development or manufacturing milestones needed to allow us to enter identified markets on a cost effective basis;

- delays or greater than anticipated expenses associated with the completion or commissioning of new production facilities, or the time to ramp up and stabilize production following completion of a new production facility or the transition to, and ramp up of, producing new molecules at our existing facilities;

- impairment of assets based on shifting business priorities and working capital limitations;

- disruptions in the production process at any manufacturing facility, including disruptions due to seasonal or unexpected downtime at our facilities as a result of feedstock availability, contamination, safety or other issues or other technical difficulties or the scheduled downtime at our facilities as a result of transitioning our equipment to the production of different molecules;

- losses of, or the inability to secure new, major customers, suppliers, distributors or collaboration partners;

- losses associated with producing our products as we ramp to commercial production levels;

- failure to recover value added tax (or VAT) that we currently reflect as recoverable in our financial statements (e.g., due to failure to meet conditions for reimbursement of VAT under local law);

- the timing, size and mix of sales to customers for our products;

- increases in price or decreases in availability of feedstock;

- the unavailability of contract manufacturing capacity altogether or at reasonable cost;

- exit costs associated with terminating contract manufacturing relationships;

- fluctuations in foreign currency exchange rates;

- gains or losses associated with our hedging activities;

- change in the fair value of derivative instruments;

- fluctuations in the price of and demand for sugar, ethanol, and petroleum-based and other products for which our products are alternatives;

- seasonal variability in production and sales of our products;

- competitive pricing pressures, including decreases in average selling prices of our products;

- unanticipated expenses or delays associated with changes in governmental regulations and environmental, health, labor and safety requirements;

- reductions or changes to existing fuel and chemical regulations and policies;
- departure of executives or other key management employees resulting in transition and severance costs;
- our ability to use our net operating loss carryforwards to offset future taxable income;
- business interruptions such as earthquakes, tsunamis and other natural disasters;
- our ability to integrate businesses that we may acquire;
- our ability to successfully collaborate with business venture partners;
- risks associated with the international aspects of our business; and
- changes in general economic, industry and market conditions, both domestically and in our foreign markets.

As part of our operating plan for 2016, we are planning to reduce our operating expenses in order to conserve cash.

Due to the factors described above, among 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.

Loss of key personnel, including key management personnel, and/or failure to attract and retain additional personnel could delay our product development programs and harm our research and development efforts and our ability to meet our business objectives.

Our business involves complex, global operations across a variety of markets and requires a management team and employee workforce that is knowledgeable in the many areas in which we operate. As we continue to build our business, we will need to hire and retain qualified research and development, management and other personnel to succeed. The process of hiring, training and successfully integrating qualified personnel into our operations, in the United States, Brazil and other countries in which we may seek to operate, is a lengthy and expensive one. The market for qualified personnel is very competitive because of the limited number of people available who have the necessary technical skills and understanding of our technology and anticipated products, particularly in Brazil. Our failure to hire and retain qualified personnel could impair our ability to meet our research and development and business objectives and adversely affect our results of operations and financial condition.

The loss of any key member of our management or key technical and operational employees, or the failure to attract or retain such employees, could prevent us from developing and commercializing our products for our target markets and executing our business strategy. We also may not be able to attract or retain qualified employees in the future due to the intense competition for qualified personnel among biotechnology and other technology-based businesses, particularly in the renewable chemicals and fuels area, or due to the availability of personnel with the qualifications or experience necessary for our business. In addition, reductions to our workforce as part of cost-saving measures may make it more difficult for us to attract and retain key employees. If we do not maintain the necessary personnel to accomplish our business objectives, we may experience staffing constraints that will adversely affect our ability to meet the demands of our collaborators and customers in a timely fashion or to support our internal research and development programs and operations. In particular, our product and process development programs depend on our ability to attract and retain highly skilled technical and operational personnel. Competition for such personnel from numerous companies and academic and other research institutions may limit our ability to do so on acceptable terms. All of our employees are “at-will” employees, which means that either the employee or we may terminate their employment at any time.

Growth may place significant demands on our management and our infrastructure.

We have experienced, and expect to continue to experience, expansion of our business as we continue to make efforts to develop and bring our products to market. We have grown from 18 employees at the end of 2005 to 418 at January 31, 2016. Our growth and diversified operations have placed, and may continue to place, significant demands on our management and our operational and financial infrastructure. In particular, continued growth could strain our ability to:

- manage multiple research and development programs;
- operate multiple manufacturing facilities around the world;
- develop and improve our operational, financial and management controls;
- enhance our reporting systems and procedures;
- recruit, train and retain highly skilled personnel;
- develop and maintain our relationships with existing and potential business partners;
- maintain our quality standards; and
- maintain customer satisfaction.

Managing our growth will require significant expenditures and allocation of valuable management resources. If we fail to achieve the necessary level of efficiency in our organization as it grows, our business, results of operations and financial condition would be adversely impacted.

Our proprietary rights may not adequately protect our technologies and product candidates.

Our commercial success will depend substantially on our ability to obtain patents and maintain adequate legal protection for our technologies and product candidates in the United States and other countries. As of January 31, 2016, we had 413 issued United States and foreign patents and 295 pending United States and foreign patent

applications that were owned by or licensed to us. We will be able to protect our proprietary rights from unauthorized use by third parties only to the extent that our proprietary technologies and future products are covered by valid and enforceable patents or are effectively maintained as trade secrets.

We apply for patents covering both our technologies and product candidates, as we deem appropriate. However, filing, prosecuting, maintaining and defending patents on product candidates in all countries throughout the world would be prohibitively expensive, and our intellectual property rights in some countries outside the United States are less extensive than those in the United States. We may also fail to apply for patents on important technologies or product candidates in a timely fashion, or at all. Our existing and future patents may not be sufficiently broad to prevent others from practicing our technologies or from designing products around our patents or otherwise developing competing products or technologies. In addition, the patent positions of companies like ours are highly uncertain and involve complex legal and factual questions for which important legal principles remain unresolved. No consistent policy regarding the breadth of patent claims has emerged to date in the United States and the landscape is expected to become even more uncertain in view of recent rule changes by the United States Patent Office (or USPTO). Additional uncertainty may result from legal precedent by the United States Federal Circuit and Supreme Court as they determine legal issues concerning the scope and construction of patent claims and inconsistent interpretation of patent laws or from legislation enacted by the U.S. Congress. The patent situation outside of the United States is even less predictable. As a result, the validity and enforceability of patents cannot be predicted with certainty. Moreover, we cannot be certain whether:

- we (or our licensors) were the first to make the inventions covered by each of our issued patents and pending patent applications;
- we (or our licensors) were the first to file patent applications for these inventions;
- others will independently develop similar or alternative technologies or duplicate any of our technologies;
- any of our or our licensors' patents will be valid or enforceable;
- any patents issued to us (or our licensors) will provide us with any competitive advantages, or will be challenged by third parties;
- we will develop additional proprietary products or technologies that are patentable; or
- the patents of others will have an adverse effect on our business.

We do not know whether any of our pending patent applications or those pending patent applications that we license will result in the issuance of any patents. Even if patents are issued, they may not be sufficient to protect our technology or product candidates. The patents we own or license and those that may be issued in the future may be challenged, invalidated, rendered unenforceable, or circumvented, and the rights granted under any issued patents may not provide us with proprietary protection or competitive advantages. Moreover, third parties could practice our inventions in territories where we do not have patent protection or in territories where they could obtain a compulsory license to our technology where patented. Such third parties may then try to import products made using our inventions into the United States or other territories. Accordingly, we cannot ensure that any of our pending patent

applications will result in issued patents or, even if issued, predict the breadth, validity and enforceability of the claims upheld in our and other companies' patents.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of certain countries do not favor the enforcement of patents or other intellectual property rights, which could hinder us from preventing the infringement of our patents or other intellectual property rights. Proceedings to enforce our patent rights in the United States or foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business, could put our patents at risk of being invalidated or interpreted narrowly and our patent applications at risk of not issuing, and could provoke third parties to assert patent infringement or other claims against us. We may not prevail in any lawsuits that we initiate and the damages or other remedies awarded, if any, may not be commercially meaningful. Accordingly, our efforts to enforce our intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license from third parties.

Unauthorized parties may attempt to copy or otherwise obtain and use our products or technology. Monitoring unauthorized use of our intellectual property is difficult, and we cannot be certain that the steps we have taken will prevent unauthorized use of our technology, particularly in certain foreign countries where the local laws may not protect our proprietary rights as fully as in the United States or may provide, today or in the future, for compulsory licenses. If competitors are able to use our technology, our ability to compete effectively could be harmed. Moreover, others may independently develop and obtain patents for technologies that are similar to, or superior to, our technologies. If that happens, we may need to license these technologies, and we may not be able to obtain licenses on reasonable terms, if at all, which could cause harm to our business.

We rely in part on trade secrets to protect our technology, and our failure to obtain or maintain trade secret protection could adversely affect our competitive business position.

We rely on trade secrets to protect some of our technology, particularly where we do not believe patent protection is appropriate or obtainable. However, trade secrets are difficult to maintain and protect. Our strategy for contract manufacturing and scale-up of commercial production requires us to share confidential information with our international business partners and other parties. Our product development collaborations with third parties, including with Total, require us to share confidential information, including with employees of Total who are seconded to Amyris during the term of the collaboration. While we use reasonable efforts to protect our trade secrets, our or our business partners' employees, consultants, contractors or scientific and other advisors may unintentionally or willfully disclose our proprietary information to competitors. Enforcement of claims that a third party has illegally obtained and is using trade secrets is expensive, time consuming and uncertain. In addition, foreign courts are sometimes less willing than United States courts to protect trade secrets. If our competitors independently develop equivalent knowledge, methods and know-how, we would not be able to assert our trade secrets against them.

We require new employees and consultants to execute confidentiality agreements upon the commencement of an employment or consulting arrangement with us. We additionally require consultants, contractors, advisors, corporate collaborators, outside scientific collaborators and other third parties that may receive trade secret information to execute confidentiality agreements. These agreements generally require that all confidential information developed by the individual or made known to the individual by us during the course of the individual's relationship with us be kept confidential and not disclosed to third parties. These agreements also generally provide that inventions conceived by

the individual in the course of rendering services to us shall be our exclusive property. Nevertheless, our proprietary information may be disclosed, or these agreements may be unenforceable or difficult to enforce. If any of our trade secrets were to be lawfully obtained or independently developed by a competitor, we would have no right to prevent such third party, or those to whom they communicate such technology or information, from using that technology or information to compete with us. Additionally, trade secret law in Brazil differs from that in the United States which requires us to take a different approach to protecting our trade secrets in Brazil. Some of these approaches to trade secret protection may be novel and untested under Brazilian law and we cannot guarantee that we would prevail if our trade secrets are contested in Brazil. If any of the above risks materializes, our failure to obtain or maintain trade secret protection could adversely affect our competitive business position.

We may not be able to fully enforce covenants not to compete and not to solicit with our employees, and therefore we may be unable to prevent our competitors from benefiting from the expertise of such employees.

Our proprietary information and inventions agreements with our employees contain non-compete and non-solicitation provisions. These provisions prohibit our employees from competing directly with our business or proposed business or working for our competitors during their term of employment, and from directly and indirectly soliciting our employees and consultants to leave our company for any purpose. Under applicable U.S. and Brazilian law, we may be unable to enforce these provisions. If we cannot enforce these provisions with our employees, we may be unable to prevent our competitors from benefiting from the expertise of such employees. Even if these provisions are enforceable, they may not adequately protect our interests. The defection of one or more of our employees to a competitor could materially adversely affect our business, results of operations and ability to capitalize on our proprietary information.

Third parties may misappropriate our yeast strains.

Third parties, including contract manufacturers, sugar and ethanol mill owners, other contractors and shipping agents, often have custody or control of our yeast strains. If our yeast strains were stolen, misappropriated or reverse engineered, they could be used by other parties who may be able to reproduce the yeast strains for their own commercial gain. If this were to occur, it would be difficult for us to challenge and prevent this type of use, especially in countries where we have limited intellectual property protection or that do not have robust intellectual property law regimes.

If we or one of our collaborators are sued for infringing intellectual property rights or other proprietary rights of third parties, litigation could be costly and time consuming and could prevent us from developing or commercializing our future products.

Our commercial success depends on our and our collaborators' ability to operate without infringing the patents and proprietary rights of other parties and without breaching any agreements we have entered into with regard to our technologies and product candidates. We cannot determine with certainty whether patents or patent applications of other parties may materially affect our ability to conduct our business. Our industry spans several sectors, including biotechnology, renewable fuels, renewable specialty chemicals and other renewable compounds, and is characterized by the existence of a significant number of patents and disputes regarding patent and other intellectual property rights. Because patent applications can take several years to issue, there may currently be pending applications, unknown to us, that may result in issued patents that cover our technologies or product candidates. We are aware of a significant number of patents and patent applications relating to aspects of our technologies filed by, and issued to, third parties. The existence of third-party patent applications and patents could significantly reduce the coverage of patents owned by or licensed to us and our collaborators and limit our ability to obtain meaningful patent protection. If we wish to make, use, sell, offer to sell, or import the technology or compound claimed in issued and unexpired patents owned by others, we will need to obtain a license from the owner, enter into litigation to challenge the validity of the patents or

incur the risk of litigation in the event that the owner asserts that we infringe its patents. If patents containing competitive or conflicting claims are issued to third parties and these claims are ultimately determined to be valid, we and our collaborators may be enjoined from pursing research, development, or commercialization of products, or be required to obtain licenses to these patents, or to develop or obtain alternative technologies.

If a third-party asserts that we infringe upon its patents or other proprietary rights, we could face a number of issues that could seriously harm our competitive position, including:

- infringement and other intellectual property claims, which could be costly and time consuming to litigate, whether or not the claims have merit, and which could delay getting our products to market and divert management attention from our business;
- substantial damages for past infringement, which we may have to pay if a court determines that our product candidates or technologies infringe a third party's patent or other proprietary rights;
- a court prohibiting us from selling or licensing our technologies or future products unless the holder licenses the patent or other proprietary rights to us, which it is not required to do; and
- if a license is available from a third party, such third party may require us to pay substantial royalties or grant cross licenses to our patents or proprietary rights.

The industries in which we operate, and the biotechnology industry in particular, are characterized by frequent and extensive litigation regarding patents and other intellectual property rights. Many biotechnology companies have employed intellectual property litigation as a way to gain a competitive advantage. If any of our competitors have filed patent applications or obtained patents that claim inventions also claimed by us, we may have to participate in interference proceedings declared by the relevant patent regulatory agency to determine priority of invention and, thus, the right to the patents for these inventions in the United States. These proceedings could result in substantial cost to us even if the outcome is favorable. Even if successful, an interference proceeding may result in loss of certain claims. Our involvement in litigation, interferences, opposition proceedings or other intellectual property proceedings inside and outside of the United States, to defend our intellectual property rights, or as a result of alleged infringement of the rights of others, may divert management time from focusing on business operations and could cause us to spend significant resources, all of which could harm our business and results of operations.

Many of our employees were previously employed at universities, biotechnology, specialty chemical or oil companies, including our competitors or potential competitors. We may be subject to claims that these employees or we have inadvertently or otherwise used or disclosed trade secrets or other proprietary information of their former employers. Litigation may be necessary to defend against these claims. If we fail in defending such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel and be enjoined from certain activities. A loss of key research personnel or their work product could hamper or prevent our ability to commercialize our product candidates, which could severely harm our business. Even if we are successful in defending against these claims, litigation could result in substantial costs and demand on management resources.

We may need to commence litigation to enforce our intellectual property rights, which would divert resources and management's time and attention and the results of which would be uncertain.

Enforcement of claims that a third party is using our proprietary rights without permission is expensive, time consuming and uncertain. Significant litigation would result in substantial costs, even if the eventual outcome is favorable to us and would divert management's attention from our business objectives. In addition, an adverse outcome in litigation could result in a substantial loss of our proprietary rights and we may lose our ability to exclude others from practicing our technology or producing our product candidates.

The laws of some foreign countries do not protect intellectual property rights to the same extent as do 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, particularly certain developing countries, do not favor the enforcement of patents and other intellectual property protection, particularly those relating to biotechnology and/or bioindustrial technologies. This could make it difficult for us to stop the infringement of our patents or misappropriation of our other intellectual property rights. Proceedings to enforce our patent rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business. Moreover, our efforts to protect our intellectual property rights in such countries may be inadequate.

We do not have exclusive rights to intellectual property we developed under U.S. federally funded research grants and contracts, including with DARPA, and we could ultimately share or lose the rights we do have under certain circumstances.

Some of our intellectual property rights have been or may be developed in the course of research funded by the U.S. government, including under our agreements with DARPA. As a result, the U.S. government may have certain rights to intellectual property embodied in our current or future products pursuant to the Bayh-Dole Act of 1980. Government rights in certain inventions developed under a government-funded program include a non-exclusive, non-transferable, irrevocable worldwide license to use inventions for any governmental purpose. In addition, the U.S. government has the right to require us, or an assignee or exclusive licensee to such inventions, to grant licenses to any of these inventions to a third party if they determine that: (i) adequate steps have not been taken to commercialize the invention; (ii) government action is necessary to meet public health or safety needs; (iii) government action is necessary to meet requirements for public use under federal regulations; or (iv) the right to use or sell such inventions is exclusively licensed to an entity within the U.S. and substantially manufactured outside the U.S. without the U.S. government’s prior approval. Additionally, we may be restricted from granting exclusive licenses for the right to use or sell our inventions created pursuant to such agreements unless the licensee agrees to additional restrictions (e.g., manufacturing substantially all of the invention in the U.S.). The U.S. government also has the right to take title to these inventions if we fail to disclose the invention to the government and fail to file an application to register the intellectual property within specified time limits. In addition, the U.S. government may acquire title in any country in which a patent application is not filed within specified time limits. Additionally, certain inventions are subject to transfer restrictions during the term of these agreements and for a period thereafter, including sales of products or components, transfers to foreign subsidiaries for the purpose of the relevant agreements, and transfers to certain foreign third parties. If any of our intellectual property becomes subject to any of the rights or remedies available to

the U.S. government or third parties pursuant to the Bayh-Dole Act of 1980, this could impair the value of our intellectual property and could adversely affect our business.

Our products subject us to product-safety risks, and we may be sued for product liability.

The design, development, production and sale of our products involve an inherent risk of product liability claims and the associated adverse publicity. Our potential products could be used by a wide variety of consumers with varying levels of sophistication. Although safety is a priority for us, we are not always in control of the final uses and formulations of the products we supply or their use as ingredients. Our products could have detrimental impacts or adverse impacts we cannot anticipate. Despite our efforts, negative publicity about Amyris, including product safety or similar concerns, whether real or perceived, could occur, and our products could face withdrawal, recall or other quality issues. In addition, we may be named directly in product liability suits relating to our products, even for defects resulting from errors of our commercial partners, contract manufacturers, chemical finishers or customers or end users of 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. We could also be named as co-parties in product liability suits that are brought against the contract manufacturers or Brazilian sugar and ethanol mills with whom we partner to produce our products. Insurance coverage is expensive, may be difficult to obtain and may not be available in the future on acceptable terms. We cannot be certain that our contract manufacturers or the sugar and ethanol producers who partner with us to produce our products will have adequate insurance coverage to cover against potential claims. Any insurance we do maintain may not provide adequate coverage against potential losses, and if claims or losses exceed our liability insurance coverage, our business would be adversely impacted. In addition, insurance coverage may become more expensive, which would harm our results of operations.

During the ordinary course of business, we may become subject to lawsuits or indemnity claims, which could materially and adversely affect our business and results of operations.

From time to time, we may in the ordinary course of business be named as a defendant in lawsuits, claims and other legal proceedings. These actions may seek, among other things, compensation for alleged personal injury, worker's compensation, employment discrimination, breach of contract, property damages, civil penalties and other losses of injunctive or declaratory relief. Any litigation against us, even if it lacks any merit, may cause us to incur significant legal fees, which are not always recoverable even if we prevail in the litigation. In the event that such actions or indemnities are ultimately resolved unfavorably at amounts exceeding our accrued liability, or at material amounts, the outcome could materially and adversely affect our reputation, business and results of operations. In addition, payments of significant amounts, even if reserved, could adversely affect our liquidity position.

If we fail to maintain an effective system of internal controls, we might not be able to report our financial results accurately or in a timely manner 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. The process of implementing our internal controls

and complying with Section 404 is expensive and time consuming, and requires significant attention of management. We cannot be certain that these measures will ensure that we maintain adequate controls over our financial processes and reporting in the future. In addition, to the extent we create joint ventures or have any variable interest entities and the financial statements of such entities are not prepared by us, we will not have direct control over their financial statement preparation. As a result, we will, for our financial reporting, depend on what these entities report to us, which could result in us adding monitoring and audit processes and increase the difficulty of implementing and maintaining adequate controls over our financial processes and reporting in the future and could lead to delays in our external reporting. This may be particularly true where we are establishing such entities with commercial partners that do not have sophisticated financial accounting processes in place, or where we are entering into new relationships at a rapid pace, straining our integration capacity. Additionally, if we do not receive the information from the joint venture or variable interest entity on a timely basis, this could cause delays in our external reporting. Even if we conclude, and our independent registered public accounting firm concurs, that our internal control over financial reporting provides reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles, 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. In addition, failure to comply with Section 404 could subject us to a variety of administrative sanctions, including SEC action, ineligibility for short form resale registration, the suspension or delisting of our common stock from the stock exchange on which it is listed, and the inability of registered broker-dealers to make a market in our common stock, which would further reduce our stock price and could harm our business.

Our ability to use our net operating loss carryforwards to offset future taxable income may be subject to certain limitations.

In general, under Section 382 of the Internal Revenue Code (or the Code), a corporation that undergoes an "ownership change" is subject to limitations on its ability to utilize its pre-change net operating loss carryforwards (or NOLs), to offset future taxable income. If the Internal Revenue Service challenges our analysis that our existing NOLs are not subject to limitations arising from previous ownership changes, or if we undergo an ownership change, our ability to utilize NOLs could be limited by Section 382 of the Code. Future changes in our stock ownership, some of which are outside of our control, could result in an ownership change under Section 382 of the Code. Furthermore, our ability to utilize NOLs of companies that we may acquire in the future may be subject to limitations. For these reasons, we may not be able to utilize a material portion of the NOLs carryforward as of December 31, 2015, even if we attain profitability.

Loss of, or inability to secure government contract revenues could impair our business.

We have contracts or subcontracts with certain governmental agencies or their contractors. Generally, these agreements, as they may be amended or modified from time to time, have fixed terms and may be terminated, modified or be subject to recovery of payments by the government agency under certain conditions (such as failure to comply with detailed reporting and governance processes or failure to achieve milestones). Under these agreements, we are also subject to audits, which can result in corrective action plans and penalties up to and including termination. If these governmental agencies terminate these agreements with us, it could reduce our revenues which could harm our business. Additionally, we anticipate securing additional government contracts as part of our business plan for 2016 and beyond. If we are unable to secure such government contracts, it could harm our business.

Our headquarters and other facilities are located in an active earthquake and tsunami zone, and an earthquake or other types of natural disasters affecting us or our suppliers could cause resource shortages and disrupt and harm our results of operations.

We conduct our primary research and development operations in the San Francisco Bay Area in an active earthquake and tsunami zone, and certain of our suppliers conduct their operations in the same region or in other locations that are susceptible to natural disasters. In addition, California and some of the locations where certain of our suppliers are located have experienced shortages of water, electric power and natural gas from time to time. The occurrence of a natural disaster, such as an earthquake, drought or flood, or localized extended outages of critical utilities or transportation systems, or any critical resource shortages, affecting us or our suppliers could cause a significant interruption in our business, damage or destroy our facilities, production equipment or inventory or those of our suppliers and cause us to incur significant costs or result in limitations on the availability of our raw materials, any of which could harm our business, financial condition and results of operations. The insurance we maintain against fires, earthquakes and other natural disasters may not be adequate to cover our losses in any particular case.

Risks Related to Ownership of Our Common Stock

Our stock price may be volatile.

The market price of our common stock has been, and we expect it to continue to be, subject to significant volatility, and it has declined significantly from our initial public offering price. As of December 31, 2015, the reported closing price for our common stock on The NASDAQ Capital Market was $1.62 per share. Market prices for securities of early stage companies have historically been particularly volatile. Such fluctuations could be in response to, among other things, the factors described in this “Risk Factors” section, or other factors, some of which are beyond our control, such as:

- fluctuations in our financial results or outlook or those of companies perceived to be similar to us;
- changes in estimates of our financial results or recommendations by securities analysts;
- changes in market valuations of similar companies;
- changes in the prices of commodities associated with our business such as sugar, ethanol and petroleum or changes in the prices of commodities that some of our products may replace, such as oil and other petroleum sourced products;

- changes in our capital structure, such as future issuances of securities or the incurrence of debt;
- announcements by us or our competitors of significant contracts, acquisitions or strategic alliances;
- regulatory developments in the United States, Brazil, and/or other foreign countries;
- litigation involving us, our general industry or both;

- additions or departures of key personnel;
- investors' general perception of us; and
- changes in general economic, industry and market conditions.

Furthermore, stock markets have experienced price and volume fluctuations that have affected, and continue to affect, the market prices of equity securities of many companies. These fluctuations often have been unrelated or disproportionate to the operating performance of those companies. These broad market fluctuations, as well as general economic, political and market conditions, such as recessions, interest rate changes and international currency fluctuations, may negatively affect the market price of our common stock.

In the past, many companies that have experienced volatility and sustained declines in the market price of their stock have become subject to securities class action and derivative action litigation. We were involved in two such lawsuits, which were dismissed in 2014, and we may be the target of similar litigation in the future. Securities litigation against us could result in substantial costs and divert our management's attention from other business concerns, which could seriously harm our business.

In addition, maintaining the listing of our common stock on The NASDAQ Stock Market requires that we comply with certain listing requirements, including the requirement that we maintain a stock price of at least $1.00 per share. If we fail to comply with one or more listing requirements, our common stock may be subject to delisting from The NASDAQ Stock Market.

The concentration of our capital stock ownership with insiders will limit the ability to influence corporate matters and presents risks related to the operations of our significant stockholders.

As of January 31, 2016:

- our executive officers and directors and their affiliates (including Total) together held approximately 44% of our outstanding common stock;
- Temasek (who has a designee on our Board of Directors) held approximately 34% of our outstanding common stock; and

- Total held approximately 31% of our outstanding common stock.

Furthermore, Total and Temasek each hold certain of our convertible promissory notes, which are convertible into approximately 14,850,297 and 2,670,370 shares of our common stock, respectively, within 60 days of January 31, 2016. Total and Temasek also hold certain warrants pursuant to which they may purchase shares of our common stock. This significant concentration of share ownership may become exercisable adversely affect the trading price for our common stock because investors often perceive disadvantages in owning stock in companies with controlling stockholders. Also, these stockholders, acting together, will be able to control our management and affairs and matters requiring stockholder approval, including the election of directors and the approval of significant corporate transactions, such as mergers, consolidations or the sale of substantially all of our assets. Consequently, this concentration of ownership may have the effect of delaying or preventing a change of control, including a merger, consolidation or other business combination involving us, or discouraging a potential acquirer from making a tender offer or otherwise attempting to obtain control, even if that change of control would benefit our other stockholders.

The concentration of our capital stock ownership also presents risks related to the operations of significant holders of our capital stock, including their international operations. For example, certain affiliates of Total that we do not control and that may be deemed to be our affiliates solely due to their control by Total may be deemed to have engaged in certain transactions or dealings with the government of Iran in 2015, for which Total has provided disclosure under Section 13(r) of the Exchange Act. Such disclosure is set forth in Exhibit 99.3 to this Annual Report on Form 10-K and is incorporated herein by reference. Disclosure of such activity, even if such activity is not subject to sanctions under applicable law, and any sanctions actually imposed on Total as a result of these activities or for other violations of applicable laws, such as anti-bribery laws, could harm our reputation and have a negative impact on our business.

The market price of our common stock could be negatively affected by future sales of our common stock.

If our existing stockholders, particularly our largest stockholders, our directors, their affiliates, or our executive officers, sell a substantial number of shares of our common stock in the public market, the market price of our common stock could decrease significantly. The perception in the public market that these stockholders might sell our common stock could also depress the market price of our common stock and could impair our future ability to obtain capital, especially through an offering of equity securities.

We also have in place a registration statement for the resale of shares of common stock held by, or issuable to, certain of our largest stockholders. All common stock sold pursuant to an offering covered by such registration statement will be freely transferable.

Shares issuable under our equity incentive plans have been registered on a Form S-8 registration statement and may be freely sold in the public market upon issuance, except for shares held by affiliates who have certain restrictions on their ability to sell.

If securities or industry analysts do not publish or cease publishing research or reports about us, our business or our market, or if they change their recommendations regarding our stock adversely, our stock price and trading volume could decline.

The trading market for our common stock will be influenced by the research and reports that industry or securities analysts may publish about us, our business, our market or our competitors. If any of the analysts who cover us change their recommendation regarding our stock adversely, or provide more favorable relative recommendations about our competitors, our stock price would likely decline. If any analyst who may cover us were to cease coverage of our company or fail to regularly publish reports on us, we could lose visibility in the financial markets, which in turn could cause our stock price or trading volume to decline.

We do not expect to declare any dividends in the foreseeable future.

We do not anticipate declaring any cash dividends to holders of our common stock in the foreseeable future. In addition, certain of our equipment leases and credit facilities currently restrict our ability to pay dividends. Consequently, investors may need to rely on sales of their common stock after price appreciation, which may never occur, as the only way to realize any future gains on their investment. Investors seeking cash dividends should not purchase our common stock.

Anti-takeover provisions contained in our certificate of incorporation and bylaws, as well as provisions of Delaware law, could impair a takeover attempt.

Our certificate of incorporation and bylaws contain provisions that could delay or prevent a change in control of our company. These provisions could also make it more difficult for stockholders to elect directors and take other corporate actions. These provisions include:

- a staggered board of directors;

- authorizing the board of directors to issue, without stockholder approval, preferred stock with rights senior to those of our common stock;

- authorizing the board of directors to amend our bylaws, to increase the number of directors and to fill board vacancies until the end of the term of the applicable class of directors;

- prohibiting stockholder action by written consent;

- limiting the liability of, and providing indemnification to, our directors and officers;

- eliminating the ability of our stockholders to call special meetings; and

- requiring advance notification of stockholder nominations and proposals.

Section 203 of the Delaware General Corporation Law prohibits, subject to some exceptions, “business combinations” between a Delaware corporation and an “interested stockholder,” which is generally defined as a stockholder who becomes a beneficial owner of 15% or more of a Delaware corporation's voting stock, for a three-year period following the date that the stockholder became an interested stockholder. We have agreed to opt out of Section 203 through our certificate of incorporation, but our certificate of incorporation contains substantially similar protections to our company and stockholders as those afforded under Section 203, except that we have agreed with Total that it and its affiliates will not be deemed to be “interested stockholders” under such protections.

In addition, we have an agreement with Total, which provides that, so long as Total holds at least 10% of our voting securities, we must inform Total of any offer to acquire us or any decision of our Board of Directors to sell our company, and we must provide Total with information about the contemplated transaction. In such events, Total will have an exclusive negotiating period of fifteen business days in the event the Board of Directors authorizes us to solicit offers to buy Amyris, or five business days in the event that we receive an unsolicited offer to purchase us. This exclusive negotiation period will be followed by an additional restricted negotiation period of ten business days, during which we are obligated to continue to negotiate with Total and will be prohibited from entering into an agreement with any other potential acquirer.

These and other provisions in our amended and restated certificate of incorporation and our amended and restated bylaws that became effective upon the completion of our initial public offering under Delaware law and in our agreements with Total could discourage potential takeover attempts, reduce the price that investors might be willing to pay in the future for shares of our common stock and result in the market price of our common stock being lower than it would be without these provisions.

Conversion of our outstanding convertible promissory notes or the exercise of outstanding warrants will dilute the ownership interest of existing stockholders or may otherwise depress the market price of our common stock.

The conversion of some or all of our outstanding convertible promissory notes or the exercise of outstanding warrants will dilute the ownership interests of existing stockholders. The exercise of the warrants, in particular, which have a $0.01 per share exercise price, will dilute the economic ownership interest of our existing stockholders. In addition, any sales in the public market of the shares of our common stock issuable upon such conversion or exercise could adversely affect prevailing market prices of our common stock. Furthermore, the existence of our outstanding convertible promissory notes and warrants may encourage short selling by market participants because the anticipated conversion of such notes into, or exercise of such warrants, for shares of our common stock could depress the market price of our common stock.

EXECUTIVE OFFICERS OF THE REGISTRANT

The following table provides the names, ages and offices of each of our executive officers as of March 30, 2016:

Name	Age	Position
John Melo	50	Director, President and Chief Executive Officer
Raffi Asadorian	46	Chief Financial Officer
Joel Cherry, Ph.D.	55	President of Research and Development
Nicholas Khadder	42	General Counsel and Corporate Secretary

John Melo

John Melo has nearly three decades of combined experience as an entrepreneur and thought leader in the global fuels industry and technology innovation. Mr. Melo has served as our President and Chief Executive Officer and a director since January 2007 and our President since January 2008. Before joining Amyris, Mr. Melo served in various senior executive positions at BP Plc (formerly British Petroleum), one of the world's largest energy firms, from 1997 to 2006, most recently as President of U.S. Fuels Operations from 2004 until December 2006, and previously as Chief Information Officer of the refining and marketing segment from 2001 to 2003, Senior Advisor for e-business strategy to Lord Browne, BP Chief Executive, from 2000 to 2001, and Director of Global Brand Development from 1999 to 2000. Before joining BP, Mr. Melo was with Ernst & Young, an accounting firm, from 1996 to 1997, and a member of the management teams of several startup companies, including Computer Aided Services, a management systems integration company, and Alldata Corporation, a provider of automobile repair software to the automotive service industry. Mr. Melo currently serves on the board of directors of U.S. Venture, Inc. and Renmatix Inc., and also serves as Vice Chairman of the board of directors of BayBio. Mr. Melo was formerly an appointed member to the U.S. section of the U.S.-Brazil CEO Forum.

Raffi Asadorian

Raffi Asadorian has served as our Chief Financial Officer since January 2015. Prior to joining us, Mr. Asadorian served from 2009 to 2014 as Chief Financial Officer of Unilabs S.A., a pan-European medical diagnostics company based in Geneva, Switzerland and before that, he served at Barr Pharmaceuticals as Senior Vice President and Chief Financial Officer of the PLIVA Group. Prior to this, Mr. Asadorian was a Partner at PricewaterhouseCoopers ("PwC") in its Transaction Services (mergers and acquisitions advisory) group in New York, where he worked for 16 years. Mr. Asadorian holds a Bachelor of Science in Business Administration degree from Xavier University and a Master of Business Administration degree from the University of Manchester (U.K.).

Joel Cherry, Ph.D.

Dr. Joel Cherry has served as our President of Research and Development since July 2011 and previously as our Senior Vice President of Research Programs and Operations since November 2008. Before joining Amyris, Dr. Cherry was Senior Director of Bioenergy Biotechnology at Novozymes, a biotechnology company focusing on development and manufacture of industrial enzymes from 1992 to November 2008. At Novozymes, he served in a variety of R&D scientific and management positions, including membership in Novozymes' International R&D Management team, and as Principal Investigator and Director of the BioEnergy Project, a U.S. Department of Energy-funded $18 million effort initiated in 2000. Dr. Cherry holds a Bachelor of Arts degree in Chemistry from Carleton College and a Doctor of Philosophy degree in Biochemistry from the University of New Hampshire.

Nicholas Khadder

Nicholas Khadder has served as our General Counsel and Corporate Secretary since December 2013. Previously, Mr. Khadder served as our Interim General Counsel from July 2013 to December 2013, and as our Assistant General Counsel from October 2010 to July 2013. Prior to joining Amyris, Mr. Khadder served in senior corporate counsel roles at LeapFrog Enterprises, Inc., an educational entertainment company, from August 2008 to September 2010, and at Protiviti, Inc., an internal audit and risk consulting firm, from June 2005 to July 2008. Before commencing his in-house legal career, Mr. Khadder was a corporate law associate at Fenwick & West LLP from 1998 to 2005. Mr. Khadder holds a Doctor of Jurisprudence degree from Berkeley Law (the University of California, Berkeley, School of Law), and a Bachelor's degree in English from the University of California, Berkeley.

ITEM 1B. UNRESOLVED STAFF COMMENTS

Not applicable.

ITEM 2. PROPERTIES

We lease approximately 136,000 square feet of space in two adjacent buildings in Emeryville, California, pursuant to two leases. Of our space in Emeryville, we use approximately 113,000 square feet for general office purposes and lab space, and approximately 23,000 square feet comprise our pilot plant. In May 2014, pursuant to a sublease agreement and related documents, we agreed to provide Total with access to certain portions of our pilot plant facilities for a period of five years. Such subleased area is approximately 22,021 square feet and is composed of two areas, a dedicated area accessible only to Total, comprising approximately 3,671 square feet and a common area which is shared by the Company and Total, comprising approximately 18,350 square feet. Our master leases expire in May 2023 and we have an option to extend these leases for five years. We also lease approximately 19,375 square feet of space in North Carolina under a month-to-month lease. This lease relates to manufacturing operations through Glycotech, one of our variable interest entities.

Amyris Brasil leases approximately 44,000 square feet of space in Campinas, Brazil, pursuant to two leases that will expire in November 2016 and October 2018. Of this space, approximately 36,000 square feet comprise a pilot plant and demonstration facility, and the remainder is general office and lab space. Amyris Brasil has a right of first refusal to purchase the space if the landlord elects to sell it and an option to extend the lease for five additional years.

Our first large-scale Biofene production plant commenced operations in December 2012 in Brotas in the state of São Paulo, Brazil and is adjacent to an existing sugar and ethanol mill, Tonon Bioenergia S.A. (or Tonon). Amyris Brasil

leases approximately 800,000 square feet of space for this plant, which has six 200,000 liter production fermenters and was designed to process sugarcane juice, or its equivalent, from up to one million tons of raw sugarcane annually; this lease expires in March 2026. Amyris Brasil also leases approximately 500,000 square feet of space for a future manufacturing site; this lease expires in January 2031.

We have also secured the use of a Biofene storage tank with an aggregate capacity of 3,000 barrels or 94,500 gallons in Philadelphia. This facility provides temporary storage of our renewable farnesene prior to further processing into one of our finished products. Our current agreement expires in June 2016.

We believe that our current facilities are suitable and adequate to meet our needs and that suitable additional space will be available to accommodate the foreseeable expansion of our operations.

ITEM 3. LEGAL PROCEEDINGS

We may be involved, from time to time, in legal proceedings and claims arising in the ordinary course of our business. Such matters are subject to many uncertainties and there can be no assurance that legal proceedings arising in the ordinary course of business or otherwise will not have a material adverse effect on our business, results of operations, financial position or cash flows.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Market Information for Common Stock

Our common stock commenced trading on the NASDAQ Global Market on September 28, 2010 under the symbol "AMRS" and currently trades on the NASDAQ Capital Market under the same symbol. The following table sets forth the high and low per share sale prices of our common stock as reported on the NASDAQ Stock Market during each of the previous eight quarters.

	Price Range Per Share	
	High	Low
Fiscal 2015		
Fourth quarter	$2.57	$1.46
Third quarter	$2.62	$1.51
Second quarter	$2.74	$1.55
First quarter	$3.11	$1.56
Fiscal 2014		
Fourth quarter	$3.88	$1.92
Third quarter	$4.50	$3.38
Second quarter	$4.88	$2.75
First quarter	$5.47	$3.29

Holders

As of January 31, 2016, there were approximately 105 holders of record (not including beneficial holders of stock held in street names) of our common stock.

Dividend Policy

We have never declared or paid cash dividends on our capital stock. We currently intend to retain any future earnings and do not expect to declare or pay any dividends in the foreseeable future. Any further determination to pay dividends on our capital stock will be at the discretion of our Board of Directors and will depend on our financial condition, results of operations, capital requirements and other factors that our Board of Directors considers relevant.

Securities Authorized for Issuance Under Equity Compensation Plans

See Item 11 of Part III of this Report regarding information about securities authorized for issuance under our equity compensation plans.

Performance Graph[(1)]

The following graph shows a comparison from September 28, 2010 through December 31, 2015 of cumulative total return on an assumed investment of $100.00 in cash in our common stock, the S&P SmallCap 600 Index and the NASDAQ Clean Edge Green Energy Index. Such returns are based on historical results and are not intended to suggest future performance. Data for the S&P SmallCap 600 Index and the NASDAQ Clean Edge Green Energy Index assume reinvestment of dividends.

COMPARISON OF 63 MONTH CUMULATIVE TOTAL RETURN

Among Amyris, Inc., the S&P SmallCap 600 Index, and the NASDAQ Clean Edge Green Energy Index

	9/28/2012	12/31/2010	12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015
Amyris, Inc.	100	162	70	19	32	12	10
S&P SmallCap 600 Index	100	116	116	133	185	194	187
NASDAQ Clean Edge Green Energy Index	100	109	64	63	119	115	106

(1) *This performance graph shall not be deemed "soliciting material" or to be "filed" with the SEC for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liabilities under that Section, and shall not be deemed incorporated by reference into any filing of Amyris, Inc. under the Securities Act of 1933, as amended.*

Recent Sales of Unregistered Securities

Sales of Common Stock

On March 27, 2013, we sold 1,533,742 shares of common stock at a price of $3.26 per share for aggregate cash proceeds of $5.0 million.

On April 30, 2014, we sold 943,396 shares of common stock at a price of $4.24 per share for aggregate cash proceeds of $4.0 million.

On July 29, 2015, we sold 16,025,642 shares of common stock at a price of $1.56 per share for aggregate cash proceeds of $25.0 million. In addition, we issued warrants for the purchase, at an exercise price of $0.01 per share, of an aggregate of 1,602,562 shares of our common stock to the purchasers of shares in the offering.

Sales of Promissory Notes

On June 6, 2013 and July 26, 2013, we issued an aggregate of $30.0 million of our 1.5% Senior Unsecured Convertible Notes due 2017 with an initial conversion price of $3.08 per share, subject to certain adjustments, to Total pursuant to our arrangement with Total for research and development-related funding (together with our 1.5% Senior Secured Convertible Notes due 2017 issued in December 2013, July 2014 and January 2015 (described below), "R&D Notes"), for aggregate cash proceeds of $30.0 million. The conversion price of these notes is subject to adjustment for proportional adjustments to outstanding common stock and under anti-dilution provisions in case of certain dividends and distributions.

On October 4, 2013, we issued a senior secured promissory note in the principal amount of $35.0 million (the "Bridge Note") to Temasek for cash proceeds of $35.0 million. The Bridge Note was due on February 2, 2014 and accrued interest at a rate of 5.5% per month from October 4, 2013. The Bridge Note was cancelled as payment for Temasek's purchase of Tranche I Notes, as described below.

On October 16, 2013, we issued an aggregate of approximately $51.8 million of senior convertible promissory notes ("Tranche I Notes") with an initial conversion price of $2.44 per share, subject to certain adjustments, for aggregate cash proceeds of approximately $7.6 million. The remaining approximately $44.2 million of notes was paid through the cancellation of the same amount of previously outstanding convertible promissory notes held by purchasers of the Tranche I Notes. The conversion price of the Tranche I Notes is subject to adjustment (a) according to proportional adjustments to our outstanding common stock in case of certain dividends and distributions, (b) according to anti-dilution provisions, and (c) with respect to Tranche I Notes held by any purchaser other than Total, in the event that Total exchanges existing convertible notes for new securities of the company in connection with future financing transactions in excess of its pro rata amount. Following our private offering of unsecured promissory notes and warrants in February 2016, as described below, the conversion price of the Tranche I Notes was adjusted to $1.40 per share.

On December 2, 2013, in connection with our entry into agreements establishing our joint venture with Total, we exchanged the approximately $69.0 million of then-outstanding 1.5% Senior Unsecured Convertible Notes due 2017 held by Total for replacement 1.5% Senior Secured Convertible Notes due 2017, in principal amounts equal to the principal amount of the cancelled notes. The terms of the replacement 1.5% Senior Secured Convertible Notes due 2017 were substantially similar to the terms of the 1.5% Senior Unsecured Convertible Notes due 2017 being exchanged, including conversion prices and terms.

On January 15, 2014, we issued an aggregate of approximately $34.0 million of senior convertible promissory notes ("Tranche II Notes") with an initial conversion price of $2.87 per share, subject to certain adjustments, for aggregate cash proceeds of approximately $28.0 million. The remaining approximately $6.0 million of notes was paid through the cancellation of the same amount of previously outstanding convertible promissory notes held by a purchaser of the Tranche II Notes. The conversion price of the Tranche II Notes is subject to adjustment (a) according to proportional adjustments to our outstanding common stock in case of certain dividends and distributions, (b) according to anti-dilution provisions, and (c) with respect to Tranche II Notes held by any purchaser other than Total, in the event that Total exchanges existing convertible notes for new securities of the company in connection with future financing transactions in excess of its pro rata amount. Following our private offering of unsecured promissory notes and warrants in February 2016, as described below, the conversion price of the Tranche II Notes was adjusted to $1.40 per share.

On May 29, 2014, we issued an aggregate of $75.0 million of our 6.50% Convertible Senior Notes due 2019 (“2014 144A Notes”) with an initial conversion rate of 267.0370 shares of common stock per $1,000 principal amount of 2014 144A Notes (representing an initial effective conversion price of approximately $3.74 per share of common stock), subject to certain adjustments, for aggregate cash proceeds of approximately $71.5 million, after payment of the initial purchaser’s discount and offering expenses.. The 2014 144A Notes are convertible into shares of the company's common stock at any time prior to the close of business on May 15, 2019. For any conversion on or after May 15, 2015, in the event that the last reported sale price of the company’s common stock for 20 or more trading days (whether or not consecutive) in a period of 30 consecutive trading days ending within five trading days immediately prior to the date the company receives a notice of conversion exceeds the conversion price of $3.74 per share on each such trading day, the holders, in addition to the shares deliverable upon conversion, will be entitled to receive a cash payment equal to the present value of the remaining scheduled payments of interest that would have been made on the 2014 144A Notes being converted from the conversion date to the earlier of the date that is three years after the date the company receives such notice of conversion and maturity (May 15, 2019), which will be computed using a discount rate of 0.75%. In addition, holders of the 2014 144A Notes who convert their 2014 144A Notes in connection with a make-whole fundamental change will, under certain circumstances, be entitled to an increase in the conversion rate. The conversion rate of the 2014 144A Notes is subject to adjustment according to proportional adjustments to our outstanding common stock in case of certain dividends and distributions.

On July 31, 2014 and January 27, 2015, we issued an aggregate of $21.7 million of our 1.5% Senior Secured Convertible Notes due 2017 with an initial conversion price of $4.11 per share, subject to certain adjustments, to Total pursuant to our arrangement with Total for research and development funding (together with our 1.5% Senior Unsecured Convertible Notes due 2017 issued in June and July 2013 (described above), “R&D Notes”), for aggregate cash proceeds of $21.7 million. The conversion price of these notes is subject to adjustment for proportional adjustments to outstanding common stock and under anti-dilution provisions in case of certain dividends and distributions.

On July 29, 2015, Temasek exchanged its Tranche I Notes and Tranche II Notes and Total exchanged $70 million in principal amount of R&D Notes for shares of the company's common stock (the “Exchange”). The exchange price was $2.30 per share (the "Exchange Price") and was paid by the exchange and cancellation of outstanding principal of Tranche I Notes, Tranche II Notes and R&D Notes, as the case may be, including paid-in-kind and accrued interest in the case of Temasek's Tranche I Notes and Tranche II Notes. Temasek exchanged and canceled all Tranche I Notes and Tranche II Notes held by it, having an aggregate principal amount of $71.0 million, in exchange for approximately 30.86 million shares of our common stock. Total exchanged and canceled all but $5.0 million of R&D Notes held by it, such cancelled notes having in an aggregate principal amount of $70 million, in exchange for approximately 30.4 million shares of our common stock. In addition, in connection with the Exchange, on July 29, 2015, Total received the following warrants: (i) a warrant to purchase 18,924,191 shares of the company's Common Stock; and (ii) a warrant to purchase 2,000,000 shares of the company's common stock that will only be exercisable if the company fails, as of March 1, 2017, to achieve a target cost per liter to manufacture farnesene (the "Total R&D Warrant"). The Total Funding Warrant and the Total R&D Warrant are collectively referred to as the "Total Warrants." Additionally, in connection with the Exchange, on July 29, 2015, Temasek received the following warrants: (i) a warrant to purchase 14,677,861 shares of the company's common stock; (ii) a warrant exercisable for that number of shares of the company's common stock equal to (1) (A) the number of shares for which Total exercises the Total Funding Warrant plus (B) the number of additional shares for which the Tranche I Notes and Tranche II Notes remaining outstanding following the completion of the Exchange may become exercisable as a result of a reduction in the conversion price of such remaining notes as a result of and/or subsequent to the date of the Exchange

plus (C) that number of additional shares in excess of 2,000,000, if any, for which the Total R&D Warrant becomes exercisable multiplied by a fraction equal to 30.6% divided by 69.4% plus (2) (A) the number of any additional shares for which 2014 144A Notes may become exercisable as a result of a reduction to the conversion price of such 2014 144A Notes multiplied by (B) a fraction equal to 13.3% divided by 86.7%; and (iii) a warrant exercisable for that number of shares of the Company's common stock equal to 880,339 multiplied by a fraction equal to the number of shares for which Total exercises the Total R&D Warrant divided by 2,000,000.

On October 20, 2015, we issued an aggregate of $57.6 million of our 9.50% Convertible Senior Notes due 2019 (“2015 144A Notes”) with an initial conversion rate of 443.6557 shares of common stock per $1,000 principal amount of 2015 144A Notes (representing an initial effective conversion price of approximately $2.25 per share of common stock), subject to certain adjustments, for aggregate cash proceeds of approximately $54.4 million, after payment of offering expenses and placement agent fees. The 2015 144A Notes are convertible into shares of the Company's common stock at any time prior to the close of business on April 15, 2019. For any conversion on or after November 27, 2015, the holders, in addition to the shares deliverable upon conversion, will be entitled to receive a payment equal to the present value of the remaining scheduled payments of interest that would have been made on the 2015 144A Notes being converted from the conversion date to the earlier of the date that is three years after the date the Company receives such notice of conversion and maturity (April 15, 2019), which will be computed using a discount rate of 0.75%. The Company may pay an Early Conversion Payment either in cash or in common stock, at its election. In addition, holders of the 2015 144A Notes who convert their 2015 144A Notes in connection with a make-whole fundamental change will, under certain circumstances, be entitled to an increase in the conversion rate. Following our private offering of unsecured promissory notes and warrants in February 2016, as described below, the conversion rate of the 2015 144A Notes was adjusted to 445.2552 shares of common stock per $1,000 principal amount of 2015 144A Notes.

On February 12, 2016 and February 15, 2016, we issued an aggregate of $20.0 million of unsecured promissory notes and warrants for the purchase, at an exercise price of $0.01 per share, of an aggregate of 2,857,142 shares of our common stock, for aggregate cash proceeds of $20.0 million.

On March 21, 2016, we sold to Total one half of our ownership stake in our fuels joint venture with Total, Total Amyris BioSolutions B.V. (“TAB”) (giving Total an aggregate ownership stake of 75% of TAB and giving us an aggregate ownership stake of 25% of TAB) in exchange for Total cancelling (i) approximately $1.3 million of R&D Notes held by Total, plus all paid-in-kind and accrued interest under all outstanding R&D Notes (including all such interest that was outstanding as of July 29, 2015) and (ii) a note in the principal amount of Euro 50,000, plus accrued interest, issued by the Company to Total in connection with the original TAB capitalization. To satisfy its purchase obligation above, Total surrendered the remaining R&D Note of approximately $5 million in principal amount, and we executed and delivered to Total a new, senior convertible note (the “March 2016 R&D Note”) in the principal amount of $3.7 million. Other than it is unsecured and its payment terms are severed from TAB’s business performance, the March 2016 R&D Note contains substantially similar terms and conditions to the R&D Notes. The March 2016 R&D Note has a March 1, 2017 maturity date and an initial conversion price equal to $3.08 per share, which is subject to adjustment for proportional adjustments to outstanding common stock and under anti-dilution provisions in case of certain dividends and distributions.

A placement agent was used in connection with the sale of the Tranche II Notes to one of the purchasers in such financing and in connection with the sale of the 2015 144A Notes. In connection with the sale of the 2014 144A Notes, Morgan Stanley & Co. LLC served as the initial purchaser. In the other sales of securities described above, no underwriters were involved. Such securities were issued in private transactions pursuant to Section 4(2) of the Securities Act and Regulation D promulgated under Section 3(b) of the Securities Act. The recipients of these securities acquired the securities for investment purposes only and without intent to resell, were able to fend for themselves in these transactions, and were accredited investors as defined in Rule 501 of Regulation D promulgated under Section 3(b) of the Securities Act, and appropriate restrictions were set out in the agreements for, and stock

certificates, notes and warrants issued in, these transactions. These security holders had adequate access, through their relationships with us, to information about us.

We may undertake further equity or debt offerings in the future in order to grow our business or fund operations. To the extent we issue further common stock, convertible promissory notes or other equity instruments, such issuances may cause further dilution to our existing stockholders.

ITEM 6. SELECTED FINANCIAL DATA

The selected consolidated statements of operations data for the years ended December 31, 2015, 2014 and 2013 and the selected consolidated balance sheets data as of December 31, 2015 and 2014 are derived from our audited Consolidated Financial Statements, appearing elsewhere in this Annual Report on Form 10-K. The selected consolidated statements of operations data for the years ended December 31, 2012 and 2011 and the selected consolidated balance sheets data as of December 31, 2013, 2012 and 2011 are derived from our audited Consolidated Financial Statements not included in this Annual Report on Form 10-K. The historical results presented below are not necessarily indicative of financial results to be achieved in future periods. You should read the following selected financial data in conjunction with "Management's Discussion Analysis of Financial Condition and Results of Operations" and our Consolidated Financial Statements and related Notes included in Item 8 of this Annual Report on Form 10-K.

	Years Ended December 31,				
	2015	2014	2013	2012	2011
Consolidated Statements of Operations Data:					
Total revenues	$34,153	$43,274	$41,119	$73,694	$146,991
Total cost and operating expenses	$182,686	$143,102	$160,735	$275,516	$326,163
Net loss from operations	$(148,533)	$(99,828)	$(119,616)	$(201,822)	$(179,172)
Net income (loss) before income taxes and loss from investment in affiliate	$(213,400)	$5,572	$(235,754)	$(205,052)	$(178,959)
Net income (loss) before loss from investment in affiliate	$(213,868)	$5,077	$(234,907)	$(206,033)	$(179,511)
Net income (loss)	$(218,052)	$2,167	$(234,907)	$(206,033)	$(179,511)
Net income (loss) attributable to Amyris, Inc. common stockholders	$(217,952)	$2,286	$(235,111)	$(205,139)	$(178,870)
Net income (loss) per share attributable to common stockholders:					
Basic	$(1.75)	$0.03	$(3.12)	(3.62)	(3.99)
Diluted	$(1.75)	$(0.90)	$(3.12)	(3.62)	(3.99)
Weighted-average shares of common stock outstanding used in computing net income/loss per share of common stock:					
Basic	126,961,57	78,400,098	75,472,770	56,717,869	44,799,056
Diluted	126,961,57	121,859,441	75,472,770	56,717,869	44,799,056

	As of December 31,				
	2015	2014	2013	2012	2011
Consolidated Balance Sheets Data:					
Cash, cash equivalents, investments and restricted cash	$14,685	$45,041	$9,944	$31,644	$103,592
Working capital (deficit)[(2)]	$(41,147)	$33,606	$(382)	$3,668	$47,205
Property, plant and equipment, net	$59,797	$118,980	$140,591	$163,121	$128,101

Total assets	$110,198	$216,183	$198,864	$242,834	$320,111
Derivative liabilities	$51,439	$59,736	$134,717	$9,261	$—
Total indebtedness[1]	$156,755	$233,277	$153,305	$106,774	$47,660
Total equity (deficit)	$(158,456)	$(125,063)	$(135,848)	$66,229	$160,812

(1) Total indebtedness as of December 31, 2015, 2014, 2013, 2012 and 2011 includes $0.7 million, $0.8 million, $1.2 million, $2.6 million, and $6.3 million, respectively, in capital lease obligations, zero, zero, zero, $1.6 million, and $3.1 million, respectively, in notes payable, $14.0 million, $21.1 million, $25.3 million, $26.2 million and $19.4 million, respectively, in loans payable, $34.4 million, $35.7 million, $8.8 million, $12.4 million, and $18.9 million, respectively, in credit facilities. Total indebtedness as of December 31, 2015, 2014, 2013 and 2012 also included $64.6 million, $60.4 million and $28.5 million and $25.0 million, respectively, in convertible notes and $43.0 million, $115.2 million and $89.5 million and $39.0 million, respectively in related party convertible notes. There was no convertible notes balance outstanding as of December 31, 2011 (see Note 5, "Debt" and Note 6, "Commitments and Contingencies" to our Consolidated Financial Statements).

(2) Including cash and cash equivalents, investments and restricted cash.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Overview

Amyris is a renewable products company focused on providing sustainable alternatives to a broad range of petroleum-sourced products. We developed innovative microbial engineering and screening technologies that modify the way microorganisms process sugars. We are using our proprietary industrial bioscience technology to design microbes, primarily yeast, and use them as living factories in established fermentation processes to convert plant-sourced sugars into renewable hydrocarbons. We are developing, and, in some cases, already commercializing, products from these hydrocarbons in several target industry sectors, including cosmetics, lubricants, flavors and fragrances, performance materials, and transportation fuels. We call these No Compromise products because we design them to perform comparably to or better than currently available products.

We have been applying our industrial bioscience technology platform to provide alternatives to a broad range of petroleum-sourced products. We have focused our development efforts on the production of Biofene, our brand of renewable farnesene, a long-chain, branched liquid hydrocarbon molecule. Using Biofene as a first commercial building block molecule, we are developing a wide range of renewable products for our target markets.

While our platform is able to utilize a wide variety of feedstocks, we are focusing our large-scale production plans primarily on the use of Brazilian sugarcane as our feedstock because of its abundance, low cost and relative price stability. We have also been able to produce Biofene through the use of other feedstocks such as sugar beets, corn dextrose, sweet sorghum and cellulosic sugars.

Our first purpose-built, large-scale Biofene production plant commenced operations in southeastern Brazil in December 2012. This plant is located in Brotas, in the state of São Paulo, Brazil, and is adjacent to an existing sugar and ethanol mill.

Our business strategy is focused on our commercialization efforts of specialty products while moving commodity products, including our fuels and base oil lubricants products, into joint venture arrangements with established industry leaders. We believe this approach will permit access to the capital and resources necessary to support large-scale production and global distribution for our products. Our initial renewable products efforts have been focused on cosmetics, niche fuel opportunities, fragrance oils, and performance materials sector.

Relationship with Total S.A.

In July 2012 and December 2013, we entered into a series of agreements (or the "Total Fuel Agreements") to establish a research and development program and form a joint venture with Total Energies Nouvelles Activités USA (formerly known as Total Gas & Power USA, SAS, and referred to as "Total") to produce and commercialize Biofene-based diesel and jet fuels, and successfully formed such joint venture, Total Amyris BioSolutions B.V. (or "TAB"), in November 2013. With an exception for our fuels business in Brazil, the collaboration and joint venture established the exclusive means for us to develop, produce and commercialize fuels from Biofene. We granted TAB exclusive licenses under certain of our intellectual property to make and sell joint venture products. We also granted TAB, in the event of a buy-out of our interest in the joint venture by Total (which Total is entitled to do under certain circumstances described below), a non-exclusive license to optimize or engineer yeast strains used by us to produce farnesene for the joint venture's diesel and jet fuels. As a result of these licenses, we generally no longer had an independent right to make or sell Biofene fuels outside of Brazil without the approval of Total.

Our agreements with Total relating to our fuels collaboration created a convertible debt financing structure for funding the research and development program. The Total Fuel Agreements contemplated approximately $105.0 million in financing (or "R&D Notes") for the collaboration, which as of January 27, 2015, had been completely funded by Total.

In July 2015, we entered into a Letter Agreement with Total (or, as amended in February 2016, the "JVCO Letter Agreement") regarding the restructuring of the ownership and rights of TAB (or the "Restructuring"), pursuant to which the parties agreed to enter into an Amended & Restated Jet Fuel License Agreement between us and TAB (or the "Jet Fuel Agreement"), a License Agreement regarding Diesel Fuel in the European Union (or the "EU") between us and Total (or the "EU Diesel Fuel Agreement" and together with the Jet Fuel Agreement, the "Commercial Agreements"), and an Amended and Restated Shareholders' Agreement among us, Total and TAB (or, together with the Commercial Agreements, the "Restructuring Agreements"), and file a Deed of Amendment of Articles of Association of TAB, all in order to reflect certain changes to the ownership structure of TAB and license grants and related rights pertaining to TAB.

Additionally, in connection with the proposed Restructuring, in July 2015 we and Total entered into Amendment #1 (or the "Pilot Plant Agreement Amendment") to that certain Pilot Plant Services Agreement dated as of April 4, 2014 (or, as amended, the "Pilot Plant Agreement") whereby we and Total agreed to restructure the payment obligations of Total under the Pilot Plant Agreement. Under the original Pilot Plant Agreement, for a five year period, we are providing certain fermentation and downstream separations scale-up services and training to Total and receive an aggregate annual fee payable by Total for all services in the amount of up to approximately $900,000 per annum. Such annual fee is due in three equal installments payable on March 1, July 1 and November 1 each year during the term of the Pilot Plant Agreement. Under the Pilot Plant Agreement Amendment, in connection with the restructuring of TAB discussed above, we agreed to waive a portion of these fees up to approximately $2.0 million, over the term of the Pilot Plant Agreement.

On March 21, 2016, we, Total and TAB closed the Restructuring and entered into the Restructuring Agreements.

Under the Jet Fuel Agreement, (a) we granted exclusive (excluding its Brazil jet fuel business), world-wide, royalty-free rights to TAB for the production and commercialization of farnesene- or farnesane-based jet fuel, (b) we granted TAB the option, until March 1, 2018, to purchase our Brazil jet fuel business at a price based on the fair value of the commercial assets and on our investment in other related assets, (c) we granted TAB the right to purchase farnesene or farnesane for its jet fuel business from us on a “most-favored” pricing basis and (d) all rights to farnesene- or farnesane-based diesel fuel previously granted to TAB by us reverted back to us.

Upon all farnesene- or farnesane-based diesel fuel rights reverting back to us, we granted to Total, pursuant to the EU Diesel Fuel Agreement, (a) an exclusive, royalty-free license to offer for sale and sell farnesene- or farnesane-based diesel fuel in the EU, (b) the right to make farnesene or farnesane anywhere in the world, provided Total must (i) use such farnesene or farnesane to produce diesel fuel to offer for sale or sell in the EU and (ii) pay us a to-be-negotiated, commercially reasonable, "most-favored" basis royalty and (c) the right to purchase farnesene or farnesane for its EU diesel fuel business from us on a "most-favored" pricing basis.

In addition, as part of the closing of the Restructuring and pursuant the JVCO Letter Agreement, on March 21, 2016, we sold to Total one half of our ownership stake in TAB (giving Total an aggregate ownership stake of 75% of TAB and giving us an aggregate ownership stake of 25% of TAB) in exchange for Total cancelling (i) approximately $1.3 million of R&D Notes, plus all paid-in-kind and accrued interest under all outstanding R&D Notes (including all such interest that was outstanding as of July 29, 2015) and (ii) a note in the principal amount of Euro 50,000, plus accrued interest, issued to Total in connection with the original TAB capitalization. To satisfy its purchase obligation above, Total surrendered to us the remaining R&D Note of approximately $5 million in principal amount, and we executed and delivered to Total a new, senior convertible note, containing substantially similar terms and conditions other than it is unsecured and its payment terms are severed from TAB's business performance, in the principal amount of $3.7 million.

As a result of, and in order to reflect, the changes to the ownership structure of TAB described above, on March 21, 2016, (a) we, Total and TAB entered into an Amended and Restated Shareholders' Agreement and filed a Deed of Amendment of Articles of Association of TAB and (b) we and Total terminated the Amended and Restated Master Framework Agreement, dated December 2, 2013 and amended on April 1, 2015, between us and Total.

Sales and Revenues

To commercialize our initial Biofene-derived product, squalane, in the cosmetics sector for use as an emollient, we have entered into certain marketing and distribution agreements in Europe, Asia, and North America. As an initial step towards commercialization of Biofene-based diesel, we have entered into agreements with municipal fleet operators in Brazil. Our diesel fuel is supplied to a Brazilian fuel distributor which blends our product with petroleum diesel and sells to a number of bus fleet operators. Pursuant to our agreements with Total, future commercialization of our jet fuel products outside of Brazil would generally occur exclusively through certain agreements entered into by and among Amyris, Total and TAB. For the industrial lubricants market, we established a joint venture with Cosan Combustíveis e Lubrificantes S.A. and Cosan S.A. Industria e Comércio (such Cosan entities and their affiliates, collectively or individually referred to as Cosan) for the worldwide development, production and commercialization of renewable base oils in the lubricant sector.

Financing

In 2015 and 2014, we completed multiple financings involving loans, convertible debt and equity offerings.

In January 2014, we sold and issued, for face value, approximately $34.0 million of convertible promissory notes in Tranche II Notes as described in more detail in Note 5, "Debt".

In March 2014, we entered into a securities purchase agreement with Kuraray under which we agreed to sell shares of our common stock at a price equal to the greater of $2.88 per share or the average daily closing prices per share on the NASDAQ Stock Market for the three month period ending March 27, 2014, for an aggregate purchase price of $4.0 million. In April 2014, we completed the sale of common stock to Kuraray and issued 943,396 shares of our common stock at a price per share of $4.24 for aggregate proceeds of approximately $4.0 million.

In March 2014, we entered into an export financing agreement with Banco ABC Brasil S.A. (or ABC) for approximately $2.2 million to fund exports through March 2015. This loan is collateralized by future exports from the Company's subsidiary in Brazil.

In March 2014 we entered into a Loan and Security Agreement (or, as amended, the Hercules Loan Facility) with Hercules Technology Growth Capital, Inc. (or Hercules) under which we issued to Hercules, secured debt in the aggregate amount of $25.0 million. The Hercules Loan Facility, which was subsequently amended in June 2014, March 2015 and November 2015, is described in more detail below under "Liquidity and Capital Resources."

In May 2014, we issued $75.0 million aggregate principal amount of 6.50% Convertible Senior Notes due 2019 (the “2014 144A Notes”) to Morgan Stanley & Co. LLC as the Initial Purchaser in a private placement, and for initial resale by the Initial Purchaser to qualified institutional buyers in the 144A Offering (as described in more detail below under "Liquidity and Capital Resources"). These notes were issued at a discount of $3.0 million.

In July 2014, we closed on the initial installment of the $21.7 million in convertible notes from Total under the Total Fuel Agreements as described in more detail in Note 5, "Debt", in the amount of $10.85 million and in January 2015, we closed on the second installment in the amount of $10.85 million.

In July 2015, we sold to certain purchasers 16,025,642 shares of our common stock at a price per share of $1.56, with aggregate proceeds to the Company of $25 million (the "Private Offering"). We also granted to the purchasers warrants exercisable at an exercise price of $0.01 per share for the purchase of an aggregate of 1,602,562 shares of our common stock. The exercisability of these warrants was subject to stockholder approval, which was obtained on September 17, 2015.

In October 2015, we issued $57.6 million aggregate principal amount of 9.50% Convertible Senior Notes due 2019 to certain qualified institutional buyers, as described in more detail in Note 5, “Debt.”

Exchange (Debt Conversion)

On July 29, 2015, we closed the "Exchange" pursuant to that certain Exchange Agreement, dated as of July 26, 2015 (the “ Exchange Agreement ”), among us, Temasek and Total.

Under the Exchange Agreement, at the closing, Temasek exchanged approximately $71.0 million of outstanding convertible promissory notes (including paid-in-kind and accrued interest through July 29, 2015) and Total exchanged $70.0 million in principal amount of outstanding convertible promissory notes for shares of the Company’s common stock. The exchange price was $2.30 per share (the “Exchange Price”) and was paid by the exchange and cancellation of such outstanding convertible promissory notes, and Temasek and Total received 30,860,633 and 30,434,782 shares of the Company’s common stock, respectively, in the Exchange.

Under the Exchange Agreement, Total also received the following warrants, each with a five-year term, at the closing:

- A warrant to purchase 18,924,191 shares of our Common Stock (the “Total Funding Warrant”).

- A warrant to purchase 2,000,000 shares of our common stock that will only be exercisable if we fail, as of March 1, 2017, to achieve a target cost per liter to manufacture farnesene (the “Total R&D Warrant”). The Total Funding Warrant and the Total R&D Warrant are collectively referred to as the “Total Warrants.”

Additionally, under the Exchange Agreement, Temasek received the following warrants:

- A warrant to purchase 14,677,861 shares of our common stock (the "Temasek Exchange Warrant").

- A warrant exercisable for that number of shares of our common stock equal to (1) (A) the number of shares for which Total exercises the Total Funding Warrant plus (B) the number of additional shares for which the certain convertible notes remaining outstanding following the completion of the Exchange may become exercisable as a result of a reduction in the conversion price of such remaining notes as a result of and/or subsequent to the date of the Exchange plus (C) that number of additional shares in excess of 2,000,000, if any, for which the Total R&D Warrant becomes exercisable multiplied by a fraction equal to 30.6% divided by 69.4% plus (2) (A) the number of any additional shares for which certain other outstanding convertible promissory notes may become exercisable as a result of a reduction to the conversion price of such notes multiplied by (B) a fraction equal to 13.3% divided by 86.7% (the "Temasek Funding Warrant").

- A warrant exercisable for that number of shares of our common stock equal to 880,339 multiplied by a fraction equal to the number of shares for which Total exercises the Total R&D Warrant divided by 2,000,000. If Total is entitled to, and does, exercise the Total R&D Warrant in full, this warrant would be exercisable for 880,339 shares (the "Temasek R&D Warrant").

The Temasek Exchange Warrant, the Temasek Funding Warrant and the Temassek R&D Warrant each have ten-year terms and are referred to herein as the "Temasek Warrants" and, the Temasek Warrants and Total Warrants are hereinafter collectively referred to as the "Exchange Warrants". All of the Exchange Warrants have an exercise price of $0.01 per share.

In addition to the grant of the Exchange Warrants, a warrant issued by the Company to Temasek in October 2013 in conjunction with a prior convertible debt financing (the "2013 Warrant") became exercisable in full upon the completion of the Exchange. There were 1,000,000 shares underlying the 2013 Warrant, which was exercised in full at the exercise price of $0.01 per share.

The exercisability of all of the Exchange Warrants was subject to stockholder approval, which was obtained on September 17, 2015.

As of December 31, 2015, the Total Funding Warrant, the Temasek Exchange Warrant, and the 2013 Warrant had been fully exercised, and Temasek had exercised the Temasek Funding Warrant with respect to 12,700,244 shares of our common stock. Neither the Total R&D Warrant nor the Temasek R&D Warrant were exercisable as of December

31, 2015.

Maturity Treatment Agreement

At the closing of the Exchange, we, Total and Temasek also entered into a Maturity Treatment Agreement, dated as of July 29, 2015, pursuant to which Total and Temasek agreed to convert any of our convertible promissory notes held by them that were not cancelled in the Exchange (the "Remaining Notes") into shares of our common stock in accordance with the terms of such Remaining Notes upon maturity, provided that certain events of default have not occurred with respect to the applicable Remaining Notes prior to such maturity. As of immediately following the closing of the Exchange, Temasek held $10.0 million in aggregate principal amount of Remaining Notes and Total held approximately $25.0 million in aggregate principal amount of Remaining Notes.

In conjunction with the closing of the Exchange and Maturity Treatment Agreements on July 29, 2015, $178.1 million of convertible debt was extinguished and a $5.9 million loss on extinguishment was recognized in the year ended December 31, 2015. The Remaining Notes were recorded at fair value.

Liquidity

We have incurred significant losses since our inception and we believe that we will continue to incur losses and may have negative cash flow from operations through at least 2016. As of December 31, 2015, we had an accumulated deficit of $1,037.1 million and had cash, cash equivalents and short term investments of $13.5 million. We have significant outstanding debt and contractual obligations related to capital and operating leases, as well as purchase commitments. Our audited consolidated financial statements have been prepared on the basis that the Company a going concern. If we are unable to raise additional financing, our ability to continue as a going concern would be jeopardized and we may be forced to delay, scale back or eliminate some of our activities to provide sufficient funds to continue our operations. The financial statements do not include any adjustments that might result from the outcome of this uncertainty, which could have a material adverse effect on our financial condition. Refer to "Liquidity and Capital Resources" for further details.

Critical Accounting Policies and Estimates

Our discussion and analysis of our financial condition and results of operations is based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, expenses and related disclosures. We base our estimates and assumptions on historical experience and on various other factors that we believe to be reasonable under the circumstances. We evaluate our estimates and assumptions on an ongoing basis. The results of our analysis form the basis for making assumptions about the carrying values of assets and liabilities that are not readily apparent from other sources. Our actual results may differ from these estimates under different assumptions or conditions.

We believe the following critical accounting policies involve significant areas of management’s judgments and estimates in the preparation of our financial statements.

Revenue Recognition

We recognize revenue from the sale of renewable products, from the delivery of collaborative research and development services, and from governmental grants. Revenue is recognized when all of the following criteria are

met: persuasive evidence of an arrangement exists, delivery has occurred or services have been rendered, the fee is fixed or determinable and collectability is reasonably assured.

If sales arrangements contain multiple elements, we evaluate whether the components of each arrangement represent separate units of accounting. Application of revenue recognition standards requires subjective determination and requires management to make judgments about the fair values of each individual element and whether it is separable from other aspects of the contractual relationship.

For each source of revenues, we apply the above revenue recognition criteria in the following manner:

Product Sales

Starting in the second quarter of 2011, we commenced sales of farnesene-derived products, and in the latter part of 2013 we initiated sales of flavors and fragrances related products. Revenues are recognized, net of discounts and allowances, once passage of title and risk of loss have occurred, provided all other revenue recognition criteria have also been met.

Shipping and handling costs charged to customers are recorded as revenues. Shipping costs are included in cost of products sold. Such charges were not significant in any of the periods presented.

Grants and Collaborative Research Services

Revenues from collaborative research services are recognized as the services are performed consistent with the performance requirements of the contract. In cases where the planned levels of research services fluctuate over the research term, we recognize revenues using the proportionate performance method based upon actual efforts to date relative to the amount of expected effort to be incurred by us. When up-front payments are received and the planned levels of research services do not fluctuate over the research term, revenues are recorded on a ratable basis over the arrangement term, up to the amount of cash received. When up-front payments are received and the planned levels of research services fluctuate over the research term, revenues are recorded using the proportionate performance method, up to the amount of cash received. Where arrangements include milestones that are determined to be substantive and at risk at the inception of the arrangement, revenues are recognized upon achievement of the milestone and is limited to those amounts whereby collectability is reasonably assured.

Government grants are made pursuant to agreements that generally provide cost reimbursement for certain types of expenditures in return for research and development activities over a contractually defined period. Revenues from government grants are recognized in the period during which the related costs are incurred, provided that the conditions under which the government grants were provided have been met and only perfunctory obligations are outstanding.

Variable Interest Entities

We have interests in certain joint venture entities that are variable interest entities or VIEs. Determining whether to consolidate a variable interest entity may require judgment in assessing (i) whether an entity is a variable interest entity and (ii) if we are the entity's primary beneficiary and thus required to consolidate the entity. To determine if we are the primary beneficiary of a VIE, we evaluate whether we have (i) the power to direct the activities that most

significantly impact the VIE's economic performance and (ii) the obligation to absorb losses or the right to receive benefits of the VIE that could potentially be significant to the VIE. Our evaluation includes identification of significant activities and an assessment of our ability to direct those activities based on governance provisions and arrangements to provide or receive product and process technology, product supply, operations services, equity funding and financing and other applicable agreements and circumstances. Our assessment of whether we are the primary beneficiary of our VIEs requires significant assumptions and judgment.

Impairment of Long-Lived Assets

We assess impairment of long-lived assets, which include property, plant and equipment, and test long-lived assets for recoverability when events or changes in circumstances indicate that their carrying amount may not be recoverable. Circumstances which could trigger a review include, but are not limited to, significant decreases in the market price of the asset; significant adverse changes in the business climate or legal factors; accumulation of costs significantly in excess of the amount originally expected for the acquisition or construction of the asset; current period cash flow or operating losses combined with a history of losses or a forecast of continuing losses associated with the use of the asset; or expectations that the asset will more likely than not be sold or disposed of significantly before the end of its estimated useful life.

Recoverability is assessed based on the fair value of the asset, which is calculated as the sum of the undiscounted cash flows expected to result from the use and the eventual disposal of the asset. An impairment loss is recognized in the consolidated statements of operations when the carrying amount is determined not to be recoverable and exceeds fair value, which is determined on a discounted cash flow basis.

We make estimates and judgments about future undiscounted cash flows and fair values. Although our cash flow forecasts are based on assumptions that are consistent with our plans, there is significant exercise of judgment involved in determining the cash flows attributable to a long-lived asset over its estimated remaining useful life. Although we believe that the assumptions and estimates that we have are reasonable and appropriate, different assumptions and estimates could materially impact our reported financial results.

Inventories

Inventories, which consist of farnesene-derived products and flavor and fragrances ingredients are stated at the lower of cost or market and categorized as finished goods, work-in-process or raw material inventories. We evaluate the recoverability of our inventories based on assumptions about expected demand and net realizable value. If we determine that the cost of inventories exceeds its estimated net realizable value, we record a write-down equal to the difference between the cost of inventories and the estimated net realizable value. If actual net realizable values are less favorable than those projected by management, additional inventory write-downs may be required that could negatively impact our operating results. If actual net realizable values are more favorable than those projected by management, we may have favorable operating results when products that have been previously written down are sold in the normal course of business. We also evaluate the terms of our agreements with our suppliers and establish accruals for estimated losses on adverse purchase commitments as necessary, applying the same lower of cost or market approach that is used to value inventory. Cost is computed on a first-in, first-out basis. Inventory costs are incurred in bringing inventory to its existing location.

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Goodwill and Intangible Assets

Goodwill represents the excess of the cost over the fair value of net assets acquired from our business combinations. Intangible assets are comprised primarily of in-process research and development (or IPR&D). We make significant judgments in relation to the valuation of goodwill and intangible assets resulting from business combinations and asset acquisitions. Goodwill and intangible assets with indefinite lives are assessed for impairment using fair value measurement techniques on an annual basis or more frequently if facts and circumstance warrant such a review. When required, a comparison of fair value to the carrying amount of assets is performed to determine the amount of any impairment.

There are several methods that can be used to determine the estimated fair value of the IPR&D acquired in a business combination. We have used the "income method," which applies a probability weighting that considers the risk of development and commercialization, to the estimated future net cash flows that are derived from projected sales revenues and estimated costs. These projections are based on factors such as relevant market size, pricing of similar products, and expected industry trends. The estimated future net cash flows are then discounted to the present value using an appropriate discount rate. These assets are treated as indefinite-lived intangible assets until completion or abandonment of the projects, at which time the assets will be amortized over the remaining useful life or written off, as appropriate.

Factors that could trigger an impairment review include significant under-performance relative to historical or projected future operating results, significant changes in the manner of our use of the acquired assets or the strategy for our overall business or significant negative industry or economic trends. If this evaluation indicates that the value of the intangible asset may be impaired, we make an assessment of the recoverability of the net carrying value of the asset over its remaining useful life. If this assessment indicates that the intangible asset is not recoverable, based on the estimated discounted future cash flows of the technology over the estimated useful life of the technology, we will reduce the net carrying value of the related intangible asset to fair value and may adjust the remaining amortization period. Any such impairment charge could be significant and could have a material adverse effect on our reported financial results. As of December 31, 2015, the Company's intangible assets had a carrying amount of zero.

Stock-Based Compensation

Stock-based compensation cost for restricted stock units (or RSUs) is measured based on the closing fair market value of our common stock on the date of grant. Stock-based compensation cost for stock options and employee stock purchase plan rights is estimated at the grant date and offering date, respectively, based on the fair-value of our common stock using the Black-Scholes option pricing model. We amortize the fair value of the employee stock options on a straight-line basis over the requisite service period of the award, which is generally the vesting period. The measurement of nonemployee stock-based compensation is subject to periodic adjustments as the underlying equity instruments vest, and the resulting change in value, if any, is recognized in our consolidated statements of operations during the period the related services are rendered. There is inherent uncertainty in these estimates and if

different assumptions had been used, the fair value of the equity instruments issued to nonemployee consultants could have been significantly different.

In future periods, our stock-based compensation expense is expected to change as a result of our existing unrecognized stock-based compensation still to be recognized and as we issue additional stock-based awards in order to attract and retain employees and nonemployee consultants.

See Note 11, "Stock-Based Compensation Plans" of Notes to Consolidated Financial Statements in Part II, Item 8 of this Report for a description of our stock-based compensation plans and more information on the assumptions used to calculate the fair value of stock-based compensation.

Income Taxes

We are subject to income taxes in the United States and foreign jurisdictions, and we use estimates in determining our provisions for income taxes. We use the liability method of accounting for income taxes, whereby deferred tax assets or liability account balances are calculated at the balance sheet date using current tax laws and rates in effect for the year in which the differences are expected to affect taxable income.

Recognition of deferred tax assets is appropriate when realization of such assets is more likely than not. We recognize a valuation allowance against our net deferred tax assets unless it is more likely than not that they will be realized. This assessment requires judgment as to the likelihood and amounts of future taxable income by tax jurisdiction.

We apply the provisions of Financial Accounting Standards Board (or FASB) guidance on accounting for uncertainty in income taxes. We assess all material positions taken in any income tax return, including all significant uncertain positions, in all tax years that are still subject to assessment or challenge by relevant taxing authorities. Assessing an uncertain tax position begins with the initial determination of the position’s sustainability and the tax benefit to be recognized is measured at the largest amount of benefit that is greater than 50 percent likely of being realized upon ultimate settlement. As of each balance sheet date, unresolved uncertain tax positions must be reassessed, and we will determine whether (i) the factors underlying the sustainability assertion have changed and (ii) the amount of the recognized tax benefit is still appropriate. The recognition and measurement of tax benefits requires significant judgment. Judgments concerning the recognition and measurement of a tax benefit might change as new information becomes available.

Embedded Derivatives Related to Convertible Notes

Embedded derivatives that are required to be bifurcated from the underlying debt instrument (i.e. host) are accounted for and valued as a separate financial instrument. We evaluated the terms and features of our convertible notes payable and identified compound embedded derivatives (conversion options that contain “make-whole interest” provisions or down round conversion price adjustment provisions) requiring bifurcation and accounting at fair value because the economic and contractual characteristics of the embedded derivatives met the criteria for bifurcation and separate accounting due to the conversion option containing a “make-whole interest” provision and down round conversion, that requires cash payment for forgone interest upon a change of control and down round conversion price adjustment provisions.

See Note 3, "Fair Value of Financial Instruments" of Notes to Consolidated Financial Statements in Part II, Item 8 of this Report for a description of our embedded derivatives related to convertible notes and information on the valuation models used to calculate the fair value of embedded derivatives. Changes in the inputs into these valuation models may have a significant impact on the estimated fair value of the embedded derivatives. For example, a decrease (increase) in the estimated credit spread for the Company results in an increase (decrease) in the estimated value of the embedded derivatives. Conversely, a decrease (increase) in the stock price results in a decrease (increase) in the estimated fair value of the embedded derivatives. The changes in the fair value of the bifurcated compound embedded derivatives are primarily related to the change in price of the underlying common stock of the Company and is reflected in our consolidated statements of operations as “Gain (loss) from change in fair value of derivative instruments.”

Results of Operations

Comparison of Year Ended December 31, 2015 to Year Ended December 31, 2014

Revenues

	Years Ended December 31,		Year-to-Year Change	Percentage Change
	2015	2014		
	(Dollars in thousands)			
Revenues				
Renewable product sales	$14,032	$22,793	$(8,761)	(38)%
Related party renewable product sales	864	646	218	34 %
Total product sales	14,896	23,439	(8,543)	(36)%
Grants and collaborations revenue	19,257	19,835	(578)	(3)%
Total grants and collaborations revenue	19,257	19,835	(578)	(3)%
Total revenues	$34,153	$43,274	$(9,121)	(21)%

Our total revenues decreased by $9.1 million to $34.2 million in 2015 as compared to the prior year, primarily due to lower product sales, the achievement of collaboration milestones in 2013 and 2014, which did not continue in 2015, and the recognizing of revenue in 2014 related to previous collaboration payments. This decrease was partly offset by the completion of several government grant contracts.

Product sales decreased by $8.5 million to $14.9 million in 2015 as compared to the prior year primarily due to the initial large shipment in 2014 of product to a collaboration partner, while our initial large shipment of a product to a collaboration partner expected for Q4 2015 was delayed.

Grants and collaborations revenue decreased by $0.6 million to $19.3 million in 2015 compared to the prior year. This was due to a $2.9 million decrease in government grants revenue offset by a $2.3 million increase in collaborations revenue. The decline in government grants by $2.9 million, includes a decrease of $2.0 million from the DARPA Technology Investment Agreement as a result of the project being completed during 2014. The decrease was reduced by the net increase in collaborations revenue of $2.4 million. The increase consists of new collaborations of $1.3 million and $1.1 million from collaborations that started later in 2014.

Cost and Operating Expenses

	Years Ended December 31,		Year-to Year	Percentage	
	2015	**2014**	Change	Change	
	(Dollars in thousands)				
Cost of products sold	$37,374	$33,202	$4,172	13	%
Loss on purchase commitments, impairment of property, plant and equipment and other asset allowances	34,166	1,769	32,397	1,831	%
Withholding tax related to conversion of related party notes	4,723	—	4,723	nm	
Impairment of intangible assets	5,525	3,035	2,490	82	%
Research and development	44,636	49,661	(5,025)	(10	)%
Sales, general and administrative	56,262	55,435	827	1	%
Total cost and operating expenses	$182,686	$143,102	$39,584	28	%

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nm= not meaningful

Cost of Products Sold

Our cost of products sold includes cost of raw materials, labor and overhead, amounts paid to contract manufacturers, period costs related to inventory write-downs resulting from applying lower of cost or market inventory valuations, and costs related to scale-up in production of such products. Our cost of products sold increased by $4.2 million to $37.4 million in 2015 as compared to the prior year, primarily driven by an unfavorable product mix in 2015, with declining fuel average selling prices generating losses. This increase was partly offset by lower sales.

Loss on Purchase Commitments and Impairment of Property, Plant and Equipment and Other Asset Allowances

The loss on purchase commitments and impairment of property, plant and equipment and other asset allowances increased by $32.4 million to $34.2 million in 2015 as compared to the prior year. The increase was mainly due to an impairment charge associated with the termination of a production joint venture and indirect tax allowances. See Note 4 “Balance Sheet Components” to the financial statements for further details.

Impairment of Intangible Assets

The loss on impairment of intangible assets of $5.5 million was a result of the impairment of in-process research and development assets related to the 2011 acquisition of Draths Corporation (or Draths).

Research and Development Expenses

Our research and development expenses decreased by $5.0 million to $44.6 million in 2015 as compared to the prior year, primarily as a result of decreases of $1.2 million in stock-based compensation, $1.2 million in salaries and benefits expense, $0.7 million from our overall cost reduction efforts and lower spending to manage our operating costs, $0.7 million from other expenses, $0.6 million in facilities and rent costs, and $0.6 million in consulting and outside services. Research and development expenses included stock-based compensation expense of $2.3 million and $3.5 million during the years 2015 and 2014, respectively.

Sales, General and Administrative Expenses

Our sales, general and administrative expenses increased by $0.8 million to $56.3 million in 2015 as compared to the prior year, primarily due to increases in consulting and outside services and personnel-related expenses from sales and marketing headcount to support the Company's product commercialization plans, as well as a severance-related charge, offset in part by a decrease in stock-based compensation. Sales, general and administrative expenses included stock-based compensation expense of $6.8 million and $10.6 million during the years ended December 31, 2015 and 2014, respectively.

Other Income (Expense)

	Years Ended December 31,		Year-to Year	Percentage
	2015	**2014**	Change	Change
	(Dollars in thousands)			
Other income (expense):				
Interest income	$264	$387	$(123)	(32)%
Interest expense	(78,854)	(28,949)	(49,905)	172 %
Gain (loss) from change in fair value of derivative instruments	16,287	144,138	(127,851)	(89)%
Loss from extinguishment of debt	(1,141)	(10,512)	9,371	(89)%
Other income (expense), net	(1,423)	336	(1,759)	(524)%
Total other income (expense)	$(64,867)	$105,400	$(170,267)	(162)%

Total other income (expense) was $64.9 million net expense in 2015, compared to $105.4 million net income in 2014. The decrease in net income of $170.3 million was primarily attributable to the decrease in gain from change in fair value of derivative instruments of $127.9 million, attributed to the compound embedded derivative liabilities associated with our senior secured convertible promissory notes, the change in fair value of our interest rate swap derivative liability and the increases of $49.9 million in interest expense associated with our acceleration of accretion of debt discount related to debt extinguishments and conversions, which was offset by the decrease in losses from the

extinguishment of debt of $9.4 million.

Comparison of Year Ended December 31, 2014 to Year Ended December 31, 2013

Revenues

	Years Ended December 31,		Year-to-Year	Percentage
	2014	**2013**	Change	Change
	(Dollars in thousands)			
Revenues				
Renewable product sales	$22,793	$14,428	$8,365	58 %
Related party renewable product sales	646	1,380	(734)	(53)%
Total product sales	23,439	15,808	7,631	48 %
Grants and collaborations revenue	19,835	22,664	(2,829)	(12)%
Related party grants and collaborations revenue	0	2,647	(2,647)	(100)%
Total grants and collaborations revenue	19,835	25,311	(5,476)	(22)%
Total revenues	$43,274	$41,119	$2,155	5 %

Our total revenues increased by $2.2 million to $43.3 million in 2014 as compared to the prior year due to increased revenues from product sales, offset by a decrease in grants and collaborations revenue.

Product sales increased by $7.6 million to $23.4 million in 2014 as compared to the prior year resulting primarily from the sale of a flavors and fragrances product of $7.9 million. Sales of our emollients products containing squalane increased by $1.8 million driven by volume increases to new and existing customers. These increases were offset by a decrease in sales of farnesane and farnesene-derived products of $2.1 million.

Grants and collaborations revenue decreased by $5.5 million to $19.8 million in 2014 compared to the prior year. This is due to a $4.9 million decrease in government grants revenue, a $2.0 million increase in non-related party collaborations revenue and a $2.6 million decrease in related party collaborations revenue. The decline in government grants by $4.9 million, includes a decrease of $2.1 million in government grants revenue from the National Renewable Energy Lab as a result of the project being completed during 2013, and a decrease of $2.5 million in government grants revenue under the DARPA Technology Investment Agreement due to the timing of the project's revenue milestone. The decrease was reduced by the net increase in collaborations revenue from non-related parties of $2.0 million. Collaborations revenue from non-related parties included increases of $5.5 million, including $2.0 million from achievement of the first performance milestone related to a flavors and fragrances product, a $1.1 million increase in collaborations revenue from existing collaborations and a $2.4 million increase in collaborations revenue from new collaborations. These increases were offset by a decrease of $3.5 million related to the completion of the first phase of a collaboration in 2013 (the collaboration funding was recognized from the achievement of technical milestones), net of lower collaborations revenue earned from the second phase of the collaboration in 2014 (a cost sharing development agreement recognized on a straight line basis). In addition, related party collaborations revenue decreased by $2.6 million as a result of research and development activities performed on behalf of Novvi in 2013 that

did not continue in 2014.

Cost and Operating Expenses

	Years Ended December 31,		Year-to Year	Percentage
	2014	**2013**	Change	Change
	(Dollars in thousands)			
Cost of products sold	$33,202	$38,253	$(5,051)	(13)%
Loss on purchase commitments and write-off of property, plant and equipment	1,769	9,366	(7,597)	(81)%
Impairment of intangible assets	3,035	—	3,035	nm
Research and development	49,661	56,065	(6,404)	(11)%
Sales, general and administrative	55,435	57,051	(1,616)	(3)%
Total cost and operating expenses	$143,102	$160,735	$(17,633)	(11)%

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nm= not meaningful

Cost of Products Sold

Our cost of products sold includes cost of raw materials, labor and overhead, amounts paid to contract manufacturers, period costs related to inventory write-downs resulting from applying lower of cost or market inventory valuations, and costs related to scale-up in production of such products. Our cost of products sold decreased by $5.1 million to $33.2 million in 2014 as compared to the prior year. The decrease was mainly due to lower cost of production and a decline in lower of cost or market adjustments as a result of higher production volumes and overall manufacturing cost reduction efforts. Our farnesene cash production costs per liter, have steadily declined since the commencement of production at our manufacturing facility in Brotas, Brazil, consistent with increases in volume and production efficiency, resulting in a decline of approximately one half, as of our latest production runs in November 2014 compared to those produced in December 2013. We expect the downward trend in cash production costs per liter to continue as we continually improve strains, operational efficiency and/or increase volumes. Cash production costs per liter, a non-GAAP measure, includes costs of feedstock, nutrients and other chemical ingredients, labor, utilities and other plant overhead. Cost of products sold includes depreciation and amortization expenses of $5.7 million in 2014 compared to $6.1 million in 2013.

Cost of Products Sold Associated with Loss on Purchase Commitments and Write-Off of Property, Plant and Equipment

The loss on purchase commitments and write-off of property, plant and equipment decreased by $7.6 million to $1.8 million in 2014 as compared to the prior year. The decrease was mainly due to a charge related to the termination and settlement of our agreement with Tate & Lyle Ingredients Americas, Inc. (or Tate & Lyle), one of our contract

manufacturers, in 2013.

Impairment of Intangible Assets

The loss on impairment of intangible assets of $3.0 million was a result of the impairment of in-process research and development assets related to the 2011 acquisition of Draths Corporation (or Draths).

Research and Development Expenses

Our research and development expenses decreased by $6.4 million in 2014 as compared to the prior year, primarily as a result of our overall cost reduction efforts and lower spending to manage our operating costs. The decreases were attributable to a $2.8 million reduction in personnel-related expenses and lower stock-based compensation expense, a $0.5 million decrease in laboratory supplies, $1.2 million decrease in depreciation and amortization expenses and a $1.7 million decrease in other overhead expenses. Research and development expenses includes stock-based compensation expense of $3.5 million in 2014 compared to $4.3 million in 2013 and depreciation and amortization expenses of $7.7 million in 2014 compared to $8.9 million in 2013.

Sales, General and Administrative Expenses

Our sales, general and administrative expenses decreased by $1.6 million to $55.4 million in 2014 as compared to the prior year, primarily as a result of our overall cost reduction efforts and lower spending to manage our operating costs. The decrease was attributable to a $4.2 million reduction in personnel-related expenses and lower stock-based compensation expense, offset by a $0.3 million increase in recruiting and relocation and a $2.2 million increase in other overhead expenses. Sales, general and administrative expenses includes stock-based compensation expense of $10.6 million in 2014 compared to $13.8 million 2013 and depreciation and amortization expenses of $1.5 million in 2014 compared to $1.7 million in 2013.

Other Income (Expense)

	Years Ended December 31,		Year-to Year	Percentage
	2014	2013	Change	Change
	(Dollars in thousands)			
Other income (expense):				
Interest income	$387	$162	$225	139 %
Interest expense	(28,949)	(9,107)	(19,842)	218 %
Gain (loss) from change in fair value of derivative instruments	144,138	(84,726)	228,864	(270)%
Loss from extinguishment of debt	(10,512)	(19,914)	9,402	(47)%
Other income (expense), net	336	(2,553)	2,889	(113)%
Total other income (expense)	$105,400	$(116,138)	$221,538	(191)%

Total other income increased by approximately $221.5 million to $105.4 million in 2014 as compared to the prior year. The increase was primarily attributable to the change in fair value of derivative instruments of $228.9 million, attributed to the compound embedded derivative liabilities associated with our senior secured convertible promissory notes and the change in fair value of our interest rate swap derivative liability. The change was driven by fluctuation

of various inputs used in the valuation models from one reporting period to another, such as stock price, credit risk rate and estimated stock volatility.

The decrease in loss from the extinguishment of debt was due to the loss of $10.5 million in 2014 related to Total's conversion of a portion of their outstanding notes issued under the collaboration agreements with Total into the Tranche II Notes (as defined and described below under "Liquidity and Capital Resources") and loss from extinguishment of Total convertible notes in connection with the 144A Offering, compared to the $19.9 million in loss on extinguishment of debt recorded in 2013 related to the Temasek Bridge Loan and Total convertible notes. Finally, the increase in other income, net, of $2.9 million was primarily due to an increase in unrealized gain on foreign currency translation due to the appreciation of the U.S. dollar versus the Brazilian real. The increase was offset by an increase in interest expense of $19.8 million associated with increased borrowings to fund our operations.

Liquidity and Capital Resources

	December 31,	
	2015	2014
	(Dollars in thousands)	
Working capital (deficit), excluding cash and cash equivalents	$(53,139)	$(8,441)
Cash and cash equivalents and short-term investments	$13,512	$43,422
Debt and capital lease obligations	$156,755	$233,277
Accumulated deficit	$(1,037,104)	$(819,152)

	Years Ended December 31,		
	2015	2014	2013
	(Dollars in thousands)		
Net cash used in operating activities	$(85,132)	$(84,708)	$(105,859)
Net cash provided by (used in) investing activities	$(5,144)	$(9,831)	$(10,337)
Net cash provided by financing activities	$61,424	$130,921	$91,181

Working Capital. Our working capital deficit, excluding cash and cash equivalents was $53.1 million for the year ended December 31, 2015, which represents an increase of $44.7 million compared to our working capital deficit of $8.4 million as of December 31, 2014. The increase of $44.7 million in working capital deficit for 2015 as compared to the prior year was due to increases of $10.7 million in accrued and other current liabilities, $4.4 million in accounts payable, $1.2 million in deferred revenue, $20.5 million in current portion of debt, together with decreases of $4.0 million in accounts receivable, $3.6 million in inventory and $0.7 million in prepaid expenses and other current assets, Partially offset by increases of $0.2 million in restricted cash and $0.2 million in short-term investments.

To support production of our products in contract manufacturing and dedicated production facilities, we have incurred, and we expect to continue to incur, capital expenditures as we invest in these facilities. We plan to continue to seek external debt and equity financing from U.S. and Brazilian sources to help fund our investment in these contract manufacturing and dedicated production facilities.

We expect to fund our operations for the foreseeable future with cash and investments currently on hand, with cash inflows from collaboration and grant funding, cash contributions from product sales, and we may also require new debt and equity financings. Some of our anticipated financing sources, such as research and development collaborations and convertible debt financings, are subject to risk that we cannot meet milestones, are not yet subject to definitive agreements or mandatory funding commitments and, if needed, we may not be able to secure additional types of financing in a timely manner or on reasonable terms, if at all. Our planned 2016 working capital needs and our planned operating and capital expenditures for 2016 are dependent on significant inflows of cash from renewable product revenues, existing collaboration partners and from funds under existing equity facilities, as well as additional funding from new collaborations, and may also require additional funding from debt or equity financings. We will continue to need to fund our research and development and related activities and to provide working capital to fund production, storage, distribution and other aspects of our business.

Liquidity. We have incurred significant losses since our inception and we believe that we will continue to incur losses and may have negative cash flow from operations through at least 2016. As of December 31, 2015, we had an accumulated deficit of $1,037.1 million and had cash, cash equivalents and short term investments of $13.5 million. We have significant outstanding debt and contractual obligations related to capital and operating leases, as well as purchase commitments.

As of December 31, 2015, our debt, net of discount of $48.6 million, totaled $156.0 million, of which $37.6 million is classified as current. In addition to upcoming debt maturities, our debt service obligations over the next twelve months are significant, including $15.5 million of anticipated interest payments. Our debt agreements also contain various covenants, including restrictions on our business that could cause us to be at risk of defaults, such as the requirement to maintain unrestricted, unencumbered cash in certain U.S. bank accounts amount equal to at least 50% of the principal amount outstanding under the Hercules Loan Facility (as defined below). Hercules has waived our non-compliance with such covenant as of December 31, 2015 and as of the date hereof. A failure to comply with the covenants and other provisions of our debt instruments, including any failure to make a payment when required would generally result in events of default under such instruments, which could permit acceleration of such indebtedness. If such indebtedness is accelerated, it would generally also constitute an event of default under our other outstanding indebtedness, permitting acceleration of such other outstanding indebtedness. Any required repayment of our indebtedness as a result of acceleration or otherwise would lower our current cash on hand such that we would not have those funds available for use in our business or for payment of other outstanding indebtedness. Refer to Note 5, "Debt" and Note 6, “Commitments and Contingencies” for further details of our debt arrangements.

Our audited consolidated financial statements as of and for the year ended December 31, 2015 have been prepared on the basis that the company will continue as a going concern, which contemplates the realization of assets and satisfaction of liabilities in the normal course of business. Our ability to continue as a going concern will depend, in large part, on our ability to obtain necessary financing, which is uncertain. The financial statements do not include any adjustments that might result from the outcome of this uncertainty, which could have a material adverse effect on our financial condition. In addition, if we are unable to continue as a going concern, we may be unable to meet our obligations under our existing debt facilities, which could result in an acceleration of our obligation to repay all amounts outstanding under those facilities, and we may be forced to liquidate our assets. In such a scenario, the values we receive for our assets in liquidation or dissolution could be significantly lower than the values reflected in our financial statements.

Our operating plan for 2016 contemplates a significant reduction in our net cash outflows, resulting from (i) revenue growth from sales of existing and new products with positive gross margins, (ii) reduced production costs compared to prior periods as a result of manufacturing and technical developments in 2015, (iii) increased cash inflows from collaborations compared to 2015, (iv) reducing operating expenses from 2015 levels, and (v) access to various financing commitments (see Note 5, “Debt” and Note 8, “Significant Agreements” for details of financing commitments, and Note 16 “Subsequent Events” for details of financing transactions subsequent to December 31, 2015).

If we are unable to raise additional financing, or if other expected sources of funding are delayed or not received, our ability to continue as a going concern would be jeopardized and we would take the following actions as early as the second quarter of 2016 to support our liquidity needs through the remainder of 2016 and into 2017:

If we are unable to raise additional financing, or if other expected sources of funding are delayed or not received, we would take the following actions as early as the second quarter of 2016 to support our liquidity needs through the remainder of 2016 and into 2017:

- Effect significant headcount reductions, particularly with respect to employees not connected to critical or contracted activities across all functions of the Company, including employees involved in general and administrative, research and development, and production activities.

- Shift focus to existing products and customers with significantly reduced investment in new product and commercial development efforts.

- Reduce production activity at our Brotas manufacturing facility to levels only sufficient to satisfy volumes required for product revenues forecast from existing products and customers.

- Reduce expenditures for third party contractors, including consultants, professional advisors and other vendors.

- Reduce or delay uncommitted capital expenditures, including non-essential facility and lab equipment, and information technology projects.

- Closely monitor our working capital position with customers and suppliers, as well as suspend operations at pilot plants and demonstration facilities.

Implementing this plan could have a negative impact on our ability to continue our business as currently contemplated, including, without limitation, delays or failures in our ability to:

- Achieve planned production levels;

- Develop and commercialize products within planned timelines or at planned scales; and

- Continue other core activities.

Furthermore, any inability to scale-back operations as necessary, and any unexpected liquidity needs, could create pressure to implement more severe measures. Such measures could have an adverse effect on our ability to meet contractual requirements, including obligations to maintain manufacturing operations, and increase the severity of the consequences described above.

Collaboration Funding. For the year ended December 31, 2015, we received $33.4 million in collaboration funding, including $13.0 million under a collaboration agreement with a flavors and fragrances partner. In January 2015, we received $10.85 million in additional research and development funding from Total through the issuance of a 1.5% Senior Secured Convertible Note to Total as described above under “Overview - Total Relationship". This amount was the final installment of the third closing under the Total Fuel Agreements. We received additional collaboration funding from various other partners during 2015, including $2.0 million in January 2015 under an isoprene collaboration with Michelin and Braskem, and $2.0 million in March 2015 under a farnesene collaboration with Kuraray.

We depend on collaboration funding to support our research and development and operating expenses. While part of this funding is committed based on existing collaboration agreements, we will be required to identify and obtain

funding from additional collaborations. In addition, some of our existing collaboration funding is subject to our achievement of milestones or other funding conditions.

If we cannot secure sufficient collaboration funding to support our operating expenses in excess of cash contributions from product sales and existing debt and equity financings, we may need to issue additional preferred and/or discounted equity, agree to onerous covenants, grant further security interests in our assets, enter into collaboration and licensing arrangements that require us to relinquish commercial rights or grant licenses on terms that are not favorable to us. If we fail to secure such funding, we could be forced to curtail our operations, which would have a material adverse effect on our ability to continue with our business plans.

Government Contracts. In June 2012, we entered into a Technology Investment Agreement with DARPA (the “TIA”), under which we are performing certain research and development activities funded in part by DARPA. The work is to be performed on a cost-share basis, where DARPA funds 90% of the work and we fund the remaining 10% (primarily by providing specified labor). The TIA provided for funding of up to approximately $7.7 million over two years based on achievement of program milestones, and, accordingly, if fully funded, we would be responsible for contributions equivalent to approximately $0.9 million. The TIA had an initial term of one year and at DARPA's option, was renewable for an additional year. The TIA was renewed by DARPA in May 2013 and extended in July 2014. Through December 31, 2015, we had recognized $7.7 million in revenue under the TIA, of which $2.4 million was recognized during the year ended December 31, 2014 and $0.1 million was recognized during the year ended December 31, 2015. Total cash received under the TIA as of December 31, 2015 was $7.7 million, of which $4.5 million was received during the year ended December 31, 2014 and $0.2 million was received during the year ended December 31, 2015. The activities contemplated by the TIA were complete as of December 31, 2015, and no further funding is available under the TIA. In September 2015, we entered into a subsequent Technology Investment Agreement with DARPA, as further described below.

In May 2014, we entered into a subcontract with a Lawrence Berkeley National Laboratory a DARPA-funded bio-fabrication program. The subcontract was for $0.6 million, and was completed as of September 30, 2014. For the year ended December 31, 2014, we recognized $0.6 million in revenues under this agreement.

In September 2015, we entered into a subsequent Technology Investment Agreement (the “2015 TIA”) with DARPA under which the Company, with the assistance of five specialized subcontractors, will work to create new research and development tools and technologies for strain engineering and scale-up activities. The program that is the subject of the 2015 TIA has been performed and funded on a milestone basis, where DARPA, upon our successful completion of each milestone event in the 2015 TIA, would pay us the amount in the 2015 TIA corresponding to such milestone event. Under the 2015 TIA, we and our subcontractors could collectively receive DARPA funding of up to $35.0 million over the program’s four year term if all of the program’s milestones are achieved. In conjunction with DARPA’s funding, we and our subcontractors are obligated to collectively contribute approximately $15.5 million toward the program over its four year term (primarily by providing specified labor and/or purchasing certain equipment). We can elect to retain title to the patentable inventions it produces in the program, but DARPA receives certain data rights as well as a government purposes license to certain of such inventions. Either party may, upon written notice and subject to certain consultation obligations, terminate the 2015 TIA upon a reasonable determination that the program will not produce beneficial results commensurate with the expenditure of resources.

Convertible Note Offerings. In February 2012, we issued $25.0 million in principal amount of senior unsecured convertible promissory notes due March 1, 2017 as described in more detail in Note 5, "Debt."

In July and September 2012, we issued $53.3 million worth of 1.5% Senior Unsecured Convertible Notes (together with the 1.5% Senior Secured Convertible Notes described below, the “R&D Notes”) to Total under the Total Fuel Agreements for an aggregate of $30.0 million in cash proceeds and our repayment of $23.3 million in previously-provided research and development funds pursuant to the Total Fuel Agreements (as described in more detail under "Related Party Convertible Notes" in Note 5, "Debt"). As part of the December 2012 private placement,

we issued 1,677,852 shares of our common stock in exchange for the cancellation of $5.0 million worth of an outstanding senior unsecured convertible promissory note held by Total.

In June 2013, we issued a 1.5% Senior Unsecured Convertible Note to Total with a principal amount of $10.0 million with a March 1, 2017 maturity date pursuant to the Total Fuel Agreements. In July 2013, we sold and issued a 1.5% Senior Unsecured Convertible Note to Total with a principal amount of $20.0 million with a March 1, 2017 maturity date pursuant to the Total Fuel Agreements.

In August 2013, we entered into an agreement with Total and Temasek to issue up to $73.0 million in convertible promissory notes in private placements over a period of up to 24 months from the date of signing as described in more detail in Note 5, "Debt" (such agreement referred to as the August 2013 SPA and such financing referred to as the August 2013 Financing). The August 2013 Financing was divided into two tranches (one for $42.6 million and one for $30.4 million). Of the total possible purchase price in the financing, $60.0 million was to be paid in the form of cash by Temasek ($35.0 million in the first tranche and up to $25.0 million in the second tranche) and $13.0 million was to be paid by cancellation of outstanding convertible promissory notes held by Total in connection with its exercise of pro rata rights ($7.6 million in the first tranche and $5.4 million in the second tranche).

In September 2013, prior to the initial closing of the August 2013 Financing, our stockholders approved the issuance in the private placement of up to $110.0 million aggregate principal amount of senior convertible promissory notes, the issuance of a warrant to purchase 1,000,000 shares of our common stock and the issuance of the common stock issuable upon conversion or exercise of such notes and warrant.

On October 4, 2013, we issued a senior secured promissory note in the principal amount of $35.0 million (or the Bridge Note) to Temasek for cash proceeds of $35.0 million. The Bridge Note was due on February 2, 2014 and accrued interest at a rate of 5.5% per month from October 4, 2013. The Bridge Note was cancelled as payment for Temasek's purchase of a first tranche convertible note in the initial closing of the August 2013 Financing, as described below.

In October 2013, we amended the August 2013 SPA to include certain entities affiliated with FMR LLC (or the Fidelity Entities) in the first tranche closing (participating for a principal amount of $7.6 million), and to proportionally increase the amount acquired by exchange and cancellation of outstanding convertible promissory notes by Total to $14.6 million ($9.2 million in the first tranche and up to $5.4 million in the second tranche). Also in October 2013, we completed the closing of the Tranche I Notes for cash proceeds of $7.6 million and cancellation of outstanding convertible promissory notes of $44.2 million, of which $35.0 million resulted from the cancellation of the Temasek Bridge Note. In December 2013, we amended the August 2013 SPA to sell $3.0 million of senior convertible notes under the second tranche of the August 2013 Financing to funds affiliated with Wolverine Asset Management, LLC (or Wolverine) and we elected to call $25.0 million in additional funds from Temasek pursuant to its previous commitment to purchase such amount of convertible promissory notes in the second tranche. Additionally, pursuant to that amendment, we sold approximately $6.0 million of convertible promissory notes in the second tranche to Total through cancellation of the same amount of principal of previously outstanding convertible notes held by Total (in respect of Total’s preexisting contractual right to maintain its pro rata ownership position through such cancellation of indebtedness). The closing of the sale of such Tranche II Notes under the December amendment to the August 2013 SPA occurred in January 2014. The August 2013 Financing is more fully described in Note 5, "Debt."

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In December 2013, in connection with our entry into agreements establishing our joint venture with Total, we exchanged the $69.0 million of the then-outstanding Total unsecured convertible notes issued pursuant to the Total Fuel Agreements for replacement 1.5% Senior Secured Convertible Notes, in principal amounts equal to the principal amount of the cancelled notes.

In the 2014 144A Offering in May 2014, we issued $75.0 million in aggregate principal amount of 6.50% Convertible Senior Notes due 2019 to Morgan Stanley & Co. LLC as the Initial Purchaser in a private placement, and for initial resale by the Initial Purchaser to qualified institutional buyers pursuant to Rule 144A of the Securities Act. The 2014 144A Offering is described in more detail in Note 5, "Debt."

In each of July 2014 and January 2015, we issued 1.5% Senior Secured Convertible Notes to Total pursuant to the Total Fuel Agreements. The aggregate principal amount of these two notes was $21.7 million and each of such notes has a March 1, 2017 maturity date.

On October 20, 2015, we issued $57.6 million aggregate principal amount of the Company's 9.50% Convertible Senior Notes due 2019 (the “2015 144A Notes”), which were sold only to qualified institutional buyers and institutional accredited investors in a private placement (the “2015 144A Offering”) under the Securities Act of 1933, as amended. The 2015 144A Offering is described in more detail in Note 5, "Debt."

Export Financing with ABC Brasil. In March 2013, we entered into a one-year export financing agreement with ABC for approximately $2.5 million to fund exports through March 2014. This loan was collateralized by future exports from our subsidiary in Brazil. As of December 31, 2015, the loan was fully paid.

In March 2014, we entered into an additional one-year-term export financing agreement with ABC for approximately $2.2 million to fund exports through March 2015. This loan is collateralized by future exports from our subsidiary in Brazil. As of December 31, 2015, the loan was fully paid.

In April 2015, we entered into an additional one-year-term export financing agreement with ABC for approximately $1.6 million to fund exports through April 2016. This loan is collateralized by future exports from our subsidiary in Brazil. As of December 31, 2015, the principal amount outstanding under this agreement was $1.6 million.

Banco Pine/Nossa Caixa Financing. In July 2012, we entered into a Note of Bank Credit and a Fiduciary Conveyance of Movable Goods agreement with each of Nossa Caixa and Banco Pine. Under these instruments, we borrowed an aggregate of R$52.0 million (approximately US$13.3 million based on the exchange rate as of December 31, 2015) as financing for capital expenditures relating to our manufacturing facility in Brotas, Brazil. Under the loan agreements,

Banco Pine agreed to lend R$22.0 million and Nossa Caixa agreed to lend R$30.0 million. The loans have a final maturity date of July 15, 2022 and bear a fixed interest rate of 5.5% per year. The loans are also subject to early maturity and delinquency charges upon occurrence of certain events including interruption of manufacturing activities at our manufacturing facility in Brotas, Brazil for more than 30 days, except during sugarcane off-season. The loans are secured by certain of our farnesene production assets at the manufacturing facility in Brotas, Brazil and we were required to provide parent guarantees to each of the lenders. As of December 31, 2015 and 2014, a principal amount of $11.0 million and $18.6 million, respectively, was outstanding under these loan agreements.

BNDES Credit Facility. In December 2011, we entered into a credit facility with Banco Nacional de Desenvolvimento Econômico e Social (or BNDES), a government-owned bank headquartered in Brazil (or the BNDES Credit Facility) to finance a production site in Brazil. The BNDES Credit Facility was for R$22.4 million (approximately US$5.7 million based on the exchange rate as of December 31, 2015 and approximately US$8.4 million based on the exchange rate as of December 31, 2014). The credit line is divided into an initial tranche for up to approximately R$19.1 million and an additional tranche of approximately R$3.3 million that becomes available upon delivery of additional guarantees. As of December 31, 2015 and 2014, the Company had R$7.6 million (approximately US$1.9 million based on the exchange rate as of December 31, 2015) and R$11.5 million (approximately US$4.3 million based on the exchange rate as of December 31, 2014), respectively, in outstanding advances under the BNDES Credit Facility.

The principal of loans under the BNDES Credit Facility is required to be repaid in 60 monthly installments, with the first installment due in January 2013 and the last due in December 2017. Interest was initially due on a quarterly basis with the first installment due in March 2012. From and after January 2013, interest payments are due on a monthly basis together with principal payments. The loaned amounts carry interest of 7% per year. Additionally, there is a credit reserve charge of 0.1% on the unused balance from each credit installment from the day immediately after it is made available through its date of use, when it is paid.

The BNDES Credit Facility is collateralized by first priority security interest in certain of our equipment and other tangible assets totaling R$24.9 million (approximately US$6.4 million based on the exchange rate as of December 31, 2015). We are a parent guarantor for the payment of the outstanding balance under the BNDES Credit Facility. Additionally, we were required to provide a bank guarantee equal to 10% of the total approved amount (R$22.4 million in total debt) available under the BNDES Credit Facility. For advances in the second tranche (above R$19.1 million), we are required to provide additional bank guarantees equal to 90% of each such advance, plus additional Amyris guarantees equal to at least 130% of such advance. The BNDES Credit Facility contains customary events of default, including payment failures, failure to satisfy other obligations under the credit facility or related documents, defaults in respect of other indebtedness, bankruptcy, insolvency and inability to pay debts when due, material judgments, and changes in control of Amyris Brasil. If any event of default occurs, BNDES may terminate its commitments and declare immediately due all borrowings under the facility.

FINEP Credit Facility. In November 2010, we entered into a credit facility with Financiadora de Estudos e Projetos (or FINEP), a state-owned company subordinated to the Brazilian Ministry of Science and Technology (or the FINEP Credit Facility) to finance a research and development project on sugarcane-based biodiesel (or the FINEP Project). The FINEP Credit Facility provided for loans of up to an aggregate principal amount of R$6.4 million (approximately US$1.6 million based on the exchange rate as of December 31, 2015 and approximately US$2.4 million based on the exchange rate as of December 31, 2014) which are secured by a chattel mortgage on certain equipment of Amyris Brasil as well as by bank letters of guarantee. All available credit under this facility is fully drawn. As of December 31, 2015 and 2014, the total outstanding loan balance under this credit facility was R$3.4 million (approximately $0.9 million based on the exchange rate as of December 31, 2015) and R$4.3 million (approximately $1.6 million based on the exchange rate as of December 31, 2014).

Interest on loans drawn under the FINEP Credit Facility is fixed at 5.0% per annum. In case of default under, or non-compliance with, the terms of the agreement, the interest on loans will be dependent on the long-term interest rate as published by the Central Bank of Brazil (such rate, the TJLP). If the TJLP at the time of default is greater than 6%, then the interest will be 5.0% plus a TJLP adjustment factor otherwise the interest will be at 11.0% per annum. In addition, a fine of up to 10.0% will apply to the amount of any obligation in default. Interest on late balances will be 1.0% interest per month, levied on the overdue amount. Payment of the outstanding loan balance will be made in 81 monthly installments, which commenced in July 2012 and extends through March 2019. Interest on loans drawn and other charges are paid on a monthly basis and commenced in March 2011.

Hercules Loan Facility. In March 2014, we entered into the Hercules Loan Facility to make available a loan in the aggregate principal amount of up to $25.0 million. The original Hercules Loan Facility accrues interest at a rate per annum equal to the greater of either the prime rate reported in the Wall Street Journal plus 6.25% or 9.5%. We may repay the loaned amounts before the maturity date (generally February 1, 2017) if we pay an additional fee of 3% of the outstanding loans (1% if after the initial twelve-month period of the loan). We were also required to pay a 1% facility charge at the closing of the transaction, and are required to pay a 10% end of term charge. In connection with the original Hercules Loan Facility, Amyris agreed to certain customary representations and warranties and covenants, as well as certain covenants that were subsequently amended (as described below). The total available credit of $25.0 million under this facility was fully drawn down.

In June 2014, we and Hercules entered into a first amendment (or the "First Hercules Amendment") of the Hercules Loan Facility. Pursuant to the First Hercules Amendment, the parties agreed to adjust the term loan maturity date from May 31, 2015 to February 1, 2017 and remove (i) a requirement for us to pay a forbearance fee of $10.0 million in the event certain covenants were not satisfied, (ii) a covenant that we maintain positive cash flow commencing with the fiscal quarter beginning October 1, 2014, (iii) a covenant that, beginning with the fiscal quarter beginning July 1, 2014, we and our subsidiaries achieve certain projected cash product revenues and projected cash product gross profits, and (iv) an obligation for us to file a registration statement on Form S-3 with the SEC by no later than June 30, 2014 and complete an equity financing of more than $50.0 million by no later than September 30, 2014. We further agreed to include a new covenant requiring us to maintain unrestricted, unencumbered cash in an amount equal to at least 50% of the principal amount then outstanding under the Hercules Loan Facility and borrow an additional $5.0 million. The additional $5.0 million borrowing was completed in June 2014, and accrues interest at a rate per annum equal to the greater of either the prime rate reported in the Wall Street Journal plus 5.25% or 8.5%. The Hercules Loan Facility is secured by liens on our assets, including on certain of our intellectual property. The Hercules Loan Facility includes customary events of default, including failure to pay amounts due, breaches of covenants and warranties, material adverse effect events, certain cross defaults and judgments, and insolvency. If an event of default occurs, Hercules may require immediate repayment of all amounts due.

In March 2015, the Company and Hercules entered into a second amendment (or the "Second Hercules Amendment") of the Hercules Loan Facility. Pursuant to the Second Hercules Amendment, the parties agreed to, among other things, establish an additional credit facility in the principal amount of up to $15.0 million, which would be available to be drawn by the Company through the earlier of March 31, 2016 or such time as the Company raised an aggregate of at least $20.0 million through the sale of new equity securities. The additional facility was cancelled undrawn upon the completion of the Company's private offering in July 2015.

In November 2015, the Company and Hercules entered into a third amendment (or the "Third Hercules Amendment") of the Hercules Loan Facility. Pursuant to the Third Hercules Amendment, the Company borrowed an additional $10,960,000 (or the "Third Hercules Amendment Borrowed Amount") from Hercules on November 30, 2015. As of December 1, 2015, after the funding of the Third Hercules Amendment Borrowed Amount (and including repayment of $9.1 million of principal that had occurred prior to the Third Hercules Amendment), the aggregate principal amount outstanding under the Loan Facility was approximately $31.7 million. The Third Hercules Amendment Borrowed Amount accrues interest at a rate per annum equal to the greater of (i) 9.5% and (ii) the prime rate reported in the Wall Street Journal plus 6.25%, and, like the previous loans under the Loan Facility, has a maturity date of February 1, 2017. Upon the earlier of the maturity date, prepayment in full or such obligations otherwise becoming due and

payable, in addition to repaying the outstanding Third Hercules Amendment Borrowed Amount (and all amounts owed under the Original Hercules Agreement, as amended), the Company is also required to pay Hercules an end-of-term charge of $767,200. Pursuant to the Third Hercules Amendment, the Company also paid Hercules fees of $1.0 million, $750,000 of which was owed in connection with the expired $15.0 million facility under the Second Amendment and $250,000 of which was related to the Third Hercules Amendment Borrowed Amount. Under the Third Hercules Amendment, the parties agreed that the Company would, commencing on December 1, 2015, be required to pay only the interest accruing on all outstanding loans under the Loan Facility until February 29, 2016. Commencing on March 1, 2016, the Company would be required to begin repaying principal of all loans under the Loan Facility, in addition to the applicable interest. However, pursuant to the Third Hercules Amendment, the Company could, by achieving certain cash inflow targets in 2016, extend the interest-only period to December 1, 2016. If the achievement of those targets occurs after March 1, 2016, the Company could, after commencing the repayment of principal, revert to interest-only payments once the applicable target is achieved. Upon the issuance by the Company of $20.0 million of unsecured promissory notes and warrants in a private placement in February 2016 for aggregate cash proceeds of $20.0 million, the Company satisfied the conditions for extending the interest-only period to May 31, 2016. The Third Hercules Amendment Borrowed Amount is secured by the same liens provided for in the Original Hercules Agreement and the First Amendment, including a lien on certain Company intellectual property, and the preexisting covenants under the Loan Facility (including a covenant requiring the Company to maintain a minimum cash balance equal to at least 50% of the principal amount then outstanding) apply to the Loan Facility as amended.

As of December 31, 2015, $31.7 million was outstanding under the Hercules Loan Facility, net of discount of $0.3 million. The Company’s loan facility with Hercules requires the Company to maintain unrestricted, unencumbered cash in certain U.S. bank accounts in an amount equal to at least 50% of the principal amount outstanding under such facility. Hercules has waived the Company’s non-compliance with such covenant as of December 31, 2015 and as of the date hereof.

Common Stock Offerings. In December 2012, we completed a private placement of 14,177,849 shares common stock for aggregate proceeds of $37.2 million, of which $22.2 million in cash was received in December 2012 and $15.0 million was received in January 2013. Of the 14,177,849 shares issued in the private placement, 1,677,852 of such shares were issued to Total in exchange for the cancellation of $5.0 million of an outstanding senior unsecured convertible promissory note we previously issued to Total.

In March 2013, we completed a private placement of 1,533,742 of our common stock to Biolding Investment SA (or Biolding) for aggregate proceeds of $5.0 million. This private placement represented the final tranche of Biolding's preexisting contractual obligation to fund $15.0 million upon satisfaction by us of certain criteria associated with the commissioning of our production plant in Brotas, Brazil.

In March 2014, we completed a private placement of 943,396 shares of our common stock to Kuraray for aggregate proceeds of $4.0 million.

In July 2015, we entered into a Securities Purchase Agreement with certain purchasers under which we agreed to sell 16,025,642 shares of our common stock at a price of $1.56 per share, with aggregate proceeds to the Company of $25 million. The sale of common stock under the Securities Purchase Agreement was completed on July 29, 2015. Pursuant to the Securities Purchase Agreement, the Company granted to each of the purchasers a warrant exercisable at an exercise price of $0.01 per share for the purchase of a number of shares of the Company's common stock equal to 10% of the shares purchased by such investor. The exercisability of the warrants was subject to stockholder approval, which was obtained on September 17, 2015.

Cash Flows during the Years Ended December 31, 2015, 2014, and 2013

Cash Flows from Operating Activities

Our primary uses of cash from operating activities are costs related to production and sales of our products and personnel-related expenditures, offset by cash received from product sales, grants and collaborations. Cash used in operating activities was $85.1 million, $84.7 million and $105.9 million for the years ended December 31, 2015, 2014 and 2013, respectively.

Net cash used in operating activities of $85.1 million for the year ended December 31, 2015 was attributable to our net loss of $218.1 million, offset by net non-cash charges of $113.8 million and net change in our operating assets and liabilities of $19.1 million. Net non-cash charges of $113.8 million for the year ended December 31, 2015 consisted primarily of a $58.6 million of amortization of debt discount and issuance costs, including a $36.6 million charge due to acceleration of accretion of debt discount on the Total and Temasek convertible notes converted to equity in July 2015, $16.3 million of loss from the change in the fair value of derivative instruments related to the embedded derivative liabilities associated with our senior convertible promissory notes and currency interest rate swap derivative liability, $12.9 million of depreciation and amortization expenses, $34.2 million of loss on purchase commitments and impairment of production assets, $9.1 million of stock-based compensation, $5.5 million of impairment of intangible assets, $4.7 million of withholding tax related to conversion of related party note, $4.2 million of loss from investment in affiliates, $1.1 million of loss from extinguishment of debt, $0.4 million of other non-cash expenses and $0.2 million on disposition of property, plant and equipment. Net change in operating assets and liabilities of $19.1 million for the year ended December 31, 2015 primarily consisted of a $15.3 million increase in accounts payable and accrued other liabilities and a $4.3 million decrease in accounts receivable and related party accounts receivable and a $4.5 million increase in inventory, partially offset by a $4.9 million decrease in prepaid expenses and other assets and deferred rent and $0.1 million decrease in deferred revenue related to the funds received under collaboration agreements.

Net cash used in operating activities of $84.7 million for the year ended December 31, 2014 was attributable to our net loss of $84.5 million excluding non-cash net income of $86.7 million, and a $0.2 million outflow from net changes in our operating assets and liabilities. Non-cash income of $86.7 million consisted primarily of a $144.1 million gain from change in the fair value of derivative instruments related to the embedded derivative liabilities associated with our senior secured convertible promissory notes and currency interest rate swap derivative liability, offset by $15.0 million of depreciation and amortization expenses, $14.1 million of stock-based compensation, $10.0 million of amortization of debt discount, $10.5 million loss associated with the extinguishment of convertible debt, $2.0 million loss on purchase commitments and write-off and disposal of property, plant and equipment, $2.9 million loss from investment in affiliate from our joint venture with Novvi and $3.0 million loss on impairment of IPR&D related to Draths. Net outflow from changes in operating assets and liabilities of $0.2 million primarily consisted of a $1.2 million increase in accounts receivable and related party accounts receivable, a $2.9 million increase in prepaid expenses and other assets, a $4.5 million increase in inventory as a result of the decrease in the allowance for lower of cost or market and a $3.2 million decrease in accounts payable, offset by a $6.8 million increase in accrued and other liabilities mainly due to an increase in accrued interest from new debt and a $4.8 million increase in deferred revenue from the collaboration agreement with Braskem and Michelin.

Net cash used in operating activities of $105.9 million for the year ended December 31, 2013 was attributable to our net loss of $234.9 million and a $23.7 million net outflow from changes in our operating assets and liabilities, offset by non-cash charges of $152.8 million. Net outflow from changes in operating assets and liabilities of $23.7 million primarily consisted of a $4.8 million increase in accounts receivable and related party accounts receivable from collaborations, a $5.6 million increase in inventory during the latter part of 2013 to have sufficient farnesene inventory while the Brotas plant goes through its annual planned preventive maintenance during the first quarter of 2014, a $2.7 million increase in prepaid expenses and other assets, a $9.4 million decrease in accrued and other liabilities, a $2.6 million decrease in accounts payable and a $0.2 million decrease in deferred rent, offset by a $1.6 million decrease in deferred revenue and a $0.1 million decrease in derivative liability. Non-cash charges of $152.8 million consisted primarily of an $84.7 million loss from change in the fair value of derivative instruments related to the embedded derivative liabilities associated with our senior secured convertible promissory notes and currency interest rate swap derivative liability, $16.6 million of depreciation and amortization expenses, $18.0 million of stock-based compensation, $3.7 million of amortization of debt discount, $19.9 million loss associated with the extinguishment of convertible debt and $9.4 million loss on purchase commitments and write-off of property, plant and equipment related to a termination and settlement of our existing agreement with Tate & Lyle and Antibioticos.

Cash Flows from Investing Activities

Our investing activities consist primarily of capital expenditures and investment activities.

Net cash used in investing activities of $5.1 million for the year ended December 31, 2015, was a result of $3.3 million of purchase of property, plant and equipment, $1.6 million of loans to an affiliate, $2.7 million of purchase of short-term investments, offset by $2.3 million of maturities of short-term investments and $0.2 million of change in restricted cash.

Net cash used in investing activities of $9.8 million for the year ended December 31, 2014, was a result of $5.0 million of capital expenditures mainly due to maintenance and upgrades of our facility in Brotas, Brazil and $4.9 million loans and investment in our joint venture with Novvi ($2.8 million in loans and $2.1 million in equity).

Net cash used in investing activities of $10.3 million for the year ended December 31, 2013, was a result of $8.1 million of capital expenditures and deposits on property, plant and equipment due to the construction of our first owned production facility in Brotas, Brazil, $1.5 million net purchases of short-term investments and $0.7 million of restricted cash.

Cash Flows from Financing Activities

Net cash provided by financing activities of $61.4 million for the year ended December 31, 2015, was a result of the receipt of $77.7 million from debt financings, of which $10.9 million was from debt issued to a related party, which related to the closing of the final installment of the Senior Secured Convertible Notes issued to Total under the Total Fuel Agreements and the receipt of $24.6 million from the issuance of common stock in private placements, offset by $40.8 million of repayment of debt.

Net cash provided by financing activities of $130.9 million for the year ended December 31, 2014, was a result of the net receipt of $139.5 million from debt and equity financing, which related to the closing of the second tranche of our convertible promissory note offering under the August 2013 SPA of $28.0 million, net of $6.0 million convertible promissory note issued to Total in exchange for cancellation of previously outstanding convertible promissory notes, borrowings under the Hercules Loan Facility of $29.8 million, the closing of our 2014 144A Offering for approximately $72.0 million proceeds (net of payments of discount and expenses of $3.0 million), the sale of $10.9 million convertible notes under the Total Fuel Agreements, $2.2 million from an export financing agreement with ABC and $4.7 million in proceeds from issuance of common stock, $4.0 million of which from issuance of common stock to Kuraray, offset by the $9.7 million settlement of convertible notes under the Total Fuel Agreements. These cash inflows were offset by other payments of debt principal and capital lease obligations of $6.8 million.

Net cash provided by financing activities of $91.2 million for the year ended December 31, 2013, was a result of the net receipt of $75.5 million from debt financings, of which $65.0 million is debt financing from related parties, the receipt of $20.0 million in proceeds from sales of common stock in private placements net of issuance cost, and the receipt of $0.3 million in proceeds from option exercises. These cash inflows were offset in part by principal payments on debt of $3.3 million and principal payments on capital leases of $1.4 million.

Off-Balance Sheet Arrangements

We did not have during the periods presented, and we do not currently have, any material off-balance sheet arrangements, as defined under SEC rules, such as relationships with unconsolidated entities or financial partnerships, which are often referred to as structured finance or special purpose entities, established for the purpose of facilitating financing transactions that are not required to be reflected on our consolidated financial statements.

Contractual Obligations

The following is a summary of our contractual obligations as of December 31, 2015 (in thousands):

	Total	2016	2017	2018	2019	2020	Thereafter
Principal payments on long-term debt[1]	$207,938	$37,570	$23,616	$22,424	$120,027	$1,665	$ 2,636
Interest payments on long-term debt, fixed rate[2]	52,781	18,023	11,421	14,959	8,087	184	107
Operating leases	51,850	6,724	6,644	6,701	6,749	6,985	18,047
Principal payments on capital leases	699	523	176	—	—	—	—
Interest payments on capital leases	54	42	12	—	—	—	—
Terminal storage costs	34	34	—	—	—	—	—
Purchase obligations[3]	1,296	562	709	25	0	—	—
Total	$314,652	$63,478	$42,578	$44,109	$134,863	$8,834	$ 20,790

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(1) *Includes repayment of all principal outstanding under the Hercules loan agreements, which are classified as current at December 31, 2015 because the Company may breach the minimum cash covenant required by Hercules during 2016.*

(2) *Does not include any obligations related to make-whole interest or downround provisions. The fixed interest rates are more fully described in Note 5, "Debt" of our consolidated financial statements.*

(3) *Purchase obligations include noncancellable contractual obligations and construction commitments of $1.3 million, of which zero have been accrued as loss on purchase commitments.*

Recent Accounting Pronouncements

The information contained in Note 2 to the Consolidated Financial Statements under the heading "Recent Accounting Pronouncements" is hereby incorporated by reference into this Part II, Item 7.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

The market risk inherent in our market risk sensitive instruments and positions is the potential loss arising from adverse changes in: commodity market prices, foreign currency exchange rates, and interest rates as described below.

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Interest Rate Risk

Our exposure to market risk for changes in interest rates relates primarily to our investment portfolio and our outstanding debt obligations (including embedded derivatives therein). We generally invest our cash in investments with short maturities or with frequent interest reset terms. Accordingly, our interest income fluctuates with short-term market conditions. As of December 31, 2015, our investment portfolio consisted primarily of money market funds and certificates of deposit, all of which are highly liquid investments. Due to the short-term nature of our investment portfolio, we do not believe that an immediate 10% increase in interest rates would have a material effect on the fair value of our portfolio. Since we believe we have the ability to liquidate this portfolio, we do not expect our operating results or cash flows to be materially affected to any significant degree by a sudden change in market interest rates on our investment portfolio. Additionally, as of December 31, 2015, 100% of our outstanding debt is in fixed rate instruments or instruments which have capped rates. Therefore, our exposure to the impact of variable interest rates is limited. Changes in interest rates may significantly change the fair value of our embedded derivative liabilities.

Foreign Currency Risk

Most of our sales contracts are denominated in U.S. dollars and, therefore, our revenues are not currently subject to significant foreign currency risk. The functional currency of our consolidated subsidiaries in Brazil is the local currency (Brazilian real) in which recurring business transactions occur. We do not use currency exchange contracts as hedges against amounts permanently invested in our foreign subsidiary. The amount we consider permanently invested in our foreign subsidiaries and translated into U.S. dollars using the year end exchange rate is $99.5 million at December 31, 2015 and $134.4 million at December 31, 2014. The decrease in the permanent investments in our foreign subsidiaries between 2014 and 2015 is due to the appreciation of the U.S. dollar versus the Brazilian real, offset by the additional capital contributions made and decrease in accumulated deficit of our wholly-owned consolidated subsidiary in Brazil. The potential loss in foreign exchange translation, which would be recognized in Other Comprehensive Income (Loss), resulting from a hypothetical 10% adverse change in quoted Brazilian real exchange rates is $4.9 million and $13.4 million for 2015 and 2014, respectively. Actual results may differ.

We make limited use of derivative instruments, which includes currency interest rate swap agreements, to manage the Company's exposure to foreign currency exchange rate and interest rate related to the Company's Banco Pine loan. In June 2012, we entered into a currency interest rate swap arrangement with Banco Pine for R$22.0 million (approximately US$5.6 million based on the exchange rate as of December 31, 2015). The swap arrangement exchanges the principal and interest payments under the Banco Pine loan entered into in July 2012 for alternative principal and interest payments that are subject to adjustment based on fluctuations in the foreign exchange rate between the U.S. dollar and Brazilian real. The swap has a fixed interest rate of 3.94%. This arrangement hedges the foreign exchange rate exposure and interest rate on the debt between the U.S. dollar and Brazilian real.

We analyzed our foreign currency exposure to identify assets and liabilities denominated in other currencies. For those assets and liabilities, we evaluated the effects of a 10% shift in exchange rates between those currencies and the U.S.

dollar. We have determined that there would be an immaterial effect on our results of operations from such a shift.

Commodity Price Risk

Our primary exposure to market risk for changes in commodity prices currently relates to our purchases of sugar feedstocks. When possible, we manage our exposure to this risk primarily through the use of supplier pricing agreements.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

AMYRIS, INC.

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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of

Amyris, Inc.:

In our opinion, the consolidated financial statements listed in the accompanying index present fairly, in all material respects, the financial position of Amyris, Inc. and its subsidiaries at December 31, 2015 and December 31, 2014, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2015 in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedule listed in the accompanying index presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2015, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements and financial statement schedule, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Annual Report on Internal Control over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on these financial statements, on the financial statement schedule, and on the Company's internal control over financial reporting based on our integrated audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the consolidated financial statements, the Company has suffered recurring losses from operations and has a net stockholders’ deficit that raise substantial doubt about its ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 1. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

A company's internal control over financial reporting is a process designed 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. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ PricewaterhouseCoopers LLP

San Jose, California

March 30, 2016

Amyris, Inc.

Consolidated Balance Sheets

(In Thousands, Except Share and Per Share Amounts)

	December 31,	
	2015	2014
Assets		
Current assets:		
Cash and cash equivalents	$11,992	$42,047
Restricted cash	216	—
Short-term investments	1,520	1,375
Accounts receivable, net of allowance of $479 and $479, respectively	4,004	8,687
Related party accounts receivable, net of allowance of $490 and $0, respectively	1,176	455
Inventories, net	10,886	14,506
Prepaid expenses and other current assets	5,872	6,534
Total current assets	35,666	73,604
Property, plant and equipment, net	59,797	118,980
Restricted cash	957	1,619
Equity and loans in affiliates	68	2,260
Other assets	13,150	13,635
Goodwill and intangible assets	560	6,085
Total assets	$110,198	$216,183
Liabilities and Deficit		
Current liabilities:		
Accounts payable	$7,943	$3,489
Deferred revenue	6,509	5,303
Accrued and other current liabilities	24,268	13,565
Capital lease obligation, current portion	523	541
Debt, current portion	37,570	17,100
Total current liabilities	76,813	39,998
Capital lease obligation, net of current portion	176	275
Long-term debt, net of current portion	75,457	100,122
Related party debt	43,029	115,239
Deferred rent, net of current portion	9,682	10,250
Deferred revenue, net of current portion	4,469	6,539
Derivative liabilities	51,439	59,736
Other liabilities	7,589	9,087
Total liabilities	268,654	341,246
Commitments and contingencies (Note 6)		
Stockholders' deficit:		
Preferred stock - $0.0001 par value, 5,000,000 shares authorized, none issued and outstanding	—	—
Common stock - $0.0001 par value, 400,000,000 and 300,000,000 shares authorized as of December 31, 2015 and 2014; 206,130,282 and 79,221,883 shares issued and outstanding as of December 31, 2015 and 2014, respectively	21	8
Additional paid-in capital	926,216	724,669

Accumulated other comprehensive loss	(47,198)	(29,977)
Accumulated deficit	(1,037,104)	(819,152)
Total Amyris, Inc. stockholders' deficit	(158,065)	(124,452)
Noncontrolling interest	(391)	(611)
Total stockholders' deficit	(158,456)	(125,063)
Total liabilities and stockholders' deficit	$110,198	$216,183

See the accompanying notes to the consolidated financial statements.

Amyris, Inc.

Consolidated Statements of Operations

(In Thousands, Except Share and Per Share Amounts)

	Years Ended December 31,		
	2015	2014	2013
Revenues			
Renewable product sales	$14,032	$22,793	$14,428
Related party renewable product sales	864	646	1,380
Total product sales	14,896	23,439	15,808
Grants and collaborations revenue	19,257	19,835	22,664
Related party grants and collaborations revenue	—	—	2,647
Total grants and collaborations revenue	19,257	19,835	25,311
Total revenues	34,153	43,274	41,119
Cost and operating expenses			
Cost of products sold	37,374	33,202	38,253
Loss on purchase commitments, impairment of property, plant and equipment and other asset allowances	34,166	1,769	9,366
Withholding tax related to conversion of related party notes	4,723	—	—
Impairment of intangible assets	5,525	3,035	—
Research and development	44,636	49,661	56,065
Sales, general and administrative	56,262	55,435	57,051
Total cost and operating expenses	182,686	143,102	160,735
Loss from operations	(148,533)	(99,828)	(119,616)
Other income (expense):			
Interest income	264	387	162
Interest expense	(78,854)	(28,949)	(9,107)
Gain (loss) from change in fair value of derivative instruments	16,287	144,138	(84,726)
Loss from extinguishment of debt	(1,141)	(10,512)	(19,914)
Other income (expense), net	(1,423)	336	(2,553)
Total other income (expense)	(64,867)	105,400	(116,138)
Income (loss) before income taxes and loss from investments in affiliates	(213,400)	5,572	(235,754)
Benefit (provision) for income taxes	(468)	(495)	847
Net income (loss) before loss from investments in affiliates	(213,868)	5,077	(234,907)
Loss from investments in affiliates	(4,184)	(2,910)	—
Net income (loss)	(218,052)	2,167	(234,907)
Net (income) loss attributable to noncontrolling interest	100	119	(204)
Net income (loss) attributable to Amyris, Inc. common stockholders	$(217,952)	$2,286	$(235,111)
Net income (loss) per share attributable to common stockholders:			
Basic	$(1.75)	$0.03	$(3.12)
Diluted	$(1.75)	$(0.90)	$(3.12)
Weighted-average shares of common stock outstanding used in computing net income (loss) per share of common stock:			
Basic	126,961,576	78,400,098	75,472,770
Diluted	126,961,576	121,859,441	75,472,770

See the accompanying notes to the consolidated financial statements.

Amyris, Inc.

Consolidated Statements of Comprehensive Loss

(In Thousands)

	Years Ended December 31,		
	2015	2014	2013
Comprehensive loss:			
Net loss	$(218,052)	$2,167	$(234,907)
Foreign currency translation adjustment, net of tax	(16,901)	(9,798)	(7,191)
Total comprehensive loss	(234,953)	(7,631)	(242,098)
Income (loss) attributable to noncontrolling interest	100	119	(204)
Foreign currency translation adjustment attributable to noncontrolling interest	(320)	(92)	(89)
Comprehensive loss attributable to Amyris, Inc.	$(235,173)	$(7,604)	$(242,391)

See the accompanying notes to the consolidated financial statements.

Amyris, Inc.

Consolidated Statements of Stockholders' Deficit

(In Thousands, Except Share and Per Share Amounts)

	Common Stock						
	Shares	Amount	Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Loss	Noncontrolling Interest	Total Deficit
December 31, 2012	68,709,660	$7	$666,233	$(586,327)	$(12,807)	$(877)	$66,
Issuance of common stock upon exercise of stock options, net of restricted stock	777,099	—	1,489	—	—	—	1,4
Issuance of common stock in a private placement, net of issuance cost of $21	6,567,299	1	19,979	—	—	—	19,
Shares issued from restricted stock unit settlement	608,754	—	(825)	—	—	—	(82
Issuance of common stock warrants in connection with issuance of convertible promissory note	—	—	1,330	—	—	—	1,3
Stock-based compensation	—	—	18,047	—	—	—	18,
Foreign currency translation adjustment, net of tax	—	—	—	—	(7,280)	89	(7,
Net loss	—	—	—	(235,111)	—	204	(23
December 31, 2013	76,662,812	8	706,253	(821,438)	(20,087)	(584)	(13
Issuance of common stock upon exercise of stock options, net of restricted stock	779,490	—	2,133	—	—	—	2,1
Issuance of common stock in a private placement	943,396	—	4,000	—	—	—	4,0
Shares issued from restricted stock unit settlement	836,185	—	(1,822)	—	—	—	(1,8
Stock-based compensation	—	—	14,105	—	—	—	14,
Foreign currency translation adjustment, net of tax	—	—	—	—	(9,890)	92	(9,7
Net income	—	—	—	2,286	—	(119	2,1
December 31, 2014	79,221,883	$8	$724,669	$(819,152)	$(29,977)	$(611)	$(12
Issuance of common stock upon exercise of stock options, net of restricted stock	13,250	—	18	—	—	—	18
Issuance of common stock upon conversion of debt	62,192,238	6	96,616	—	—	—	96,
Issuance of warrants on conversion of debt	—	—	51,704	—	—	—	51,
Shares issued from restricted stock settlement	908,877	—	(333)	—	—	—	(33
Shares issued upon ESPP purchase	385,892	—	595	—	—	—	595
Issuance of common stock in a private placement, net of issuance costs	16,025,642	2	24,624	—	—	—	24,
Stock-based compensation	—	—	9,134	—	—	—	9,1
Issuance of common stock upon exercise of warrants	47,382,500	5	19,189	—	—	—	19,
Foreign currency translation adjustment	—	—	—	—	(17,221)	320	(16
Net loss	—	—	—	$(217,952)	—	(100)	(21
December 31, 2015	206,130,282	21	$926,216	$(1,037,104)	$(47,198)	$(391)	$(15

See the accompanying notes to the consolidated financial statements.

Amyris, Inc.

Consolidated Statements of Cash Flows

(In Thousands)

	Years Ended December 31,		
	2015	2014	2013
Operating activities			
Net income (loss)	$(218,052)	$2,167	$(234,907)
Adjustments to reconcile net income (loss) to net cash used in operating activities:			
Depreciation and amortization	12,920	14,969	16,639
Loss on disposal of property, plant and equipment	154	263	176
Impairment of intangible assets	5,525	3,035	—
Stock-based compensation	9,134	14,105	18,047
Amortization of debt discount and issuance costs	58,559	9,981	3,683
Loss from extinguishment of debt	1,141	10,512	19,914
Loss on purchase commitments, impairment of property, plant and equipment and other asset allowances	34,166	1,769	9,366
Withholding tax related to conversion of related party debt	4,723		
Change in fair value of derivative instruments	(16,287)	(144,138)	84,726
Loss from investments in affiliates	4,184	2,910	—
Other non-cash expenses	(413)	(113)	211
Changes in assets and liabilities:			
Accounts receivable	4,920	(1,217)	(4,365)
Related party accounts receivable	(649)	(4)	(484)
Inventories, net	4,470	(4,481)	(5,612)
Prepaid expenses and other assets	(4,297)	(2,907)	(2,743)
Accounts payable	4,373	(3,209)	(2,636)
Accrued and other liabilities	10,954	6,830	(9,275)
Deferred revenue	(89)	4,760	1,634
Deferred rent	(568)	60	(233)
Net cash used in operating activities	(85,132)	(84,708)	(105,859)
Investing activities			
Purchase of short-term investments	(2,759)	(1,371)	(2,795)
Maturities of short-term investments	2,321	1,409	1,281
Change in restricted cash	240	—	(736)
Investment in joint venture	—	(2,075)	—
Loan to affiliate	(1,579)	(2,790)	—
Purchase of property, plant and equipment, net of disposals	(3,367)	(5,004)	(8,087)
Net cash used in investing activities	(5,144)	(9,831)	(10,337)
Financing activities			
Proceeds from issuance of common stock, net of repurchases	614	2,488	1,134
Employees' taxes paid upon vesting of restricted stock units	(333)	(1,822)	(825)
	24,625	4,000	19,980

Proceeds from issuance of common stock in private placements, net of issuance costs			
Proceeds from exercise of warrants	285	—	—
Principal payments on capital leases	(729)	(1,045)	(1,366)
Proceeds from debt issued, net of discounts and issuance costs	66,931	83,171	10,535
Proceeds from debt issued to related party	10,850	49,862	65,000
Repayment of debt, net of discount	(40,819)	(5,733)	(3,277)
Net cash provided by financing activities	61,424	130,921	91,181
Effect of exchange rate changes on cash and cash equivalents	(1,203)	(1,203)	1,291
Net increase/(decrease) in cash and cash equivalents	(30,055)	35,179	(23,724)
Cash and cash equivalents at beginning of period	42,047	6,868	30,592
Cash and cash equivalents at end of period	$11,992	$42,047	$6,868

Amyris, Inc.

Consolidated Statements of Cash Flows—(Continued)

(In Thousands)

	Years Ended December 31,		
	2015	2014	2013
Supplemental disclosures of cash flow information:			
Cash paid for interest	$9,425	$6,910	$2,978
Cash paid for income taxes, net of refunds	—	—	—
Supplemental disclosures of non-cash investing and financing activities:			
Acquisitions of property, plant and equipment under accounts payable, accrued liabilities and notes payable	$(73)	$114	$2,261
Financing of equipment	$613	$617	$—
Warrants issued in connection with issuance of convertible promissory notes	$—	$—	$1,330
Financing of insurance premium under notes payable	$53	$166	$425
Receivable of proceeds for options exercised	$—	$—	$355
Capitalized taxes in property, plant and equipment	$—	$—	$(8,572)
Debt issued related to an investment in joint venture	$—	$—	$68
Purchase of property, plant and equipment via deposit	$(392)	$—	$—
Interest capitalized to debt	$6,354	$5,590	$—
Non-cash equity investment in joint venture	$—	$1,281	$—

See the accompanying notes to the consolidated financial statements.

Amyris, Inc.

Notes to Consolidated Financial Statements

1. The Company

Amyris, Inc. (or the Company) was incorporated in California on July 17, 2003 and reincorporated in Delaware on June 10, 2010 for the purpose of leveraging breakthroughs in bioscience technology to develop and provide renewable compounds for a variety of markets. The Company is currently applying its industrial synthetic biology platform to engineer, manufacture and sell high performance, low cost products into a variety of consumer and industrial markets, including cosmetics, flavors & fragrances (or F&F), solvents and cleaners, polymers, lubricants, healthcare products and fuels, and it is seeking to apply its technology to the development of pharmaceutical products. The Company's first commercialization efforts have been focused on a renewable hydrocarbon molecule called farnesene (Biofene®), which forms the basis for a wide range of products including emollients, flavors and fragrance oils and diesel fuel. While the Company's platform is able to use a wide variety of feedstocks, the Company is initially focused on Brazilian sugarcane. In addition, the Company is a party to various contract manufacturing agreements to support commercial production. The Company has established two principal operating subsidiaries, Amyris Brasil Ltda. (formerly Amyris Brasil S.A., or Amyris Brasil) for production in Brazil, and Amyris Fuels, LLC (or Amyris Fuels).

The Company's renewable products business strategy is to focus on direct commercialization of specialty products while moving established commodity products into joint venture arrangements with leading industry partners. To commercialize its products, the Company must be successful in using its technology to manufacture its products at commercial scale and on an economically viable basis (i.e., low per unit production costs) and developing sufficient sales volume for those products to support its operations. The Company's prospects are subject to risks, expenses and uncertainties frequently encountered by companies in this stage of development.

Liquidity

The Company expects to fund its operations for the foreseeable future with cash and investments currently on hand, with cash inflows from collaborations and grants, cash contributions from product sales, and with new debt and equity financings. The Company's planned 2016 and 2017 working capital needs and its planned operating and capital expenditures are dependent on significant inflows of cash from new and existing collaboration partners and from cash generated from renewable product sales, and will also require additional funding from debt or equity financings.

The Company has incurred significant operating losses since its inception and believes that it will continue to incur losses and negative cash flow from operations into at least 2017. As of December 31, 2015, the Company had negative working capital of $41.1 million, an accumulated deficit of $1,037.1 million and had cash, cash equivalents and short term investments of $13.5 million. The Company needs additional financing as early as the second quarter

of 2016 to support its liquidity needs. These factors raise substantial doubt about the Company's ability to continue as a going concern. The financial statements do not include any adjustments that might result from the outcome of this uncertainty. If the Company is unable to continue as a going concern, it may be unable to meet its obligations under its existing debt facilities, which could result in an acceleration of its obligation to repay all amounts outstanding under those facilities, and it may be forced to liquidate its assets.

As of December 31, 2015, the Company's debt, net of discount of $48.6 million, totaled $156.0 million, of which $37.6 million is classified as current. In addition to upcoming debt maturities, the Company's debt service obligations over the next twelve months are significant, including $15.5 million of anticipated cash interest payments. The Company's debt agreements contain various covenants, including certain restrictions on the Company's business that could cause the Company to be at risk of defaults, such as the requirement to maintain unrestricted, unencumbered cash in certain U.S. bank accounts an amount equal to at least 50% of the principal amount outstanding under its loan facility with Hercules Technology Growth Capital, Inc. (Hercules). In February 2016, the Company received a waiver from Hercules with respect to non-compliance with such requirement as of December 31, 2015. A failure to comply with the covenants and other provisions of the Company’s debt instruments, including any failure to make a payment when required would generally result in events of default under such instruments, which could permit acceleration of such indebtedness. If such indebtedness is accelerated, it would generally also constitute an event of default under the Company’s other outstanding indebtedness, permitting acceleration of such other outstanding indebtedness. Any required repayment of such indebtedness as a result of acceleration or otherwise would lower current cash on hand such that the Company would not have those funds available for use in its business or for payment of other outstanding indebtedness. Please refer to Note 5, “Debt” and Note 6, “Commitments and Contingencies” for further details regarding the Company's debt service obligations and commitments. The Company also has significant outstanding debt and contractual obligations related to capital and operating leases, as well as purchase commitments.

In addition to the need for financing described above, the Company may take the following actions as early as the second quarter of 2016 to support its liquidity needs through the remainder of 2016 and into 2017:

- Effect significant headcount reductions, particularly with respect to employees not connected to critical or contracted activities across all functions of the Company, including employees involved in general and administrative, research and development, and production activities.

- Shift focus to existing products and customers with significantly reduced investment in new product and commercial development efforts.

- Reduce production activity at the Company’s Brotas manufacturing facility to levels only sufficient to satisfy volumes required for product revenues forecast from existing products and customers.

- Reduce expenditures for third party contractors, including consultants, professional advisors and other vendors.

- Reduce or delay uncommitted capital expenditures, including non-essential facility and lab equipment, and information technology projects.

- Closely monitor the Company’s working capital position with customers and suppliers, as well as suspend operations at pilot plants and demonstration facilities.

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Implementing this plan could have a negative impact on the Company's ability to continue its business as currently contemplated, including, without limitation, delays or failures in its ability to:

- Achieve planned production levels;
- Develop and commercialize products within planned timelines or at planned scales; and
- Continue other core activities.

Furthermore, any inability to scale-back operations as necessary, and any unexpected liquidity needs, could create pressure to implement more severe measures. Such measures could have an adverse effect on the Company's ability to meet contractual requirements, including obligations to maintain manufacturing operations, and increase the severity of the consequences described above.

2. Summary of Significant Accounting Policies

Basis of Presentation

The accompanying consolidated financial statements have been prepared in accordance with the accounting principles generally accepted in the United States of America (or GAAP) and with the instructions for Form 10-K and Regulations S-X. The consolidated financial statements include the accounts of the Company and its consolidated subsidiaries. All intercompany accounts and transactions have been eliminated in consolidation.

The Company uses the equity method to account for investments in companies, if its investments provide it with the ability to exercise significant influence over operating and financial policies of the investee. Consolidated net income or loss includes the Company’s proportionate share of the net income or loss of these companies. Judgments made by the Company regarding the level of influence over each equity method investment include considering key factors such as the Company’s ownership interest, representation on the board of directors, participation in policy-making decisions and material intercompany transactions.

Principles of Consolidation

The consolidated financial statements of the Company include the accounts of Amyris, Inc., its subsidiaries and two consolidated variable interest entities (or “VIEs”), with respect to which the Company is considered the primary beneficiary, after elimination of intercompany accounts and transactions. Disclosure regarding the Company’s participation in the VIEs is included in Note 7, "Joint Ventures and Noncontrolling Interest."

Variable Interest Entities

The Company has interests in joint venture entities that are VIEs. Determining whether to consolidate a VIE requires judgment in assessing (i) whether an entity is a VIE and (ii) if the Company is the entity’s primary beneficiary and thus required to consolidate the entity. To determine if the Company is the primary beneficiary of a VIE, the Company evaluates whether it has (i) the power to direct the activities that most significantly impact the VIE’s economic performance and (ii) the obligation to absorb losses or the right to receive benefits of the VIE that could potentially be significant to the VIE. The Company’s evaluation includes identification of significant activities and an assessment of its ability to direct those activities based on governance provisions and arrangements to provide or receive product and process technology, product supply, operations services, equity funding and financing and other applicable agreements and circumstances. The Company’s assessment of whether it is the primary beneficiary of its VIEs requires significant assumptions and judgment.

Use of Estimates

In preparing the consolidated financial statements, management must make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities as of the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Concentration of Credit Risk

Financial instruments that potentially subject the Company to a concentration of credit risk consist primarily of cash and cash equivalents, short term investments and accounts receivable. The Company places its cash equivalents and investments (primarily certificates of deposits) with high credit quality financial institutions and, by policy, limits the amount of credit exposure with any one financial institution. Deposits held with banks may exceed the amount of insurance provided on such deposits. The Company has not experienced any losses on its deposits of cash and cash equivalents and short-term investments.

The Company performs ongoing credit evaluation of its customers, does not require collateral, and maintains allowances for potential credit losses on customer accounts when deemed necessary.

Customers representing 10% or greater of accounts receivable were as follows:

	December 31,	
Customers	2015	2014
Customer H	23 %	**
Customer C	26 %	19 %
Customer G	10 %	**
Customer I	*	23 %
Customer E	**	28 %

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** No outstanding balance*

*** Less than 10%*

Customers representing 10% or greater of revenues were as follows:

	Years Ended December 31,		
Customers	2015	2014	2013
Customer B	**	**	15 %
Customer C	**	10 %	10 %
Customer E	37 %	47 %	20 %
Customer F	**	**	12 %
Customer J	10 %	**	*

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* *Not a customer*

** *Less than 10%*

Fair Value of Financial Instruments

The Company measures certain financial assets and liabilities at fair value based on the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants. Where available, fair value is based on or derived from observable market prices or other observable inputs. Where observable prices or inputs are not available, valuation techniques are applied. These valuation techniques involve some level of management estimation and judgment, the degree of which is dependent on the price transparency for the instruments or market and the instruments' complexity.

The carrying amounts of certain financial instruments, such as cash equivalents, short term investments, accounts receivable, accounts payable and accrued liabilities, approximate fair value due to their relatively short maturities. The fair values of the loans payable, convertible notes and credit facility are based on the present value of expected future cash flows and assumptions about current interest rates and the creditworthiness of the Company. The loans payable, convertible notes and credit facility are carried on the consolidated balance sheet on a historical cost basis, because the Company has not elected to recognize the fair value of these liabilities. However, the Remaining Notes subject to the Maturity Treatment Agreement were revalued to fair value on July 29, 2015 (see Note 5 “Debt” for details).

The Company estimates the fair value of the compound embedded derivatives for the convertible promissory notes to Total Energies Nouvelles Activités USA (formerly known as Total Gas & Power USA, SAS, or Total) (refer to Note 5, "Debt" for further details) using the Monte Carlo simulation valuation model that combines expected cash outflows with market-based assumptions regarding risk-adjusted yields, stock price volatility, probability of a change of control and the trading information of the Company's common stock into which the notes are or may become convertible.

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The Company estimates the fair value of the compound embedded derivatives for the first and second tranches of the August 2013 Financing (or, Tranche I Notes and Tranche II Notes, respectively) and the 2014 and 2015 144A Notes (as defined in Note 5, "Debt" and collectively, Convertible Notes) using the binomial lattice model in order to estimate the fair value of the embedded derivatives. A binomial lattice model generates two probable outcomes - one up and another down - arising at each point in time, starting from the date of valuation until the maturity date. A lattice model was used to determine if the Convertible Notes would be converted, called or held at each decision point. Within the lattice model, the following assumptions are made: (i) the Convertible Notes will be converted early if the conversion value is greater than the holding value and (ii) the Convertible Notes will be called if the holding value is greater than both (a) redemption price and (b) the conversion value at the time. If the Convertible Notes are called, then the holder will maximize their value by finding the optimal decision between (1) redeeming at the redemption price and (2) converting the Convertible Notes. Using this lattice method, the Company valued the embedded derivatives using the "with-and-without method", where the fair value of the Convertible Notes including the embedded derivatives is defined as the "with", and the fair value of the Convertible Notes excluding the embedded derivatives is defined as the "without". This method estimates the fair value of the embedded derivatives by looking at the difference in the values between the Convertible Notes with the embedded derivatives and the fair value of the Convertible Notes without the embedded derivatives. The lattice model uses the stock price, conversion rate, conversion price, maturity date, risk-free interest rate, estimated stock volatility and estimated credit spread.

Changes in the inputs into these valuation models have a significant impact on the estimated fair value of the embedded derivatives. For example, a decrease (increase) in the estimated credit spread for the Company results in an increase (decrease) in the estimated fair value of the embedded derivatives. Conversely, a decrease (increase) in the stock price results in a decrease (increase) in the estimated fair value of the embedded derivatives. The changes during 2015, 2014 and 2013 in the fair values of the bifurcated compound embedded derivatives are primarily related to the change in price of the Company's underlying common stock and are reflected in the consolidated statements of operations as “Gain (loss) from change in fair value of derivative instruments.”

Cash and Cash Equivalents

All highly liquid investments purchased with an original maturity date of 90 days or less at the date of purchase are considered to be cash equivalents. Cash and cash equivalents consist of money market funds and certificates of deposit.

Short Term Investments

Investments with original maturities greater than 90 days that mature less than 1 year from the consolidated balance sheet date are classified as short-term investments. The Company classifies investments as short-term or long-term based upon whether such assets are reasonably expected to be realized in cash or sold or consumed during the normal cycle of business. The Company invests its excess cash balances primarily in certificates of deposit. Certificates of deposits that have maturities greater than 90 days that mature less than one year from the consolidated balance sheet

date are classified as short term investments. The Company classifies all of its investments as available-for-sale and records such assets at estimated fair value in the consolidated balance sheets, with unrealized gains and losses, if any, reported as a component of accumulated other comprehensive income (loss) in stockholders' equity (deficit). Debt securities are adjusted for amortization of premiums and accretion of discounts and such amortization and accretion are reported as a component of interest income. Realized gains and losses and declines in value that are considered to be other-than-temporary are recognized in the statements of operations. The cost of securities sold is determined on the specific identification method. There were no significant realized gains or losses from sales of debt securities during the years ended December 31, 2015, 2014 and 2013. As of December 31, 2015 and 2014, the Company did not have any other-than-temporary declines in the fair value of its debt securities.

Accounts Receivable

The Company maintains an allowance for doubtful accounts receivable for estimated losses resulting from the inability of its customers to make required payments. The Company determines this allowance based on specific doubtful account identification and management judgment on estimated exposure. The Company writes off accounts receivable against the allowance when it determines a balance is uncollectible and no longer actively pursues collection of the receivable.

Inventories

Inventories, which consist of farnesene-derived products and flavor and fragrances ingredients are stated at the lower of cost or market and categorized as finished goods, work-in-process or raw material inventories. The Company evaluates the recoverability of its inventories based on assumptions about expected demand and net realizable value. If the Company determines that the cost of inventories exceeds its estimated net realizable value, the Company records a write-down equal to the difference between the cost of inventories and the estimated net realizable value. If actual net realizable values are less favorable than those projected by management, additional inventory write-downs may be required that could negatively impact the Company's operating results. If actual net realizable values are more favorable, the Company may have favorable operating results when products that have been previously written down are sold in the normal course of business. The Company also evaluates the terms of its agreements with its suppliers and establishes accruals for estimated losses on adverse purchase commitments as necessary, applying the same lower of cost or market approach that is used to value inventory. Cost is computed on a first-in, first-out basis. Inventory costs include transportation costs incurred in bringing the inventory to its existing location.

Investments in Affiliates

We use the equity method to account for our investments in affiliates. We include our proportionate share of earnings and/or losses of our equity method investees in the loss from investments in affiliates in the consolidated statements of operations. The carrying value of our investments in affiliates includes loans to affiliates. Investments in affiliates are carried at cost less impairment, as adjusted for market rates of interest imputed to non-market interest rate loans advanced to affiliates.

Restricted Cash

Cash accounts that are restricted to withdrawal or usage are presented as restricted cash. As of December 31, 2015 and 2014, the Company had $1.2 million and $1.6 million, respectively, of restricted cash held by a bank in a certificate of

deposit as collateral under a facility lease and bank guarantees.

Derivative Instruments

The Company makes limited use of derivative instruments, which includes currency interest rate swap agreements, to manage the Company's exposure to foreign currency exchange rate fluctuations and interest rate fluctuations related to the Company's Banco Pine S.A. loan (discussed below under Note 5, "Debt"). Changes in the fair value of the derivative contracts are recognized immediately in the consolidated statements of operations.

Embedded derivatives that are required to be bifurcated from the underlying debt instrument (i.e. host) are accounted for and valued as separate financial instruments. The Company evaluated the terms and features of its convertible notes payable and identified compound embedded derivatives requiring bifurcation and accounting at fair value because the economic and contractual characteristics of the embedded derivatives met the criteria for bifurcation and separate accounting due to the conversion options containing “make-whole interest” provisions, down round conversion price adjustment provisions and conversion rate adjustments,.

Property, Plant and Equipment, net

Property, plant and equipment, net are stated at cost less accumulated depreciation and amortization. Depreciation and amortization is computed using the straight-line method over the estimated useful lives of the related assets. Maintenance and repairs are charged to expense as incurred, and improvements and betterments are capitalized. When assets are retired or otherwise disposed of, the cost and accumulated depreciation are removed from the balance sheet and any resulting gain or loss is reflected in operations in the period realized.

Depreciation and amortization periods for the Company’s property, plant and equipment are as follows:

Machinery and equipment (in years)	7 - 15
Buildings (in years)	15
Computers and software (in years)	3 - 5
Furniture and office equipment (in years)	5
Vehicles (in years)	5

Buildings and leasehold improvements are amortized on a straight-line basis over the terms of the lease, or the useful life of the assets, whichever is shorter.

Computers and software includes internal-use software that is acquired to meet the Company’s needs. Amortization commences when the software is ready for its intended use and the amortization period is the estimated useful life of the software, generally 3 to 5 years. Capitalized costs primarily include contract labor costs of the individuals dedicated to the development and installation of internal-use software.

Impairment of Long-Lived Assets

Long-lived assets to be held and used are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable or the estimated useful life is no longer appropriate. If indicators of impairment exist and the undiscounted projected cash flows associated with such assets are less than the carrying amount of the asset, an impairment loss is recorded to write the assets down to their estimated fair values. Fair value is estimated based on discounted future cash flows. There were $28.5 million, $1.8 million, and $7.7 million, of impairment charges recorded during the years ended December 31, 2015, 2014 and 2013, respectively.

Goodwill and Intangible Assets

Goodwill represents the excess of the cost over the fair value of net assets acquired from business combinations. Intangible assets are comprised primarily of in-process research and development (or IPR&D). The goodwill and IPR&D were recognized on an acquisition completed in 2011. Goodwill and intangible assets with indefinite useful lives are assessed for impairment using fair value measurement techniques on an annual basis or more frequently if facts and circumstances warrant such a review. When required, a comparison of fair value to the carrying amount of assets is performed to determine the amount of any impairment. The Company makes significant judgments in relation to the valuation of goodwill and intangible assets resulting from business combinations.

There are several methods that can be used to determine the estimated fair value of the IPR&D acquired in a business combination. We used the "income method," which applies a probability weighting that considers the risk of development and commercialization, to the estimated future net cash flows that are derived from projected sales revenues and estimated costs. These projections are based on factors such as relevant market size, pricing of similar products, and expected industry trends. The estimated future net cash flows are then discounted to the present value using an appropriate discount rate. These assets are treated as indefinite-lived intangible assets until completion or abandonment of the projects, at which time the assets will be amortized over the remaining useful life or written off, as appropriate. Amounts recorded as IPR&D will begin being amortized upon the completion of development activities over the estimated useful life of the technology. The development activities have not been completed, and therefore the amortization of the acquired IPR&D has not begun.

Factors that could trigger an impairment review include significant under-performance relative to expected historical or projected future operating results, significant changes in the manner of use of the acquired assets or the strategy for the Company's overall business or significant negative industry or economic trends. If this evaluation indicates that the value of the intangible asset may be impaired, we make an assessment of the recoverability of the net carrying value of the asset. If this assessment indicates that the intangible asset is not recoverable, based on the estimated discounted future cash flows of the technology over its expected life, we reduce the net carrying value of the related intangible asset to fair value. As a result of the impairment assessment of IPR&D, the Company recognized an impairment of its IPR&D asset of $5.5 million and $3.0 million for the years ended December 31, 2015 and 2014, respectively, and zero for the year ended December 31 2013. As of December 31, 2015, the Company's intangible assets had a carrying amount of zero.

Noncontrolling Interest

Changes in noncontrolling interest ownership that do not result in a change of control and where there is a difference between fair value and carrying value are accounted for as equity transactions. In April 2010, the Company entered into a joint venture with São Martinho S.A. (or São Martinho). The carrying value of the noncontrolling interest from this joint venture is recorded in the equity section of the consolidated balance sheets (see Note 7, "Joint Ventures and Noncontrolling Interest"). In January 2011, the Company entered into a production service agreement with Glycotech, Inc. (or Glycotech). The Company has determined that the arrangement with Glycotech qualifies as a VIE. The Company determined that it is the primary beneficiary. The carrying value of the noncontrolling interest from this VIE is recorded in the equity section of the consolidated balance sheets (see Note 7, "Joint Ventures and Noncontrolling Interest").

Revenue Recognition

The Company recognizes revenue from the sale of renewable products, delivery of research and development services, and from governmental grants. Revenue is recognized when all of the following criteria are met: persuasive evidence of an arrangement exists, delivery has occurred or services have been rendered, the fee is fixed or determinable, and

collectability is reasonably assured.

If sales arrangements contain multiple elements, the Company evaluates whether the components of each arrangement represent separate units of accounting.

Product Sales

The Company's renewable product sales do not include rights of return. Returns are only accepted if the product does not meet product specifications and such nonconformity is communicated to the Company within a set number of days of delivery. The Company offers a two year standard warranty provision for squalane products sold after March 31, 2012, if the products do not meet Company-established criteria as set forth in the Company's trade terms. The Company bases its return reserve on a historical rate of return for the Company's squalane products. Revenues are recognized, net of discounts and allowances, once passage of title and risk of loss has occurred and contractually specified acceptance criteria have been met, provided all other revenue recognition criteria have also been met.

Grants and Collaborative Revenue

Revenue from collaborative research services is recognized as the services are performed consistent with the performance requirements of the contract. In cases where the planned levels of research services fluctuate over the research term, the Company recognizes revenue using the proportionate performance method based upon actual efforts to date relative to the amount of expected effort to be incurred by the Company. When up-front payments are received and the planned levels of research services do not fluctuate over the research term, revenue is recorded on a ratable basis over the arrangement term, up to the amount of cash received. When up-front payments are received and the planned levels of research services fluctuate over the research term, revenue is recorded using the proportionate performance method, up to the amount of cash received. Where arrangements include milestones that are determined to be substantive and at risk at the inception of the arrangement, revenue is recognized upon achievement of the milestone and is limited to those amounts whereby collectability is reasonably assured.

Government grants are agreements that generally provide cost reimbursement for certain types of expenditures in return for research and development activities over a contractually defined period. Revenues from government grants are recognized in the period during which the related costs are incurred, provided that the conditions under which the government grants were provided have been met and only perfunctory obligations are outstanding.

Cost of Products Sold

Cost of products sold includes production costs of renewable products, which include cost of raw materials, amounts paid to contract manufacturers and period costs including inventory write-downs resulting from applying

lower-of-cost-or-market inventory valuation. Cost of products sold also includes certain costs related to the scale-up in production of such products.

Shipping and handling costs charged to customers are recorded as revenues. Shipping costs are included in cost of products sold. Such charges were not significant in any of the periods presented.

Research and Development

Research and development costs are expensed as incurred and include costs associated with research performed pursuant to collaborative agreements and government grants, including internal research. Research and development costs consist of direct and indirect internal costs related to specific projects as well as fees paid to others that conduct certain research activities on the Company’s behalf.

Debt Extinguishment

The Company accounts for the income or loss from extinguishment of debt in accordance with ASC 470, "Debt", which indicates that for all extinguishment of debt, the difference between the reacquisition price and the net carrying amount of the debt being extinguished should be recognized as gain or loss when the debt is extinguished. The gain or loss from debt extinguishment is recorded in the consolidated statements of operations under "other income (expense)" as "gain (loss) from extinguishment of debt".

Income Taxes

The Company accounts for income taxes under the asset and liability method, which requires, among other things, that deferred income taxes be provided for temporary differences between the tax basis of the Company’s assets and liabilities and their financial statement reported amounts. In addition, deferred tax assets are recorded for the future benefit of utilizing net operating losses and research and development credit carryforwards. A valuation allowance is provided against deferred tax assets unless it is more likely than not that they will be realized.

The Company recognizes and measures uncertain tax positions in accordance with Income Taxes subtopic 05-6 of ASC 740, which prescribes a recognition threshold and measurement process for recording uncertain tax positions taken, or expected to be taken in a tax return, in the consolidated financial statements. Additionally, the guidance also prescribes treatment for the derecognition, classification, accounting in interim periods and disclosure requirements for uncertain tax positions. The Company accrues for the estimated amount of taxes for uncertain tax positions if it is more likely than not that the Company would be required to pay such additional taxes. An uncertain tax position will not be recognized if it has a less than 50% likelihood of being sustained.

Currency Translation

The Company considers the local currency to be the functional currency of the Company’s wholly-owned subsidiary in Brazil and of the Company's consolidated joint venture in Brazil. Accordingly, asset and liability accounts of those operations are translated into United States dollars using the current exchange rate in effect at the balance sheet date and equity accounts are translated into United States dollars using historical rates. The revenues and expenses are translated using the exchange rates in effect when the transactions occur. Gains and losses from foreign currency translation adjustments are included as a component of accumulated other comprehensive income (loss) on the consolidated balance sheets.

Foreign currency differences arising from the translation of intercompany loans from a foreign currency into the functional currency of an entity, which are of a long-term investment nature (that is, settlement is not planned or anticipated in the foreseeable future) are recorded in “Accumulated other comprehensive income (loss)” on our Consolidated Balance Sheets. Foreign currency differences arising from the translation of other intercompany loans are recorded in “Other income (expense)” on our Consolidated Statements of Operations.

Stock-Based Compensation

The Company accounts for stock-based compensation arrangements with employees using a fair value method which requires the recognition of compensation expense for costs related to all stock-based payments including stock options. The fair value method requires the Company to estimate the fair value of stock-based payment awards on the date of grant using an option pricing model. The Company uses the Black-Scholes option pricing model to estimate the fair value of options granted, which is expensed on a straight-line basis over the vesting period. The Company accounts for restricted stock unit awards issued to employees based on the fair market value of the Company's common stock.

The Company accounts for stock options issued to nonemployees based on the estimated fair value of the awards using the Black-Scholes option pricing model. The Company accounts for restricted stock units issued to nonemployees based on the fair market value of the Company's common stock. The measurement of stock-based compensation is subject to periodic adjustments as the underlying equity instruments vest, and the resulting change in value, if any, is recognized in the Company's consolidated statements of operations during the period the related services are rendered.

Comprehensive Income (Loss)

Comprehensive income (loss) represents all changes in stockholders' deficit except those resulting from investments or contributions by stockholders. The Company's foreign currency translation adjustments represent the components of comprehensive income (loss) excluded from the Company's net income (loss) and have been disclosed in the consolidated statements of comprehensive loss for all periods presented.

The components of accumulated other comprehensive loss are as follows (in thousands):

	December 31,	
	2015	**2014**
Foreign currency translation adjustment, net of tax	$(47,198)	$(29,977)
Total accumulated other comprehensive loss	$(47,198)	$(29,977)

Net Loss Attributable to Common Stockholders and Net Loss per Share

The Company computes net loss per share in accordance with ASC 260, “Earnings per Share.” Basic net loss per share of common stock is computed by dividing the Company’s net loss attributable to Amyris, Inc. common stockholders (as adjusted in 2015 to remove the impact of the fair value adjustments for any currently exercisable warrants in which the number of shares are included in the weighted average number of common stock outstanding) by the weighted-average number of shares of common stock outstanding during the period. Diluted net loss per share of common stock is computed by giving effect to all potentially dilutive securities, including stock options, restricted stock units and common stock warrants, using the treasury stock method or the as converted method, as applicable. For the years ended December 31, 2013 and 2015, basic net loss per share was the same as diluted net loss per share because the inclusion of all potentially dilutive securities outstanding was anti-dilutive. As such, the numerator and the denominator used in computing both basic and diluted net loss were the same for those years.

The following table presents the calculation of basic and diluted net loss per share of common stock attributable to Amyris, Inc. common stockholders (in thousands, except share and per share amounts):

	Years Ended December 31,		
	2015	2014	2013
Numerator:			
Net income (loss) attributable to Amyris, Inc. common stockholders	$(217,952)	$2,286	$(235,111)
Adjustment to exclude fair value gain on liability classified warrants[1]	(3,825)	—	—
Net income (loss) attributable to Amyris, Inc. common stockholders (for basic income (loss) per share)	(221,777)	2,286	(235,111)
Interest on convertible debt	—	9,365	—
Accretion of debt discount	—	5,597	—
Gain from change in fair value of derivative instruments	—	(127,109)	—
Net loss attributable to Amyris, Inc. common stockholders after assumed conversion	$(221,777)	$(109,861)	$(235,111)
Denominator:			
Weighted-average shares of common stock outstanding used in computing net loss per share of common stock, basic	126,961,576	78,400,098	75,472,770
Basic income (loss) per share	$(1.75)	$0.03	$(3.12)
Weighted average shares of common stock outstanding	126,961,576	78,400,098	75,472,770
Effect of dilutive securities:			
Convertible promissory notes	—	43,459,343	—
Weighted common stock equivalents	—	43,459,343	—
Diluted weighted-average common shares	126,961,576	121,859,441	75,472,770
Diluted loss per share	$(1.75)	$(0.90)	$(3.12)

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(1) The amount represents a net gain related to a change in the fair value of a liability classified common stock warrant included in the Company's consolidated statement of operations for the year ended December 31, 2015. The warrant has a nominal exercise price and shares issuable upon exercise of the warrant are considered equivalent to the Company's common shares for the purpose of computation of basic earnings per share and consequently losses are adjusted to exclude the gain.

The following outstanding shares of potentially dilutive securities were excluded from the computation of diluted net loss per share of common stock for the periods presented because including them would have been anti-dilutive:

	Years Ended December 31,		
	2015	2014	2013
Period-end stock options to purchase common stock	12,930,112	10,539,978	8,409,605
Convertible promissory notes [1]	72,537,306	26,887,005	42,905,005

Period-end common stock warrants	2,901,926	1,021,087	1,021,087
Period-end restricted stock units	5,554,844	1,975,503	2,316,437
Total	93,924,188	40,423,573	54,652,134

(1) The potentially dilutive effect of convertible promissory notes was computed based on conversion ratios in effect as of December 31, 2015. A portion of the convertible promissory notes issued carries a provision for a reduction in conversion price under certain circumstances, which could potentially increase the dilutive shares outstanding. Another portion of the convertible promissory notes issued carries a provision for an increase in the conversion rate under certain circumstances, which could also potentially increase the dilutive shares outstanding.

Recent Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board (or "FASB") issued new guidance related to revenue recognition. This new standard will replace all current GAAP guidance on this topic and eliminate all industry-specific guidance. The new revenue recognition update guidance provides a unified model to determine how revenue is recognized. The core principle of the guidance is that an entity should recognize revenue to depict the transfer of promised 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. On July 9, 2015, the FASB voted to defer the effective date by one year to December 15, 2017 for interim and annual reporting periods beginning after that date and permitted early adoption of the standard, but not before the original effective date of December 15, 2016. Therefore, the new standard will be effective commencing with our quarter ending March 31, 2018.

In August 2014, FASB issued new guidance related to the disclosure around going concern. The new standard provides guidance around management's responsibility to evaluate whether there is substantial doubt about an entity's ability to continue as a going concern and to provide related footnote disclosure if substantial doubt exists. The new standard is effective for annual periods ending after December 15, 2016 and for annual periods and interim periods thereafter. Early adoption is permitted. The adoption of this standard is not expected to have a material impact on our financial statements.

In January 2015, the FASB issued an update related to the presentation of extraordinary and unusual items. The update eliminates the concept of extraordinary items found in Subtopic 225-20, which required that an entity separately classify, present and disclose extraordinary events and transactions when the event or activity met both criteria of being unusual in nature and infrequent in occurrence. Although the concept of extraordinary items will be eliminated, the presentation and disclosure guidance for items that are unusual in nature or occur infrequently will be retained and will be expanded to include items that are both unusual in nature and infrequently occurring. The standard is effective for annual and interim periods within those annual years beginning after December 15, 2015. The Company expects that the adoption of the update will not materially affect its financial statements.

In February 2015, FASB issued an amendment to ASC 810 Consolidation. The amendments affect reporting entities that are required to evaluate whether they should consolidate certain legal entities. The amendments are effective for the fiscal years and interim periods within those fiscal years, beginning after December 15, 2015. Early adoption is permitted. The Company is currently assessing the impact of adopting this new accounting standard on its financial statements.

In April 2015, the FASB issued Accounting Standards Update 2015-3, *Simplifying the Presentation of Debt Issuance Costs*, which requires debt issuance costs to be presented in the balance sheet as a direct deduction from the carrying value of the associated debt liability, consistent with the presentation of a debt discount. The recognition and measurement guidance for debt issuance costs are not affected by this guidance. The guidance is effective for financial statements issued for fiscal years beginning after December 15, 2015, and interim periods within those fiscal years. Early adoption is permitted for financial statements that have not been previously issued. This will represent a change from the Company’s current treatment of debt issuance costs, which are reported in other assets.

In July 2015, the FASB issued Accounting Standards Update 2015-11, *Simplifying the Measurement of Inventory*, which requires that inventory within the scope of the guidance be measured at the lower of cost and net realizable value. The new standard is being issued as part of the simplification initiative. Prior to the issuance of the standard, inventory was measured at the lower of cost or market (where market was defined as replacement cost, with a ceiling of net realizable value and floor of net realizable value less a normal profit margin). The new guidance will be effective for fiscal years beginning after December 15, 2016, including interim periods within those years. Prospective application is required and early adoption is permitted. The Company is currently assessing the impact of adopting this new accounting standard on its financial statements.

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In January 2016, the FASB issued Accounting Standards Update 2016-01 *Financial Instruments-Overall*, which address certain aspects of recognition, measurement, presentation, and disclosure of financial instruments. The amendments in this Update are effective for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. Earlier application is permitted under specific circumstances. The Company expects the new standard to impact the extent of its disclosures of financial instruments, particularly in relation to fair value disclosures, but otherwise does not expect a significant impact from the new standard.

In February 2016, the FASB issued Accounting Standards Update 2016-02-*Leases* with fundamental changes to how entities account for leases. Lessees will need to recognize a right-of-use asset and a lease liability for virtually all of their leases (other than leases that meet the definition of a short-term lease). The liability will be equal to the present value of lease payments. The asset will be based on the liability, subject to adjustment, such as for initial direct costs. Additional disclosures for leases will also be required. The standard is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. Early adoption is permitted. The new standard must be adopted using a modified retrospective transition, and provides for certain practical expedients. The Company expects that the new standard will materially impact its financial statements.

3. Fair Value of Financial Instruments

The inputs to the valuation techniques used to measure fair value are classified into the following categories:

Level 1: Quoted market prices in active markets for identical assets or liabilities.

Level 2: Observable market-based inputs or unobservable inputs that are corroborated by market data.

Level 3: Unobservable inputs that are not corroborated by market data.

As of December 31, 2015, the Company’s financial assets and financial liabilities are presented below at fair value and were classified within the fair value hierarchy as follows (in thousands):

	Level 1	Level 2	Level 3	**Balance as of December 31,**

				2015
Financial Assets				
Money market funds	$2,078	$—	$—	$2,078
Certificates of deposit	1,520	—	—	1,520
Total financial assets	$3,598	$—	$0	$3,598
Financial Liabilities				
Loans payable [1]	$—	$9,541	$—	$9,541
Credit facilities [1]	—	34,893	—	34,893
Convertible notes [1]	—	—	96,291	96,291
Compound embedded derivative liabilities	—	—	46,430	46,430
Currency interest rate swap derivative liability	—	5,009	—	5,009
Total financial liabilities	$—	$49,443	$142,721	$192,164

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[1] These liabilities are carried on the consolidated balance sheet on a historical cost basis (noting that the Remaining Notes subject to the Maturity Treatment Agreement were revalued to fair value on July 29, 2015, see Note 5 “Debt” for details).

The Company's assessment of the significance of a particular input to the fair value measurement in its entirety requires management to make judgments and consider factors specific to the asset or liability. The fair values of money market funds and certificates of deposit are based on fair values of identical assets. The fair values of the loans payable, convertible notes, credit facilities and currency interest rate swaps are based on the present value of expected future cash flows and assumptions about current interest rates and the creditworthiness of the Company. The method of determining the fair value of the compound embedded derivative liabilities is described subsequently in this note. Market risk associated with the fixed and variable rate long-term loans payable, credit facilities and convertible notes relates to the potential reduction in fair value and negative impact to future earnings, from an increase in interest rates. Market risk associated with the compound embedded derivative liabilities relates to the potential reduction in fair value and negative impact to future earnings from a decrease in interest rates.

The carrying amounts of certain financial instruments, such as cash equivalents, short term investments, accounts receivable, accounts payable and accrued liabilities, approximate fair value due to their relatively short maturities and low market interest rates, if applicable.

As of December 31, 2014, the Company's financial assets and financial liabilities are presented below at fair value and were classified within the fair value hierarchy as follows (in thousands):

	Level 1	Level 2	Level 3	**Balance as of December 31, 2014**
Financial Assets				
Money market funds	$20,160	$—	$—	$20,160
Certificates of deposit	1,375	—	—	1,375
Loans to affiliate	—	—	1,745	1,745
Total financial assets	$21,535	$—	$1,745	$23,280
Financial Liabilities				
Loans payable [(1)]	$—	$16,720	$—	$16,720
Credit facilities [(1)]	—	39,332	—	39,332
Convertible notes [(1)]	—	—	222,031	222,031
Compound embedded derivative liabilities	—	—	56,026	56,026
Currency interest rate swap derivative liability	—	3,710	—	3,710
Total financial liabilities	$—	$59,762	$278,057	$337,819

[(1)] These liabilities are carried on the consolidated balance sheet on a historical cost basis.

The following table provides a reconciliation of the beginning and ending balances for the convertible notes disclosed at fair value using significant unobservable inputs (Level 3) (in thousands):

	2015	2014
Balance at January 1	$222,031	$131,952
Additions to convertible notes	31,984	123,273
Conversion/extinguishment of convertible notes	(127,583)	(13,539)
Change in fair value of convertible notes	(30,141)	(19,655)
Balance at December 31	$96,291	$222,031

Derivative Instruments

The following table provides a reconciliation of the beginning and ending balances for the compound embedded derivative liabilities measured at fair value using significant unobservable inputs (Level 3) (in thousands):

	2015	2014
Balance at January 1	$56,026	$131,117
Additions to Level 3	40,359	90,174
Derecognition on conversion/extinguishment	(30,806)	(1,104)
Gain from change in fair value of derivative liabilities[(1)]	(19,149)	(164,161)
Balance at December 31	$46,430	$56,026

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[(1)] In 2014, includes a loss on initial recognition of embedded derivatives of $19.5 million.

The compound embedded derivative liabilities, represent the fair value of the equity conversion options and "make-whole" provisions, down round conversion price adjustments or conversion rate adjustments to provisions of the R&D Notes, the Tranche I Notes, the Tranche II Notes, the 2014 144A Notes and the 2015 144A Notes (see Note 5, "Debt"). There is no current observable market for these types of derivatives and, as such, the Company determined the fair value of the embedded derivatives using a Monte Carlo simulation valuation model for the R&D Notes and the binomial lattice model for the Tranche I Notes, the Tranche II Notes, the 2014 144A Notes and the 2015 144A Notes (collectively, the Convertible Notes). A Monte Carlo simulation valuation model combines expected cash outflows with market-based assumptions regarding risk-adjusted yields, stock price volatility, probability of a change of control and the trading information of the Company's common stock into which the notes are or may be convertible. A binomial lattice model generates two probable outcomes - one up and another down - arising at each point in time, starting from the date of valuation until the maturity date. A lattice model was used to determine if the Convertible

Notes would be converted, called or held at each decision point. Within the lattice model, the following assumptions are made: (i) the Convertible Notes will be converted early if the conversion value is greater than the holding value and (ii) the Convertible Notes will be called if the holding value is greater than both (a) redemption price and (b) the conversion value at the time. If the Convertible Notes are called, then the holder will maximize their value by finding the optimal decision between (1) redeeming at the redemption price and (2) converting the Convertible Notes. Using this lattice method, the Company valued the embedded derivatives using the "with-and-without method", where the fair value of the Convertible Notes including the embedded derivative is defined as the "with", and the fair value of the Convertible Notes excluding the embedded derivatives is defined as the "without". This method estimates the fair value of the embedded derivatives by looking at the difference in the values between the Convertible Notes with the embedded derivatives and the fair value of the Convertible Notes without the embedded derivatives. The lattice model uses the stock price, conversion price, maturity date, risk-free interest rate, estimated stock volatility and estimated credit spread. The Company marks the compound embedded derivatives to market due to the conversion price not being indexed to the Company's own stock. Except for the "make-whole interest" provision included in the conversion option, which is only required to be settled in cash upon a change of control at the noteholder's option, the compound embedded derivatives will be settled in either cash or shares. As of December 31, 2015 and 2014, included in "Derivative Liabilities" on the consolidated balance sheet are the Company's compound embedded derivative liabilities of $46.4 million and $56.0 million, respectively.

The market-based assumptions and estimates used in valuing the compound embedded derivative liabilities include amounts in the following ranges/amounts:

	December 31, 2015	December 31, 2014
Risk-free interest rate	1.26% - 1.40%	0.75% - 1.51%
Risk-adjusted yields	35.80% - 45.93%	21.40% - 31.50%
Stock-price volatility	45%	45%
Probability of change in control	5%	5%
Stock price	$1.62	$2.06
Credit spread	34.48% - 44.55%	19.97% - 29.99%
Estimated conversion dates	2016 - 2019	2017 - 2019

Changes in valuation assumptions can have a significant impact on the valuation of the embedded derivative liabilities. For example, all other things being equal, a decrease/increase in the Company’s stock price, probability of change of control, credit spread, term to maturity/conversion or stock price volatility decreases/increases the valuation of the liabilities, whereas a decrease/increase in risk adjusted yields or risk-free interest rates increases/decreases the valuation of the liabilities. The conversion price of certain of the Convertible Notes also include conversion price adjustment features and for, example, issuances of common stock by the Company at prices lower than the conversion price result in a reset of the conversion price of certain notes, which increases the value of the embedded derivative liabilities. See Note 5, "Debt" for further details of conversion price adjustment features.

In June 2012, the Company entered into a loan agreement with Banco Pine S.A. (or Banco Pine) under which Banco Pine provided the Company with a loan (or the Banco Pine Bridge Loan) (see Note 5, "Debt"). At the time of the Banco Pine Bridge Loan, the Company also entered into a currency interest rate swap arrangement with Banco Pine with respect to the repayment of R$22.0 million (approximately US$5.6 million based on the exchange rate as of December 31, 2015) of the Banco Pine Bridge Loan. The swap arrangement exchanges the principal and interest payments under the Banco Pine Bridge Loan for alternative principal and interest payments that are subject to adjustment based on fluctuations in the foreign exchange rate between the U.S. dollar and Brazilian real. The swap has a fixed interest rate of 3.94%. Changes in the fair value of the swap are recognized in “Gain (loss) from change in fair value of derivative instruments" in the consolidated statements of operations are as follows (in thousands):

Type of Derivative Contract	Income Statement Classification	Years Ended December 31, 2015	2014	2013
		Gain (Loss) Recognized		
Currency interest rate swap [1]	Gain (loss) from change in fair value of derivative instruments	$(3,367)	$(480)	$(2,404)

The Company granted a warrant to Temasek to purchase the Company's common stock, (the "Temasek Funding Warrant"), as part of the Exchange transaction completed on July 29, 2015. The terms of the Temasek Funding Warrant provide for an adjustment to the number of shares issuable in the future based on the number of any additional shares for which certain other outstanding convertible promissory notes may become exercisable as a result of a reduction to the conversion price of such notes, including down-round provisions. As a result of the future adjustment feature (for reduction to the conversion price of outstanding convertible notes), the Company determined the Temasek Funding Warrant would not meet the conditions in ASC 815-40-15 to be considered indexed to the Company's own equity. Consequently the Temasek Funding Warrant is a derivative and is marked to market each reporting period. The Temasek Funding Warrant is valued using a Black-Scholes valuation model with the following assumptions (in addition to the Company's share price):

	Initial recognition (July 29, 2015)	
Expected dividend yield	0	
Risk-free interest rate	2	%
Expected term (in years)	10.0	
Expected volatility	74	%

The Company recognized a derivative liability for the Temasek Funding Warrant of $19.4 million on July 29, 2015. On December 15, 2015, Temasek exercised the Temasek Funding Warrant for cash of $0.1 million. At the day of exercise, the Temasek Funding Warrant was valued at $18.9 million, being the fair value of the 12.7 million shares issued upon exercise of the warrant.

Derivative instruments measured at fair value as of December 31, 2015 and 2014, and their classification on the consolidated balance sheets are as follows (in thousands):

	December 31,	
	2015	2014
Fair market value of swap obligation	$5,009	$3,710
Fair value of compound embedded derivative liabilities	46,430	56,026
Total derivative liabilities	$51,439	$59,736

4. Balance Sheet Components

Inventories, net

Inventories are stated at the lower of cost or market and consist of the following (in thousands):

	December 31,	
	2015	2014
Raw materials	$2,204	$2,665
Work-in-process	3,583	5,269
Finished goods	5,099	6,572
Inventories, net	$10,886	$14,506

Prepaid Expenses and Other Current Assets

Prepaid expenses and other current assets are comprised of the following (in thousands):

	December 31,	
	2015	2014
Maintenance	$124	$399
Prepaid insurance	581	701
Manufacturing catalysts	2,698	1,166
Recoverable VAT and other taxes	—	2,411
Debt issuance costs	1,357	—
Other	1,112	1,857
Prepaid expenses and other current assets	$5,872	$6,534

Property, Plant and Equipment, net

Property, plant and equipment, net is comprised of the following (in thousands):

	December 31,	
	2015	2014
Leasehold improvements	$38,519	$39,132
Machinery and equipment	72,876	90,657
Computers and software	9,117	8,946
Furniture and office equipment	2,234	2,445
Buildings	3,922	6,321
Vehicles	215	353
Construction in progress	5,736	38,815
	132,619	186,669
Less: accumulated depreciation and amortization	(72,822)	(67,689)
Property, plant and equipment, net	$59,797	$118,980

The Company's first, purpose-built, large-scale Biofene production plant in southeastern Brazil commenced operations in December 2012. This plant is located at Brotas in the state of São Paulo, Brazil and is adjacent to an existing sugar and ethanol mill, Tonon Bioenergia S.A. (or “Tonon”) (formerly Paraíso Bioenergia) with which the Company has an agreement to purchase a certain number of tons of sugarcane per year, along with specified water and vapor volumes.

In July 2015, the Company announced that it was in discussions with São Martinho S.A. (“SMSA”) regarding the continuation of its joint venture with SMSA. In December 2015, the Company and SMSA agreed to terminate the joint venture. Pursuant to the Termination Agreement, the Company is required to remove the existing assets of the joint venture, which are currently situated on land owned by SMSA (the “SMSA site”).

As a result of the above developments, the Company recorded an impairment charge of $27.6 million (included in ‘Loss on purchase commitments, impairment of property, plant and equipment and other asset allowances’), related to the assets at the SMSA site with no alternative future use, for the year ended December 31, 2015 related to the SMSA site. The Company also recorded a $3.6 million reserve for moving and dismantling costs for the SMSA site and wrote-off $1.2 million of irrecoverable Brazilian VAT related to the assets at the SMSA site, both of which are included in 'Loss on purchase commitments, impairment of property, plant and equipment and other asset allowances'. If the Company's plans or estimate of the value of the remaining assets change, additional impairment charges may arise in future periods.

Property, plant and equipment, net includes $2.7 million and $4.1 million of machinery and equipment under capital leases as of December 31, 2015 and 2014, respectively. Accumulated amortization of assets under capital leases totaled $0.5 million and $2.3 million as of December 31, 2015 and 2014, respectively.

Depreciation and amortization expense, including amortization of assets under capital leases, was $12.8 million, $15.0 million and $16.6 million for the years ended December 31, 2015, 2014 and 2013, respectively.

Other Assets

Other assets are comprised of the following (in thousands):

	December 31,	
	2015	2014
Deposits on property and equipment, including taxes	$243	$1,738
Recoverable taxes from Brazilian government entities	8,887	9,747
Debt issuance costs	2,806	851
Other	1,214	1,299
Total other assets	$13,150	$13,635

Accrued and Other Current Liabilities

Accrued and other current liabilities are comprised of the following (in thousands):

	December 31,	
	2015	2014

Professional services	$4,017	$2,015
Accrued vacation	2,023	2,213
Payroll and related expenses	3,122	5,393
Tax-related liabilities	2,505	277
Withholding tax related to conversion of related party notes	4,723	—
Deferred rent, current portion	1,111	1,111
Accrued interest	1,984	1,308
SMA relocation accrual	3,641	—
Other	1,142	1,248
Total accrued and other current liabilities	$24,268	$13,565

5. Debt

Debt is comprised of the following (in thousands):

	December 31,	
	2015	2014
FINEP credit facility	$840	$1,614
BNDES credit facility	1,956	4,314
Hercules loan facility	31,653	29,779
Total credit facilities	34,449	35,707
Convertible notes	64,603	60,418
Related party convertible notes	43,029	115,239
Loans payable	13,975	21,097
Total debt	156,056	232,461
Less: current portion	(37,570)	(17,100)
Long-term debt	$118,486	$215,361

FINEP Credit Facility

In November 2010, the Company entered into a credit facility with Financiadora de Estudos e Projetos (or the FINEP Credit Facility). The FINEP Credit Facility was extended to partially fund expenses related to the Company's research and development project on sugarcane-based biodiesel (or the FINEP Project) and provides for loans of up to an aggregate principal amount of R$6.4 million (approximately US$1.6 million based on the exchange rate as of December 31, 2015) which is secured by a chattel mortgage on certain equipment of Amyris Brasil as well as by bank letters of guarantee. All available credit under this facility is fully drawn.

Interest on loans drawn under the FINEP Credit Facility is fixed at 5% per annum. In case of default under or non-compliance with the terms of the agreement, the interest on loans will be dependent on the long-term interest rate as published by the Central Bank of Brazil (such rate, the TJLP). If the TJLP at the time of default is greater than 6%, then the interest will be 5% plus a TJLP adjustment factor, otherwise the interest will be at 11% per annum. In addition, a fine of up to 10% shall apply to the amount of any obligation in default. Interest on late balances will be 1% interest per month, levied on the overdue amount. Payment of the outstanding loan balance is being made in 81 monthly installments, which commenced in July 2012 and extends through March 2019. Interest on loans drawn and other charges are paid on a monthly basis and commenced in March 2011. As of December 31, 2015 and 2014, the total outstanding loan balance under this credit facility was R$3.4 million (approximately US$0.9 million based on the exchange rate as of December 31, 2015) and R$4.3 million (approximately US$1.6 million based on exchange rate as of December 31, 2014), respectively.

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BNDES Credit Facility

In December 2011, the Company entered into a credit facility with the Brazilian Development Bank (or BNDES and such credit facility is the BNDES Credit Facility) in the amount of R$22.4 million (approximately US$5.7 million based on the exchange rate as of December 31, 2015). This BNDES Credit Facility was extended as project financing for a production site in Brazil. The credit line is divided into an initial tranche for up to approximately R$19.1 million and an additional tranche of approximately R$3.3 million that becomes available upon delivery of additional guarantees. The credit line was cancelled in 2013.

The principal of the loans under the BNDES Credit Facility is required to be repaid in 60 monthly installments, with the first installment due in January 2013 and the last due in December 2017. Interest will be due initially on a quarterly basis with the first installment due in March 2012. From and after January 2013, interest payments are due on a monthly basis together with principal payments. The loaned amounts carry interest of 7% per annum. Additionally, there is a credit reserve charge of 0.1% on the unused balance from each credit installment from the day immediately after it is made available through its date of use, when it is paid.

The BNDES Credit Facility is collateralized by a first priority security interest in certain of the Company's equipment and other tangible assets totaling R$24.9 million (approximately US$6.4 million based on the exchange rate as of December 31, 2015). The Company is a parent guarantor for the payment of the outstanding balance under the BNDES Credit Facility. Additionally, the Company was required to provide a bank guarantee equal to 10% of the total approved amount (R$22.4 million in total debt, approximately US$5.7 million based on the exchange rate as of December 31, 2015) available under the BNDES Credit Facility. For advances of the second tranche (above R$19.1 million, approximately US$4.9 million based on the exchange rate as of December 31, 2015), the Company is required to provide additional bank guarantees equal to 90% of each such advance, plus additional Company guarantees equal to at least 130% of such advance. The BNDES Credit Facility contains customary events of default, including payment failures, failure to satisfy other obligations under this credit facility or related documents, defaults in respect of other indebtedness, bankruptcy, insolvency and inability to pay debts when due, material judgments, and changes in control of Amyris Brasil. If any event of default occurs, BNDES may terminate its commitments and declare immediately due all borrowings under the facility. As of December 31, 2015 and 2014, the Company had R$7.6 million (approximately US$1.9 million based on the exchange rate as of December 31, 2015) and R$11.5 million (approximately US$4.3 million based on the exchange rate as of December 31, 2014), respectively, in outstanding advances under the BNDES Credit Facility.

Hercules Loan Facility

In March 2014, the Company entered into a Loan and Security Agreement with Hercules Technology Growth Capital, Inc. (or Hercules) to make available to Amyris a loan in the aggregate principal amount of up to $25.0 million (or the Hercules Loan Facility). The original Hercules Loan Facility accrues interest at a rate per annum equal to the greater of either the prime rate reported in the Wall Street Journal plus 6.25% or 9.50%. The Company may repay the loaned

amounts before the maturity date (generally February 1, 2017) if it pays an additional fee of 3% of the outstanding loans (1% if after the initial twelve-month period of the loan). The Company was also required to pay a 1% facility charge at the closing of the transaction, and is required to pay a 10% end of term charge. In connection with the original Hercules Loan Facility, Amyris agreed to certain customary representations and warranties and covenants, as well as certain covenants that were subsequently amended (as described below). The total available credit of $25.0 million under this facility was fully drawn down by the Company.

In June 2014, the Company and Hercules entered into a first amendment (or the "First Hercules Amendment") of the Loan and Security Agreement entered into in March 2014. Pursuant to the First Hercules Amendment, the parties agreed to adjust the term loan maturity date from May 31, 2015 to February 1, 2017 and remove (i) a requirement for the Company to pay a forbearance fee of $10.0 million in the event certain covenants were not satisfied, (ii) a covenant that the Company maintain positive cash flow commencing with the fiscal quarter beginning October 1, 2014, (iii) a covenant that, beginning with the fiscal quarter beginning July 1, 2014, the Company and its subsidiaries achieve certain projected cash product revenues and projected cash product gross profits, and (iv) an obligation for the Company to file a registration statement on Form S-3 with the SEC by no later than June 30, 2014 and complete an equity financing of more than $50.0 million by no later than September 30, 2014. The Company further agreed to include a new covenant requiring the Company to maintain unrestricted, unencumbered cash in an amount equal to at least 50% of the principal amount then outstanding under the Hercules Loan Facility and borrow an additional $5.0 million. The additional $5.0 million borrowing was completed in June 2014, and accrues interest at a rate per annum equal to the greater of either the prime rate reported in the Wall Street Journal plus 5.25% or 8.5%. The Hercules Loan Facility is secured by liens on the Company's assets, including on certain Company intellectual property. The Hercules Loan Facility includes customary events of default, including failure to pay amounts due, breaches of covenants and warranties, material adverse effect events cross defaults and judgments, and insolvency. If an event of default occurs, Hercules may require immediate repayment of all amounts due.

In March 2015, the Company and Hercules entered into a second amendment (or the “Second Hercules Amendment”) of the Hercules Loan Facility. Pursuant to the Second Hercules Amendment, the parties agreed to, among other things, establish an additional credit facility in the principal amount of up to $15.0 million, which would be available to be drawn by the Company through the earlier of March 31, 2016 or such time as the Company raised an aggregate of at least $20.0 million through the sale of new equity securities. Under the terms of the Second Hercules Amendment, the Company agreed to pay Hercules a 3.0% facility availability fee on April 1, 2015. If the facility was not canceled, and any outstanding borrowings were not repaid, before June 30, 2015, an additional 5.0% facility fee became payable on June 30, 2015. The Company did not pay the additional facility fee and thereafter received a waiver from Hercules with respect thereto. The Company had the ability to cancel the additional facility at any time prior to June 30, 2015 at its own option, and the additional facility would terminate upon the Company securing a new equity financing of at least $20.0 million. The additional facility was cancelled undrawn upon the completion of the Company’s private offering of common stock and warrants in July 2015.

In November 2015, the Company and Hercules entered into a third amendment (or the “Third Hercules Amendment”) of the Hercules Loan Facility. Pursuant to the Third Hercules Amendment, the Company borrowed $10,960,000 (or the “Third Hercules Amendment Borrowed Amount”) from Hercules on November 30, 2015. As of December 1, 2015, after the funding of the Third Hercules Amendment Borrowed Amount (and including repayment of $9.1 million of principal that had occurred prior to the Third Hercules Amendment), the aggregate principal amount outstanding under the Loan Facility was approximately $31.7 million. The Third Hercules Amendment Borrowed Amount accrues interest at a rate per annum equal to the greater of (i) 9.5% and (ii) the prime rate reported in the Wall Street Journal plus 6.25%, and, like the previous loans under the Hercules Loan Facility, has a maturity date of February 1, 2017. Upon the earlier of the maturity date, prepayment in full or such obligations otherwise becoming due and payable, in addition to repaying the outstanding Third Hercules Amendment Borrowed Amount (and all amounts owed under the Original Hercules Agreement, as amended), the Company is also required to pay Hercules an end-of-term charge of $767,200. Pursuant to the Third Hercules Amendment, the Company also paid Hercules fees of $1.0 million, $750,000 of which was owed in connection with the expired $15.0 million facility under the Second Hercules Amendment and $250,000 of which was related to the Third Hercules Amendment Borrowed Amount. Under the

Third Hercules Amendment, the parties agreed that the Company would, commencing on December 1, 2015, be required to pay only the interest accruing on all outstanding loans under the Loan Facility until February 29, 2016. Commencing on March 1, 2016, the Company would be required to begin repaying principal of all loans under the Loan Facility, in addition to the applicable interest. However, pursuant to the Third Hercules Amendment, the Company could, by achieving certain cash inflow targets in 2016, extend the interest-only period to December 1, 2016. If the achievement of those targets occurs after March 1, 2016, the Company could, after commencing the repayment of principal, revert to interest-only payments once the applicable target is achieved. Upon the issuance by the Company of $20.0 million of unsecured promissory notes and warrants in a private placement in February 2016 for aggregate cash proceeds of $20.0 million, the Company satisfied the conditions for extending the interest-only period to May 31, 2016. The Third Hercules Amendment Borrowed Amount is secured by the same liens provided for in the Original Hercules Agreement and the First Amendment, including a lien on certain Company intellectual property, and the preexisting covenants under the Loan Facility (including a covenant requiring the Company to maintain a minimum cash balance equal to at least 50% of the principal amount then outstanding) apply to the Loan Facility as amended.

As of December 31, 2015, $31.7 million was outstanding under the Hercules Loan Facility, net of discount of $0.3 million. The Hercules Loan Facility requires the Company to maintain unrestricted, unencumbered cash in certain U.S. bank accounts in an amount equal to at least 50% of the principal amount outstanding under such facility. In February 2016, the Company received a waiver from Hercules with respect to non-compliance with such covenants as of December 31, 2015.

As disclosed in footnote 1, there is substantial doubt about the Company’s ability to continue as a going concern. There is a possibility of the Company breaching the minimum cash covenant required by Hercules during the twelve months following the balance sheet date. Consequently all obligations under the Hercules Loan Facility agreements are classified as current liabilities at December 31, 2015. If Hercules accelerates repayment of the amounts due to it, this would trigger a cross default under other loan agreements of the Company, resulting in those amounts also falling immediately due and payable.

Convertible Notes

Fidelity

In February 2012, the Company completed the sale of senior unsecured convertible promissory notes in an aggregate principal amount of $25.0 million pursuant to a securities purchase agreement (or the Fidelity Securities Purchase Agreement), between the Company and certain investment funds affiliated with FMR LLC. The offering consisted of the sale of 3% senior unsecured convertible promissory notes with a March 1, 2017 maturity date and an initial conversion price equal to $7.0682 per share of the Company's common stock, subject to proportional adjustment for adjustments to outstanding common stock and anti-dilution provisions in case of dividends and distributions (or the Fidelity Notes). The note holders have a right to require repayment of 101% of the principal amount of the Fidelity Notes in an acquisition of the Company, and the notes provide for payment of unpaid interest on conversion following such an acquisition if the note holders do not require such repayment. The Fidelity Securities Purchase Agreement and Fidelity Notes include covenants regarding payment of interest, maintaining the Company's listing status, limitations on debt, maintenance of corporate existence, and filing of SEC reports. The Fidelity Notes include standard events of default resulting in acceleration of indebtedness, including failure to pay, bankruptcy and insolvency, cross-defaults, material adverse effect clauses and breaches of the covenants in the Fidelity Securities Purchase Agreement and Fidelity Notes, with default interest rates and associated cure periods applicable to the covenant regarding SEC reporting. Furthermore, the Fidelity Notes include restrictions on the amount of debt the Company is permitted to incur. With exceptions for certain existing debt, refinancing of such debt and certain other exclusions and waivers, the Fidelity Notes provide that the Company's total outstanding debt at any time cannot exceed the greater of $200.0 million or 50% of its consolidated total assets and its secured debt cannot exceed the greater of $125.0 million or 30% of its consolidated total assets. In connection with the Company’s closing of a short-term bridge loan for $35.0 million in October 2013 (or the Temasek Bridge Note) and the August 2013 Financing (defined below), holders of the Fidelity Notes waived compliance with the debt limitations outlined above as to such transactions. In consideration for such waiver, the Company granted to holders of the Fidelity Notes or their affiliates, the right to purchase up to an aggregate of $7.6 million worth of convertible promissory notes in the first tranche of the August 2013 Financing.

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Pursuant to a Securities Purchase Agreement among the Company, Maxwell (Mauritius) Pte Ltd (or Temasek) and Total, dated as of August 8, 2013 (or the August 2013 SPA), as amended in October 2013 to include certain entities affiliated with FMR LLC (or the Fidelity Entities) the Company sold and issued certain senior convertible notes (or the Tranche I Notes) pursuant to the financing (or the August 2013 Financing) exempt from registration under the Securities Act of 1933, as amended, (or the Securities Act) with an aggregate principal amount of $7.6 million of Tranche I Notes sold to the Fidelity Entities. See "Related Party Convertible Notes" in Note 5, "Debt."

2014 Rule 144A Convertible Note Offering

In May 2014, the Company entered into a Purchase Agreement with Morgan Stanley & Co. LLC, as the initial purchaser (or the “Initial Purchaser”), relating to the sale of $75.0 million aggregate in principal amount of its 6.50% Convertible Senior Notes due 2019 (or the "2014 144A Notes") to the Initial Purchaser in a private placement, and for initial resale by the Initial Purchaser to certain qualified institutional buyers (or the "2014 144A Convertible Note Offering"). In addition, the Company granted the Initial Purchaser an option to purchase up to an additional $15.0 million aggregate principal amount of 2014 144A Notes, which option expired according to its terms. Under the terms of the purchase agreement for the 2014 144A Notes, the Company agreed to customary indemnification of the Initial Purchaser against certain liabilities. The Notes were issued pursuant to an Indenture, dated as of May 29, 2014 (or the “2014 Indenture”), between the Company and Wells Fargo Bank, National Association, as trustee. The net proceeds from the offering of the 2014 144A Notes were approximately $72.0 million after payment of the Initial Purchaser’s discounts and offering expenses. In addition, in connection with obtaining a waiver from Total of its preexisting contractual right to exchange certain senior secured convertible notes previously issued by the Company for new notes issued in the offering, the Company used approximately $9.7 million of the net proceeds to repay previously issued notes (representing the amount of 2014 144A Notes purchased by Total from the Initial Purchaser). Certain of the Company's affiliated entities purchased $24.7 million in aggregate principal amount of 2014 144A Notes from the Initial Purchaser (described further below under "Related Party Convertible Notes"). The 2014 144A Notes bear interest at a rate of 6.50% per year, payable semiannually in arrears on May 15 and November 15 of each year, beginning November 15, 2014. The 2014 144A Notes mature on May 15, 2019, unless earlier converted or repurchased. The 2014 144A Notes are convertible into shares of the Company's common stock at any time prior to the close of business day on May 15, 2019. The 2014 144A Notes have an initial conversion rate of 267.037 shares of Common Stock per $1,000 principal amount of 2014 144A Notes (subject to adjustment in certain circumstances). This represents an initial effective conversion price of approximately $3.74 per share of common stock. For any conversion on or after May 15, 2015, in the event that the last reported sale price of the Company’s common stock for 20 or more trading days (whether or not consecutive) in a period of 30 consecutive trading days ending within five trading days immediately prior to the date the Company receives a notice of conversion exceeds the conversion price of $3.74 per share on each such trading day, the holders, in addition to the shares deliverable upon conversion, noteholders will be entitled to receive a cash payment equal to the present value of the remaining scheduled payments of interest that would have been made on the 2014 144A Notes being converted from the conversion date to the earlier of the date that is three years after the date the Company receives such notice of conversion and maturity (May 15, 2019), which will be computed using a discount rate of 0.75%. In the event of a fundamental change, as defined in the 2014 Indenture, holders of the 2014 144A Notes may require the Company to purchase all or a portion of the 2014 144A Notes at a price equal to 100% of the principal amount of the 2014 144A Notes, plus any accrued and unpaid interest to, but excluding, the fundamental change repurchase date. In addition, holders of the 2014 144A Notes who convert their 2014 144A Notes in connection with a make-whole fundamental change will, under certain circumstances, be entitled to an increase in the conversion rate. Refer to the “Exchange” and “Maturity Treatment Agreement” sections of this Note 5, "Debt", for details of the impact of the Maturity Treatment and Exchange

agreements on the 2014 144A Notes.

2015 Rule 144A Convertible Note Offering

On October 14, 2015, the Company entered into a purchase agreement with certain qualified institutional buyers relating to the sale of $57.6 million aggregate principal amount of its 9.50% Convertible Senior Notes due 2019 (or the "2015 144A Notes") to the purchasers in a private placement (or the "2015 144A Offering"). The Notes were issued pursuant to an Indenture, dated as of October 20, 2015 (or the "2015 Indenture"), between the Company and Wells Fargo Bank, National Association, as trustee. The net proceeds from the offering of the 2015 144A Notes were approximately $54.4 million after payment of the estimated offering expenses and placement agent fees. The Company used approximately $18.3 million of the net proceeds to repurchase $22.9 million aggregate principal amount of outstanding 2014 144A Notes and approximately $8.8 million to repurchase $9.7 million aggregate principal amount of outstanding Fidelity Notes, in each case held by purchasers of the 2015 144A Notes. The 2015 144A Notes bear interest at a rate of 9.50% per year, payable semiannually in arrears on April 15 and October 15 of each year, with the first such interest payment to be made on April 15, 2016. Interest may be payable, at the Company's option, entirely in cash or entirely in common stock. The 2015 144A Notes will mature on April 15, 2019 unless earlier converted or repurchased.

The 2015 144A Notes are convertible into shares of the Company's common stock at any time prior to the close of business on April 15, 2019. The 2015 144A Notes have an initial conversion rate of 443.6557 shares of Common Stock per $1,000 principal amount of 2015 144A Notes (subject to adjustment in certain circumstances). This represents an initial effective conversion price of approximately $2.25 per share of common stock. Following the issuance by the Company of warrants to purchase common stock in a private placement transaction in February 2016, as described below, the conversion rate of the 2015 144A Notes was adjusted to 445.2252 shares of Common Stock per $1,000 principal amount of 2015 144A Notes. For any conversion on or after November 27, 2015, in addition to the shares deliverable upon conversion, will be entitled to receive a payment equal to the present value of the remaining scheduled payments of interest that would have been made on the 2015 144A Notes being converted from the conversion date to the earlier of the date that is three years after the date the Company receives such notice of conversion and maturity (April 15, 2019), which will be computed using a discount rate of 0.75%. The Company may make such payment (the "Early Conversion Payment") either in cash or in common stock, at its election, provided that it may only make such payment in common stock if such common stock is not subject to restrictions on transfer under the Securities Act by persons other than the Company's affiliates. If the Company elects to pay an Early Conversion Payment in common stock, then the stock will be valued at 92.5% of the simple average of the daily volume-weighted average price per share for the 10 trading days ending on and including the trading day immediately preceding the conversion date. In the event of a fundamental change, as defined in the 2015 Indenture, holders of the 2015 144A Notes may require the Company to purchase all or a portion of the 2015 144A Notes at a price equal to 100% of the principal amount of the 2015 144A Notes, plus any accrued and unpaid interest to, but excluding, the fundamental change repurchase date. In addition, holders of the 2015 144A Notes who convert their 2015 144A Notes in connection with a make-whole fundamental change will, under certain circumstances, be entitled to an increase in the conversion rate. The issuance of shares of common stock upon conversion of the 2015 144A Notes, upon the Company's election to pay interest on the 2015 144A Notes in shares of common stock and upon the Company's election to pay the Early Conversion Payment in shares of common stock in an aggregate amount in excess of 38,415,626 shares of the Company's common stock is subject to stockholder approval, which the Company intends to solicit at its 2016 annual meeting of stockholders.

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Related Party Convertible Notes

Total R&D Convertible Notes

In July 2012 and December 2013, the Company entered into a series of agreements with Total (or the "Total Fuel Agreements") that expanded Total's investment in the Biofene collaboration with the Company, provided a new structure for a joint venture (or the "Fuels JV") to commercialize the products encompassed by the diesel and jet fuel research and development program (or the "Program"), and established a convertible debt structure for the collaboration funding from Total.

The purchase agreement for the notes related to the funding from Total (or the “Total Purchase Agreement”) provided for the sale of an aggregate of $105.0 million in 1.5% Senior Unsecured Convertible Notes due March 2017 (the “Unsecured R&D Notes”) as follows:

- As part of an initial closing under the purchase agreement (which was completed in two installments), (i) on July 30, 2012, the Company sold an Unsecured R&D Note with a principal amount of $38.3 million, including $15.0 million in new funds and $23.3 million in previously-provided diesel research and development funding by Total, and (ii) on September 14, 2012, the Company sold another Unsecured R&D Note for $15.0 million in new funds from Total.
- At a second closing under the Total Purchase Agreement (also completed in two installments) the Company sold additional Unsecured R&D Notes for an aggregate of $30.0 million in new funds from Total ($10.0 million in June 2013 and $20.0 million in July 2013).
- At a third closing under the Total Purchase Agreement (also completed in two installments) the Company sold additional Unsecured R&D Notes for an aggregate of $21.7 million in new funds from Total ($10.85 million in July 2014 and $10.85 million in January 2015) (or the “Third Closing Notes”).

The Unsecured R&D Notes have a maturity date of March 1, 2017, an initial conversion price equal to $7.0682 per share for the Unsecured R&D Notes issued under the initial closing, an initial conversion price equal to $3.08 per share for the Unsecured R&D Notes issued under the second closing and an initial conversion price equal to $4.11 per share for the Unsecured R&D Notes issued in the third closing. The Unsecured R&D Notes bear interest of 1.5% per annum (with a default rate of 2.5%), accruing from the date of funding and payable at maturity or on conversion or a change of control where Total exercises the right to require the Company to repay the notes. Accrued interest is partially or fully cancelled if the Unsecured R&D Notes are cancelled based on a final decision by Total to go forward with the fuels collaboration (either partially with respect to jet fuel or fully with respect to jet fuel and diesel (a “Go” decision) (see Note 8, "Significant Agreements"). The agreements contemplate that the research and development efforts under the Program may extend through 2016, with a series of “Go/No Go” decisions (see Note 8, "Significant Agreements") by Total through such date tied to funding by Total.

The Unsecured R&D Notes become convertible into the Company's common stock (i) within 10 trading days prior to maturity (if they are not cancelled as described above prior to their maturity date), (ii) on a change of control of the Company, (iii) if Total is no longer the largest stockholder of the Company following a “No-Go” decision (subject to a six-month lock-up with respect to any shares of common stock issued upon conversion), and (iv) on a default by the Company. If Total makes a final “Go” decision with respect to the full fuels collaboration, then the Unsecured R&D Notes will be exchanged by Total for equity interests in the Fuels JV, after which the Unsecured R&D Notes will not be convertible and any obligation to pay principal or interest on the Unsecured R&D Notes will be extinguished. In case of a “Go” decision only with respect to jet fuel, the parties would form an operational joint venture only for jet fuel (and the rights associated with diesel would terminate), 70% of the outstanding Unsecured R&D Notes would remain outstanding and become payable by the Company, and 30% of the outstanding Unsecured R&D Notes would be cancelled. If Total makes a “No-Go” decision, outstanding Unsecured R&D Notes will remain outstanding and become payable at maturity.

In March 2013, the Company entered into a letter agreement with Total (or the March 2013 Letter Agreement) under which Total agreed to waive its right to cease its participation in the parties' fuels collaboration at the July 2013 decision point and committed to proceed with the July 2013 funding tranche of $30.0 million (subject to the Company's satisfaction of the relevant closing conditions for such funding in the Total Purchase Agreement). As consideration for this waiver and commitment, the Company agreed to:

- reduce the conversion price for the $30.0 million in principal amount of Unsecured R&D Notes to be issued in connection with the second closing of the Unsecured R&D Notes (as described above) from $7.0682 per share to a price per share equal to the greater of (i) the consolidated closing bid price of the Company's common stock on the date of the March 2013 Letter Agreement, plus $0.01, and (ii) $3.08 per share, provided that the conversion price would not be reduced by more than the maximum possible amount permitted under the rules of The NASDAQ Stock Market (or "NASDAQ") such that the new conversion price would require the Company to obtain stockholder consent; and

- grant Total a senior security interest in the Company's intellectual property, subject to certain exclusions and subject to release by Total when the Company and Total enter into final documentation regarding the establishment of the Fuels JV.

In addition to the waiver by Total described above, Total also agreed that, at the Company's request and contingent upon the Company meeting its obligations described above, it would pay advance installments of the amounts otherwise payable at the second closing.

In June 2013, the Company sold and issued $10.0 million in principal amount of Unsecured R&D Notes to Total pursuant to the second closing of the Unsecured R&D Notes as discussed above. In accordance with the March 2013 Letter Agreement, this Unsecured R&D Note had an initial conversion price equal to $3.08 per share of the Company's common stock.

In July 2013, the Company sold and issued $20.0 million in principal amount of Unsecured R&D Notes to Total pursuant to the Total second closing of the Unsecured R&D Notes as discussed above. This purchase and sale completed Total's commitment to purchase $30.0 million of the Unsecured R&D Notes in the second closing by July 2013. In accordance with the March 2013 Letter Agreement, this Unsecured R&D Note has an initial conversion price equal to $3.08 per share of the Company's common stock.

The conversion prices of the Unsecured R&D Notes were subject to adjustment for proportional adjustments to outstanding common stock and under anti-dilution provisions in case of certain dividends and distributions. Total had a right to require repayment of 101% of the principal amount of the Unsecured R&D Notes in the event of a change of control of the Company and the Unsecured R&D Notes provided for payment of unpaid interest on conversion following such a change of control if Total did not require such repayment. The Total Purchase Agreement and Unsecured R&D Notes included covenants regarding payment of interest, maintenance of the Company's listing status, limitations on debt, maintenance of corporate existence, and filing of SEC reports. The Unsecured R&D Notes include standard events of default resulting in acceleration of indebtedness, including failure to pay, bankruptcy and insolvency, cross-defaults, and breaches of the covenants in the Total Purchase Agreement and Unsecured R&D Notes, with added default interest rates and associated cure periods applicable to the covenant regarding SEC reporting. Furthermore, the Unsecured R&D Notes included restrictions on the amount of debt the Company is permitted to incur. With exceptions for certain existing debt, refinancing of such debt and certain other exclusions and waivers, the Unsecured R&D Notes provided that the Company's total outstanding debt at any time could not exceed the greater of $200.0 million or 50% of its consolidated total assets and its secured debt could not exceed the greater of $125.0 million or 30% of its consolidated total assets. In connection with the Company’s closing of the Temasek Bridge Note for $35.0 million and the August 2013 Financing and in connection with the 2014 144A Offering in May 2014, Total waived compliance with the debt limitations outlined above as to the Temasek Bridge Note, the August 2013 Financing, the 2014 144A Offering and the 2015 144A Offering.

In December 2013, in connection with the Company's entry into a Shareholders Agreement dated December 2, 2013 and License Agreement dated December 2, 2013 (or, collectively, the “JV Documents”) with Total and Total Amyris BioSolutions B.V. (or “TAB”) relating to the establishment of TAB (see Note 7, "Joint Ventures and Noncontrolling Interest"), the Company (i) exchanged the $69.0 million of the then-outstanding Unsecured R&D Notes issued pursuant to the Total Purchase Agreement for replacement 1.5% Senior Secured Convertible Notes due March 2017 (or the “Secured R&D Notes”, or together with the Unsecured R&D Notes, the “R&D Notes”), in principal amounts equal to the principal amount of each cancelled note and with substantially similar terms except that such replacement notes were secured, (ii) granted to Total a security interest in and lien on all Amyris’ rights, title and interest in and to Company’s shares in the capital of TAB and (iii) agreed that any securities to be purchased and sold at the third closing under the Total Purchase Agreement by Total would be Secured R&D Notes instead of Unsecured R&D Notes. As a consequence of executing the JV Documents and forming TAB, the security interest in all of the Company's intellectual property, granted by the Company in favor of Total, Temasek, and certain Fidelity Entities pursuant to the Restated Intellectual Property Security Agreement dated as of October 16, 2013, were automatically terminated effective as of December 2, 2013 upon Total’s and the Company’s joint written notice to Temasek and the Fidelity Entities.

In April 2014, the Company and Total entered into a letter agreement dated as of March 29, 2014 (or the “March 2014 Total Letter Agreement”) to amend the Amended and Restated Master Framework Agreement entered into as of

December 2, 2013 (included as part of JV Documents) and the Total Purchase Agreement. Under the March 2014 Total Letter Agreement, the Company agreed to, (i) amend the conversion price of the Secured R&D Notes to be issued in the third closing under the Total Purchase Agreement from $7.0682 per share to $4.11 per share subject to stockholder approval at the Company's 2014 annual meeting (which was obtained in May 2014), (ii) extend the period during which Total may exchange for other Company securities Secured R&D Notes issued under the Total Fuel Agreements from June 30, 2014 to the later of December 31, 2014 and the date on which the Company shall have raised $75.0 million of equity and/or convertible debt financing (excluding any convertible promissory notes issued pursuant to the Total Purchase Agreement), (iii) eliminate the Company’s ability to qualify, in a disclosure letter to Total, certain of the representations and warranties that the Company must make at the closing of any third closing sale, and (iv) beginning on March 31, 2014, provide Total with monthly reporting on the Company’s cash, cash equivalents and short-term investments. In consideration of these agreements, Total agreed to waive its right not to consummate the closing of the issuance of the Third Closing Notes if it had decided not to proceed with the collaboration and had made a "No-Go" decision with respect thereto.

In July 2014, the Company sold and issued a Secured R&D Note to Total with a principal amount of $10.85 million with a March 1, 2017 maturity date pursuant to the Total Purchase Agreement. This purchase and sale constituted the initial installment of the $21.7 million third closing described above. In accordance with the March 2014 Total Letter Agreement, this convertible note had an initial conversion price equal to $4.11 per share of the Company's common stock.

In January 2015, the Company sold and issued a Secured R&D Note to Total with a principal amount of $10.85 million with a March 1, 2017 maturity date pursuant to the Total Purchase Agreement. This purchase and sale constituted the final installment of the $21.7 million third closing described above. In accordance with the March 2014 Total Letter Agreement, this convertible note had an initial conversion price equal to $4.11 per share of the Company's common stock. Refer to the “Exchange” section of this Note 5, "Debt", for details of the impact of the Exchange Agreement on the R&D Notes.

As of December 31, 2015 and 2014, $5.0 million and $51.0 million, respectively, of R&D Notes were outstanding, net of debt discount of $0.0 million and $13.1 million, respectively.

August 2013 Financing Convertible Notes and Temasek Bridge Note

In connection with the August 2013 Financing, the Company entered into the August 2013 Share Purchase Agreement with Total and Temasek to sell up to $73.0 million in convertible promissory notes in private placements, with such notes to be sold and issued over a period of up to 24 months from the date of signing. The August 2013 SPA provided for the August 2013 Financing to be divided into two tranches (the first tranche for $42.6 million and the second tranche for $30.4 million), each with differing closing conditions. Of the total possible purchase price in the financing, $60.0 million was paid in the form of cash by Temasek ($35.0 million in the first tranche and up to $25.0 million in the second tranche) and $13.0 million was paid by the exchange and cancellation of outstanding convertible promissory notes held by Total in connection with its exercise of pro rata rights ($7.6 million in the first tranche and $5.4 million in the second tranche). The August 2013 SPA included requirements that the Company meet certain production milestones before the second tranche would become available, obtain stockholder approval prior to completing any closing of the transaction, and issue a warrant to Temasek to purchase 1,000,000 shares of the Company's common stock at an exercise price of $0.01 per share, exercisable only if Total converts notes previously issued to Total in the second closing under the Total Purchase Agreement. In September 2013, prior to the initial closing of the August 2013 Financing, the Company's stockholders approved the issuance in the private placement of up to $110.0 million aggregate principal amount of senior convertible promissory notes, the issuance of a warrant to purchase 1,000,000 shares of the Company's common stock and the issuance of the common stock issuable upon conversion or exercise of such notes and warrant, which approval included the transactions contemplated by the August 2013 Financing.

In October 2013, the Company sold and issued the Temasek Bridge Note in exchange for a bridge loan of $35.0 million. The Temasek Bridge Note was due on February 2, 2014 and accrued interest at a rate of 5.5% quarterly from the October 4, 2013 date of issuance. The Temasek Bridge Note was cancelled on October 16, 2013 as payment for Temasek's purchase of Tranche I Notes in the first tranche of the August 2013 Financing as further described below.

In October 2013, the Company amended the August 2013 SPA to include Fidelity Entities in the first tranche of the August 2013 Financing with an investment amount of $7.6 million, and to proportionally increase the amount acquired by exchange and cancellation of outstanding R&D Notes held by Total in connection with its exercise of pro rata rights up to $14.6 million ($9.2 million in the first tranche and up to $5.4 million in the second tranche). Also in October 2013, the Company completed the closing of the first tranche of the August 2013 Financing, issuing a total of $51.8 million in Tranche I Notes for cash proceeds of $7.6 million and cancellation of outstanding convertible promissory notes of $44.2 million, of which $35.0 million resulted from cancellation of the Temasek Bridge Note and the remaining $9.2 million from the exchange and cancellation of an outstanding Total Note. As a result of the exchange and cancellation of the $35.0 million Temasek Bridge Note and the $9.2 million Total Note for the Tranche I Notes, the Company recorded a loss from extinguishment of debt of $19.9 million. The Tranche I Notes are due sixty months from the date of issuance and will be convertible into the Company's common stock at a conversion price equal to $2.44, which represents a 15% discount to a trailing 60-day weighted-average closing price of the common stock on The NASDAQ Stock Market (or NASDAQ) through August 7, 2013, subject to certain adjustments. The Tranche I Notes are convertible at the option of the holder: (i) at any time after 18 months from the date of the August 2013 SPA, (ii) on a change of control of the Company and (iii) upon the occurrence of an event of default. The conversion price of the Tranche I Notes will be reduced to $2.15 if (a) (i) a specified Company manufacturing plant failed to achieve a total production of 1.0 million liters within a run period of 45 days prior to June 30, 2014, or (ii) the Company fails to achieve gross margins from product sales of at least 5% prior to June 30, 2014, or (b) the Company reduces the conversion price of certain existing promissory notes held by Total prior to the repayment or conversion of the Tranche I Notes. In 2013, the Company achieved a total production of 1.0 million liters within a run period of 45 days in satisfaction of clause (a)(i) of the preceding sentence and the Company achieved clause (a)(ii) by achieving 8% gross margins from product sales prior to June 30, 2014. Each Tranche I Note accrues interest from the date of issuance until the earlier of the date that such Tranche I Note is converted into the Company's common stock or is repaid in full. Interest accrues at a rate of 5% per six months, compounded semiannually (with graduated interest rates of 6.5% applicable to the first 180 days and 8% applicable thereafter as the sole remedy should the Company fail to maintain NASDAQ listing status or at 6.5% for all other defaults). Interest for the first 30 months is payable in kind and added to the principal every six-months and thereafter, the Company may continue to pay interest in kind by adding to the principal every six-months or may elect to pay interest in cash. The Tranche I Notes may be prepaid by the Company after 30 months from the issuance date and initial interest payment; thereafter the Company has the option to prepay the Tranche I Notes every six months at the date of payment of the semi-annual coupon.

In January 2014, the Company sold and issued, for face value, approximately $34.0 million of convertible promissory notes in the second tranche of the August 2013 Financing (or the Tranche II Notes). At the closing, Temasek purchased $25.0 million of the Tranche II Notes and Wolverine Asset Management, LLC (or Wolverine) purchased $3.0 million of the Tranche II Notes, each for cash. Total purchased approximately $6.0 million of the Tranche II Notes through cancellation of the same amount of principal of previously outstanding R&D Notes held by Total. As a result of the exchange and cancellation of the $6.0 million Total Note for the Tranche II Notes, the Company recorded a loss from extinguishment of debt of $9.4 million. The Tranche II Notes will be due sixty months from the date of issuance and will be convertible into shares of common stock at a conversion price equal to $2.87 per share, which represents a trailing 60-day weighted-average closing price of the common stock on NASDAQ through August 7,

2013, subject to certain adjustments. Specifically, the Tranche II Notes are convertible at the option of the holder (i) at any time 12 months after issuance, (ii) on a change of control of the Company, and (iii) upon the occurrence of an event of default. Each Tranche II Note will accrue interest from the date of issuance until the earlier of the date that such Tranche II Note is converted into common stock or repaid in full. Interest will accrue at a rate per annum equal to 10%, compounded annually (with graduated interest rates of 13% applicable to the first 180 days and 16% applicable thereafter as the sole remedy should the Company fail to maintain NASDAQ listing status or at 12% for all other defaults). Interest for the first 36 months shall be payable in kind and added to principal every year following the issue date and thereafter, the Company may continue to pay interest in kind by adding to principal on every year anniversary of the issue date or may elect to pay interest in cash.

In addition to the conversion price adjustments set forth above, the conversion prices of the Tranche I Notes and Tranche II Notes are subject to further adjustment (i) according to proportional adjustments to outstanding common stock of the Company in case of certain dividends and distributions, (ii) according to anti-dilution provisions, and (iii) with respect to notes held by any purchaser other than Total, in the event that Total exchanges existing convertible notes for new securities of the Company in connection with future financing transactions in excess of its pro rata amount. Notwithstanding the foregoing, holders of a majority of the principal amount of the notes outstanding at the time of conversion may waive any anti-dilution adjustments to the conversion price. The purchasers have a right to require repayment of 101% of the principal amount of the notes in the event of a change of control of the Company and the notes provide for payment of unpaid interest on conversion following such a change of control if the purchasers do not require such repayment. The August 2013 SPA, Tranche I Notes and Tranche II Notes include covenants regarding payment of interest, maintenance of the Company’s listing status, limitations on debt and on certain liens, maintenance of corporate existence, and filing of SEC reports. The notes include standard events of default resulting in acceleration of indebtedness, including failure to pay, bankruptcy and insolvency, cross-defaults, and breaches of the covenants in the August 2013 SPA, Tranche I Notes and Tranche II Notes, with default interest rates and associated cure periods applicable to the covenant.

The conversion price of the Tranche I Notes and Tranche II Notes was reset to $1.42 per share upon the completion of the Private Offering in July 2015. Following the issuance by the Company of warrants to purchase common stock in a private placement transaction in February 2016, as described below, the conversion price of the Tranche I Notes and Tranche II Notes was further adjusted to $1.40 per share.

As of December 31, 2015 and 2014, the related party convertible notes outstanding under the Tranche I Notes and Tranche II Notes were $23.3 million and $49.2 million, respectively, net of debt discount of $0.0 million and $30.7 million, respectively. The debt discount is the result of the bifurcation of the conversion options that contain "make-whole" provisions or down round conversion price adjustment provisions associated with the outstanding debt. Refer to the “Exchange” and “Maturity Treatment Agreement” sections of this Note 5, "Debt", for details of the impact of the Maturity Treatment and Exchange Agreements on the Tranche I and II Notes.

2014 144A Notes Sold to Related Parties

As discussed above under “2014 Rule 144A Convertible Note Offering”, the Company sold and issued $75.0 million aggregate principal amount of 2014 144A Notes pursuant to Rule 144A of the Securities Act. In connection with obtaining a waiver from one of its existing investors, Total, of its preexisting contractual right to exchange certain senior secured convertible notes previously issued by Amyris pursuant to the Total Purchase Agreement for 2014 144A Notes issued in the transaction, Amyris used approximately $9.7 million of the net proceeds to repay such amount of previously issued R&D Notes held by Total, which represented the amount of 2014 144A Notes purchased by Total from the Initial Purchaser under the 2014 144A Offering. As a result of the settlement of the $9.7 million of R&D Notes, the Company recorded a loss from extinguishment of debt of $1.1 million in the year ended December 31, 2014.

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Additionally, Foris Ventures, LLC and Temasek each participated in the 2014 Rule 144A Convertible Note Offering and purchased $5.0 million and $10.0 million, respectively, of the convertible promissory notes sold thereunder.

As of December 31, 2015 and 2014, there was $52.1 million and $75.0 million in outstanding principal amount of the 2014 144A Notes, respectively.

As of December 31, 2015, the related party convertible notes outstanding under the 2014 Rule 144A Convertible Note Offering were $14.6 million, net of discount of $1.6 million.

As of December 31, 2015 and 2014, the total related party convertible notes outstanding were $43.0 million and $115.2 million, respectively, net of discount of $1.6 million and $53.8 million, respectively. For the years ended December 31, 2015, 2014 and 2013, the Company recorded a loss from extinguishment of debt from the exchange and cancellation of related party convertible notes of $5.9 million, $10.5 million, and $19.9 million, respectively.

Loans Payable

In July 2012, the Company entered into a Note of Bank Credit and a Fiduciary Conveyance of Movable Goods Agreement (together, the "July 2012 Bank Agreements") with each of Nossa Caixa Desenvolvimento (or “Nossa Caixa”) and Banco Pine S.A. (or “Banco Pine”). Under the July 2012 Bank Agreements, the Company pledged certain farnesene production assets as collateral for the loans of R$52.0 million. The Company's total acquisition cost for such pledged assets was approximately R$68.0 million (approximately US$17.4 million based on the exchange rate as of December 31, 2015). The Company is also a parent guarantor for the payment of the outstanding balance under these loan agreements. Under the July 2012 Bank Agreements, the Company could borrow an aggregate of R$52.0 million (approximately US$13.3 million based on the exchange rate as of December 31, 2015) as financing for capital expenditures relating to the Company's manufacturing facility located in Brotas, Brazil. Specifically, Banco Pine, agreed to lend R$22.0 million and Nossa Caixa agreed to lend R$30.0 million. The funds for the loans are provided by BNDES, but are guaranteed by the lenders. The loans have a final maturity date of July 15, 2022 and bear a fixed interest rate of 5.5% per year. The loans are also subject to early maturity and delinquency charges upon occurrence of certain events including interruption of manufacturing activities at the Company's manufacturing facility in Brotas, Brazil for more than 30 days, except during the sugarcane off-season. For the first two years that the loans are outstanding, the Company is required to pay interest only on a quarterly basis. Since August 15, 2014, the Company has been required to pay equal monthly installments of both principal and interest for the remainder of the term of the loans. As of December 31, 2015 and 2014, a principal amount of $11.0 million and $18.6 million, respectively, was outstanding under these loan agreements.

In March 2013, the Company entered into an export financing agreement with Banco ABC Brasil S.A. (or “ABC”) for approximately $2.5 million to fund exports through March 2014. This loan was collateralized by future exports from the Company's subsidiary in Brazil. In March 2014, the Company entered into an additional export financing agreement with ABC for approximately $2.2 million to fund exports through March 2015. This loan is collateralized by future exports from the Company's subsidiary in Brazil. In April, 2015, the Company entered into an additional export financing agreement with ABC for approximately $1.6 million to fund exports through March 2016. This loan is collateralized by future exports from the Company's subsidiary in Brazil. As of December 31, 2015, the principal amount outstanding under this agreement was $1.6 million. The Company is also a parent guarantor for the payment of the outstanding balance under these loan agreements.

In October 2013, the Company entered into a financing arrangement with a third party for the monthly payments of its insurance premiums of $0.6 million payable in nine monthly installments of principal and interest. Interest accrues at a rate of 3.24% per annum. The installment payments were concluded in 2014. In October 2014, the Company agreed to a new installment plan amounting to $0.6 million to pay for the current insurance premiums under the same terms. As of December 31, 2015 and 2014, the outstanding unpaid installment payments were zero and $0.3 million, respectively.

Exchange (debt conversion)

On July 29, 2015, the Company closed the "Exchange" pursuant to that certain Exchange Agreement, dated as of July 26, 2015 (the “ Exchange Agreement ”), among the Company, Temasek and Total.

Under the Exchange Agreement, at the closing, Temasek exchanged $71.0 million in principal amount of outstanding Tranche I and Tranche II Notes (including paid-in-kind and accrued interest through July 29, 2015) and Total exchanged $70.0 million in principal amount of outstanding R&D Notes for shares of the Company’s common stock. The exchange price was $2.30 per share (the “Exchange Price”) and was paid by the exchange and cancellation of such outstanding convertible promissory notes, and Temasek and Total received 30,860,633 and 30,434,782 shares of the Company’s common stock, respectively, in the Exchange. As a result of the Exchange, accretion of debt discount was accelerated based on the Company’s estimate of the expected conversion date, resulting in an additional interest expense of $39.2 million for the year ended December 31, 2015.

Under the Exchange Agreement, Total also received the following warrants, each with a five-year term, at the closing:

- A warrant to purchase 18,924,191 shares of the Company’s Common Stock (the “Total Funding Warrant”).

- A warrant to purchase 2,000,000 shares of the Company's common stock that will only be exercisable if the Company fails, as of March 1, 2017, to achieve a target cost per liter to manufacture farnesene (the "Total R&D Warrant"). The Total Funding Warrant and the Total R&D Warrant are collectively referred to as the "Total Warrants."

Additionally, under the Exchange Agreement, Temasek received the following warrants:

- A warrant to purchase 14,677,861 shares of the Company's common stock (the "Temasek Exchange Warrant").

- A warrant exercisable for that number of shares of the Company's common stock equal to (1) (A) the number of shares for which Total exercises the Total Funding Warrant plus (B) the number of additional shares for which the certain convertible notes remaining outstanding following the completion of the Exchange may become exercisable as a result of a reduction in the conversion price of such remaining notes as of a result of and/or subsequent to the date of the Exchange plus (C) that number of additional shares in excess of 2,000,000, if any, for which the Total R&D Warrant becomes exercisable multiplied by a fraction equal to 30.6% divided by 69.4% plus (2) (A) the number of any additional shares for which certain other outstanding convertible promissory notes may become exercisable as a result of a reduction to the conversion price of such notes multiplied by (B) a fraction equal to 13.3% divided by 86.7% (the "Temasek Funding Warrant").

- A warrant exercisable for that number of shares of the Company's common stock equal to 880,339 multiplied by a fraction equal to the number of shares for which Total exercises the Total R&D Warrant divided by 2,000,000. If Total is entitled to, and does, exercise the Total R&D Warrant in full, this warrant would be exercisable for 880,339 shares (the "Temasek R&D Warrant").

The Temasek Exchange Warrant, the Temasek Funding Warrant and the Temasek R&D Warrant each have ten-year terms and are referred to herein as the "Temasek Warrants" and, the Temasek Warrants and Total Warrants are hereinafter collectively referred to as the "Exchange Warrants". All of the Exchange Warrants have an exercise price of $0.01 per share.

In addition to the grant of the Exchange Warrants, a warrant issued by the Company to Temasek in October 2013 in conjunction with a prior convertible debt financing (the "2013 Warrant") became exercisable in full upon the completion of the Exchange. There were 1,000,000 shares underlying the 2013 Warrant, with an exercise price of $0.01 per share.

The exercisability of all of the Exchange Warrants was subject to stockholder approval, which was obtained on September 17, 2015.

As of December 31, 2015, the Total Funding Warrant, the Temasek Exchange Warrant, the Temasek Funding Warrant, and the 2013 Warrant had been fully exercised. Neither the Total R&D Warrant nor the Temasek R&D Warrant were exercisable as of December 31, 2015.

Maturity Treatment Agreement

At the closing of the Exchange, the Company, Total and Temasek also entered into a Maturity Treatment Agreement, dated as of July 29, 2015, pursuant to which Total and Temasek agreed to convert any Tranche I Notes, Tranche II Notes or 2014 144A Notes held by them that were not cancelled in the Exchange (the "Remaining Notes") into shares of the Company's common stock in accordance with the terms of such Remaining Notes upon maturity, provided that certain events of default have not occurred with respect to the applicable Remaining Notes prior to such maturity. As of immediately following the closing of the Exchange, Temasek held $10.0 million in aggregate principal amount of Remaining Notes (being 2014 144A Notes) and Total held approximately $25.0 million in aggregate principal amount of Remaining Notes (being $9.7 million of 2014 144A Notes and $15.3 million of Tranche I and II Notes).

In conjunction with the closing of the Exchange and Maturity Treatment Agreements on July 29, 2015, $178.1 million of convertible debt was extinguished and a $5.9 million loss on extinguishment was recognized in the year ended December 31, 2015. The Remaining Notes were recorded at fair value. The Company also agreed to pay Temasek's

withholding tax arising on the conversion of its convertible notes, resulting in a $4.7 million expense recognized in the year ended December 31, 2015.

Letters of Credit

In June 2012, the Company entered into a letter of credit agreement for $1.0 million under which it provided a letter of credit to the landlord for its headquarters in Emeryville, California in order to cover the security deposit on the lease. This letter of credit is secured by a certificate of deposit. Accordingly, the Company has $1.0 million as restricted cash under this arrangement as of December 31, 2015 and 2014.

Future minimum payments under the debt agreements as of December 31, 2015 are as follows (in thousands):

Years ending December 31:	Related Party Convertible Debt	Convertible Debt	Loans Payable	Credit Facility	Total
2016	$ 1,255	$ 11,426	$ 5,341	$ 37,919	$ 55,941
2017	6,460	24,841	2,120	1,279	34,700
2018	16,476	18,610	2,030	267	37,383
2019	35,145	90,965	1,939	65	128,114
2020	—	—	1,849	—	1,849
Thereafter	—	—	2,743	—	2,743
Total future minimum payments	59,336	145,842	16,022	39,530	260,730
Less: amount representing interest[(1)]	(21,833)	(81,240)	(2,046)	(5,081)	(110,200)
Present value of minimum debt payments	37,503	64,602	13,976	34,449	150,530
Less: current portion	—	—	(4,681)	(32,889)	(37,570)
Add: fair value change due to conversions	5,526	—	—	—	5,526
Noncurrent portion of debt	$ 43,029	$ 64,602	$ 9,295	$ 1,560	$ 118,486

(1) Including debt discount of $48.6 million related to the embedded derivative associated with the related party and non-related party convertible debt which will be accreted to interest expense under the effective interest method over the term of the convertible debt.

6. Commitments and Contingencies

Lease Obligations

The Company leases certain facilities and finances certain equipment under operating and capital leases, respectively. Operating leases include leased facilities and capital leases include leased equipment (see Note 4, "Balance Sheet Components"). The Company recognizes rent expense on a straight-line basis over the non-cancellable lease term and

records the difference between cash rent payments and the recognition of rent expense as a deferred rent liability. Where leases contain escalation clauses, rent abatements, and/or concessions, such as rent holidays and landlord or tenant incentives or allowances, the Company applies them as straight-line rent expense over the lease term. The Company has non-cancellable operating lease agreements for office, research and development, and manufacturing space that expire at various dates, with the latest expiration in February 2031. Rent expense under operating leases was $5.5 million, $5.4 million and $4.8 million, for the years ended December 31, 2015, 2014 and 2013, respectively.

In December 2011, the Company executed an equipment financing agreement for $3.0 million for certain qualifying manufacturing and laboratory equipment. Pursuant to the equipment financing agreement, the Company financed the equipment with transactions representing capital leases. This sales/leaseback transaction resulted in a $1.3 million unrealized loss which is being amortized over the life of the assets under lease. Accordingly, a capital lease liability was recorded at the present value of the future lease payments of $0.3 million and $1.2 million during the years ended December 31, 2014 and 2013, respectively. The incremental borrowing rate used to determine the present values of the future lease payments was 6.5%. The lease obligations expired on January 1, 2015. In connection with the capital lease entered into in 2011, the Company issued a warrant to purchase shares of the Company's common stock (see Note 10, "Stockholder's Equity").

In 2007, the Company entered into an operating lease for its headquarters in Emeryville, California, with a term of ten years commencing in May 2008. As part of the operating lease agreement, the Company received a tenant improvements allowance of $11.4 million. The Company recorded the allowance as deferred rent and associated expenditures as leasehold improvements that are being amortized over the shorter of their estimated useful life or the term of the lease. In connection with the operating lease, the Company elected to defer a portion of the monthly base rent due under the lease and entered into notes payable agreements with the lessor for the purchase of certain tenant improvements. In October 2010, the Company amended its lease agreement with the lessor of its headquarters, to lease up to approximately 22,000 square feet of research and development and office space. In return for the removal of the early termination clause in its amended lease agreement, the Company received approximately $1.0 million from the lessor in December 2010. In April 2013, the Company amended its lease agreement for its headquarters in Emeryville, California (or the Lease Amendment). The Lease Amendment provided for an extension of the lease term to May 2023, a modification of the base rent and elimination of the Company's loans and notes payable to the lessor of approximately $1.6 million (see Note 5, "Debt"). In addition, per the terms of the Lease Amendment, the Company also received a rent credit of approximately $71,000 per month for the period of June 2013 through December 2013 and a rent credit of approximately $42,000 per month for the full year of 2014.

In March 2011, the Company entered into an operating lease on real property owned by Tonon in Brazil. In conjunction with a supply agreement (see Note 8, "Significant Agreements") with the same entity, the land is being used by the Company for its Biofene production plant in Brotas. This lease has a term of 15 years commencing in March 2011 with an estimated annual rent payment of approximately $61,463.

In August 2011, the Company notified the lessor of its leased office facilities in Brazil of the Company's termination of its existing lease effective November 30, 2011. At the same time, the Company entered into an operating lease for new office facilities in Campinas, Brazil. The new lease has a term of 5 years commencing in November 2011 with an estimated annual rent payment of approximately $153,504.

Future minimum payments under the Company's lease obligations as of December 31, 2015, are as follows (in thousands):

Years ending December 31:	Capital Leases	Operating Leases	Total Lease Obligations
2016	$565	$6,724	$ 7,289
2017	188	6,644	6,832
2018	—	6,701	6,701
2019	—	6,749	6,749
2020	—	6,985	6,985
Thereafter	—	18,047	18,047
Total future minimum lease payments	753	$51,850	$ 52,603
Less: amount representing interest	(54)		
Present value of minimum lease payments	699		
Less: current portion	(523)		
Long-term portion	$176		

Guarantor Arrangements

The Company has agreements whereby it indemnifies its officers and directors for certain events or occurrences while the officer or directors are serving in their official capacities. The indemnification period remains enforceable for the officer's or director’s lifetime. The maximum potential amount of future payments the Company could be required to make under these indemnification agreements is unlimited; however, the Company has a director and officer insurance policy that limits its exposure and enables the Company to recover a portion of any future payments. As a result of its insurance policy coverage, the Company believes the estimated fair value of these indemnification agreements is minimal. Accordingly, the Company had no liabilities recorded for these agreements as of December 31, 2015 and 2014.

The Company entered into the FINEP Credit Facility to finance a research and development project on sugarcane-based biodiesel (see Note 5, "Debt"). The FINEP Credit Facility is guaranteed by a chattel mortgage on certain equipment of the Company. The Company's total acquisition cost for the equipment under this guarantee is approximately R$6.0 million (approximately US$1.5 million based on the exchange rate as of December 31, 2015).

The Company entered into the BNDES Credit Facility to finance a production site in Brazil (see Note 5, "Debt").The BNDES Credit Facility is collateralized by a first priority security interest in certain of the Company's equipment and other tangible assets with a total acquisition cost of R$24.9 million (approximately US$6.4 million based on the exchange rate as of December 31, 2015). The Company is a parent guarantor for the payment of the outstanding balance under the BNDES Credit Facility. Additionally, the Company is required to provide certain bank guarantees under the BNDES Credit Facility. Accordingly, the Company had zero and $0.6 million restricted cash as of December 31, 2015 and 2014, respectively.

The Company entered into loan agreements and security agreement where the Company pledged certain farnesene production assets as collateral (the fiduciary conveyance of movable goods) with each of Nossa Caixa and Banco Pine (see Note 5, "Debt"). The Company's total acquisition cost for the farnesene production assets pledged as collateral under these agreements is approximately R$68.0 million (approximately US$17.4 million based on the exchange rate as of December 31, 2015). The Company is also a parent guarantor for the payment of the outstanding balance under these loan agreements.

The Company had an export financing agreement with ABC for approximately $2.2 million for a one-year term to fund exports through March 2015. As of December 31, 2015, the loan was fully paid. On April 8, 2015, the Company entered into another export financing agreement with the same bank for approximately $1.6 million for a one year term to fund exports through March 2016. This loan is collateralized by future exports from Amyris Brasil. The Company is also a parent guarantor for the payment of the outstanding balance under these loan agreements.

In October 2013, the Company entered into a letter agreement with Total relating to the Temasek Bridge Note and to the closing of the August 2013 Financing (or the "Amendment Agreement") (see Note 5, "Debt"). In the August 2013 Financing, the Company was required to provide the purchasers under the August 2013 SPA with a security interest in the Company’s intellectual property if Total still held such security interest as of the initial closing of the August 2013 Financing. Under the terms of a previous Intellectual Property Security Agreement by and between the Company and Total (or the "Security Agreement"), the Company had previously granted a security interest in favor of Total to secure the obligations of the Company under the R&D Notes issued and issuable to Total under the Total Purchase Agreement. The Security Agreement provided that such security interest would terminate if Total and the Company entered into certain agreements relating to the formation of the Fuels JV. In connection with Total’s agreement to (i) permit the Company to grant the security interest under the Temasek Bridge Note and the August 2013 Financing and (ii) waive a secured debt limitation contained in the outstanding R&D Notes issued pursuant to the Total Purchase Agreement and held by Total, the Company entered into the Amendment Agreement. Under the Amendment Agreement, the Company agreed to reduce, effective December 2, 2013, the conversion price for the R&D Notes issued in 2012 (approximately $5.0 million of which are outstanding as of the date hereof) from $7.0682 per share to $2.20, the market price per share of the Company’s common stock as of the signing of the Amendment Agreement, as determined in accordance with applicable NASDAQ rules, unless the Company and Total entered into the JV Documents on or prior to December 2, 2013. The Company and Total entered into the JV agreements on December 2, 2013 and the Amendment Agreement and all security interests thereunder were automatically terminated and the conversion price of such R&D Notes remained at $7.0682 per share.

In December 2013, in connection with the execution of JV Documents entered into by and among Amyris, Total and TAB relating to the establishment of TAB (see Note 5, "Debt" and Note 7, "Joint Venture and Noncontrolling Interests"), the Company agreed to exchange the $69.0 million outstanding R&D Notes issued pursuant to the Total Purchase Agreement and issue replacement 1.5% Senior Secured Convertible Notes due March 2017, in principal amounts equal to the principal amount of each R&D Note and grant a security interest to Total in and lien on all the Company’s rights, title and interest in and to the Company’s shares in the capital of TAB. Following execution of the JV Documents, all Unsecured R&D Notes that had been issued were exchanged for Secured R&D Notes. Further, the $10.85 million in principal amount of such notes issued in the initial tranche of the third closing under the Total Purchase Agreement in July 2014 and the $10.85 million in principal amount of such notes issued in the second tranche of the third closing were Secured R&D Notes instead of Unsecured R&D Notes. "See Note 5,"Debt" for the impact of the Exchange and Maturity Treatment Agreement on the R&D Notes.

The Hercules Loan Facility (see Note 5, "Debt") is collateralized by liens on the Company's assets, including certain Company intellectual property.

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Purchase Obligations

As of December 31, 2015, the Company had $1.3 million in purchase obligations which included $0.5 million in non-cancellable contractual obligations and construction commitments.

Other Matters

Certain conditions may exist as of the date the financial statements are issued, which may result in a loss to the Company but will only be recorded when one or more future events occur or fail to occur. The Company's management assesses such contingent liabilities, and such assessment inherently involves an exercise of judgment. In assessing loss contingencies related to legal proceedings that are pending against and by the Company or unasserted claims that may result in such proceedings, the Company's management evaluates the perceived merits of any legal proceedings or unasserted claims as well as the perceived merits of the amount of relief sought or expected to be sought.

If the assessment of a contingency indicates that it is probable that a material loss has been incurred and the amount of the liability can be estimated, then the estimated liability would be accrued in the Company's financial statements. If the assessment indicates that a potential material loss contingency is not probable but is reasonably possible, or is probable but cannot be reasonably estimated, then the nature of the contingent liability, together with an estimate of the range of possible loss if determinable and material would be disclosed. Loss contingencies considered to be remote by management are generally not disclosed unless they involve guarantees, in which case the guarantee would be disclosed. The Company has levied indirect taxes on sugarcane-based biodiesel sales by Amyris Brasil to customers in Brasil based on advice from external legal counsel. In the absence of definitive rulings from the Brazilian tax authorities on the appropriate indirect tax rate to be applied to such product sales, the actual indirect rate to be applied to such sales could differ from the rate we levied.

The Company is subject to disputes and claims that arise or have arisen in the ordinary course of business and that have not resulted in legal proceedings or have not been fully adjudicated. Such matters that may arise in the ordinary course of business are subject to many uncertainties and outcomes are not predictable with reasonable assurance and therefore an estimate of all the reasonably possible losses cannot be determined at this time. Therefore, if one or more of these legal disputes or claims resulted in settlements or legal proceedings that were resolved against the Company for amounts in excess of management’s expectations, the Company’s consolidated financial statements for the relevant reporting period could be materially adversely affected.

7. Joint Ventures and Noncontrolling Interest

Novvi LLC

In September 2011, the Company and Cosan US, Inc. (or “Cosan U.S.”) formed Novvi LLC (or “Novvi”), a U.S. entity that is jointly owned by the Company and Cosan U.S.. In March 2013, the Company and Cosan U.S. entered into agreements to (i) expand their base oils joint venture to also include additives and lubricants and (ii) operate their joint venture exclusively through Novvi. Specifically, the parties entered into an Amended and Restated Operating Agreement for Novvi (or the “Operating Agreement”), which sets forth the governance procedures for Novvi and the parties' initial contribution. The Company also entered into an IP License Agreement with Novvi (or, as amended, the “IP License Agreement”) under which the Company granted Novvi (i) an exclusive (subject to certain limited exceptions for the Company), worldwide, royalty-free license to develop, produce and commercialize base oils, additives, and lubricants derived from Biofene for use in automotive and industrial lubricants markets, and (ii) a non-exclusive, royalty free license, subject to certain conditions, to manufacture Biofene solely for its own products. In addition, both the Company and Cosan U.S. granted Novvi certain rights of first refusal with respect to alternative base oil and additive technologies that may be acquired by the Company or Cosan U.S. during the term of the IP License Agreement. Under these agreements, the Company and Cosan U.S. each own 50% of Novvi and each party shares equally in any costs and any profits ultimately realized by the joint venture. Novvi is governed by a six member Board of Managers (or the “Board of Managers”), with three managers represented by each investor. The Board of Managers appoints the officers of Novvi, who are responsible for carrying out the daily operating activities of Novvi as directed by the Board of Managers. The IP License Agreement has an initial term of 20 years from the date of the agreement, subject to standard early termination provisions such as uncured material breach or a party's insolvency. Under the terms of the Operating Agreement, Cosan U.S. was obligated to fund its 50% ownership share of Novvi in cash in the amount of $10.0 million and the Company was obligated to fund its 50% ownership share of Novvi through the granting of an IP License to develop, produce and commercialize base oils, additives, and lubricants derived from Biofene for use in the automotive, commercial and industrial lubricants markets, which Cosan U.S. and Amyris agreed was valued at $10.0 million. In March 2013, the Company measured its initial contribution of intellectual property to Novvi at the Company's carrying value of the licenses granted under the IP License Agreement, which was zero. Additional funding requirements to finance the ongoing operations of Novvi are expected to happen through revolving credit or other loan facilities provided by unrelated parties (i.e., such as financial institutions); cash advances or other credit or loan facilities provided by the Company and Cosan U.S. or their affiliates; or additional capital contributions by the Company and Cosan U.S.

In April 2014, the Company purchased additional membership units of Novvi for an aggregate purchase price of $0.2 million. Also in April 2014, the Company contributed $2.1 million in cash in exchange for receiving additional membership units in Novvi. Each member owns 50% of Novvi's issued and outstanding membership units.

In September 2014, the Company and Cosan U.S. entered into a member senior loan agreement to grant Novvi a loan amounting to approximately $3.7 million. The loan is due on September 1, 2017 and bears interest at a rate of 0.36% per annum. Interest accrues daily and is due and payable in arrears on September 1, 2017. The Company and Cosan U.S. each agreed to provide 50% of the loan. The Company's share of approximately $1.8 million was disbursed in two installments. The first installment of $1.2 million was made in September 2014 and the second installment of $0.6 million was made in October 2014. In November 2014, the Company and Cosan U.S. entered into a second member senior loan agreement to grant Novvi a loan of approximately $1.9 million on the same terms as the loan issued in September 2014. The Company and Cosan U.S. each agreed to provide 50% of the loan. The Company disbursed its share of approximately $1.0 million in November 2014. In May 2015, the Company and Cosan U.S. entered into a third member senior loan agreement to grant Novvi a loan of approximately $1.1 million on the same terms as the loan issued in September 2014, except that the due date is May 14, 2018. As of December 31, 2015 and 2014, total loans to Novvi were $2.7 million and $1.7 million, respectively, net of imputation of interest of $1.6 million and $1.0 million, respectively, as result of the below market interest rate on the loans.

In the fourth quarter of 2015, the Company and Cosan U.S. entered into several senior loan agreements to grant Novvi a loan of approximately $1.6 million on the same terms as the loan issued in September 2014, except that the due date is August 19, 2018.

In December, 2015, the Company determined that the investments in Novvi to date are not expected to be recoverable because the decline in oil prices and the prolonged delays in Novvi raising external finance for its commercial scale plant have adversely impacted the prospects for the business. Consequently, an impairment charge of $1.7 million was recognized in the fourth quarter of 2015. The Company also recorded an allowance of $0.5 million related to various receivables due from Novvi.

The following table is a reconciliation of our equity and loans in Novvi:

	December 31,	
(In thousands)	2015	2014
Balance at January 1	$2,192	$—
Loans to affiliate	1,579	1,745
Capital contribution (cash)	—	2,312
Share in net loss offset to equity investment	(848)	(2,910)
Share in net loss offset to loans to affiliate	(1,743)	—
Accretion of imputed interest	413	1,045
Impairment	(1,593)	—
Balance at December 31	$—	$2,192

The Company has identified Novvi as a VIE and determined that the power to direct activities, which most significantly impact the economic success of the joint venture (i.e., continuing research and development, marketing, sales, distribution and manufacturing of Novvi products), is equally shared between the Company and Cosan U.S. Accordingly, the Company is not the primary beneficiary and therefore accounts for its investment in Novvi under the equity method of accounting. The Company will continue to reassess its primary beneficiary analysis of Novvi if there are changes in events and circumstances impacting the power to direct activities that most significantly affect Novvi's economic success. Under the equity method, the Company's share of profits and losses and impairment charges on investments in affiliates are included in “Loss from investments in affiliates” in the consolidated statements of operations. The Company recorded $2.6 million and $2.9 million for its share of Novvi's net loss for the years ended December 31, 2015 and 2014, respectively, and an impairment charge of $1.6 million for the year ended December 31, 2015. The carrying amount of the Company's equity investment in Novvi was zero and $2.2 million as of December 30, 2015 and 2014, respectively.

Total Amyris BioSolutions B.V.

In November 2013, the Company and Total formed TAB. As of December 31, 2015, the common equity of TAB was jointly owned (50%/50%) by the Company and Total, and the preferred equity of TAB was 100% owned by the Company. Prior to the restructuring of TAB in March 2016 as described below, TAB's purpose was limited to executing the License Agreement dated December 2, 2013 between the Company, Total and TAB and maintaining such licenses under it, unless and until either (i) Total elects to go forward with either the full (diesel and jet fuel) TAB commercialization program or the jet fuel component of the TAB commercialization program (or a "Go Decision"), (ii) Total elects to not continue its participation in the R&D Program and TAB (or a "No-Go Decision"), or (iii) Total exercises any of its rights to buy out the Company's interest in TAB. Following a Go Decision, the articles and shareholders' agreement of TAB would be amended and restated to be consistent with the shareholders' agreement contemplated by the Total Fuel Agreements (see Note 5, "Debt", Note 8, "Significant Agreements" and Note 16, "Subsequent Events").

TAB has an initial capitalization of €0.1 million (approximately US$0.1 million based on the exchange rate as of December 31, 2015). The Company has identified TAB as a VIE and determined that the Company is not the primary beneficiary and therefore accounts for its investment in TAB under the equity method of accounting. Under the equity method, the Company's share of profits and losses are included in "Loss from investment in affiliate" in the consolidated statements of operations.

In July 2015, the Company and Total entered into a Letter Agreement (or, as amended in February 2016, the "JVCO Letter Agreement") regarding the restructuring of the ownership and rights of TAB (or the "Restructuring"), pursuant to which the parties agreed to enter into an Amended & Restated Jet Fuel License Agreement between the Company and TAB (or the "Jet Fuel Agreement"), a License Agreement regarding Diesel Fuel in the European Union (or the "EU") between the Company and Total (or the "EU Diesel Fuel Agreement", and together with the Jet Fuel Agreement, the "Commercial Agreements"), and an Amended and Restated Shareholders' Agreement among the Company, Total and TAB (or, together with the Commercial Agreements, the "Restructuring Agreements"), and file a Deed of Amendment of Articles of Association of TAB, all in order to reflect certain changes to the ownership structure of TAB and license grants and related rights pertaining to TAB

Additionally, in connection with the proposed Restructuring, in July 2015 the Company and Total entered into Amendment #1 (or the "Pilot Plant Agreement Amendment") to that certain Pilot Plant Services Agreement dated as of April 4, 2014 (or, as amended, the "Pilot Plant Agreement") whereby the Company and Total agreed to restructure the payment obligations of Total under the Pilot Plant Agreement. Under the original Pilot Plant Agreement, for a five year period, the Company is providing certain fermentation and downstream separations scale-up services and training to Total and receives an aggregate annual fee payable by Total for all services in the amount of up to approximately $900,000 per annum. Such annual fee is due in three equal installments payable on March 1, July 1 and November 1 each year during the term of the Pilot Plant Agreement. Under the Pilot Plant Agreement Amendment, in connection with the restructuring of TAB discussed above, the Company agreed to waive a portion of these fees up to approximately $2.0 million, over the term of the Pilot Plant Agreement.

On March 21, 2016, the Company, Total and TAB closed the Restructuring and entered into the Restructuring Agreements.

Under the Jet Fuel Agreement, (a) the Company granted exclusive (excluding its Brazil jet fuel business), world-wide, royalty-free rights to TAB for the production and commercialization of farnesene- or farnesane-based jet fuel, (b) the Company granted TAB the option, until March 1, 2018, to purchase the Company's Brazil jet fuel business at a price based on the fair value of the commercial assets and on the Company's investment in other related assets, (c) the Company granted TAB the right to purchase farnesene or farnesane for its jet fuel business from the Company on a "most-favored" pricing basis and (d) all rights to farnesene- or farnesane-based diesel fuel previously granted to TAB by the Company reverted back to the Company.

Upon all farnesene- or farnesane-based diesel fuel rights reverting back to the Company, the Company granted to Total, pursuant to the EU Diesel Fuel Agreement, (a) an exclusive, royalty-free license to offer for sale and sell farnesene- or farnesane-based diesel fuel in the EU, (b) the right to make farnesene or farnesane anywhere in the world, provided Total must (i) use such farnesene or farnesane to produce diesel fuel to offer for sale or sell in the EU and (ii) pay the Company a to-be-negotiated, commercially reasonable, “most-favored” basis royalty and (c) the right to purchase farnesene or farnesane for its EU diesel fuel business from the Company on a “most-favored” pricing basis.

In addition, as part of the closing of the Restructuring and pursuant the JVCO Letter Agreement, on March 21, 2016, the Company sold to Total one half of the Company’s ownership stake in TAB (giving Total an aggregate ownership stake of 75% of TAB and giving the Company an aggregate ownership stake of 25% of TAB) in exchange for Total cancelling (i) approximately $1.3 million of R&D Notes, plus all paid-in-kind and accrued interest under all outstanding R&D Notes (including all such interest that was outstanding as of July 29, 2015) and (ii) a note in the principal amount of Euro 50,000, plus accrued interest, issued to Total in connection with the original TAB capitalization. To satisfy its purchase obligation above, Total surrendered to the Company the remaining R&D Note of approximately $5 million in principal amount, and the Company executed and delivered to Total a new, senior convertible note, containing substantially similar terms and conditions other than it is unsecured and its payment terms are severed from TAB’s business performance, in the principal amount of $3.7 million.

As a result of, and in order to reflect, the changes to the ownership structure of TAB described above, on March 21, 2016, (a) the Company, Total and TAB entered into an Amended and Restated Shareholders’ Agreement and filed a Deed of Amendment of Articles of Association of TAB and (b) the Company and Total terminated the Amended and Restated Master Framework Agreement, dated December 2, 2013 and amended on April 1, 2015, between the Company and Total.

SMA Indústria Química S.A.

In April 2010, the Company established SMA Indústria Química (or "SMA"), a joint venture with São Martinho S.A. (or "SMSA"), to build a production facility in Brazil. SMA is located at the SMSA mill in Pradópolis, São Paulo state. The joint venture agreements establishing SMA have a 20 year initial term.

SMA was initially managed by a three member executive committee, of which the Company appointed two members, one of whom is the plant manager who is the most senior executive responsible for managing the construction and operation of the facility. SMA was initially governed by a four member board of directors, of which the Company and SMSA each appointed two members. The board of directors had certain protective rights which include final approval of the engineering designs and project work plan developed and recommended by the executive committee.

The joint venture agreements required the Company to fund the construction costs of the new facility and SMSA would reimburse the Company up to R$61.8 million (approximately US$15.8 million based on the exchange rate as of December 31, 2015) of the construction costs after SMA commences production. After commercialization, the Company would market and distribute Amyris renewable products produced by SMA and SMSA would sell feedstock and provide certain other services to SMA. The cost of the feedstock to SMA would be a price that is based on the average return that SMSA could receive from the production of its current products, sugar and ethanol. The Company would be required to purchase the output of SMA for the first four years at a price that guarantees the return of SMSA's investment plus a fixed interest rate. After this four year period, the price would be set to guarantee a break-even price to SMA plus an agreed upon return.

Under the terms of the joint venture agreements, if the Company became controlled, directly or indirectly, by a competitor of SMSA, then SMSA would have the right to acquire the Company's interest in SMA. If SMSA became controlled, directly or indirectly, by a competitor of the Company, then the Company would have the right to sell its interest in SMA to SMSA. In either case, the purchase price would be determined in accordance with the joint venture agreements, and the Company would continue to have the obligation to acquire products produced by SMA for the remainder of the term of the supply agreement then in effect even though the Company would no longer be involved in SMA's management.

The Company initially had a 50% ownership interest in SMA. The Company has identified SMA as a VIE pursuant to the accounting guidance for consolidating VIEs because the amount of total equity investment at risk is not sufficient to permit SMA to finance its activities without additional subordinated financial support, as well as because the related commercialization agreement provides a substantive minimum price guarantee. Under the terms of the joint venture agreement, the Company directed the design and construction activities, as well as production and distribution. In addition, the Company had the obligation to fund the design and construction activities until commercialization was achieved. Subsequent to the construction phase, both parties equally would fund SMA for the term of the joint venture. Based on those factors, the Company was determined to have the power to direct the activities that most significantly impact SMA's economic performance and the obligation to absorb losses and the right to receive benefits. Accordingly, the financial results of SMA are included in the Company's consolidated financial statements and amounts pertaining to SMSA's interest in SMA are reported as noncontrolling interests in subsidiaries.

The Company completed a significant portion of the construction of the new facility in 2012. The Company suspended construction of the facility in 2013 in order to focus on completing and operating the Company's smaller production facility in Brotas, Brazil. In February 2014, the Company entered into an amendment to the joint venture agreement with SMSA which updated and documented certain preexisting business plan requirements related to the recommencement of construction at the joint venture operated plant and sets forth, among other things, (i) the extension of the deadline for the commencement of operations at the joint venture operated plant to no later than 18 months following the construction of the plant no later than March 31, 2017, and (ii) the extension of an option held by SMSA to build a second large-scale farnesene production facility to no later than December 31, 2018 with the commencement of operations at such second facility to occur no later than April 1, 2019. On July 1, 2015 SMSA filed a material fact document with CVM, the Brazilian securities regulator, that announced that certain contractual targets undertaken by the Company have not been achieved, which affects the feasibility of the project. Therefore, SMSA decided not to approve continuing construction of the plant for the joint venture with the Company and its Brazilian subsidiary Amyris Brasil Ltda. ("AB"). In July 2015, the Company announced that it was in discussions with SMSA regarding the continuation of the joint venture. In December 2015, the Company and SMSA entered into a Termination Agreement and a Share Purchase and Sale Agreement (SPA) relating to the termination of the joint venture. Under the Termination Agreement, the parties agreed that the joint venture would be terminated effective upon the closing of a purchase by AB of SMSA's shares of SMA. Under the SPA, AB agreed to purchase, for R$50,000 (approximately US$12,805 based on the exchange rate as of December 31, 2015), 50,000 shares of SMA (representing all the outstanding shares of SMA held by SMSA), which purchase and sale was consummated on January 11, 2016. The Share Purchase and Sale Agreement also provides that Amyris and AB will have 12 months following the closing of the share purchase to remove assets from SMSA's site, and enter into an extension of the lease for such 12 month period for monthly rental payments of R$9,853 (approximately US$2,523 based on the exchange rate as of December 31, 2015). The SPA also clarified that the Company and AB would not be required to demolish or remove the foundations of the plant at the SMSA site. Refer to Note 4 "Balance Sheet Components" for details of the impact of these developments.

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Glycotech

In January 2011, the Company entered into a production service agreement (or the "Glycotech Agreement") with Glycotech, Inc. (or "Glycotech"), under which Glycotech provides process development and production services for the manufacturing of various Company products at its leased facility in Leland, North Carolina. The Company products manufactured by Glycotech are owned and distributed by the Company. Pursuant to the terms of the Glycotech Agreement, the Company is required to pay the manufacturing and operating costs of the Glycotech facility, which is dedicated solely to the manufacture of Amyris products. The initial term of the Glycotech Agreement was for a two year period commencing on February 1, 2011 and the Glycotech Agreement renews automatically for successive one-year terms, unless terminated by the Company. Concurrent with the Glycotech Agreement, the Company also entered into a Right of First Refusal Agreement with the lessor of the facility and site leased by Glycotech (or the "ROFR Agreement"). Per conditions of the ROFR Agreement, the lessor agreed not to sell the facility and site leased by Glycotech during the term of the Glycotech Agreement. In the event that the lessor is presented with an offer to sell or decides to sell an adjacent parcel, the Company has the right of first refusal to acquire it.

The Company has determined that the arrangement with Glycotech qualifies as a VIE. The Company determined that it is the primary beneficiary of this arrangement since it has the power through the management committee over which it has majority control to direct the activities that most significantly impact Glycotech's economic performance. In addition, the Company is required to fund 100% of Glycotech's actual operating costs for providing services each month while the facility is in operation under the Glycotech Agreement. Accordingly, the Company consolidates the financial results of Glycotech. As of December 31, 2015 and 2014, the carrying amounts of Glycotech's assets and liabilities were not material to the Company's consolidated financial statements.

The table below reflects the carrying amount of the assets and liabilities of the two consolidated VIEs for which the Company is the primary beneficiary. As of December 31, 2015, the assets include $5.2 million in property, plant and equipment, $0.3 million in other assets and $1.5 million in current assets. The liabilities include $1.1 million in accounts payable and accrued current liabilities and $0.1 million in loan obligations by Glycotech to its shareholders that are non-recourse to the Company. The creditors of each consolidated VIE have recourse only to the assets of that VIE.

	December 31,	
(In thousands)	2015	2014
Assets*	$6,993	$22,812
Liabilities	$1,221	$290

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*Net of impairment at December 31, 2015 of $28.5 million related to SMA assets (see Note 4 “Balance Sheet Components” for details).

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The change in noncontrolling interest for the years ended December 31, 2015 and 2014 is summarized below (in thousands):

	2015	2014
Balance at January 1	$611	$584
Foreign currency translation adjustment	(320)	(92)
Income attributable to noncontrolling interest	100	119
Balance at December 31	$391	$611

8. Significant Agreements

Research and Development Activities

Total Collaboration Agreement

In June 2010, the Company entered into a technology license, development, research and collaboration agreement (or the "Collaboration Agreement") with Total Gas & Power USA Biotech, Inc., an affiliate of Total. This agreement provided for joint collaboration on the development of products through the use of the Company's synthetic biology platform. In November 2011, the Company entered into an amendment of the Collaboration Agreement with respect to development and commercialization of Biofene for fuels. This represented an expansion of the initial collaboration with Total, and established a global, exclusive collaboration for the development of Biofene for fuels and a framework for the creation of a joint venture to manufacture and commercialize Biofene for diesel. In addition, a limited number of other potential products were subject to development by the joint venture on a non-exclusive basis.

The Amendment provided for an exclusive strategic collaboration for the development of renewable diesel products and contemplated that the parties would establish a joint venture (or the "JV") for the production and commercialization of such renewable diesel products on an exclusive, worldwide basis. In addition, the Amendment contemplated providing the JV with the right to produce and commercialize certain other chemical products on a non-exclusive basis. The amendment further provided that definitive agreements to form the JV had to be in place by March 31, 2012 or such other date as agreed to by the parties or the renewable diesel program, including any further collaboration payments by Total related to the renewable diesel program, would terminate. In the second quarter of 2012, the parties extended the deadline to June 30, 2012, and, through June 30, 2012, the parties were engaged in discussions regarding the structure of future payments related to the program, until the amendment was superseded by a further amendment in July 2012 (as further described below).

Pursuant to the Amendment, Total agreed to fund the following amounts: (i) the first $30.0 million in research and development costs related to the renewable diesel program incurred since August 1, 2011, which amount would be in addition to the $50.0 million in research and development funding contemplated by the Collaboration Agreement, and (ii) for any research and development costs incurred following the JV formation date that were not covered by the initial $30.0 million, an additional $10.0 million in 2012 and up to an additional $10.0 million in 2013, which amounts would be considered part of the $50.0 million contemplated by the Collaboration Agreement. In addition to these payments, Total further agreed to fund 50% of all remaining research and development costs for the renewable diesel program under the Amendment.

In July 2012, the Company entered into a further amendment of the Collaboration Agreement that expanded Total’s investment in the Biofene collaboration, incorporated the development of certain JV products for use in diesel and jet fuel into the scope of the collaboration, and changed the structure of the funding from Total for the collaboration by establishing a convertible debt structure for the collaboration funding (see Note 5, “Debt”). In connection with such additional amendment Total and the Company also executed certain other related agreements. Under these agreements (collectively referred to as the “Total Fuel Agreements”), the parties would grant exclusive manufacturing and commercial licenses to the JV for the JV products (diesel and jet fuel from Biofene) when the JV was formed. The licenses to the JV were to be consistent with the principle that development, production and commercialization of the JV products in Brazil would remain with Amyris unless Total elected, after formation of the operational JV, to have such business contributed to the joint venture (see below for additional detail). Further, as part of the Total Fuel Agreements, Total's royalty option contingency related to diesel was removed and the jet fuel collaboration was combined with the expanded Biofene collaboration. As a result, $46.5 million of payments previously received from Total that had been recorded as an advance from Total were no longer contingently repayable. Of this amount, $23.3 million was treated as a repayment by the Company and included as part of the senior unsecured convertible promissory note issued to Total in July 2012 and the remaining $23.2 million was recorded as a contract to perform research and development services, which was offset by the reduction of the capitalized deferred charge asset of $14.4 million resulting in the Company recording revenue from a related party of $8.9 million in 2012. See Note 5, "Debt" for details of the Exchange and Maturity Treatment Agreements and Note 7," Joint Ventures and Noncontrolling Interest" and Note 16 “Subsequent Events” for further details of the relationship with Total.

F&F Collaboration Partner Master Collaboration and Joint Development Agreement

In November 2010, the Company entered into a Master Collaboration and Joint Development Agreement with a collaboration partner. Under the agreement, the collaboration partner was to fund technical development at the Company to produce an ingredient for the flavors and fragrances market. The Company agreed to manufacture the ingredient and the collaboration partner would market it, and the parties would share in any resulting economic value. The agreement also grants exclusive worldwide flavors and fragrances commercialization rights to the collaboration partner for the ingredient. Under further agreements, the collaboration partner has an option to collaborate with the Company to develop additional ingredients. These agreements continue in effect until the later of the expiration or termination of the development agreements or the supply agreements. The Company is also eligible to receive potential total payments of $6.0 million upon the achievement of certain performance milestones towards which the Company will be required to make a contributory performance. The Company concluded that these milestone payments were substantive. All performance milestones under this agreement were achieved in 2013.

In March 2013, the Company entered into a Master Collaboration Agreement (or the “March 2013 Agreement”) with the collaboration partner to establish a collaboration arrangement for the development and commercialization of multiple renewable flavors and fragrances compounds. Under this agreement, except for rights granted under preexisting collaboration relationships, the Company granted the collaboration partner exclusive access for such compounds to specified Company intellectual property for the development and commercialization of flavors and fragrances products in exchange for research and development funding and a profit sharing arrangement. The agreement superseded and expanded the prior collaboration agreement between the Company and the collaboration partner.

The agreement provided for annual, up-front funding to the Company by the collaboration partner of $10.0 million for each of the first three years of the collaboration. Payments of $10.0 million were received by the Company in each of March 2015, 2014 and 2013. The Company recognized collaboration revenues under the March 2013 Agreement with the collaboration partner of $11.0 million and $10.0 million for the year ended December 31, 2015 and 2014, respectively. The agreement contemplated additional funding by the collaboration partner of up to $5.0 million under three potential milestone payments, as well as additional funding by the collaboration partner on a discretionary basis. Through 2015, the Company achieved the second performance milestone under the Master Collaboration Agreement and recognized collaboration revenues of $1.0 million for the year ended December 31, 2015.

In addition, the March 2013 Agreement contemplated that the parties will mutually agree on a supply price for each compound and share product margins from sales of each compound on a 70/30 basis (70% for the collaboration partner) until the collaboration partner receives $15.0 million more than the Company in the aggregate, after which the parties will share 50/50 in the product margins on all compounds. The Company also agreed to pay a one-time success bonus of up to $2.5 million to the collaboration partner's for outperforming certain commercialization targets. The collaboration partner eligibility to receive the one-time success bonus commences upon the first sale of the collaboration partner's product. The March 2013 Agreement does not impose any specific research and development commitments on either party after year six, but if the parties mutually agree to perform development after year six, the agreement provides that the parties will fund it equally.

Under the March 2013 Agreement, the parties agreed to jointly select target compounds, subject to final approval of compound specifications by the collaboration partner. During the development phase, the Company would be required to provide labor, intellectual property and technology infrastructure and the collaboration partner would be required to contribute downstream polishing expertise and market access. The March 2013 Agreement provided that the Company would own research and development and strain engineering intellectual property, and the collaboration partner would own blending and, if applicable, chemical conversion intellectual property. Under certain circumstances such as the Company's insolvency, the collaboration partner would gain expanded access to the Company's intellectual property. Following development of flavors and fragrances compounds under the March 2013 Agreement, the March 2013 Agreement contemplated that the Company would manufacture the initial target molecules for the compounds and the collaboration partner will perform any required downstream polishing and distribution, sales and marketing.

In September 2014, the Company entered into a supply agreement with the collaboration partner to provide target compounds to make a certain finished ingredient and market and sell such finished ingredient and/or products to the flavors and fragrances market. The Company recognized $1.4 million revenues from product sales under this agreement for the year ended December 31, 2015.

Michelin and Braskem Collaboration Agreements

In September 2011, the Company entered into a collaboration agreement with Manufacture Francaise de Pnematiques Michelin (or “Michelin”). Under the terms of the September 2011 collaboration agreement, the Company and Michelin agreed to collaborate on the development, production and worldwide commercialization of isoprene or isoprenol, generally for tire applications, using the Company's technology. Under the agreement, Michelin made an upfront payment to the Company of $5.0 million.

In June 2014, the Company entered into a collaboration agreement with Braskem S.A. (or “Braskem”) and Michelin to collaborate to develop the technology to produce and possibly commercialize renewable isoprene. The term of the collaboration agreement commenced on June 30, 2014 and will continue, unless earlier terminated in accordance with the agreement, until the first to occur of (i) the date that is three years following the actual date on which a work plan is completed, which date is estimated to occur on or about December 30, 2020, or (ii) the date of the commencement

of commissioning of a production plant for the production of renewable isoprene. The June 2014 collaboration agreement terminated and supersedes the September 2011 collaboration agreement with Michelin, and, as a result of the signing of the June 2014 collaboration agreement, the upfront payment by Michelin of $5.0 million is being rolled into the new collaboration agreement between Michelin, Braskem and the Company as Michelin's collaboration funding towards the research and development activities to be performed. As of December 31, 2014, the Company accrued a total contribution from Braskem to the collaboration of $4.0 million, of which $2.0 million was received in July 2014 and $2.0 million was received in January 2015.

The Company recognized collaboration revenues of $2.2 million and $0.9 million for the years ended December 31, 2015 and 2014 under this agreement, respectively.

Kuraray Collaboration Agreement and Securities Purchase Agreement

In March 2014, the Company entered into the Second Amended and Restated Collaboration Agreement with Kuraray Co., Ltd (or "Kuraray") in order to extend the term of the original agreement dated July 21, 2011 for an additional two years and add additional fields and products to the scope of development. In consideration for the Company's agreement to extend the term of the original collaboration agreement and add additional fields and products, Kuraray agreed to pay the Company $4.0 million in two equal installments of $2.0 million. The first installment was paid on April 30, 2014 and the second installment was due on April 30, 2015. In connection with the collaboration agreement, Kuraray signed a Securities Purchase Agreement in March 2014 to purchase 943,396 shares of the Company's common stock at a price per share of $4.24 per share. The Company issued 943,396 shares of its common stock at a price per share of $4.24 in April 2014 for aggregate cash proceeds of $4.0 million. In March 2015, the Company entered into the First Amendment to the Second Amended and Restated Collaboration Agreement with Kuraray Co., Ltd (or Kuraray) to extend the term of the original agreement until December 31, 2016 and accelerate payment to the Company of the second installment of $2.0 million to March 31, 2015.

The Company recognized collaboration revenues of $1.6 million and $0.9 million, respectively, for the years ended December 31, 2015 and 2014 under this agreement.

DARPA

In September 2015, the Company entered into a Technology Investment Agreement (the "2015 TIA") with The Defense Advanced Research Projects Agency ("DARPA"), under which the Company, with the assistance of five specialized subcontractors, will work to create new research and development tools and technologies for strain engineering and scale-up activities. The program that is the subject of the 2015 TIA will be performed and funded on a milestone basis, where DARPA, upon the Company's successful completion of each milestone event in the 2015 TIA, pays the Company the amount in the 2015 TIA corresponding to such milestone event. Under the 2015 TIA, the Company and its subcontractors could collectively receive DARPA funding of up to $35.0 million over the program's four year term if all of the program's milestones are achieved. In conjunction with DARPA's funding, the Company and its subcontractors are obligated to collectively contribute approximately $15.5 million toward the program over its four year term (primarily by providing specified labor and/or purchasing certain equipment). The Company can elect to retain title to the patentable inventions it produces in the program, but DARPA receives certain data rights as well as a government purposes license to certain of such inventions. Either party may, upon written notice and subject to certain consultation obligations, terminate the 2015 TIA upon a reasonable determination that the program will not produce beneficial results commensurate with the expenditure of resources.

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Financing Agreements

Nomis Bay Ltd. Common Stock Purchase Agreement

In February 2015, the Company entered into a Common Stock Purchase Agreement (or the "Common Stock Purchase Agreement") and a Registration Rights Agreement (or the "Registration Rights Agreement") with Nomis Bay Ltd. (or "Nomis Bay") under which the Company may from time to time sell up to $50.0 million of its common stock to Nomis Bay over a 24-month period. In connection with such Common Stock Purchase Agreement and Registration Rights Agreement, the Company also entered into a Placement Agent Letter Agreement (or the "Placement Agent Agreement") with Financial West Group (or "FWG", the Common Stock Purchase Agreement, the Registration Rights Agreement and the Placement Agent Agreement are collectively referred to as the "Committed Equity Facility Agreements"). The equity commitment arrangement entered into under the Committed Equity Facility Agreements is sometimes referred to as a committed equity line financing facility. Subject to customary covenants and conditions, from time to time over the 24-month term, and in the Company's sole discretion, the Company may present Nomis Bay with up to 24 draw down notices requiring Nomis Bay to purchase a specified dollar amount of shares of the Company's common stock, based on the volume weighted average price of our common stock over 10 consecutive trading days prior to the date the Company delivers a draw down notice (or the "10-Day VWAP"). The per share purchase price for these shares equals the daily volume weighted average price of the Company's common stock on each date during the 10 consecutive trading days following delivery of the draw down notice (or a "Draw Down Period") on which shares are purchased, less a discount ranging from 3.0% to 6.25%, which discount is based on the 10-Day VWAP. The maximum amount of shares that may be sold in any Draw Down Period ranges from shares having aggregate purchase prices of $325,000 to $3,250,000, based on the 10-Day VWAP. Alternatively, in the Company's sole discretion, but subject to certain limitations, the Company may require Nomis Bay to purchase a percentage of the daily trading volume of the Company's common stock for each trading day during the Draw Down Period. The Company will not sell under the Common Stock Purchase Agreement a number of shares of voting common stock which, when aggregated with all other shares of voting common stock then beneficially owned by Nomis Bay and its affiliates, would result in the beneficial ownership by Nomis Bay or any of its affiliates of more than 9.9% of the then issued and outstanding shares of common stock.

Under the Committed Equity Facility Agreements, the Company agreed to pay up to $35,000 of Nomis Bay's legal fees and expenses. The Company also agreed to pay Nomis Bay a commitment fee of $0.1 million which was paid at the signing of the Purchase Agreement, and $0.3 million paid in May 2015. The issuance of the shares of common stock to Nomis Bay would be exempt from registration under the Securities Act pursuant to the exemption for transactions by an issuer not involving a public offering. The Company agreed to indemnify Nomis Bay and its affiliates for losses related to a breach of the representations and warranties by the Company under the Committed Equity Facility Agreements and the other transaction documents, or any action instituted against Nomis Bay or its affiliates due to the transactions contemplated by the Committed Equity Facility Agreements or other transaction documents, subject to certain limitations.

Under the Registration Rights Agreement, the Company granted to Nomis Bay certain registration rights related to the resale of the maximum shares of common stock issuable pursuant to the Common Stock Purchase Agreement. On

May 12, 2015 the Company filed the registration statement required by the Registration Rights Agreement and such registration statement was declared effective on May 20, 2015.

Under the Placement Agent Agreement, the Company agreed to pay Financial West Group ("FWG") a fee not to exceed $15,000 in the aggregate for FWG’s reasonable attorney’s fees and expenses incurred in connection with the transaction.

Naxyris Securities Purchase Agreement

In March, 2015, the Company entered into a Securities Purchase Agreement (or the “Naxyris SPA”) for the sale of up to $10.0 million in principal amount of an unsecured convertible note of the Company (or the “Naxyris Note”) to Naxyris, S.A. (or “Naxyris”), a beneficial owner of more than 5% of the Company's outstanding common stock at the time of the transaction and an affiliate of director Carole Piwnica, who was designated to serve on the Company’s Board of Directors by Naxyris pursuant to a February 2012 letter agreement between the Company, Naxyris and the other parties thereto. The Naxyris SPA contemplated that the Naxyris Note may be issued in one closing to occur at the option of the Company at any time prior to the earlier of March 31, 2016 or the Company completing a new financing (or series of financings) of equity, debt or similar instruments in the amount of at least $10.0 million in the aggregate (excluding amounts that may be raised under existing commitments and agreements in existence as of March 30, 2015), following the satisfaction of certain closing conditions, including the receipt of certain third party consents, and required that the Company pay a commitment availability fee of $0.2 million to Naxyris on April 1, 2015. The agreement expired in July 2015 following the Company’s private placement of shares of its common stock, as described below.

July 2015 Private Offering

In July 2015, the Company sold and issued 16,025,642 shares of the Company’s common stock at a price per share of $1.56, under a Securities Purchase Agreement, dated as of July 24, 2015, by and among the Company and the purchasers named therein. The purchasers include existing beneficial owners of more than 5% of the Company's outstanding shares of common stock: Foris Ventures, LLC (an entity affiliated with director John Doerr of Kleiner Perkins Caufield & Byers, a current stockholder), which purchased 9,615,384 shares; Total, which purchased 1,282,051 shares; and Naxyris S.A., which purchased 2,243,594 shares. Pursuant to the Securities Purchase Agreement, the Company granted to the purchasers warrants for the purchase of an aggregate of 1,602,562 shares of the Company’s common stock, with a term of five years exercisable at an exercise price of $0.01 per share. The exercisability of the warrants was subject to stockholder approval, which was obtained on September 17, 2015.

Second Hercules Amendment

In March 2015, the Company and Hercules entered into the Second Hercules Amendment. Pursuant to the Second Hercules Amendment, the parties agreed to, among other things, establish an additional credit facility in the principal amount of up to $15.0 million, which would be available to be drawn by the Company through the earlier of March

31, 2016 or such time as the Company raised an aggregate of at least $20.0 million through the sale of new equity securities. The additional credit facility expired in July 2015 following the Company’s private placement of shares of its common stock, as described above.

Third Hercules Amendment

In November 2015, the Company and Hercules entered into a third amendment (or the "Third Hercules Amendment") of the Hercules Loan Facility. Pursuant to the Third Hercules Amendment, the Company borrowed another $10,960,000 (or the "Third Hercules Amendment Borrowed Amount") from Hercules on November 30, 2015. As of December 1, 2015, after the funding of the Third Hercules Amendment Borrowed Amount (and including repayment of principal that had occurred prior to the Third Hercules Amendment), the aggregate principal amount outstanding under the Loan Facility was approximately $30.7 million. The Third Hercules Amendment Borrowed Amount accrues interest at a rate per annum equal to the greater of (i) 9.5% and (ii) the prime rate reported in the Wall Street Journal plus 6.25%, and, like the previous loans under the Loan Facility, has a maturity date of February 1, 2017. Upon the earlier of the maturity date, prepayment in full or such obligations otherwise becoming due and payable, in addition to repaying the outstanding Third Hercules Amendment Borrowed Amount (and all amounts owed under the Original Hercules Agreement, as amended), the Company is also required to pay Hercules an end-of-term charge of $767,200. Pursuant to the Third Hercules Amendment, the Company also paid Hercules fees of $1.0 million, $750,000 of which was owed in connection with the expired $15.0 million facility under the Second Amendment and $250,000 of which was related to the Third Hercules Amendment Borrowed Amount. Under the Third Hercules Amendment, the parties agreed that the Company would, commencing on December 1, 2015, be required to pay only the interest accruing on all outstanding loans under the Loan Facility until February 29, 2016. Commencing on March 1, 2016, the Company have been required to begin repaying principal of all loans under the Loan Facility, in addition to the applicable interest. However, pursuant to the Third Hercules Amendment, the Company could, by achieving certain cash inflow targets in 2016, extend the interest-only period to December 1, 2016. If the achievement of those targets occurs after March 1, 2016, the Company could, after commencing the repayment of principal, revert to interest-only payments once the applicable target is achieved. Upon the issuance by the Company of $20.0 million of unsecured promissory notes and warrants in a private placement in February 2016 for aggregate cash proceeds of $20.0 million, the Company satisfied the conditions for extending the interest-only period to May 31, 2016. The Third Hercules Amendment Borrowed Amount is secured by the same liens provided for in the Original Hercules Agreement and the First Amendment, including a lien on certain Company intellectual property, and the preexisting covenants under the Loan Facility (including a covenant requiring the Company to maintain a minimum cash balance equal to at least 50% of the principal amount then outstanding) apply to the Loan Facility as amended.

2015 144A Convertible Notes Offering

In October 2015, the Company entered into a purchase agreement with certain qualified institutional buyers relating to the sale of $57.6 million aggregate principal amount of its 9.50% Convertible Senior Notes due 2019 (or the "2015 144A Notes") to the purchasers in a private placement (or the "2015 144A Offering"). The Notes were issued pursuant to an Indenture, dated as of October 20, 2015 (or the "2015 Indenture"), between the Company and Wells Fargo Bank, National Association, as trustee. The net proceeds from the offering of the 2015 144A Notes were approximately $54.4 million after payment of the estimated offering expenses and placement agent fees. The Company used approximately $18.3 million of the net proceeds to repurchase $22.9 million aggregate principal amount of its outstanding 6.50% convertible senior notes due 2019 and approximately $8.8 million to repurchase $9.7 million aggregate principal amount of its outstanding 3% convertible senior notes due 2017, in each case held by purchasers of the 2015 144A Notes. The 2015 144A Notes bear interest at a rate of 9.50% per year, payable semiannually in arrears on April 15 and October 15 of each year, with the first such interest payment made on April 15, 2016. Interest

may be payable, at the Company's option, entirely in cash or entirely in common stock. The 2015 144A Notes will mature on April 15, 2019 unless earlier converted or repurchased.

The 2015 144A Notes are convertible into shares of the Company's common stock at any time prior to the close of business on April 15, 2019. The 2015 144A Notes have an initial conversion rate of 443.6557 shares of Common Stock per $1,000 principal amount of 2015 144A Notes (subject to adjustment in certain circumstances). This represents an initial effective conversion price of approximately $2.25 per share of common stock. Following the issuance by the Company of warrants to purchase common stock in a private placement transaction in February 2016, the conversion rate of the 2015 144A Notes was adjusted to 445.2252 shares of Common Stock per $1,000 principal amount of 2015 144A Notes. For any conversion on or after November 27, 2015, the holders, in addition to the shares deliverable upon conversion, will be entitled to receive a payment equal to the present value of the remaining scheduled payments of interest that would have been made on the 2015 144A Notes being converted from the conversion date to the earlier of the date that is three years after the date the Company receives such notice of conversion and maturity (April 15, 2019), which will be computed using a discount rate of 0.75%. The Company may make such payment (the “Early Conversion Payment”) either in cash or in common stock, at its election, provided that it may only make such payment in common stock if such common stock is not subject to restrictions on transfer under the Securities Act by persons other than the Company’s affiliates. If the Company elects to pay an Early Conversion Payment in common stock, then the stock will be valued at 92.5% of the simple average of the daily volume-weighted average price per share for the 10 trading days ending on and including the trading day immediately preceding the conversion date. In the event of a fundamental change, as defined in the 2015 Indenture, holders of the 2015 144A Notes may require the Company to purchase all or a portion of the 2015 144A Notes at a price equal to 100% of the principal amount of the 2015 144A Notes, plus any accrued and unpaid interest to, but excluding, the fundamental change repurchase date. In addition, holders of the 2015 144A Notes who convert their 2015 144A Notes in connection with a make-whole fundamental change will, under certain circumstances, be entitled to an increase in the conversion rate. The issuance of shares of common stock upon conversion of the 2015 144A Notes, upon the Company’s election to pay interest on the 2015 144A Notes in shares of common stock and upon the Company’s election to pay the Early Conversion Payment in shares of common stock in an aggregate amount in excess of 38,415,626 shares of the Company’s common stock is subject to stockholder approval, which the Company intends to solicit at its 2016 annual meeting of stockholders.

In conjunction with the closing of the 2015 144A Notes and repurchase of $22.9 million of outstanding 6.5% convertible senior notes and $9.7 million of outstanding 3% convertible senior notes, a $5.3 million gain on extinguishment was recognized in 2015. In addition, $1.3 million of the principal amount of the 2015 144A Notes converted to equity in 2015, which gave rise to a $0.5 million loss on extinguishment.

9. Goodwill and Intangible Assets

The following table presents the components of the Company's goodwill and intangible assets (in thousands):

	December 31, 2015			**December 31, 2014**		
Useful Life in Years	Gross Carrying Amount	Accumulated Amortization/ Impairment	Net Carrying Value	Gross Carrying Amount	Accumulated Amortization/ Impairment	**Net Carrying Value**
Indefinite	$8,560	$ (8,560)	$ —	$8,560	$ (3,035)	$ 5,525

In-process research and development							
Acquired licenses and permits	2	772	(772)	—	772	(772)	—
Goodwill	Indefinite	560	—	560	560	—	560
		$9,892	$ (9,332)	$ 560	$9,892	$ (3,807)	$ 6,085

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The following table presents the activity of goodwill and intangible assets for the year ended December 31, 2015 (in thousands):

	December 31, 2014 Net Carrying Value	Impairment	December 31, 2015 Net Carrying Value
In-process research and development	$ 5,525	$ (5,525)	$ —
Acquired licenses and permits	—	—	—
Goodwill	560	—	560
	$ 6,085	$ (5,525)	$ 560

The in-process research and development (IPR&D) of $8.6 million was acquired through the acquisition of Draths in October 2011 and were treated as indefinite lived intangible assets pending completion or abandonment of the projects to which the IPRD related. If the carrying amount of the assets is greater than the measures of fair value, impairment is considered to have occurred and a write-down of the asset is recorded in the income statement. During 2014, the Company updated its ongoing analysis of the technical and commercial viability of the IPR&D. The complex scientific and significant funding requirements of certain potential products, caused the Company to re-focus its research and development efforts on a narrower range of potential products. During the fourth quarter of 2015, the Company determined that there were expected to be significant delays in the timetable for completion of the IPR&D and the forecast prices for the product expected to be produced upon completion of the IPR&D declined significantly. As a result of the assessment using the estimated discounted future cash flows of the IPR&D, the Company recorded an impairment charge of $5.5 million to write-off all of its IPR&D assets in 2015. The impairment charges are recognized in "Impairment of intangible assets" in the consolidated statements of operations.

Acquired licenses and permits are amortized using a straight-line method over their estimated useful lives. Amortization expense for this intangible was zero, zero and $32,000 for the years ended December 31, 2015, 2014 and 2013, respectively. As of December 31, 2015, acquired licenses and permits were fully amortized.

The Company has a single reportable segment (see Note 15, Reporting Segments" for further details). Consequently, all of the Company's goodwill is attributable to the single reportable segment.

10. Stockholders’ Deficit

Private Placement

December 2012 Private Placement

In December 2012, the Company completed a private placement of 14,177,849 shares of its common stock at a price of $2.98 per share for aggregate proceeds of $37.2 million and the cancellation of $5.0 million worth of outstanding senior unsecured convertible promissory notes previously issued to Total by the Company. The Company issued 1,677,852 shares to Total in exchange for this note cancellation. Net cash received for this private placement as of December 31, 2012 was $22.2 million and the remaining $15.0 million of proceeds was received in January 2013. In connection with this, the Company entered into a letter of agreement with an investor under which the Company acknowledged that the investor's initial investment of $10.0 million in December 2012 represented partial satisfaction of the investor's preexisting contractual obligation to fund $15.0 million by March 31, 2013 upon satisfaction by the Company of criteria associated with the commissioning of the Company's production plant in Brotas, Brazil.

In January 2013, the Company received $15.0 million in proceeds from the private placement offering that closed in December 2012. Consequently, the Company issued 5,033,557 shares of the 14,177,849 shares of the Company's common stock.

March 2013 Private Placement

In March 2013, the Company completed a private placement of 1,533,742 shares of its common stock at a price of $3.26 per share for aggregate proceeds of $5.0 million. This private placement represented the final tranche of an investor’s preexisting contractual obligation to fund $15.0 million upon satisfaction by the Company of certain criteria associated with the commissioning of a production plant in Brotas, Brazil.

April 2014 Private Placement

In April 2014, the Company completed a private placement of 943,396 shares of its common stock at a price of $4.24 per share for aggregate proceeds of $4.0 million (see Note 8, "Significant Agreements").

Evergreen Shares for 2010 Equity Plan and 2010 ESPP

In January 2015, the Company's Board of Directors (or Board) approved an increase to the number of shares available for issuance under the Company's 2010 Equity Incentive Plan (or Equity Plan) and the 2010 Employee Stock Purchase Plan (or ESPP). These shares represent an automatic annual increase in the number of shares available for issuance under the Equity Plan and the ESPP of 3,961,094 and 792,219, respectively. These increases are equal to 5% and 1%, respectively, of 79,221,883 shares, the total outstanding shares of the Company’s common stock as of December 31, 2014. This automatic increase was effective as of January 1, 2015. Shares available for issuance under the Equity Plan and ESPP were initially registered on a registration statement on Form S-8 filed with the Securities and Exchange Commission on October 1, 2010 (Registration No. 333-169715). The Company filed a registration statement on Form S-8 on April 2, 2015 (Registration No. 333-203213) with respect to the shares added by the automatic increase on January 1, 2015.

Common Stock

As of December 31, 2015 and 2014, the Company was authorized to issue 400,000,000 and 300,000,000 shares of common stock, respectively, pursuant to the Company’s certificate of incorporation, as amended and restated (in

September 2015, the Company filed an amended and restated certificate of incorporation to increase the shares of common stock authorized by the Company from 300,000,000 to 400,000,000 in connection with the approval by the Company's stockholders at the special meeting of the Company's stockholders held in September 2015). Holders of the Company's common stock are entitled to dividends as and when declared by the Board, subject to the rights of holders of all classes of stock outstanding having priority rights as to dividends. There have been no dividends declared to date. The holder of each share of common stock is entitled to one vote.

Preferred Stock

Pursuant to the Company's amended and restated certificate of incorporation, the Company is authorized to issue 5,000,000 shares of preferred stock. The Board has the authority, without action by its stockholders, to designate and issue shares of preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions thereof. As of December 31, 2015 and December 31, 2014, the Company had zero shares of convertible preferred stock outstanding.

Common Stock Warrants

In December 2011, in connection with a capital lease agreement, the Company issued warrants to purchase 21,087 shares of the Company's common stock at an exercise price of $10.67 per share. The Company estimated the fair value of these warrants as of the issuance date to be $0.2 million and recorded these warrants as other assets, amortizing them subsequently over the term of the lease. The fair value was based on the contractual term of the warrants of 10 years, risk free interest rate of 2%, expected volatility of 86% and zero expected dividend yield. These warrants remain unexercised and outstanding as of December 31, 2015.

In October 2013, in connection with the issuance of the Tranche I Notes (see Note 5, "Debt"), the Company issued to Temasek contingently exercisable warrants to purchase 1,000,000 shares of the Company's common stock at an exercise price of $0.01 per share. The Company estimated the fair value of these warrants as of the issuance date at $1.3 million and recorded these warrants as debt issuance cost to be amortized over the term of the Tranche I Notes. The fair-value was calculated using a Monte Carlo simulation valuation model based on the contractual term of the warrants of 3.4 years, risk free interest rate of 0.77%, expected volatility of 45% and zero expected dividend yield. These warrants have been exercised as of December 31, 2015.

Each of these warrants includes a cashless exercise provision which permits the holder of the warrant to elect to exercise the warrant without paying the cash exercise price, and receive a number of shares determined by multiplying (i) the number of shares for which the warrant is being exercised by (ii) the difference between the fair market value of the stock on the date of exercise and the warrant exercise price, and dividing such by (iii) the fair market value of the stock on the date of exercise. During the years ended December 31, 2015 and 2014, no warrants were exercised through the cashless exercise provision.

The Temasek Exchange Warrant and Total Funding Warrant issued under the Exchange Agreement were recognized in equity at fair value on July 29, 2015. The fair value was calculated using a Black-Scholes valuation model based on the contractual term of the warrants, risk free interest rate of 2%, expected volatility of 74% and zero expected dividend yield. See Note 5, "Debt," for further details.

In July 2015, in connection with a private offering of the Company's common stock, the Company issued warrants to purchase a total of 1,602,562 of shares of common stock to the investors in the private offering. The warrants have an exercise price of $0.01 per share and, as of December 31, 2015, 1,442,307 of these warrants remain unexercised and outstanding.

As of December 31, 2015 and 2014, the Company had 4,343,733 and 1,021,087 of unexercised common stock warrants, respectively.

11. Stock-Based Compensation Plans

2010 Equity Incentive Plan

The Company's 2010 Equity Incentive Plan (or 2010 Equity Plan) became effective on September 28, 2010 and will terminate in 2020. Pursuant to the 2010 Equity Plan, any shares of the Company's common stock (i) issued upon exercise of stock options granted under the Company's 2005 Stock Option/Stock Issuance Plan (or the 2005 Plan) that cease to be subject to such option and (ii) issued under the 2005 Plan that are forfeited or repurchased by the Company at the original purchase price will become part of the 2010 Equity Plan. Subsequent to the effective date of the 2010 Equity Plan, an additional 2,148,585 shares that were forfeited under the 2005 Plan were added to the shares reserved for issuance under the 2010 Equity Plan.

The number of shares reserved for issuance under the 2010 Equity Plan increase automatically on January 1st of each year starting with January 1, 2011, by a number of shares equal to 5% percent of the Company's total outstanding shares as of the immediately preceding December 31st. However, the Company's Board of Directors or the Leadership Development and Compensation Committee of the Board of Directors retains the discretion to reduce the amount of the increase in any particular year. The 2010 Equity Plan provides for the granting of common stock options, restricted stock awards, stock bonuses, stock appreciation rights, restricted stock units and performance awards. It allows for time-based or performance-based vesting for the awards. Options granted under the 2010 Equity Plan may be either incentive stock options (or ISOs) or non-statutory stock options (or NSOs). ISOs may be granted only to Company employees (including officers and directors who are also employees). NSOs may be granted to Company employees, non-employee directors and consultants. The Company will be able to issue no more than 30,000,000 shares pursuant to the grant of ISOs under the 2010 Equity Plan. Options under the 2010 Equity Plan may be granted for periods of up to ten years. All options issued to date have had a ten year life. Under the plan, the exercise price of any ISOs and NSOs may not be less than 100% of the fair market value of the shares on the date of grant. The exercise price of any ISOs and NSOs granted to a 10% stockholder may not be less than 110% of the fair value of the underlying stock on the date of grant. The options granted to date generally vest over four to five years.

As of December 31, 2015 and 2014, options to purchase 11,321,194 and 8,692,818 shares, respectively, of the Company's common stock granted from the 2010 Equity Plan were outstanding. As of December 31, 2015 and 2014, 1,833,004 and 5,133,576 shares, respectively, of the Company's common stock remained available for future awards that may be granted from the 2010 Equity Plan. The options outstanding as of December 31, 2015 and 2014 had a weighted-average exercise price of approximately $4.27 per share and $5.72 per share, respectively.

2005 Stock Option/Stock Issuance Plan

In 2005, the Company established its 2005 Plan which provided for the granting of common stock options, restricted stock units, restricted stock and stock purchase rights awards to employees and consultants of the Company. The 2005 Plan allowed for time-based or performance-based vesting for the awards. Options granted under the 2005 Plan were ISOs or NSOs. ISOs were granted only to Company employees (including officers and directors who are also employees). NSOs were granted to Company employees, non-employee directors, and consultants.

All options issued under the 2005 Plan had a ten year life. The exercise prices of ISOs and NSOs granted under the 2005 Plan were not less than 100% of the estimated fair value of the shares on the date of grant, as determined by the Board of Directors. The exercise price of an ISO and NSO granted to a 10% stockholder could not be less than 110% of the estimated fair value of the underlying stock on the date of grant as determined by the Board. The options generally vested over 5 years.

As of December 31, 2015 and 2014, options to purchase 1,548,918 and 1,787,160 shares, respectively, of the Company’s common stock granted from the 2005 Stock Option/Stock Issuance Plan remained outstanding and as a result of the adoption of the 2010 Equity Incentive Plan discussed above, zero shares of the Company’s common stock remained available for future awards issuance under the 2005 Plan. The options outstanding under the 2005 Plan as of December 31, 2015 and 2014 had a weighted-average exercise price of approximately $8.46 per share and $8.04 per share, respectively.

2010 Employee Stock Purchase Plan

The 2010 Employee Stock Purchase Plan (or the 2010 ESPP) became effective on September 28, 2010. The 2010 ESPP is designed to enable eligible employees to purchase shares of the Company’s common stock at a discount. Each offering period is for one year and consists of two six-month purchase periods. Each twelve-month offering period generally commences on May 16th and November 16th, each consisting of two six-month purchase periods. The purchase price for shares of common stock under the 2010 ESPP is the lesser of 85% of the fair market value of the Company’s common stock on the first day of the applicable offering period or the last day of each purchase period. A total of 168,627 shares of common stock were initially reserved for future issuance under the 2010 Employee Stock Purchase Plan. During the first eight years of the life of the 2010 ESPP, the number of shares reserved for issuance increases automatically on January 1st of each year, starting with January 1, 2011, by a number of shares equal to 1% of the Company’s total outstanding shares as of the immediately preceding December 31st However, the Company’s Board of Directors or the Leadership Development and Compensation Committee of the Board of Directors retains the discretion to reduce the amount of the increase in any particular year. No more than 10,000,000 shares of the Company’s common stock may be issued under the 2010 ESPP and no other shares may be added to this plan without the approval of the Company’s stockholders.

During the year ended December 31, 2015 and 2014, 385,892 and 352,816 shares, respectively, of the Company's common stock were purchased under the 2010 ESPP. At December 31, 2015 and 2014, 1,221,896 and 815,569 shares, respectively, of the Company’s common stock remained available for issuance under the 2010 ESPP.

Stock Option Activity

The Company's stock option activity and related information for the year ended December 31, 2015 was as follows:

	Number Outstanding	**Weighted-Average Exercise Price**	**Weighted-Average Remaining Contractual Life (Years)**	**Aggregate Intrinsic Value**
				(in thousands)
Outstanding - December 31, 2014	10,539,978	$ 6.10	7.22	$ 50
Options granted	4,720,278	$ 1.84	—	—
Options exercised	(13,250)	$ 1.38	—	—
Options cancelled	(2,316,894)	$ 4.89	—	—
Outstanding - December 31, 2015	12,930,112	$ 4.77	7.39	$ 22
Vested and expected to vest after December 31, 2015	11,967,864	$ 4.98	7.21	$ 20
Exercisable at December 31, 2015	6,226,620	$ 7.43	5.57	$ 12

The aggregate intrinsic value of options exercised under all option plans was $0.0 million, $0.6 million and $0.6 million for the years ended December 31, 2015, 2014 and 2013, respectively, determined as of the date of option exercise.

The Company's restricted stock units (or RSUs) and restricted stock activity and related information for the year ended December 31, 2015 was as follows:

	RSUs	Weighted-Average Grant-Date Fair Value	**Weighted Average Remaining Contractual Life (Years)**
Outstanding - December 31, 2014	1,975,503	$ 3.28	0.93
Awarded	4,988,539	$ 1.82	—
Vested	(1,046,468)	$ 3.10	—
Forfeited	(362,730)	$ 2.90	—
Outstanding - December 31, 2015	5,554,844	$ 2.03	1.61
Expected to vest after December 31, 2015	4,698,610	$ 2.05	1.47

The following table summarizes information about stock options outstanding as of December 31, 2015:

	Options Outstanding			Options Exercisable	
Exercise Price	Number of Options	Weighted-Average Remaining Contractual Life (Years)	Weighted-Average Exercise Price	Number of Options	Weighted-Average Exercise Price
$0.28—$1.67	1,363,293	9.43	$ 1.62	65,593	$ 1.44
$1.69—$1.75	1,338,225	9.64	$ 1.73	—	$ —
$1.78—$1.80	121,000	9.33	$ 1.79	437	$ 1.80
$1.96—$1.96	1,390,783	9.44	$ 1.96	—	$ —
$1.98—$2.79	1,661,324	7.41	$ 2.62	930,882	$ 2.71
$2.81—$3.05	1,322,620	7.23	$ 2.94	902,484	$ 2.94
$3.08—$3.44	323,669	7.55	$ 3.33	192,283	$ 3.30
$3.51—$3.51	1,922,290	8.06	$ 3.51	829,483	$ 3.51
$3.55—$3.93	1,481,696	4.89	$ 3.87	1,324,343	$ 3.88
$4.08—$30.17	2,005,212	4.07	$ 16.16	1,981,115	$ 16.30
$0.28—$30.17	12,930,112	7.39	$ 4.77	6,226,620	$ 7.43

Stock-Based Compensation Expense

Stock-based compensation expense related to options and restricted stock units granted to employees and nonemployees was allocated to research and development expense and sales, general and administrative expense as follows (in thousands):

	Years Ended December 31,		
	2015	2014	2013
Research and development	$2,306	$3,508	$4,281
Sales, general and administrative	6,828	10,597	13,766
Total stock-based compensation expense	$9,134	$14,105	$18,047

During the years ended December 31, 2015, 2014 and 2013, the Company granted options to purchase 4,720,278 shares, 3,683,791 shares, and 2,849,919 shares of its common stock, respectively, with weighted-average grant date fair values of $1.21, $2.31, and $1.98 per share, respectively. Compensation expense of $6.0 million, $10.1 million, and $13.1 million was recorded for the years ended December 31, 2015, 2014 and 2013, respectively, for stock-based options granted. As of December 31, 2015, 2014 and 2013, there were unrecognized compensation costs of $8.0 million, $11.4 million, and $15.0 million, respectively, related to these stock options. The Company expects to recognize those costs over a weighted-average period of 3.0 years and 2.8 years as of December 31, 2015 and 2014, respectively. Future option grants will increase the amount of compensation expense to be recorded in these periods.

During the years ended December 31, 2015, 2014 and 2013, 4,988,539, 1,083,300 and 1,222,250 of restricted stock units, respectively, were granted with a weighted-average service-inception date fair value of $1.82, $3.51 and $2.85 per unit, respectively. The Company recognized a total of $2.8 million, $3.3 million and $4.1 million, respectively, in December 31, 2015, 2014 and 2013 in stock-based compensation expense for restricted stock units granted. As of December 31, 2015, 2014 and 2013, there were unrecognized compensation costs of $7.7 million, $3.6 million and $3.6 million, respectively, related to these restricted stock units.

During the years ended December 31, 2015, 2014 and 2013, the Company also recognized stock-based compensation expense related to its 2010 ESPP of $0.3 million, $0.5 million, and $0.6 million, respectively.

Employee stock-based compensation expense recognized for the years ended December 31, 2015, 2014 and 2013 included zero, $0.1 million and $1.0 million, respectively, related to option modifications. As part of separation agreements with certain former senior employees, the Company agreed to accelerate the vesting of options for zero, zero and 458,424 shares of common stock and extend the exercise period for certain grants in the years ended December 31, 2015, 2014 and 2013, respectively.

Stock-based compensation cost for RSUs is measured based on the closing fair market value of the Company's common stock on the date of grant. Stock-based compensation expense for stock options and employee stock purchase plan rights is estimated at the grant date and offering date, respectively, based on the fair-value using the Black-Scholes option pricing model. The fair value of employee stock options is being amortized on a straight-line basis over the requisite service period of the awards. The fair value of employee stock options was estimated using the following weighted-average assumptions:

	Years Ended December 31,		
	2015	2014	2013
Expected dividend yield	— %	— %	— %
Risk-free interest rate	1.8 %	1.9 %	1.4 %
Expected term (in years)	6.08	6.10	6.10
Expected volatility	74 %	75 %	82 %

Expected Dividend Yield - The Company has never paid dividends and does not expect to pay dividends.

Risk-Free Interest Rate - The risk-free interest rate was based on the market yield currently available on United States Treasury securities with maturities approximately equal to the options' expected terms.

Expected Term—Expected term represents the period that the Company’s stock-based awards are expected to be outstanding. The Company’s assumption about the expected term has been based on that of companies that have similar industry, life cycle, revenues, and market capitalization and the historical data on employee exercises.

Expected Volatility—The expected volatility is based on a combination of historical volatility for the Company's stock and the historical stock volatilities of several of the Company’s publicly listed comparable companies over a period equal to the expected terms of the options, as the Company does not have a long trading history.

Forfeiture Rate—The Company estimates its forfeiture rate based on an analysis of its actual forfeitures and will continue to evaluate the adequacy of the forfeiture rate based on actual forfeiture experience, analysis of employee turnover behavior, and other factors. The impact from a forfeiture rate adjustment will be recognized in full in the period of adjustment, and if the actual number of future forfeitures differs from that estimated by the Company, the Company may be required to record adjustments to stock-based compensation expense in future periods.

Each of the inputs discussed above is subjective and generally requires significant management and director judgment.

12. Employee Benefit Plan

The Company established a 401(k) Plan to provide tax deferred salary deductions for all eligible employees. Participants may make voluntary contributions to the 401(k) Plan up to 90% of their eligible compensation, limited by certain Internal Revenue Service (or IRS) restrictions. Effective January 2014, the Company implemented a discretionary employer match plan whereby the Company matches employee contributions for the year ended December 31, 2014 onwards up to the IRS limit or 90% of compensation, with a minimum one year of service required for vesting. The total matching amount for the years ended December 31, 2015 and 2014, was $0.5 million and $0.4 million, respectively.

13. Related Party Transactions

Letter Agreements with Total

In March 2013 and April 2014, respectively, the Company entered into letter agreements with Total that reduced the respective conversion prices of certain convertible promissory notes issuable under the Total Purchase Agreement, as described under “Related Party Convertible Notes” in Note 5, "Debt."

Related Party Financings

In March 2013, the Company completed a private placement of 1,533,742 shares of its common stock to an existing stockholder, Biolding SA, at a price of $3.26 per share for aggregate proceeds of $5.0 million. This private placement represented the final tranche of Biolding's preexisting contractual obligation to fund $15.0 million upon satisfaction by the Company of certain criteria associated with the commissioning of a production plant in Brotas, Brazil.

In June 2013, the Company sold and issued a 1.5% Senior Unsecured Convertible Note to Total with a principal amount of $10.0 million with a March 1, 2017 maturity date pursuant to the Total Purchase Agreement as discussed above under “Related Party Convertible Notes” in Note 5, “Debt."

In July 2013, the Company sold and issued a 1.5% Senior Unsecured Convertible Note to Total with a principal amount of $20.0 million with a March 1, 2017 maturity date pursuant to the Total Purchase Agreement as discussed above under “Related Party Convertible Notes” in Note 5, “Debt."

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In August 2013, the Company entered into a securities purchase agreement by and among the Company, Total and Temasek, each a beneficial owner of more than 5% of the Company's outstanding common stock at the time of the transaction and each affiliated with members of our Board of Directors, for a private placement of convertible promissory notes in an aggregate principal amount of $73.0 million. The initial closing of the August 2013 Financing was completed in October 2013 for the sale of approximately $42.6 million of the Tranche I Notes and the second closing of the August 2013 Financing for the sale of approximately $30.4 million of the Tranche II Notes was completed in January 2014 (the Company issued to Temasek $25.0 million of Tranche II Notes for cash and Total purchased approximately $6.0 million of Tranche II Notes through cancellation of the same amount of principal of previously outstanding convertible promissory notes held by Total (in respect of Total's preexisting contractual right to maintain its pro rata ownership position through such cancellation)). See “Related Party Convertible Notes” in Note 5, "Debt."

In September 2013, the Company entered into a bridge loan agreement with an existing investor to provide additional cash availability of up to $5.0 million as needed before the initial closing of the August 2013 Financing. The Company did not use this facility and it expired in October 2013 in accordance with its terms.

In October 2013, the Company sold and issued a senior secured promissory note to Temasek for a bridge loan of $35.0 million. The note was due on February 2, 2014 and accrued interest at a rate of 5.5% each four months from October 4, 2013 (with a rate of 2% per month if a default occurred). The note was cancelled as payment for the investor’s purchase of Tranche I Notes in the August 2013 Financing. See "Related Party Convertible Notes" in Note 5, "Debt."

In October 2013, the Company completed the closing of the first tranche of the August 2013 Financing, which resulted in the exchange and cancellation of the $35.0 million Temasek Bridge Note and the $9.2 million Total convertible note, as a result of the exchange and cancellation the Company recorded a loss from extinguishment of debt of $19.9 million (see Note 5, "Debt").

In December 2013, the Company agreed (i) to exchange the $69.0 million outstanding 1.5% Senior Unsecured Convertible Notes due March 2017 and issue replacement 1.5% Senior Secured Convertible Notes due March 2017, in principal amounts equal to the principal amount of each cancelled note and (ii) that all notes issued in connection with a third closing under the Total Purchase Agreement would be senior secured convertible notes instead of senior unsecured convertible notes (see "Related Party Convertible Notes" in Note 5, "Debt").

In December 2013, the Company agreed to issue to Temasek $25.0 million of the second tranche of convertible promissory notes for cash. Total purchased approximately $6.0 million of the second tranche of convertible promissory notes through cancellation of the same amount of principal of previously outstanding convertible promissory notes held by Total (in respect of Total’s preexisting contractual right to maintain its pro rata ownership position through such cancellation). Such financing transactions closed in January 2014 (see Note 5, "Debt").

In April 2014, the Company and Total entered into the March 2014 Total Letter Agreement under which the Company agreed to, (i) amend the conversion price of the convertible notes to be issued in the third closing under the Total Purchase Agreement from $7.0682 per share to $4.11 per share subject to stockholder approval at the Company's 2014 annual meeting (which was obtained in May 2014), (ii) extend the period during which Total may exchange for other Company securities certain outstanding convertible promissory notes issued under the Total Fuel Agreements from June 30, 2014 to the later of December 31, 2014 and the date on which the Company shall have raised $75.0 million of equity and/or convertible debt financing (excluding any convertible promissory notes issued pursuant to the Total Purchase Agreement), (iii) eliminate the Company’s ability to qualify, in a disclosure letter to Total, certain of the representations and warranties that the Company must make at the closing of any third closing sale, and (iv) beginning on March 31, 2014, provide Total with monthly reporting on the Company’s cash, cash equivalents and short-term investments. In consideration of these agreements, Total agreed to waive its right not to consummate the closing of the issuance of the third closing notes if it had decided not to proceed with the collaboration and made a "No-Go" decision with respect thereto.

In May 2014, the Company sold and issued 2014 144A Notes pursuant to the 2014 144A Offering. In connection with obtaining a waiver from one of its existing investors, Total, of its preexisting contractual right to exchange certain senior secured convertible notes previously issued by Amyris for new notes issued in the 2014 144A Offering, Amyris used approximately $9.7 million of the net proceeds of the 2014 144A Offering to repay such amount of notes previously issued to Total (representing the amount of notes purchased by Total in the 144A Offering). Additionally, Foris Ventures, LLC (a fund affiliated with John Doerr) (“Foris”) and Temasek each participated in the 2014 Rule 144A Convertible Note Offering and purchased $5.0 million and $10.0 million, respectively, of the convertible promissory notes sold thereunder (see "Related Party Convertible Notes" in Note 5, “Debt").

In July 2014 and January 2015, the Company sold and issued 1.5% Senior Secured Convertible Notes to Total with an aggregate principal amount of $21.70 million with a March 1, 2017 maturity date pursuant to the Total Purchase Agreement as discussed under "Related Party Convertible Notes" in Note 5, "Debt." These convertible notes (each with a principal amount of $10.85 million) had an initial conversion price equal to $4.11 per share of the Company's common stock.

In July 2015, the Company sold and issued 16,025,642 shares of the Company’s common stock at a price per share of $1.56, under a Securities Purchase Agreement, dated as of July 24, 2015, by and among the Company, and the purchasers named therein. The purchasers included existing stockholders: Foris, which purchased 9,615,384 shares; Total, which purchased 1,282,051 shares; and Naxyris S.A. (an investment vehicle owned by Naxos Capital Partners SCA Sicar; director Carole Piwnica is Director of NAXOS UK, which is affiliated with Naxos Capital Partners SCA Sicar, and was designated to serve on our Board by Naxyris S.A. pursuant to a letter agreement between us, Naxyris S.A. and the other parties thereto), which purchased 2,243,594 shares. Pursuant to the Securities Purchase Agreement, the Company agreed to grant to each of the purchasers a warrant with a term of five years exercisable at an exercise price of $0.01 per share for the purchase of a number of shares of the Company’s common stock equal to 10% of the shares purchased by such investor. The exercisability of the warrants was subject to stockholder approval, which was obtained on September 17, 2015.

Refer to Note 5, "Debt", for details of the related party transactions under the Exchange and Maturity Treatment agreements.

As of December 31, 2015 and 2014, convertible notes with related parties were outstanding in an aggregate principal amount of $43.0 million and $115.2 million, respectively, net of debt discount of $1.6 million and $53.8 million, respectively. The Company recorded losses of $5.9 million, $10.5 million and $19.9 million from extinguishment of debt from the settlement, exchange and/or cancellation of related party convertible notes for the years ended December 31, 2015, 2014 and 2013, respectively (see "Related Party Convertible Notes" in Note 5, "Debt" for details).

The fair value of derivative liabilities related to the related party convertible notes as of December 31, 2015 and 2014 were $7.9 million and $39.8 million, respectively. The Company recognized a gain from change in fair value of the derivative instruments of $10.5 million and $141.2 million for the years ended December 31, 2015 and 2014, and a loss from change in fair value of the derivative instruments of $76.2 million for the year ended December 31, 2013, related to these derivative liabilities (see Note 3, "Fair Value of Financial Instruments").

Related Party Revenues

The Company recognized related party revenues from product sales to Total of $0.9 million, $0.6 million and $0.2 million for the years ended December 31, 2015, 2014 and 2013, respectively. Related party accounts receivable from Total as of December 31, 2015 and 2014, were $1.2 million and $0.3 million, respectively.

Loans to Related Parties

See Note 7, "Joint Ventures and Noncontrolling Interest" for details of the Company's loans to its affiliate, Novvi LLC.

Joint Venture with Total

In November 2013, the Company and Total formed TAB as discussed above under Note 7, "Joint Ventures and Noncontrolling Interest."

Pilot Plant Agreements

In May 2014, the Company received the final consents necessary for the Pilot Plant Services Agreement (or Pilot Plant Services Agreement) and a Sublease Agreement (or the Sublease Agreement), each dated as of April 4, 2014 (collectively the Pilot Plant Agreements), between the Company and Total. The Pilot Plant Agreements generally have a term of five years. Under the terms of the Pilot Plant Services Agreement, the Company agreed to provide certain fermentation and downstream separations scale-up services and training to Total and receives an aggregate annual fee payable by Total for all services in the amount of up to approximately $0.9 million per annum. In July 2015, Total and the Company entered into Amendment #1 (the "Pilot Plant Agreement Amendment") to the Pilot Plant Services Agreement whereby the Company agreed to waive a portion of these fees, up to approximately $2.0 million, over the term of the Pilot Plant Services Agreement in connection with the restructuring of TAB discussed above. Under the

Sublease Agreement, the Company receives an annual base rent payable by Total of approximately $0.1 million per annum.

As of December 31, 2015, the Company had received $1.7 million in cash under the Pilot Plant Agreements from Total. In connection with these arrangements, sublease payments and service fees of $0.9 million and $0.7 million were offset against cost and operating expenses for the year ended December 31, 2015 and 2014, respectively. As of December 31, 2015 and 2014, zero and $0.2 million, respectively, of cash received under the Pilot Plant Agreements from Total was recorded as "Accrued and other current liabilities" on the consolidated balance sheet.

See the *Naxyris Securities Purchase Agreement* of Note 8 “*Significant Agreements*” for a description of transactions with Naxyris, a related party of the Company.

14. Income Taxes

For each of the years ended December 31, 2015 and 2014, the Company recorded a provision from income taxes of $0.5 million and for the year ended December 31, 2013, the Company recorded a benefit for income taxes of $0.8 million. The provision for income taxes for the years ended December 31, 2015 and 2014, generally relates to accrued withholding taxes that would be due in connection with the payment of interest on intercompany loans. In the year ended December 31, 2013, the recorded tax benefit was associated with the conversion of certain loans to equity, which reduces the accrual of the interest from the Company's subsidiary and will correspondingly eliminate the withholding tax obligation. Other than the above mentioned provision for income tax, no additional provision for income taxes has been made, net of the valuation allowance, due to cumulative losses since the commencement of operations.

The components of income (loss) before income taxes, loss from investment in affiliate and noncontrolling interest are as follows for the years ended December 31, 2015, 2014 and 2013 (in thousands):

	Years Ended December 31,		
	2015	2014	2013
United States	$(193,128)	$10,847	$(216,583)
Foreign	(24,457)	(5,275)	(19,171)
Income (loss) before income taxes and loss from investment in affiliate	$(217,585)	$5,572	$(235,754)

The components of the provision for (benefit from) income taxes are as follows for the years ended December 31, 2015, 2014 and 2013 (in thousands):

	Years Ended December 31,		
	2015	2014	2013
Current:			
Federal	$—	$—	$—
State	—	—	—
Foreign	468	495	(847)
Total current provision (benefit)	468	495	(847)
Deferred:			
Federal	—	—	—
State	—	—	—
Foreign	—	—	—
Total deferred provision (benefit)	—	—	—
Total provision (benefit) for income taxes	$468	$495	$(847)

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A reconciliation between the statutory federal income tax and the Company's effective tax rates as a percentage of income (loss) before income taxes is as follows:

	Years Ended December 31,		
	2015	2014	2013
Statutory tax rate	(34.0)%	(34.0)%	(34.0)%
State tax rate, net of federal benefit	(0.3)%	23.3 %	(0.7)%
Stock-based compensation	0.1 %	(2.8)%	0.1 %
Federal R&D credit	(0.6)%	31.0 %	(0.8)%
Derivative liabilities	3.6 %	541.5 %	13.9 %
Non-Deductible Interest	5.5 %	— %	0.0 %
Other	0.1 %	(7.8)%	(0.6)%
Foreign losses	(1.2)%	32.3 %	(1.4)%
Change in valuation allowance	27.1 %	(592.4)%	23.1 %
Effective income tax rate	0.3 %	(8.9)%	(0.4)%

Temporary differences and carryforwards that gave rise to significant portions of deferred taxes are as follows (in thousands):

	December 31,		
	2015	2014	2013
Net operating loss carryforwards	$207,241	$195,536	$167,354
Fixed assets	10,519	1,299	822
Research and development credits	16,612	14,701	11,654
Foreign Tax Credit	1,899	1,431	935
Accruals and reserves	26,366	16,425	17,893
Stock-based compensation	19,048	18,773	17,521
Capitalized start-up costs	9,568	13,095	15,133
Capitalized research and development costs	63,339	56,880	45,968
Other	9,999	6,700	6,741
Total deferred tax assets	364,591	324,840	284,021
Fixed assets	—	—	—
Debt discount and derivative	(4,402)	(12,517)	—
Total deferred tax liabilities	(4,402)	(12,517)	—
Net deferred tax asset prior to valuation allowance	360,189	312,323	284,021
Less: Valuation allowance	(360,189)	(312,323)	(284,021)
Net deferred tax assets (liabilities)	$—	$—	$—

Recognition of deferred tax assets is appropriate when realization of such assets is more likely than not. Based upon the weight of available evidence, especially the uncertainties surrounding the realization of deferred tax assets through future taxable income, the Company believes it is more likely than not that the net deferred tax assets will not be fully realizable. Accordingly, the Company has provided a full valuation allowance against its net deferred tax assets as of December 31, 2015, 2014 and 2013. The valuation allowance increased by $47.9 million, $28.3 million, and $47.7

million, during the years ended December 31, 2015, 2014 and 2013, respectively.

On November 20, 2015, the FASB issued Accounting Standards Update 2015-17, Balance Sheet Classification of Deferred Taxes. The ASU is part of the Board's simplification initiative aimed at reducing complexity in accounting standards and requires companies to classify all deferred tax assets and liabilities, along with any related valuation allowance, as noncurrent on the balance sheet. Although ASU 2015-17 isn't required for public companies to implement until fiscal years beginning after December 15, 2016, early adoption is allowed. The Company decided to adopt early and has classified all of its deferred tax assets and liabilities, along with its valuation allowance as noncurrent on the balance sheet. The Company early adopted ASU 2015-17 as the Company considers this change an improvement in the usefulness of information provided to users of the Company's financial statements. The Company applied the standard prospectively and did not retrospectively adjust any prior periods.

As of December 31, 2015 and 2014, the Company had federal net operating loss carryforwards of approximately $570.3 million and $525.6 million, respectively, and state net operating loss carryforwards $200.3 million and $200.7 million, respectively, available to reduce future taxable income, if any. As of December 31, 2015 and 2014, approximately $27.1 million and $27.1 million, respectively, of the federal loss carryforwards and $12.9 million and $13.8 million, respectively, of state net operating loss carryforwards, resulted from exercises of employee stock options and vesting of restricted stock units and have not been included in the Company's gross deferred tax assets. In accordance with ASC 718, such unrealized tax benefits will be accounted for as a credit to additional paid-in capital if and when realized through a reduction in income taxes payable.

During the year ended December 31, 2015, unrecognized tax benefits of $8.5 million were resolved in connection with the outcome of a California Supreme Court case, involving another taxpayer, that concluded on a methodology which follows that certain of the Company's net operating losses cannot be sustained. The decision had no impact on the Company's gross deferred tax assets as presented, as the Company's deferred tax asset for net operating losses was previously reported, net of a reserve for this same item

The Company also has federal research and development credits of $9.8 million and $8.5 million and California research and development credit carryforwards of $10.4 million and $9.4 million, at December 31, 2015 and 2014, respectively.

The Tax Reform Act of 1986 (or the TRA) and similar state provisions limit the use of net operating loss and credit carryforwards in certain situations where equity transactions result in a change of ownership as defined by Internal Revenue Code Section 382. In the event the Company has experienced an ownership change, as defined in the TRA, utilization of its federal and state net operating loss and credit carryforwards could be limited. If not utilized, the federal net operating loss carryforward begins expiring in 2025, and the California net operating loss carryforward begins expiring in 2015. The federal research and development credit carryforwards will expire starting in 2024 if not utilized. The California tax credits can be carried forward indefinitely.

A reconciliation of the beginning and ending amounts of unrecognized tax benefits is as follows:

Balance at December 31, 2012	$3,918
Increases in tax positions for prior period	469
Increases in tax positions during current period	1,693
Balance at December 31, 2013	$6,080
Increases in tax positions for prior period	4,736
Increases in tax positions during current period	6,265
Balance at December 31, 2014	$17,081
Decreases in tax positions for prior period	(9,404)

Increases in tax positions during current period	957
Balance at December 31, 2015	$8,634

The Company's policy is to include interest and penalties related to unrecognized tax benefits within the provision for taxes. The Company determined that no accrual for interest and penalties was required as of December 31, 2015 or December 31, 2014.

None of the tax benefits, if recognized, would affect the effective income tax rate for any of the above years due to the valuation allowance that currently offsets deferred tax assets. The Company does not anticipate the total amount of unrecognized income tax benefits will significantly increase or decrease in the next 12 months.

The Company's primary tax jurisdiction is the United States. For United States federal and state tax purposes, returns for tax years 2004 and forward remain open and subject to tax examination by the appropriate federal or state taxing authorities. Brazil tax years 2009 through the current remain open and subject to examination.

As of December 31, 2015, the US Internal Revenue Service (or the IRS) has completed its audit of the Company for tax year 2008 which concluded that there were no adjustments resulting from the audit. While the statutes are closed for tax year 2008, the US federal tax carryforwards (net operating losses and tax credits) may be adjusted by the IRS in the year in which the carryforward is utilized.

15. Reporting Segments

The chief operating decision maker for the Company is the chief executive officer. The chief executive officer reviews financial information presented on a consolidated basis, accompanied by information about revenues by geographic region, for purposes of allocating resources and evaluating financial performance. The Company has one business activity comprised of research and development and sales of fuels and farnesene-derived products and there are no segment managers who are held accountable for operations, operating results or plans for levels or components below the consolidated unit level. Accordingly, the Company has determined that it has a single reportable segment and operating segment structure.

Revenues by geography are based on the location of the customer. The following tables set forth revenues and long-lived assets by geographic area (in thousands):

Revenues

	Years Ended December 31,		
	2015	2014	2013
United States	$20,897	$21,331	$21,235
Brazil	5,070	5,961	4,071
Europe	3,557	9,738	10,340
Asia	4,629	6,244	5,473
Total	$34,153	$43,274	$41,119

Long-Lived Assets

	December 31,	
	2015	2014
United States	$18,401	$44,418
Brazil	41,093	74,197
Europe	303	365
Total	$59,797	$118,980

16. Subsequent Events

February 2016 Private Placement

On February 12, 2016, the Company entered into a Note and Warrant Purchase Agreement (the "February 2016 Purchase Agreement") with the purchasers named therein for the sale of $18.0 million in aggregate principal amount of unsecured promissory notes (the "2016 Notes") to the purchasers, as well as warrants to purchase 2,571,428 shares of the Company's common stock at an exercise price of $0.01 per share, representing aggregate proceeds to the Company of $18 million (the "Initial Sale"). On February 15, 2016, an additional purchaser joined the Purchase Agreement and purchased $2.0 million in aggregate principal amount of the 2016 Notes, as well as warrants to purchase 285,714 shares of the Company's common stock at an exercise price of $0.01 per share, representing aggregate proceeds to the Company of $2 million (the "Subsequent Sale" and together with the Initial Sale, the "February 2016 Private Placement").

The 2016 Notes are unsecured obligations of the Company and are subordinate to the Company's obligations under its Hercules Loan Facility pursuant to a Subordination Agreement, dated as of February 12, 2016, by and among the Company, the purchasers and the administrative agent under the Hercules Loan Facility. Interest will accrue on the 2016 Notes from and including, with respect to the Initial Sale, February 12, 2016, and with respect to the Subsequent Sale, February 15, 2016, at a rate of 13.50% per annum and is payable on May 15, 2017, the maturity date of the 2016 Notes, unless the Notes are prepaid in accordance with their terms prior to such date. The February 2016 Purchase Agreement and the 2016 Notes contain customary terms, provisions, representations and warranties, including certain events of default after which the 2016 Notes may be due and payable immediately, as set forth in the Notes.

The exercisability of the warrants sold in the February 2016 Private Placement, which each have a term of five years, will be subject to stockholder approval. The Company intends to solicit such approval at its 2016 annual meeting of stockholders.

Novvi Capital Contribution

In February 2016, the Company purchased additional membership units of Novvi for an aggregate purchase price of $0.6 million in the form of forgiveness of existing receivables due from Novvi related to rent and other services performed by the Company. Cosan, the other member of Novvi, purchased an equal number of additional membership units in Novvi in cash. Each member owns 50% of Novvi's issued and outstanding membership units.

At Market Issuance Sales Agreement

On March 8, 2016, the Company entered into an At Market Issuance Sales Agreement (the "ATM Sales Agreement") with FBR Capital Markets & Co. and MLV & Co. LLC (the "Agents") under which the Company may issue and sell shares of its common stock having an aggregate offering price of up to $50.0 million from time to time through the Agents, acting as its sales agents, under the Company's Registration Statement on Form S-3 (File No. 333-203216), effective April 9, 2015. Sales of the Company's common stock through the Agents, if any, will be made by any method that is deemed an "at the market offering" as defined in Rule 415 under the Securities Act, including by means of ordinary brokers' transactions at market prices, in block transactions, or as otherwise agreed by the Company and the Agents. The Agents will use commercially reasonable efforts consistent with their normal trading and sales practices. Each time that the Company wishes to issue and sell the Company's common stock under the ATM Sales Agreement, the Company will notify one of the Agents of the number of shares to be issued, the dates on which such sales are anticipated to be made, any minimum price below which sales may not be made and other sales parameters as the Company deems appropriate. The Company will pay the designated Agent a commission rate of up to 3.0% of the gross proceeds from the sale of any shares of common stock sold through such Agent as agent under the ATM Sales Agreement. The ATM Sales Agreement contains customary terms, provisions, representations and warranties.

TAB Restructuring

In July 2015, the Company and Total entered into a Letter Agreement (as amended in February 2016, the "JVCO Letter Agreement") regarding the restructuring of the ownership and rights of TAB (the "Restructuring"), pursuant to which the parties agreed to enter into an Amended & Restated Jet Fuel License Agreement between the Company and TAB (the "Jet Fuel Agreement"), a License Agreement regarding Diesel Fuel in the European Union (the "EU") between the Company and Total (the "EU Diesel Fuel Agreement", and together with the Jet Fuel Agreement, the "Commercial Agreements"), and an Amended and Restated Shareholders' Agreement among the Company, Total and TAB (together with the Commercial Agreements, the "Restructuring Agreements"), and file a Deed of Amendment of Articles of Association of TAB, all in order to reflect certain changes to the ownership structure of TAB and license grants and related rights pertaining to TAB.

On February 12, 2016, the Company and Total entered into an amendment to the JVCO Letter Agreement, pursuant to which the parties agreed that, upon the closing of the Restructuring, Total would cancel R&D Notes in an aggregate principal amount of approximately $1.3 million, plus all paid-in-kind and accrued interest as of the closing of the Restructuring under all outstanding R&D Notes (including all such interest that was outstanding as of July 29, 2015), and a note in the principal amount of Euro 50,000, plus accrued interest, issued by the Company to Total in connection with the existing TAB capitalization, in exchange for an additional 25% ownership interest of TAB (giving Total an aggregate ownership stake of 75% of TAB and giving the Company an aggregate ownership stake of 25% of TAB). In connection therewith, Total would surrender to the Company the remaining R&D Notes and the Company would provide to Total a new unsecured senior convertible note, containing substantially similar terms and conditions, in the principal amount of $3.7 million (collectively, the "TAB Share Purchase").

On March 21, 2016, the Company, Total and TAB closed the Restructuring and entered into the Restructuring Agreements.

Under the Jet Fuel Agreement, (a) the Company granted exclusive (excluding its Brazil jet fuel business), world-wide, royalty-free rights to TAB for the production and commercialization of farnesene- or farnesane-based jet fuel, (b) the Company granted TAB the option, until March 1, 2018, to purchase the Company's Brazil jet fuel business at a price based on the fair value of the commercial assets and on the Company's investment in other related assets, (c) the Company granted TAB the right to purchase farnesene or farnesane for its jet fuel business from the Company on a "most-favored" pricing basis and (d) all rights to farnesene- or farnesane-based diesel fuel previously granted to TAB by the Company reverted back to the Company.

Upon all farnesene- or farnesane-based diesel fuel rights reverting back to the Company, the Company granted to Total, pursuant to the EU Diesel Fuel Agreement, (a) an exclusive, royalty-free license to offer for sale and sell farnesene- or farnesane-based diesel fuel in the EU, (b) the right to make farnesene or farnesane anywhere in the world, provided Total must (i) use such farnesene or farnesane to produce diesel fuel to offer for sale or sell in the EU and (ii) pay the Company a to-be-negotiated, commercially reasonable, "most-favored" basis royalty and (c) the right to purchase farnesene or farnesane for its EU diesel fuel business from the Company on a "most-favored" pricing basis.

In addition, on March 21, 2016, the Company sold one half of the Company's ownership stake in TAB to Total pursuant to the TAB Share Purchase (giving Total an aggregate ownership stake of 75% of TAB and giving the Company an aggregate ownership stake of 25% of TAB), and executed and delivered to Total a new, senior convertible note (the "March 2016 R&D Note") in the principal amount of $3.7 million.

Other than it is unsecured and its payment terms are severed from TAB's business performance, the March 2016 R&D Note contains substantially similar terms and conditions to the R&D Notes. The March 2016 R&D Note has a March 1, 2017 maturity date and an initial conversion price equal to $3.08 per share of the Company's common stock, which is subject to adjustment for proportional adjustments to the Company's outstanding common stock and under anti-dilution provisions in case of certain dividends and distributions. The March 2016 R&D Note becomes convertible into the Company's common stock (i) within 10 trading days prior to maturity, (ii) on a change of control of the Company, and (iii) on a default by the Company. The March 2016 R&D Note bears interest at a rate of 1.5% per year (with a default rate of 2.5% per year), accruing from March 21, 2016 and payable at maturity or on conversion of the March 2016 R&D Note or a change of control of the Company where Total exercises its right to require the Company to repurchase the March 2016 R&D Note at a price equal to 101% of the principal amount of the March 2016 R&D Note. The Total Purchase Agreement and March 2016 R&D Note include covenants regarding, among other things, payment of interest, maintenance of the Company's listing status, limitations on debt and liens, maintenance of corporate existence, and filing of SEC reports. The March 2016 R&D Note contains standard events of default, including failure to pay, bankruptcy and insolvency, cross-defaults, and breaches of the covenants in the Total Purchase Agreement and the March 2016 R&D Note (and other notes issued under the Total Purchase Agreement), with added default interest rates and associated cure periods applicable to the covenant regarding SEC reporting.

As a result of, and in order to reflect, the changes to the ownership structure of TAB described above, on March 21, 2016, (a) the Company, Total and TAB entered into an Amended and Restated Shareholders' Agreement and filed a Deed of Amendment of Articles of Association of TAB and (b) the Company and Total terminated the Amended and

Restated Master Framework Agreement, dated December 2, 2013 and amended on April 1, 2015, between the Company and Total.

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SUPPLEMENTARY FINANCIAL DATA

Selected Quarterly Financial Data (unaudited)

The following table presents selected unaudited consolidated financial data for each of the eight quarters in the two-year periods ended December 31, 2015. In the Company's opinion, this unaudited information has been prepared on the same basis as the audited information and includes all adjustments (consisting of only normal recurring adjustments) necessary for a fair statement of the financial information for the periods presented. Net income (loss) per share—basic and diluted, for the four quarters of each fiscal year may not sum to the total for the fiscal year because of the different number of shares outstanding during each period.

	Quarter			
	First	Second	Third	Fourth
	(In thousands, except share and per share amounts)			
Year Ended December 31, 2015				
Total revenues	$7,872	$7,843	$8,591	$9,847
Product sales	$2,095	$3,340	$4,228	$5,233
Gross profit (loss) from product sales	$(4,548)	$(7,619)	$(4,227)	$(6,084)
Net income (loss) attributable to common stockholders (for basic income (loss) per share)[1]	$(52,240)	$(47,130)	$(76,664)	$(48,352)
Net income (loss) attributable to common stockholders (for diluted income (loss) per share)	$(52,240)	$(54,527)	$(76,664)	$(68,316)
Net income (loss) per share:				
Basic[1]	$(0.66)	$(0.59)	$(0.55)	$(0.23)
Diluted	$(0.66)	$(0.62)	$(0.55)	$(0.30)
Shares used in calculation:				
Basic	79,222,051	80,041,152	140,374,297	206,661,506
Diluted	79,222,051	87,421,439	140,374,297	231,014,248
Year Ended December 31, 2014				
Total revenues	$6,041	$9,307	$16,341	$11,585
Product sales	$2,845	$4,410	$11,480	$4,704
Gross profit (loss) from product sales	$(3,391)	$(3,101)	$1,334	$(4,605)
Net income (loss) attributable to common stockholders	$16,385	$(35,479)	$(36,641)	$58,021
Net income (loss) per share:				
Basic	$0.21	$(0.45)	$(0.46)	$0.73
Diluted	$(0.34)	$(0.45)	$(0.46)	$(0.21)
Shares used in calculation:				
Basic	76,830,388	78,604,692	78,980,402	79,148,281
Diluted	117,097,976	78,604,692	78,980,402	146,804,047

[1] Basic loss per share for the fourth quarter of 2015 is calculated by excluding from net income (loss) attributable to common stockholders a gain of $6,424 (thousand) related to a change in the fair value of a liability classified common stock warrant included in the Company's consolidated statement of operations. The warrant has a nominal exercise

price and shares issuable upon exercise of the warrant are considered equivalent to the Company's common shares for the purpose of computation of basic earnings per share and consequently losses are adjusted to exclude the gain.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

Not applicable.

ITEM 9A. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer (CEO) and Chief Financial Officer (CFO), evaluated the effectiveness of our disclosure controls and procedures pursuant to Rule 13a-15 under the Securities Exchange Act of 1934, as amended (Exchange Act), as of the end of the period covered by this Annual Report on Form 10-K. Based on this evaluation, our CEO and CFO concluded that, as of December 31, 2015, our disclosure controls and procedures are designed and are effective to provide reasonable assurance that information we are required to disclose in 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, and that such information is accumulated and communicated to our management, including our CEO and CFO, as appropriate, to allow timely decisions regarding required disclosure.

Our management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

Management's Annual Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is a process designed by, or under the supervision of, our CEO and CFO, and effected by our Board of Directors, management and other personnel, 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 and includes those policies and procedures that:

- Pertain to the maintenance of records that accurately and fairly reflect in reasonable detail the transactions and dispositions of the assets of our company;

- Provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and

- Provide reasonable assurances regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material adverse effect on our financial statements.

Our management assessed our internal control over financial reporting as of December 31, 2015, the end of our fiscal year. Management based its assessment on criteria established in "Internal Control-Integrated Framework" (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission**.** Based on management's assessment of our internal control over financial reporting, management concluded that, as of December 31, 2015, our internal control over financial reporting was effective. The effectiveness of the Company's internal control over financial reporting as of December 31, 2015 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which appears herein.

Internal control over financial reporting has inherent limitations. Internal control over financial reporting is a process that involves human diligence and compliance and is subject to lapses in judgment and breakdowns resulting from human failures. Internal control over financial reporting also can be circumvented by collusion or improper management override. Because of such limitations, there is a risk that material misstatements will not be prevented or detected on a timely basis by internal control over financial reporting. However, these inherent limitations are known features of the financial reporting process. Therefore, it is possible to design into the process safeguards to reduce, though not eliminate, this risk.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting identified in management's evaluation pursuant to Rules 13a-15(d) or 15d-15(d) of the Exchange Act during our fourth fiscal quarter ended December 31, 2015 that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

Not applicable.

PART III

Certain information required by Part III is omitted from this Annual Report on Form 10-K and is incorporated herein by reference from our definitive proxy statement relating to our 2016 annual meeting of stockholders, pursuant to Regulation 14A of the Exchange Act, also referred to in this Form 10-K as our 2016 Proxy Statement, which we expect to file with the SEC no later than 120 days from the end of fiscal year 2015.

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information appearing in our 2016 Proxy Statement under the following headings is incorporated herein by reference:

- Proposal 1—Election of Directors
- Corporate Governance
- Section 16(a) Beneficial Ownership Reporting Compliance

The information under the heading "Executive Officers of the Registrant" in Item 1(a) of this Annual Report on Form 10-K is also incorporated by reference in this section.

We have adopted a Code of Business Conduct and Ethics that applies to all directors, officers and employees of Amyris as required by NASDAQ governance rules and as defined by applicable SEC rules. Our Code of Business Conduct and Ethics includes a section entitled "Code of Ethics for Chief Executive Officer and Senior Financial Officers," providing additional principles for ethical leadership and a requirement that such individuals foster a culture throughout Amyris that helps ensure the fair and timely reporting of our financial results and condition. Our Code of Business Conduct and Ethics is available on the corporate governance section of our website at "http://investors.amyris.com/governance.cfm." Stockholders may also obtain a print copy of our Code of Business Conduct and Ethics and our Corporate Governance Guidelines by writing to the Secretary of Amyris at 5885 Hollis Street, Suite 100, Emeryville, California 94608. If we make any substantive amendments to our Code of Business Conduct and Ethics or grant any waiver from a provision of the Internal Revenue Code to any executive officer or director, we will promptly disclose the nature of the amendment or waiver on the corporate governance section of our website at "http://investors.amyris.com/governance.cfm."

ITEM 11. EXECUTIVE COMPENSATION

The information appearing in our 2016 Proxy Statement under the following headings is incorporated herein by reference:

- Executive Compensation
- Director Compensation
- Compensation Committee Interlocks and Insider Participation

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information appearing in our 2016 Proxy Statement under the following heading is incorporated herein by reference:

- Security Ownership of Certain Beneficial Owners and Management

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information appearing in our 2016 Proxy Statement under the following headings is incorporated herein by reference:

- Transactions with Related Persons
- Proposal 1—Election of Directors—Independence of Directors
- Proposal 1—Election of Directors—Committees of the Board

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information appearing in our 2016 Proxy Statement under the proposal entitled “Ratification of Appointment of Independent Registered Public Accounting Firm” is incorporated herein by reference.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

(a) The following documents are filed as part of this report on Form 10-K:

(1) Financial Statements. Reference is made to the Index to the registrant's Financial Statements under Item 8 in Part II of this Form 10-K.

(2) Financial Statement Schedules. The following consolidated financial statement schedule of the registrant is filed as part of this report on Form 10-K and should be read in conjunction with the Consolidated Financial Statements of Amyris, Inc.

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SCHEDULE II

VALUATION AND QUALIFYING ACCOUNTS

FOR THE YEARS ENDED DECEMBER 31, 2015, 2014 and 2013

(in thousands)

	Balance at Beginning of Period	Additions	Write-off Adjustments	Balance at End of Period
Deferred Tax Assets Valuation Allowance:				
Year ended December 31, 2015	$312,323	$47,866	$ —	$360,189
Year ended December 31, 2014	$284,021	$28,302	$ —	$312,323
Year ended December 31, 2013	$236,288	$47,733	$ —	$284,021

	Balance at Beginning of Period	Additions	Write-off Adjustments	Balance at End of Period
Allowance for Doubtful Accounts:				
Year ended December 31, 2015	$ 479	$ 490	$ —	$ 969
Year ended December 31, 2014	$ 479	$ —	$ —	$ 479
Year ended December 31, 2013	$ 481	$ —	$ (2)	$ 479

Schedules not listed above are omitted because they are not required, they are not applicable or the information is already included in the consolidated financial statements or notes thereto.

(3) Exhibits. The exhibits filed as a part of this report are listed in the exhibit index included herein at page 190.

(b) Exhibits.
Reference is made to Item 15(a) above.

(c) *Financial statements and schedules.*
Reference is made to Item 15(a) above.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized in the city of Emeryville, County of Alameda, State of California on March 30, 2016.

Dated: March 30, 2016 Amyris, Inc.

/s/ JOHN G. MELO
John G. Melo
President and Chief Executive Officer
(Principal Executive Officer)

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POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints John Melo and Raffi Asadorian as his or her true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments to this Report on Form 10-K, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ JOHN MELO **John Melo**	Director, President and Chief Executive Officer (Principal Executive Officer)	March 30, 2016
/s/ RAFFI ASADORIAN **Raffi Asadorian**	Chief Financial Officer (Principal Financial Officer)	March 30, 2016
/s/ KAREN WEAVER **Karen Weaver**	Vice President Finance (Principal Accounting Officer)	March 30, 2016
/s/ PHILIPPE BOISSEAU **Philippe Boisseau**	Director	March 30, 2016
/s/ JOHN DOERR **John Doerr**	Director	March 30, 2016
/s/ GEOFFREY DUYK **Geoffrey Duyk**	Director	March 30, 2016
/s/ MARGARET GEORGIADIS **Margaret Georgiadis**	Director	March 30, 2016
/s/ ABRAHAM KLAEIJSEN **Abraham Klaeijsen**	Director	March 30, 2016
/s/ CAROLE PIWNICA **Carole Piwnica**	Director	March 30, 2016

/s/ FERNANDO REINACH **Fernando Reinach**	Director	March 30, 2016
/s/ HH SHEIK ABDULLAH BIN KHALIFA AL THANI **HH Sheikh Abdullah bin Khalifa Al Thani**	Director	March 30, 2016
/s/ R. NEIL WILLIAMS **R. Neil Williams**	Director	March 30, 2016
/s/ PATRICK YANG **Patrick Yang**	Director	March 30, 2016

EXHIBIT INDEX

The following table lists the exhibits filed as part of this report on Form 10-K. In some cases, these exhibits are incorporated into this report by reference to exhibits to our other filings with the Securities and Exchange Commission. Where an exhibit is incorporated by reference, we have noted the type of form filed with the Securities and Exchange Commission, the file number of that form, the date of the filing, and the number of the exhibit referenced in that filing.

Exhibit		Previously Filed				Filed
No.	**Description**	**Form**	**File No.**	**Filing Date**	**Exhibit**	**Herewith**
3.01	Restated Certificate of Incorporation	10-Q	001-34885	November 10, 2010	3.01	
3.02	Certificate of Amendment dated May 9, 2013 to Restated Certificate of Incorporation	S-8	333-188711	May 20, 2013	4.02	
3.03	Certificate of Amendment dated May 12, 2014 to Restated Certificate of Incorporation	10-Q	001-34887	August 8, 2014	3.02	
3.04	Certificate of Amendment to Restated Certificate of Incorporation dated September 18, 2015	S-3/A	333-206331	November 4, 2015	3.03	
3.05	Restated Bylaws	10-Q	001-34885	November 10, 2010	3.02	
4.01	Specimen of Common Stock Certificate	S-1	333-166135	July 6, 2010	4.01	
4.02	Amended and Restated Investors’ Rights Agreement, dated June 21, 2010, among registrant and its security holders listed therein	S-1	333-166135	June 23, 2010	4.02	
4.03	First Amendment to Amended and Restated Investors' Rights Agreement, dated February 23, 2012, among registrant and registrant's security holders listed therein	S-3	333-180005	March 9, 2012	4.06	
4.04	Amendment No. 2 to Amended and Restated Investors' Rights Agreement, dated December 24, 2012, among registrant and registrant's security holders listed therein	10-K	001-34885	March 28, 2013	4.04	
4.05	Amendment No. 3 to Amended and Restated Investors' Rights Agreement, dated March 27, 2013, among registrant and registrant's security holders listed therein	10-Q	001-34885	June 9, 2013	4.02	
4.06	Amendment No. 4 to Amended and Restated Investors' Rights Agreement, dated October	10-K	001-34885	April 2, 2014	4.06	

	16, 2013, among registrant and registrant's security holders listed therein				
4.07	Amendment No. 5 to Amended and Restated Investors' Rights Agreement, dated December 24, 2013, among registrant and registrant's security holders listed therein	10-K	001-34885	April 2, 2014	4.07
4.08	Amendment No. 6 to Amended and Restated Investors' Rights Agreement dated July 29, 2015 among registrant and registrant's security holders listed therein	S-3	333-204102	August 12, 2015	4.17
4.09	Warrant to Purchase Stock, dated December 23, 2011, issued to ATEL Ventures, Inc.	10-K	001-34885	February 28, 2012	4.07
4.10[a]	Warrant to Purchase Stock, Dated October 16, 2013, issued to Maxwell (Mauritius) Pte Ltd.	10-K	001-34885	April 2, 2014	4.09
4.11	Side Letter, dated June 21, 2010, between registrant and Total Gas & Power USA, SAS	S-1	333-166135	June 23, 2010	4.19
4.12	Agreement, dated February 23, 2012, among registrant, Maxwell (Mauritius) Pte Ltd, Naxyris SA, Biolding Investment SA and Sualk Capital Ltd.	10-Q	001-34885	May 9, 2012	4.02
4.13	Securities Purchase Agreement, dated February 24, 2012, among registrant and certain investment funds affiliated with Fidelity Investments Institutional Services Company, Inc. listed therein (each, a Fidelity Purchaser)	S-3	333-180005	March 9, 2012	4.02

4.14	Form of Unsecured Senior Convertible Promissory Note issued by registrant to the Fidelity Purchasers in the amounts set forth next to each Fidelity Purchaser's name on Schedule I of Exhibit 4.12 hereof	S-3	333-180005	March 9, 2012	4.03
4.15	Registration Rights Agreement, dated February 27, 2012, among registrant and the Fidelity Purchasers	S-3	333-180005	March 9, 2012	4.04
4.16[d]	Form of Common Stock Purchase Agreement among registrant and certain investors	10-Q	001-34885	August 8, 2012	4.01
4.17	Securities Purchase Agreement, dated July 30, 2012, between registrant and Total Gas & Power USA, SAS	10-Q	001-34885	November 9, 2012	4.01
4.18	Registration Rights Agreement, dated July 30, 2012, between registrant and Total Gas & Power USA, SAS	10-Q	001-34885	November 9, 2012	4.03
4.19[ac]	1.5% Senior Secured Convertible Note dated December 2, 2013 issued to Total Energies Nouvelles Activités USA	10-Q	001-34885	May 9, 2014	4.05
4.20[a]	1.5% Senior Secured Convertible Note dated May 29, 2014 (RS-6) issued by registrant to Total Energies Nouvelles Activités USA	10-Q	001-34885	August 8, 2014	4.04
4.21[a]	1.5% Senior Secured Convertible Note dated July 31, 2014 (RS-7) issued by registrant to Total Energies Nouvelles Activités USA	10-Q	001-34885	November 7, 2014	4.01
4.22[a]	1.5% Senior Secured Convertible Note dated January 27, 2015 (RS-8) issued by registrant to Total Energies Nouvelles Activités USA	10-Q	001-34885	May 7, 2015	4.01
4.23	1.5% Senior Secured Convertible Note dated July 29, 2015 (RS-9) issued by registrant to Total Energies Nouvelles Activités USA (RS-9)	10-Q	001-34885	November 9, 2015	4.21
4.24[a]	Securities Purchase Agreement, dated December 24, 2012, between registrant and certain investors listed therein	10-K	001-34885	March 28, 2013	4.16
4.25[a]	Follow-On Investment Agreement, dated December 24, 2012, between registrant and Biolding Investment SA	10-K	001-34885	March 28, 2013	4.17
4.26	Securities Purchase Agreement, dated March 27, 2013, between registrant and Biolding Investment SA	10-Q	001-34885	May 9, 2013	4.01
4.27	Securities Purchase Agreement (including Form of Tranche I Senior Convertible Note and Form of Tranche II Senior Convertible Note) , dated August 8, 2013, between registrant, Maxwell (Mauritius) Pte Ltd and Total Energies Nouvelles Activités USA (f.k.a. Total Gas & Power USA, SAS)	10-Q	001-34885	November 5, 2013	4.01
4.28[a]	Amendment No. 1 dated October 16, 2013, to the Securities Purchase Agreement, dated August 8, 2013, between registrant and other parties named therein	10-K	001-34885	April 2, 2014	4.24
4.29	Tranche I Note Amendment and Amendment No. 2 dated December 24, 2013, to the Securities Purchase Agreement,	10-K	001-34885	April 2, 2014	4.25

	dated August 8, 2013, between registrant and other parties named therein				
4.30[ae]	5% Unsecured Convertible Note dated October 16, 2013 issued to Total Energies Nouvelles Activités USA	10-Q	001-34885	May 9, 2014	4.04
4.31[af]	10% Unsecured Convertible Note dated January 15, 2014 issued to Total Energies Nouvelles Activités USA	10-Q	001-34885	May 9, 2014	4.06
4.32	Voting Agreement, dated August 8, 2013, among registrant and registrant's security holders named therein	10-Q	001-34885	November 5, 2013	4.02
4.33	Securities Purchase Agreement, dated September 20, 2013, between registrant and Naxyris S.A.	10-Q	001-34885	November 5, 2013	4.03
4.34	Securities Purchase Agreement, dated March 28, 2014 between registrant and Kuraray Co. Ltd.	10-Q	001-34885	May 9, 2014	4.01

4.35	Loan and Security Agreement, dated March 29, 2014 between registrant and Hercules Technology Growth Capital, Inc.	10-Q	001-34885	May 9, 2014	4.02	
4.36	First Amendment dated June 12, 2014, to Loan and Security Agreement dated March 29, 2014 between registrant and Hercules Technology Growth Capital, Inc.	10-Q	001-34885	August 8, 2014	4.06	
4.37	Third Amendment dated November 30, 2015 to Loan and Security Agreement dated March 29, 2014 between registrant and Hercules Technology Growth Capital, Inc.					X
4.38	Letter Agreement, dated March 29, 2014 between registrant and Total Energies Nouvelles Activités USA	10-Q	001-34885	May 9, 2014	4.03	
4.39[a]	Amended and Restated Letter Agreement re: Certain Registration Rights dated May 8, 2014 between registrant and the purchasers listed therein	10-Q	001-34885	August 8, 2014	4.01	
4.40	Indenture dated May 29, 2014 between registrant and Wells Fargo Bank, National Association, as Trustee	8-K	001-34885	May 29, 2014	4.01	
4.41	6.5% Convertible Senior Note due 2019 dated May 29, 2014 issued by registrant to Morgan Stanley & Co. LLC	10-Q	001-34885	August 8, 2014	4.02	
4.42[g]	6.5% Convertible Senior Note due 2019 dated May 29, 2014 issued by registrant to Maxwell (Mauritius) Pte Ltd.	10-Q	001-34885	August 8, 2014	4.03	
4.43	Registration Rights Agreement dated February 24, 2015, between the registrant and Nomis Bay Ltd	8-K	001-34885	February 26, 2015	4.01	
4.44[h]	Voting Agreement, dated July 24, 2015, between registrant and Foris Ventures, LLC	10-Q	001-34885	November 9, 2015	4.43	
4.45	Securities Purchase Agreement, dated July 24, 2015, between registrant and the Purchasers listed therein	10-Q	001-34885	November 9, 2015	4.44	
4.46[i]	Warrant to Purchase Stock issued on July 24, 2015	S-3	333-204102	August 12, 2015	4.21	
4.47	Exchange Agreement, dated July 29, 2015, between registrant and the Investors therein	10-Q	001-34885	November 9, 2015	4.46	
4.48	Maturity Treatment Agreement dated July 29, 2015, between registrant and the Investors listed therein	10-Q	001-34885	November 9, 2015	4.47	
4.49	Letter Agreement dated as of July 29, 2015 among registrant and registrant’s security holders listed therein	S-3	333-204102	August 12, 2015	4.20	
4.50	Warrant to Purchase Stock issued July 29, 2015 by the registrant to Total Energies Nouvelles Activités USA	S-3	333-204102	August 12, 2015	4.22	
4.51	Warrant to Purchase Stock issued July 29, 2015 by the registrant to Total Energies Nouvelles Activités USA	S-3	333-204102	August 12, 2015	4.23	
4.52	Warrant to Purchase Stock issued July 29, 2015 by the	S-3	333-204102	August 12,	4.24	

	registrant to Maxwell (Mauritius) PTE Ltd			2015		
4.53	Warrant to Purchase Stock issued July 29, 2015 by the registrant to Maxwell (Mauritius) PTE Ltd	S-3	333-204102	August 12, 2015	4.25	
4.54	Warrant to Purchase Stock issued July 29, 2015 by the registrant to Maxwell (Mauritius) PTE Ltd	S-3	333-204102	August 12, 2015	4.26	
4.55	Indenture dated October 20, 2015 between registrant and Wells Fargo Bank, National Association, as Trustee	8-K	001-34885	October 20, 2015	4.01	
4.56	9.50% Convertible Senior Note due 2019 dated October 20, 2015 issued by registrant to Cede & Co.					X
4.57	Registration Rights Agreement dated October 20, 2015 between the registrant and the registrant's security holders listed therein	8-K	001-34885	October 20, 2015	4.02	
10.01[a]	Technology Investment Agreement, dated June 11, 2012, between registrant and The Defense Advanced Research Projects Agency (DARPA)	10-Q	001-34885	August 8, 2012	10.08	

10.02[a]	Modification No. 13, dated October 10, 2014, to Technology Investment Agreement between registrant and The Defense Advanced Research Projects Agency (DARPA)	10-K	001-34885	March 31, 2015	10.03	
10.03	Modification No. 14, dated November 25, 2014, to Technology Investment Agreement between registrant and The Defense Advanced Research Projects Agency (DARPA)	10-K	001-34885	March 31, 2015	10.04	
10.04	Modification No. 15, dated as of February 6, 2015, to Technology Investment Agreement between registrant and The Defense Advanced Research Projects Agency (DARPA)	10-Q	001-34885	May 7, 2015	10.03	
10.05	Technology Investment Agreement, dated September 22, 2015, between registrant and The Defense Advanced Research Projects Agency (DARPA)	10-Q	001-34885	November 9, 2015	10.03	
10.06[aj]	Agreement for Credit Opening, dated November 16, 2011, between Amyris Brasil Ltda. and Banco Nacional de Desenvolvimento Econômico e Social - BNDES	10-K	001-34885	February 28, 2012	10.11	
10.07[aj]	Amendment No. 1, dated June 28, 2013 to Agreement for Credit Opening, dated November 16, 2011, between Amyris Brasil Ltda. and Banco Nacional de Desenvolvimento Econômico e Social - BNDES	10-Q	001-34885	November 9, 2015	10.04	
10.08[aj]	Amendment No. 2, dated September 16, 2015, to Agreement for Credit Opening, dated November 16, 2011, between Amyris Brasil Ltda. and Banco Nacional de Desenvolvimento Econômico e Social - BNDES	10-Q	001-34885	November 9, 2015	10.05	
10.09[a]	Corporate Guarantee, dated November 28, 2011, issued by registrant to Banco Nacional de Desenvolvimento Econômico e Social - BNDES	10-K	001-34885	February 28, 2012	10.12	
10.10[j]	Bank Credit Agreement, dated December 21, 2011, between Amyris Brasil Ltda. and Banco Pine S.A.	10-K	001-34885	February 28, 2012	10.13	
10.11[j]	Addendum to the Banking Credit Form, dated February 17, 2012, between Amyris Brasil Ltda. and Banco Pine S.A.	10-Q	001-34885	May 9, 2012	10.02	
10.12[j]	Addendum to the Banking Credit Form, dated May 17, 2012, between Amyris Brasil Ltda. and Banco Pine S.A.	10-Q	001-34885	August 8, 2012	10.02	
10.13[j]	Note of Bank Credit, dated June 21, 2012, between Amyris Brasil Ltda. and Banco Pine S.A.	10-Q	001-34885	August 8, 2012	10.03	
10.14[aj]	Global Derivatives Contract (swap agreement), dated June 15, 2012, between Amyris Brasil Ltda. and Banco Pine S.A.	10-Q	001-34885	August 8, 2012	10.04	
10.15[j]	Global Derivatives Contract Annex, dated October 8, 2015, between Amyris Brasil Ltda. and Banco Pine S.A. (AB as purchaser)					X

10.16[j]	Global Derivatives Contract Annex, dated October 8, 2015, between Amyris Brasil Ltda. and Banco Pine S.A. (Pine as purchaser)					X
10.17[aj]	Note of Bank Credit, dated July 13, 2012, between Amyris Brasil Ltda. and Nossa Caixa Desenvolvimento	10-Q	001-34885	November 9, 2012	10.01	
10.18[aj]	Note of Bank Credit, dated July 13, 2012, between Amyris Brasil Ltda. and Banco Pine S.A.	10-Q	001-34885	November 9, 2012	10.02	
10.19[j]	Fiduciary Conveyance of Movable Goods Agreement, dated July 13, 2012, among Amyris Brasil Ltda., Nossa Caixa Desenvolvimento and Banco Pine S.A.	10-Q	001-34885	November 9, 2012	10.03	
10.20	Corporate Guarantee, dated July 13, 2012, issued by registrant to Nossa Caixa Desenvolvimento	10-Q	001-34885	November 9, 2012	10.04	
10.21	Corporate Guarantee, dated July 13, 2012, issued by registrant to Banco Pine S.A.	10-Q	001-34885	November 9, 2012	10.05	
10.22[a]	Joint Venture Agreement dated April 14, 2010 among registrant, Amyris Brasil S.A. and Usina São Martinho S.A.	S-1	333-166135	August 31, 2010	10.14	

10.23[a]	First Amendment dated January 27, 2014 to the Joint Venture Agreement dated April 14, 2010, among registrant, Amyris Brasil, Ltda, and Usina São Martinho S.A.	10-Q	001-34885	May 9, 2014	10.01	
10.24[a]	Shareholders' Agreement dated April 14, 2010 among registrant, Amyris Brasil S.A. and Usina São Martinho S.A.	S-1	333-166135	May 25, 2010	10.17	
10.25	Termination Agreement, dated August 31, 2015, among registrant, Amyris Brasil, Ltda, and São Martinho S.A., and SMA Industria Quimica S.A.					X
10.26	Share Purchase and Sale Agreement, dated August 31, 2015, among registrant, Amyris Brasil, Ltda, and São Martinho S.A., and SMA Industria Quimica S.A.					X
10.27[a]	Amended and Restated Master Framework Agreement, dated December 2, 2013, between Amyris and Total Gas & Power USA, SAS	10-K	001-34885	April 2, 2014	10.29	
10.28	Amendment #1, dated April 1, 2015, to the Amended and Restated Master Framework Agreement between registrant and Total Energies Nouvelles Activités USA SAS	10-Q	001-34885	August 10, 2015	10.01	
10.29[a]	Articles of Association of Total Amyris BioSolutions B.V.	10-K	001-34885	April 2, 2014	10.22	
10.30[a]	Shareholders Agreement dated December 2, 2013	10-K	001-34885	April 2, 2014	10.23	
10.31[a]	License Agreement dated December 2, 2013 between registrant and Total Amyris BioSolutions B.V.	10-K	001-34885	April 2, 2014	10.24	
10.32[a]	Pledge of Shares dated December 2, 2013 among registrant, Total Energies Nouvelles Activités USA and Total Amyris BioSolutions B.V.	10-K	001-34885	April 2, 2014	10.25	
10.33[a]	Escrow Agreement dated December 2, 2013 among registrant, Total Energies Nouvelles Activités USA and Stichting Total Amyris BioSolutions	10-K	001-34885	April 2, 2014	10.26	
10.34	Letter Agreement re: Waiver of Debt Covenants dated December 24, 2013 between registrant and Total Energies Nouvelles Activités USA	10-K	001-34885	April 2, 2014	10.28	
10.35	Letter Agreement dated December 2, 2013 relating to the Senior Secured Convertible Notes and the 1.5% Senior Unsecured Convertible Notes due 2017 between the registrant and Total Energies Nouvelles Activités USA	10-K	001-34885	April 2, 2014	10.30	
10.36	Letter Agreement dated October 4, 2013 between registrant and Total Energies Nouvelles Activités USA	10-K	001-34885	April 2, 2014	10.31	

10.37	Amendment dated December 1, 2013 to Letter Agreement dated October 4, 2013 between registrant and Total Energies Nouvelles Activités USA	10-K	001-34885	April 2, 2014	10.32
10.38[a]	Letter Agreement re Joint Venture Restructuring, dated July 24, 2015, between registrant and Total Energies Nouvelles Activités USA	10-Q	001-34885	November 9, 2015	10.01
10.39	Securities Purchase Agreement, dated as of March 30, 2015, by and between registrant and Naxyris, S.A.	10-Q	001-34885	May 7, 2015	10.04
10.40	Letter agreement, dated January 11, 2011, between registrant and Total Gas & Power USA Biotech, Inc.	10-Q	001-34885	May 11, 2011	10.01
10.41	Technology License, Development, Research and Collaboration Agreement, dated June 21, 2010, between registrant and Total Gas & Power USA Biotech, Inc.	S-1	333-16135	September 20, 2010	10.46
10.42[a]	First Amendment to Technology License, Development, Research and Collaboration Agreement, dated November 23, 2011, between Amyris and Total Gas & Power USA SAS	10-K/A	001-34885	May 2, 2012	10.19
10.43[a]	Second Amendment to the Technology License, Development, Research and Collaboration Agreement, dated July 30, 2012, between registrant and Total Gas & Power USA, SAS	10-Q	001-34885	November 9, 2012	10.07

10.44	Amendment #1, dated April 1, 2015, to the Second Amendment to the Technology, License, Development, Research and Collaboration Agreement between registrant and Total Energies Nouvelles Activités USA SAS	10-Q	001-34885	August 10, 2015	10.02	
10.45[aj]	Agreement for the Supply of Sugarcane Juice and Other Utilities, dated March 18, 2011, between Amyris Brasil Ltda. and Paraíso Bioenergia S.A.	10-Q	001-34885	May 9, 2012	10.06	
10.46[bj]	First Amendment, dated as of May 3, 2013, to the Agreement for the Supply of Sugar Cane Juice and Other Utilities, by and between Amyris Brasil Ltda. and Tonon Bioenergia S.A.					X
10.47[bj]	Second Amendment, dated as of November 7, 2013, to the Agreement for the Supply of Sugar Cane Juice and Other Utilities, by and between Amyris Brasil Ltda. and Tonon Bioenergia S.A.					X
10.48[aj]	Third Amendment, dated as of January 27, 2015, to the Agreement for the Supply of Sugar Cane Juice and Other Utilities, by and between Amyris Brasil Ltda. and Tonon Bioenergia S.A.	10-Q	001-34885	May 7, 2015	10.06	
10.49[aj]	Lease Agreement, dated March 18, 2011, between Amyris Brasil Ltda. and Paraíso Bioenergia S.A.	10-K	001-34885	March 28, 2013	10.37	
10.50[aj]	Addendum to Lease Agreement, dated April 28, 2011, between Amyris Brasil Ltda. and Paraíso Bioenergia S.A.	10-K	001-34885	March 28, 2013	10.38	
10.51	Lease, dated August 22, 2007, between registrant and ES East Associates, LLC	S-1	333-166135	April 16, 2010	10.17	
10.52	First Amendment, dated March 10, 2008, to Lease between registrant and ES East Associates, LLC	S-1	333-166135	April 16, 2010	10.18	
10.53	Second Amendment, dated April 25, 2008, to Lease between registrant and ES East Associates, LLC	S-1	333-166135	April 16, 2010	10.19	
10.54	Third Amendment, dated July 31, 2008, to Lease between registrant and ES East Associates, LLC	S-1	333-166135	April 16, 2010	10.20	
10.55	Fourth Amendment, dated November 14, 2009, to Lease between registrant and ES East Associates, LLC	S-1	333-166135	April 16, 2010	10.21	
10.56	Fifth Amendment, dated October 15, 2010, to Lease between registrant and ES East, LLC	10-K	001-34885	March 14, 2011	10.17	
10.57	Sixth Amendment, dated April 30, 2013, to Lease between registrant and ES East, LLC (as successor-in-interest to ES East Associates, LLC)	10-Q	001-34885	August 9, 2013	10.02	
10.58	Lease dated April 25, 2008 between registrant and EmeryStation Triangle, LLC	S-1	333-166135	April 16, 2010	10.22	
10.59		S-1	333-166135		10.23	

	Letter, dated April 25, 2008, amending Lease between registrant and EmeryStation Triangle, LLC			April 16, 2010	
10.60	Second Amendment, dated February 5, 2010, to Lease between registrant and EmeryStation Triangle, LLC	S-1	333-166135	April 16, 2010	10.24
10.61	Third Amendment, dated May 1, 2013, to Lease between registrant and EmeryStation Triangle, LLC	10-Q	001-34885	August 9, 2013	10.03
10.62	Pilot Plant Expansion Right Letter dated December 22, 2008 between registrant and EmeryStation Triangle, LLC	S-1	333-166135	April 16, 2010	10.25
10.63	Lease Agreement, dated August 10, 2011, between Amyris Brasil Ltda. and Techno Park Empreendimentos e Administração Imobiliária Ltda.	10-K	001-34885	February 28, 2012	10.32
10.64	First Amendment to Lease Agreement, dated July 31, 2013, between Amyris Brasil Ltda. and Techno Park Empreendimentos e Administração Imobiliária	10-Q	001-34885	November 5, 2013	10.01
10.65	Private Instrument of Non-Residential Real Estate Lease Agreement, dated March 31, 2008, between Lucio Tomasiello and Amyris Brasil S.A. (including Amendment No. 1, dated July 5, 2008, and Amendment No. 2, dated October 30, 2008)	S-1	333-166135	April 16, 2010	10.26

10.66[aj]	Third Amendment, dated October 1, 2012, to the Private Instrument of Non Residential Real Estate Lease Agreement between Lucio Tomasiello and Amyris Brasil Ltda.	10-K	001-34885	March 28, 2013	10.51	
10.67[aj]	Fourth Amendment, dated as of March 3, 2015, to the Private Instrument of Non-Residential Real Estate Lease Agreement, by and among Amyris Brasil Ltda., Lucius Tomasiello and Mauricio Tomasiello	10-Q	001-34885	May 7, 2015	10.07	
10.68	Master Collaboration Agreement, dated March 13, 2013, between registrant and Firmenich SA	10-Q	001-34885	June 9, 2013	10.02	
10.69	Letter agreement, dated March 24, 2013, between registrant and Total Gas & Power USA, SAS	10-Q	001-34885	June 9, 2013	10.03	
10.70	Amended and Restated Operating Agreement, dated March 26, 2013, among registrant, Cosan US, Inc. and Novvi LLC	10-Q	001-34885	June 9, 2013	10.04	
10.71	IP License Agreement, dated as of March 26, 2013, between registrant and Novvi LLC	10-Q	001-34885	June 9, 2013	10.06	
10.72[a]	Pilot Plant Sublease, dated April 4, 2014, between registrant and Total New Energies USA, Inc.	10-Q	001-34885	August 8, 2014	10.03	
10.73[a]	Pilot Plant Services Agreement, dated April 4, 2014, between registrant and Total New Energies USA, Inc.	10-Q	001-34885	August 8, 2014	10.04	
10.74	Amendment No. 1, dated July 26, 2015, to the Pilot Plant Services Agreement, dated April 4, 2014, between registrant and Total New Energies USA, Inc.	10-Q	001-34885	November 9, 2015	10.02	
10.75	Repurchase Agreement, dated October 19, 2015, between the registrant and registrant's security holders listed therein					X
10.76	Common Stock Purchase Agreement, dated as of February 24, 2015, by and between registrant and Nomis Bay Ltd.	8-K	001-34885	February 26, 2015	10.01	
10.77	Engagement Letter, dated as of February 24, 2015, by and between registrant and Financial West Group	8-K	001-34885	February 26, 2015	10.02	
10.78k	Offer Letter dated September 27, 2006 between registrant and John Melo	S-1	333-16135	April 16, 2010	10.27	
10.79k	Amendment, dated December 18, 2008, between registrant and John Melo	S-1	333-16135	April 16, 2010	10.28	
10.80k	Offer letter, dated January 17, 2008, between registrant and Paulo Diniz	S-1	333-16135	April 16, 2010	10.31	
10.81k	Consulting Agreement, dated September 2, 2015, between registrant and Paulo Diniz					X
10.82k	Offer letter, dated September 30, 2008, between registrant and Joel Cherry	S-1	333-16135	April 16, 2010	10.29	

10.83[ak]	Offer letter, dated February 6, 2013 between registrant and Susanna McFerson	10-Q	001-34885	May 9, 2014	10.03
10.84k	Offer letter, dated September 20, 2010, between registrant and Nicholas Khadder	10-Q	001-34885	August 10, 2015	10.04
10.85k	Revised employment letter, dated December 3, 2013, between registrant and Nicholas Khadder	10-Q	001-34885	August 10, 2015	10.05
10.86k	Offer letter, dated October 23, 2014 between registrant and Raffi Asadorian	10-K	001-34885	March 31, 3015	10.68
10.87k	2005 Stock Option/Stock Issuance Plan	10-Q	001-34885	November 9, 2011	10.02
10.88k	Form of Notice of Grant of Stock Option under registrant's 2005 Stock Option/Stock Issuance Plan	S-1	333-16135	April 16, 2010	10.38
10.89k	Form of Notice of Grant of Stock Option (non-Exempt) under registrant's 2005 Stock Option/Stock Issuance Plan	S-1	333-16135	April 16, 2010	10.39

10.90k	Form of Notice of Grant of Stock Option (non-US) under registrant's 2005 Stock Option/Stock Issuance Plan	S-1	333-16135	April 16, 2010	10.40	
10.91k	Form of Stock Option Agreement under registrant's 2005 Stock Option/Stock Issuance Plan	S-1	333-16135	April 16, 2010	10.41	
10.92k	Form of Stock Option Agreement (non-US) under registrant's 2005 Stock Option/Stock Issuance Plan	S-1	333-16135	April 16, 2010	10.42	
10.93k	Form of Stock Purchase Agreement under registrant's 2005 Stock Option/Stock Issuance Plan	S-1	333-16135	April 16, 2010	10.43	
10.94k	Form of Stock Purchase Agreement (non-US) under registrant's 2005 Stock Option/Stock Issuance Plan	S-1	333-16135	April 16, 2010	10.44	
10.95k	2010 Equity Incentive Plan and forms of award agreements thereunder	S-1	333-16135	June 23, 2010	10.46	
10.96k	2010 Employee Stock Purchase Plan and form of subscription agreements thereunder	S-1	333-16135	September 20, 2010	10.45	
10.97k	Amyris, Inc. Executive Severance Plan, effective November 6, 2013	10-K	001-34885	April 2, 2014	10.94	
10.98k	Compensation arrangements between registrant and its non-employee directors					X
10.99k	Compensation arrangements between registrant and its executive officers	10-K	001-34885	April 2, 2014	10.85	1
10.100k	Form of Indemnity Agreement between registrant and its directors and officers	S-1	333-166135	June 23, 2010	10.01	
21.01	List of subsidiaries					X
23.01	Consent of PricewaterhouseCoopers LLP, independent registered public accounting firm					X
23.02	Consent of Independent Auditors, Pannell Kerr Forster of Texas, P.C.					X
24.01	Power of Attorney (see signature page to this Form 10-K)					X
31.01	Certification of Chief Executive Officer pursuant to Securities Exchange Act Rules 13a-14(c) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002					X
31.02	Certification of Chief Financial Officer pursuant to Securities Exchange Act Rules 13a-14(c) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002					X
32.01m	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002					X
32.02m						X

	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002					
99.1	Novvi LLC Financial Statements December 31, 2014	10-K	001-34885	March 31, 2015	99.1	
99.2	Novvi LLC Financial Statements December 31, 2015 (Unaudited)					X
99.3	Section 13(r) Disclosure					X

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101[n]	The following materials from registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2015, formatted in XBRL (Extensible Business Reporting Language): (i) the Consolidated Statements of Operations; (ii) the Consolidated Balance Sheets; (iii) the Consolidated Statements of Comprehensive Income; (iv) the Consolidated Statements of Convertible Preferred Stock, Redeemable Noncontrolling Interest and Equity (Deficit); (v) the Consolidated Statements of Cash Flows; and (vi) Notes to Consolidated Financial Statements	X

a Portions of this exhibit, which have been granted confidential treatment by the Securities and Exchange Commission, have been omitted.

b Portions of this exhibit have been omitted pending a determination by the Securities and Exchange Commission as to whether these portions should be granted confidential treatment.

c Registrant issued substantially identical 1.5% Senior Unsecured Convertible Notes (or the Notes) to Total Gas & Power USA, SAS on separate dates. Registrant has filed the first of the Notes (number RS-1), and has included, with such exhibit, a schedule (updated Schedule A to Exhibit 4.02 of registrant's Form 10-Q filed November 9, 2012) identifying each of the Notes and setting forth the material details in which the other Note(s) differ from the filed Note (i.e., the dates of issuance and the amounts of the Notes).

d Substantially identical Common Stock Purchase Agreements, each dated May 18, 2012, were entered into with five separate investors. Registrant has filed the form of such Common Stock Purchase Agreements, which is substantially identical in all material respects to all of such Common Stock Purchase Agreements, except as to the parties thereto and the number of shares being purchased.

e Registrant issued substantially identical 5% Unsecured Convertible Notes (the "5% Notes") to Total Gas & Power USA, SAS (“Total’), FIAM Target Date Large Cap Stock Commingled Pool (formerly known as Fidelity Pyramis Lifecycle Large Cap Stock Commingled Pool. Fidelity Variable Insurance Products Fund Ill: Growth & Income Portfolio, Fidelity Hastings Street Trust: Fidelity Advisor Series Growth & Income Fund. Fidelitv Securities Fund: Fidelitv Growth & Income Portfolio Fidelity Hastings Street Trust: Fidelitv Series Growth & Income Fund. Fidelitv Commonwealth Trust: Fidelitv Large Cap Stock Fund, and Maxwell (Mauritius) Pte Ltd on October 16. 2013. Registrant has filed the 5% Note issued to Total. and has included with Exhibit 4.04 a schedule (Schedule A to Exhibit 4.04 of registrant’s Form 10-Q filed on May 9, 2014) identifying each of the 5% Notes and setting forth the material detail in which the other 5% Note(s) differ from the filed 5% Note (i.e. the Purchasers. the amounts of the 5% Notes. and the conversion price).

f Registrant issued substantially identical 10% Unsecured Convertible Notes (the" I 0% Notes") to Total Wolverine Flagship Fund Trading Limited and Maxwell (Mauritius) Pte Ltd on January 15 2014. Registrant has filed the 10% Note issued to Total and has included with Exhibit 4.06. a schedule (Schedule A to Exhibit 4.06 of registrant’s Form 10-Q filed on May 9, 2014) identifying each of the 10% Notes and setting forth the material details in which the other 10% Note(s) differ from the filed 10% Note (i.e. the purchasers and the amounts of the 10% Notes).

g Registrant issued substantially identical 6.5% Senior Convertible Notes due 2019 (the “6.5% Notes”) to Maxwell (Mauritius) Pte Ltd. (“Temasek”), Total Energies Nouvelles Activités USA, and Foris Ventures, LLC on May 29, 2014. Registrant has filed the 6.5% Note issued to Temasek, and has included, with such exhibit, a schedule (Schedule A to Exhibit 4.03 of registrant's Form 10-Q filed August 8, 2014) identifying each of the 6.5% Notes

and setting forth the material details in which the other 6.5% Notes differ from the filed 6.5% Note (i.e., the note number, the purchasers, and the amounts of the 6.5% Notes).

h Substantially identical Voting Agreements, each dated July 31, 2015, were entered into with five separate investors. Registrant has filed Voting Agreement entered into by registrant and Foris Ventures LLC, which is substantially identical in all material respects to all of such Voting Agreements, except as to the parties thereto.

i Registrant issued substantially identical warrants to the purchasers under that certain Securities Purchase Agreement entered into on July 24. 2015~ Registrant has filed the warrant issued to Total Energies Nouvelles Activites USA and has included with such Exhibit a schedule (Schedule A to Exhibit 4.03 of registrants Form 10-Q filed on August 8, 2015) identifying each of the warrants and setting forth the material details in which the other warrants differ from the filed form of warrant (i.e. the names of the purchasers. the certificate numbers and the respective amounts of shares underlying the warrants).

j Translation to English from Portuguese or Dutch, as applicable, in accordance with Rule 12b-12(d) of the regulations promulgated by the Securities and Exchange Commission under the Securities Exchange Act of 1934, as amended (or the Exchange Act).

k Indicates management contract or compensatory plan or arrangement.

l Description contained under the heading "Executive Compensation" in registrant's definitive proxy materials filed with the Securities and Exchange Commission on April 6, 2015 is incorporated herein by reference.

m This certification shall not be deemed “filed” for purposes of Section 18 of the Exchange Act or otherwise subject to the liability of that Section, nor shall it be deemed incorporated by reference into any filing under the Securities Act or the Exchange Act.

n Pursuant to applicable securities laws and regulations, registrant is deemed to have complied with the reporting obligation relating to the submission of interactive data files in such exhibits and is not subject to liability under any anti-fraud provisions of the federal securities laws as long as registrant has made a good faith attempt to comply with the submission requirements and promptly amends the interactive data files after becoming aware that the interactive data files fails to comply with the submission requirements. These interactive data files are deemed not filed or part of a registration statement or prospectus for purposes of sections 11 or 12 of the Securities Act, are deemed not filed for purposes of section 18 of the Exchange Act and otherwise are not subject to liability under these sections.