AMYRIS, INC.
Form 10-K
March 31, 2015

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington D.C. 20549
FORM 10-K
(Mark One)

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

For the fiscal year ended December 31, 2014
OR

o 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
Common Stock, $0.0001 par value per share	The NASDAQ Stock Market LLC (NASDAQ Global Select 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 o No x
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 o No x
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 x No o
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 x No o
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. x
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	o	Accelerated filer	x
Non-accelerated filer	o (Do not check if a smaller reporting company)	Smaller reporting company	o

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

As of June 30, 2014, 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 $129.3 million, based on the closing price of the registrant's common stock on the NASDAQ Global Select Market on such date. 79,221,937 shares of the Registrant's common stock, par value $0.0001 per share, were outstanding as of January 31, 2015.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of registrant's proxy statement to be delivered to stockholders in connection with the registrant's 2015 Annual Meeting of Stockholders to be held on or about May 20, 2015 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, 2014

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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 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,” “wo 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. We do not assume any obligation to update any forward-looking statements.

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.

PART I

ITEM 1. BUSINESS

Overview

Amyris, Inc. (or the "company," "Amyris," "we," "us," or "our") has industrialized synthetic biology and is delivering renewable products globally into various markets ranging from consumer care to fuels. 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. We have built a powerful technology platform, robust manufacturing capability, and a strong pipeline of ongoing collaborations with world-leading companies in a variety of industries. We are working to build demand for our current portfolio of products through a network of distributors and through direct sales in the cosmetics, flavors and fragrances, performance materials, and transportation fuels and lubricants markets. We are also engaged in collaborations across a variety of markets, including our current product markets and new markets, 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 to 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 using engineered microbes in fermentation. 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, pharmaceuticals, flavors and fragrances and fuels. 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 flavors and fragrances industry.

Since inception, we have received equity and debt financing from investors ranging from affiliates of Total Energies Nouvelles Activités USA, formerly known as Total Gas & Power USA, SAS (or Total), the international energy company, and Temasek Holdings (Private) Limited, the Singapore sovereign wealth fund, to leading U.S. venture capital and private equity investors such as Kleiner, Perkins, Caufield & Byers and TPG Biotechnology Partners. Our stock is traded on the NASDAQ under the symbol AMRS.

Our Platform

Amyris' microbial engineering and screening technologies modify the way microorganisms process sugars in a fermentation process. We use our proprietary platform to design microbes, primarily yeast, to serve as living factories in established fermentation processes to convert plant-sourced sugars into high-value hydrocarbon molecules instead of low-value alcohol. The first two molecules we developed through this process were artemisinic acid and farnesene. In 2014, we began production of a third molecule at industrial scale and development of various other molecules in our labs. We and our partners develop products from these hydrocarbon ingredients for several target markets, including cosmetics, flavors and fragrances, performance materials, transportation fuels and lubricants. Further, in

connection with our partners we have commercialized products for the cosmetics and flavors and fragrances markets.

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 our various manufacturing facilities.

Corporate Information

We were founded in 2003 and completed our initial public offering in 2010. As of January 31, 2015, we had 404 employees (including 245 in the United States and 159 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 the third quarter of 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 chemicals and fuels. 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 consumers with the best alternatives.

We have developed and are operating our company under an innovative business model that generates cash from both collaborations and from product sales margins. 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 our partners commercialize in the markets that they know best. These collaborative technology-based partnerships also allow for sharing long-term revenue streams from products sales. Our strategy for collaborations can generate value in several ways:

- Partnering with industry leaders helps us identify and develop molecules that address critical supply or performance needs for global markets, while receiving collaboration payments for technology access and research and development.
- We use our manufacturing capabilities to produce the collaboration target molecules and sell them to our partners.
- We participate in value-sharing arrangements based on the cost/benefits to our partners of using the molecules we develop.

We believe this collaboration approach creates long-term shared relationships with aligned incentives for success, and allows us to access 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 addition, in 2014 we established sales of flavors and fragrances ingredients to a collaboration partner, representing our first major product sales of a molecule other than farnesene.

We continue to produce and sell renewable diesel and jet fuel in Brazil though these products have not yet generated net cash contributions to our business. In Brazil, where Amyris Diesel is known as Diesel de Cana™ (“Sugarcane Diesel” in Portuguese), the fuel is used daily by approximately 400 public transit buses in São Paulo and Rio de Janeiro, the country’s largest cities.

Manufacturing

We began industrial-scale production of our products at our contract manufacturing facilities in 2011, and in December 2012, commenced operations at our first purpose-built, large-scale production facility in southeastern Brazil. The 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 2014, we produced farnesene and an ingredient for the flavors and fragrances 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, following a successful commissioning phase, we began production of farnesene at the facility. Our first shipment of farnesene produced at the Brotas facility occurred in February 2013, and our first shipment of a flavors and fragrances molecule from the facility occurred in August 2014.

We have completed approximately 50% of the construction on a second Brazilian manufacturing facility (located at the São Martinho S.A. (or São Martinho) mill in Pradópolis, São Paulo state), with approximately double the capacity of the Brotas plant. In 2012, upon consultation with our joint venture partner São Martinho, we suspended construction of this second facility to focus on the completion of our plant in Brotas. We currently expect to complete construction of this second manufacturing facility and commission it to support demand by 2017. Following the completion of our plant at São Martinho, we anticipate expanding our large-scale production capacity of intermediate molecules by entering into agreements with owners of additional sugar and ethanol mills in Brazil.

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, flavors and fragrances 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, 2015, our research and development organization included approximately 136 employees, 65 of whom held Ph.D.s. Our research and development expenditures were approximately $49.7 million, $56.1 million, and $73.6 million for the fiscal years

ended December 31, 2014, 2013 and 2012, 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 485,000 farnesene strains in 2014, surpassing 4.6 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 five identified markets: cosmetics, flavors and fragrances, performance materials and with our joint venture partners, renewable lubricants and fuels. Our initial portfolio of commercial products has been based on Biofene and Biofene derivatives. More recently, we have produced at scale and commercialized another target molecule for the flavors and fragrances market.

We are focused on building our renewable-product leadership position initially with squalane in cosmetics, niche diesel and jet fuel opportunities, fragrance oils and farnesene for liquid polymer applications. 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.

Cosmetics

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. 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, 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 for the cosmetics

market. We currently have Neossance emollient supply agreements with several regional distributors, including locations in Japan, South Korea, Europe, Brazil and North America, and in some cases, directly with cosmetics formulators.

Flavors and Fragrances

Our technology allows us to cost-effectively produce natural oils and aroma chemicals that are commonly used in the flavors and fragrances market. Many of the natural ingredients used in the flavors and fragrances market are expensive because there is limited supply and the synthetic alternatives require complex chemical conversions. We offer flavors and fragrances 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, which is marketed by our collaboration partner, Firmenich SA (or Firmenich), for a range of applications, from perfumes to laundry detergent. In 2014, we completed our first production campaign of this fragrance oil at our Brotas biorefinery and shipped it to Firmenich. We expect to produce additional quantities of this and other fragrance molecules for our partners.

We are working with several partners, including Firmenich, to develop and commercialize a variety of flavors and fragrances ingredients that are either direct fermentation target molecules or derivatives of target fermentation molecules. As of February 2015, we had 18 molecules in our flavors and fragrances pipeline in various stages of development from early research to scale up for production. Under the agreements with our partners, we receive value in a variety of ways: some include collaboration payments, some contemplate sales of ingredients that we manufacture, and some provide for us to share in the economic value derived through downstream sales of the ingredients.

Performance Materials

Farnesene is an ideal building block molecule for a range of performance materials.

Solvents

We have developed a best-in-class renewable solvent produced from farnesene. In addition to addressing concerns over Volatile Organic Compounds (or VOCs), our sustainably-sourced solvent, which we will market under the brand Myralene™, provides a favorable viscosity profile, superior degreasing power, excellent thermal and hydrolytic stability, low odor, no color, and is biodegradable. Subject to receiving approval from the Environmental Protection Agency (or EPA) under the Toxic Substances Control Act (or TSCA), we will begin commercializing Myralene-based cleaning products as industrial cleaners for the auto service industry and other industrial applications. We are working with various distribution channels to support the launch of this new product.

Polymers

We are developing applications for our farnesene that include high-performance polymers used in tires and other applications. In 2011, we began collaboration 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 been shown to possess improved flow properties and low residual strain, opening opportunities for vibration

dampening product applications.

Additional Materials

We are working with Braskem S.A. (or Braskem) and Manufacture Francaise de Pnematiques Michelin (or Michelin) to produce renewable isoprene. In 2014, we expanded our ongoing collaboration for the development of renewable isoprene by adding Braskem as a partner to the project. Separately, we are continuing to evaluate opportunities to leverage our muconic acid platform to expand the application of our technology to a broad range of plastic additives and other high-performance applications.

Transportation Fuels

We have partnered with Total to develop renewable fuels designed to be optimal transportation fuels. Using our hydrocarbon building block, farnesene, we produce a renewable diesel 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-Business Joint Ventures"). Until the joint venture becomes operational, we are operating a limited fuels business.

- 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 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, with initial commercial flights underway in Europe.

- 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 is used daily by approximately 400 public transit buses in São Paulo and Rio de Janeiro, the country's largest cities. To date, these buses have logged over 30 million kilometers with a blend of Diesel de Cana. Tests carried out by Mercedes-Benz and MAN in Brazil show a significant reduction in the emissions of particulate matter (PM) and oxides of nitrogen (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.

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-Business Joint Ventures."

Additional Products and Markets

We expect to develop and produce additional molecules in the coming years based on our current pipeline of molecules contracted with collaboration partners, and on our plans for new product introductions, such as the Myralene renewable solvent product that addresses regulatory trends restricting volatile organic compounds, pending testing and regulatory approval.

In addition, in 2015, we commenced marketing and selling cosmetics and personal care products incorporating Biofene derivatives directly to retailers and consumers, initially in the United States. Through this market, we are working to accelerate demand for our products by directly influencing marketing and distribution of our products in the United States, and to generate incremental positive-margin revenues and Biofene volume uptake.

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 leading energy and oil companies such as Total, chemical companies such as Braskem and Kuraray, flavors and fragrances companies such as Firmenich and tire companies such as Michelin. 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 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. With an exception for our fuels business in Brazil, the collaboration and joint venture establishes an exclusive means for us to develop, produce and commercialize fuels from Biofene. 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 a 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. The collaboration and joint arrangements with Total and Cosan are described in more below under “Business-Business Joint Ventures.” Additionally, Amyris's proprietary synthetic biology platform may be used for pharmaceutical applications 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.

Business 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: flavors and fragrances, cosmetics, pharmaceuticals, consumer packaged goods, food additives and pesticides. The first programs we have focused on with Total relate to renewable diesel and jet fuel; however, both parties retain the right to propose product development programs under these agreements in the future.

In November 2011, we entered into an amendment of the collaboration agreement with Total with respect to development and commercialization of Biofene for diesel. This represented an expansion of the initial collaboration that the parties commenced in 2010, and established a global, exclusive collaboration for the development of Biofene for diesel and a framework for the creation of a joint venture to manufacture and commercialize Biofene for diesel. In July 2012 and December 2013, we entered into a series of agreements to establish a research and development program and form a joint venture (Total Amyris BioSolutions B.V.) to produce and commercialize Biofene-based diesel and jet fuels. Total Amyris BioSolutions B.V. was formed in December 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 the joint venture exclusive licenses under certain of our intellectual property to make and sell joint venture products. We also granted the joint venture, 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 has 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 for the collaboration, which Total has fully funded as of January 2015. The collaboration agreements were subject to a series of "Go/No-Go" decision points during the program, under which licenses to our technology could have terminated, and the notes would have remained outstanding and become payable at maturity unless otherwise converted in accordance with their terms. Following the final installment of funding in January 2015, only one "Go/No-Go" decision point remains under the collaboration agreements (such final decision point is expected to occur 30 days following the earlier of December 31, 2016 or the completion of certain milestones under the collaboration agreements). If Total makes a final “Go” decision with respect to the full diesel and jet fuels collaboration, then the notes would be exchanged by Total for equity interests in the joint venture, after which any obligation to pay principal or interest on the exchanged notes (or a portion thereof) would be extinguished. In the event 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 notes would remain outstanding and become payable, and 30% of the outstanding notes would be cancelled. If Total makes a "No-Go" decision, all the outstanding notes would remain outstanding and become payable upon maturity (unless otherwise converted in accordance with their terms).

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 generally each own 50% of Novvi and each share equally in any costs and any profits ultimately realized by the joint venture.

SMA Indústria Química

In April 2010, we established SMA Indústria Química (or SMA), a joint venture with São Martinho, to build a production facility in Brazil. SMA is located at the São Martinho mill in Pradópolis, São Paulo state. The joint venture agreements establishing SMA have a 20 year initial term.

The joint venture agreements required us to fund the construction costs of the new facility and São Martinho was required to reimburse us up to R$61.8 million (approximately US$23.3 million based on the exchange rate as of December 31, 2014) of the construction costs after SMA commences production. After commercialization, we would market and distribute Amyris renewable products produced by SMA and São Martinho would sell feedstock and provide certain other services to SMA. The cost of the feedstock to SMA would be based on the average return that São Martinho could receive from the production of its current products: sugar and ethanol. We would be required to purchase the output of SMA for the first four years at a price that guarantees the return of São Martinho’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.

We completed a significant portion of the construction of our second Brazilian manufacturing facility and plan to resume construction again as discussed above under "Business-Manufacturing."

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 chemical applications, we sell directly to our collaboration partners or, for our consumer care products, distributors and formulators. Generally, our collaboration agreements do not include any specific purchase obligations, and sales are contingent upon achievement of technical and commercial milestones.

In addition to sales through distributor channels and to our collaboration partners, starting in 2015, we will commence marketing and selling cosmetics and personal care products incorporating Biofene derivatives directly to retailers and consumers, initially in the United States.

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.

Commencing in 2008, we began developing a fuels distribution network and distribution capabilities in the United States through Amyris Fuels. Through mid-2012, we purchased ethanol produced by third parties and gasoline and sold both pure ethanol and reformulated ethanol-blended gasoline to wholesale customers. For 2012, Mansfield Oil Company accounted for more than 10% of our reported revenues by virtue of its purchases of ethanol and reformulated ethanol-blended gasoline from Amyris Fuels. Collaboration revenues from Total also accounted for more than 10% of our reported revenues in 2012. Customers purchased ethanol and ethanol-blended gasoline from us under short-term agreements and spot transactions, and we generally did not have any contractual commitments from customers to purchase ethanol and ethanol-blended gasoline from us over any extended period of time. Nearly all of our customer revenue through the third quarter of 2012 came from the sale of ethanol and reformulated ethanol-blended gasoline, with the remainder of our revenue coming from collaborations and government grants and, more recently, sales of our renewable products. In the third quarter of 2012, we transitioned out of the ethanol and ethanol-blended gasoline business and concentrated our efforts on developing and selling our renewable products.

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 2014.

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, 2015, we had 317 issued U.S. and foreign patents and 325 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 to 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 enzymes to convert sugars, in some cases from cellulosic biomass and in others from natural 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 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-competitive basis. In addition, with the wide range of renewable fuels products under development, we must be successful in reaching potential customers and convincing them that our transportation fuels products are effective and reliable alternatives.

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 (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 and 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 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 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, 2015, we had 404 full-time employees. Of these employees, 245 were in the United States and 159 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 About 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, 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, may never achieve or sustain profitability, have significant outstanding debt and have significant debt service obligations for 2015.

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 2015. As of December 31, 2014, we had an accumulated deficit of $819.2 million and had cash, cash equivalents and short term investments of $43.4 million. We have significant outstanding debt and contractual obligations related to capital and operating leases, as well as purchase commitments of $2.9 million. As of December 31, 2014, our debt totaled $232.5 million, net of discount of $80.2 million, of which $17.1 million matures within the next twelve months. In addition to upcoming debt maturities, our debt service obligations over the next twelve months are significant, including $9.5 million of anticipated interest payments (excluding interest paid in kind by adding to outstanding principal) and potential early conversion payment of up to approximately $18.9 million (assuming all note holders convert) that could become due at any time after May 15, 2015 under our outstanding convertible promissory notes sold on May 22, 2014 pursuant to Rule 144A of the Securities Act (or 144A Notes). Furthermore, our debt agreements contain various 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.

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 in a number of different markets. 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 endeavor. 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 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 2015 and 2016 working capital needs, our planned operating and capital expenditures for 2015 and 2016, 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, we would take the following actions as early as the second quarter of 2015 to support our liquidity needs through the remainder of 2015 and into 2016:

- 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 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.

The contingency cash plan contemplating these actions is designed to save us an estimated $30.0 million to $40.0 million over the period through March 31, 2016.

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.

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

In 2013 and 2014, we completed several equity and debt financings to provide us with cash resources to pursue our business plans. In August 2013, we entered into an agreement to sell 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 (or the August 2013 Financing). The August 2013 Financing was divided into two tranches, the first of which closed in October 2013 and the second of which closed in January 2014. In the October 2013 closing, we issued a total of $51.8 million in convertible promissory notes for cash proceeds of $7.6 million and cancellation of outstanding promissory notes and convertible promissory notes of $44.2 million (including $35.0 million advanced by one of the investors as a bridge loan earlier in October 2013 and approximately $9.2 million cancelled by Total in connection with its exercise of pro rata rights). In the January 2014 closing, we issued an additional $34.0 million in convertible promissory notes for cash proceeds of $28.0 million and cancellation of outstanding convertible promissory notes of approximately $6.0 million by Total in connection with its further exercise of pro rata rights. The terms of the August 2013 Financing include significant potential reductions in the conversion price for the notes issued in the August 2013 Financing if we do not meet certain performance milestones and other conditions. These conditions, if triggered, could result in further reductions to the conversion price that would cause significant additional dilution to our stockholders if the notes are ultimately converted.

In March 2014, we 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 and in June 2014, we amended such loan and security agreement with Hercules to simplify and remove certain covenants under the original loan facility and we agreed to incur an additional tranche of debt in the aggregate principal amount of $5.0 million (such loan facility, as amended, is referred to as the Hercules Loan Facility). The Hercules Loan Facility generally becomes due on May 31, 2017. We may repay the loaned amounts before the maturity date if we pay an additional fee of 3% of the outstanding loans (1% if after the twelve-month period following the execution of the loan and security agreement in March 2014). With respect to the initial tranche of $25.0 million, we were also required to pay a 1% facility charge at the closing of such transaction and will be required to pay a 10% end of term charge. The Hercules Loan Facility contains customary covenants and also a covenant requiring the Company to maintain unrestricted, unencumbered cash in an amount equal to at least 50% of the remaining principal amount then outstanding under the Hercules Loan Facility. 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 April 2014, we entered into a letter agreement dated as of March 29, 2014 (or the March 2014 Total Letter Agreement) with Total to amend our Amended and Restated Master Framework Agreement (included as part of Shareholders Agreement dated December 2, 2013 and License Agreement dated December 2, 2013 with Total Amyris BioSolutions B.V. (or License Agreement) and related documents (collectively, referred to as the JV Documents) entered into by and among Amyris, Total and Total Amyris BioSolutions B.V. (or JVCO) relating to the establishment of JVCO in December 2013). Under the March 2014 Total Letter Agreement, we agreed to, among other things, (i) amend the conversion price of convertible notes to be issued in 2014 and 2015 (for up to an aggregate of $21.7 million) from $7.0682 to $4.11 subject to stockholder approval at our 2014 annual meeting (to the extent required by applicable law or regulation), and (ii) extend the period during which Total may exchange for other Amyris securities certain outstanding convertible promissory notes in connection with its exercise of its existing pro rata rights from June 30, 2014 to the later of December 31, 2014 and the date on which Amyris raises $75.0 million of equity and convertible debt financing (excluding any convertible promissory notes issued pursuant to that certain Securities Purchase Agreement dated July 30, 2012 by and between Amyris and Total). In consideration of these agreements, Total agreed to waive its right not to consummate the closing of the issuance of the notes to be issued in 2014 and 2015 if it decides not to proceed with the collaboration and makes a "No-Go" decision with respect thereto. In two installments that occurred in July 2014 and January 2015, respectively, we sold and issued $21.7 million in convertible notes to Total. Each installment was in the amount of $10.85 million.

In May 2014, we closed on the offering and sale of $75.0 million aggregate principal amount of 6.50% Convertible Senior Notes due 2019 pursuant to a Purchase Agreement (or the 144A Purchase Agreement) with Morgan Stanley & Co. LLC for resale to certain qualified institutional buyers, (such offering, the 144A Offering).

If our outstanding convertible promissory notes (including those issued in the August 2013 Financing, those issued to Total in connection with our fuels collaboration and those issued pursuant to the 144A Offering) are not converted or cancelled, we may not have sufficient cash to repay the notes when they become due, which could result in insolvency and related issues. In addition, we were required to agree to significant covenants in connection with our debt financing transactions that have an impact on our ability to engage in certain transactions. For example, the purchase agreement for the August 2013 Financing (or the August 2013 SPA) requires us to obtain the consent of a majority of the purchasers from the August 2013 Financing 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. We also agreed to provide the purchasers in the August 2013 Financing with pro rata rights under which they could cancel up to the full amount of their outstanding notes to pay for new equity securities if we

raise additional financing during the term of the notes, which could delay or prevent us from obtaining additional financing if the holders of the notes sold in the August 2013 financing do not support it or such holders intend to exercise their right to cancel and exchange their outstanding notes for new securities and the prospective purchasers of new securities do not support such cancellation and exchange. Also, our outstanding convertible promissory notes (and related agreements) and the Hercules loan agreement include a minimum unrestricted, unencumbered cash covenant and other covenants that restrict us from raising additional financing through debt issuances without consent of these lenders; this could also slow down or limit our ability to pursue debt funding if the holders of our outstanding convertible promissory notes or Hercules do not support it. Additionally, under the 144A Notes, in the event of certain fundamental corporate transactions, such as a change of control, the conversion rate of the 144A Notes will be adjusted in favor of the holders of such notes and the holders have the option to require us to purchase their notes. This could lead to, among other things, liquidity difficulties should we not have sufficient cash when holders elect to cause us to purchase the notes and significant dilution to our stockholders if the conversion rate is adjusted, or could delay or prevent a change of control, including a merger, consolidation or other business combination involving us, or discourage a potential acquirer from making a tender offer or otherwise attempting to obtain control, even if that change of control would otherwise benefit our stockholders.

To the extent we issue convertible promissory notes or other debt instruments in the future, we would become subject to various additional covenants, including restrictions on our business or assets, that could cause us to be at risk of defaults. Further, there is no guarantee we will be able to obtain waivers to our existing covenants, to the extent necessary to undertake future financings.

To the extent we obtain funding through the issuance of additional equity securities, our existing stockholders will experience further dilution.

In 2014, we completed private placements of our common stock that resulted in the issuance of approximately 943,396 shares of our common stock. Also, in 2014, we issued approximately $119.9 million in senior convertible promissory notes that are or may become convertible into common stock. As of December 31, 2014, we had issued and outstanding an aggregate total of $255.7 million in senior convertible promissory notes, including interest payable in kind on certain of such notes, that are or may become convertible into common stock. As of December 31, 2014, such issued and outstanding convertible promissory notes consisted of the following:

- $48.3 million of convertible promissory notes with a conversion price of $7.0682 per share, which were issued under agreements signed in 2012, including the arrangement with Total for research and development-related funding,

- $30.0 million of convertible promissory notes with a conversion price of $3.08 per share and, $10.85 million of convertible promissory notes with a conversion price of $4.11 per share, all of which were issued pursuant to our arrangement with Total for research and development-related funding,

- $57.4 million in convertible promissory notes that are convertible into common stock at an initial conversion price of $2.44 per share issued under the first tranche of the August 2013 Financing (or Tranche I Notes),

- $34.0 million in convertible promissory notes that are convertible into common stock at an initial conversion price of $2.87 per share issued under the second tranche of the August 2013 Financing (or Tranche II Notes), and

- $75.0 million in convertible promissory notes that are convertible into common stock at a conversion price of $3.74 per share issued in the144A Offering.

In January 2015, we issued an additional $10.85 million senior convertible promissory note with a conversion price of $4.11 per share to Total as part of a planned second installment contemplated by the research and development-related funding closing in July 2014. In addition, in connection with the initial closing of the August 2013 Financing, we issued to Maxwell (Mauritius) Pte Ltd, (or Temasek) a warrant to purchase 1,000,000 shares of our common stock at an exercise price of $0.01 per share, exercisable if and to the extent Total converts certain preexisting convertible promissory notes.

We may undertake further equity or debt offerings in the future in order to grow our business, fund operations or service our existing debt obligations. 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.

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.

As of December 31, 2014, we had $312.7 million of indebtedness outstanding, of which $121.1 million was secured indebtedness. The foregoing amount of indebtedness does not include approximately $0.3 million in aggregate liabilities of our subsidiaries that we have guaranteed and on which we are primarily liable. As previously described, 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;

- 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

- 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. 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 on other outstanding indebtedness.

Servicing our indebtedness requires a significant amount of cash and our ability to generate cash may be affected by factors beyond our control.

Our business may not generate cash flow in an amount sufficient to enable us to pay the principal of, or interest on, our indebtedness, or to fund our other liquidity needs, including working capital, capital expenditures, product development efforts, strategic acquisitions, investments and alliances, and other general corporate requirements. Our ability to generate cash is subject to general economic, financial, competitive, legislative, regulatory and other factors that are beyond our control. There can be no assurance that:

- we will generate sufficient cash inflows from collaborations;

- our business will generate sufficient cash flow from operations;

- we will realize cost savings, revenue growth and operating improvements resulting from the execution of our long-term plan; or

- future sources of funding will be available to us in amounts or on the terms sufficient to enable us to fund our liquidity needs.

If we cannot fund our liquidity needs, we will have to take actions such as selling assets, restructuring or refinancing our indebtedness, seeking additional equity capital or reducing or delaying capital expenditures, product development efforts, strategic acquisitions, investments and alliances. Such actions could further negatively impact our ability to generate cash flows. We cannot assure you that any of these remedies could, if necessary, be effected on commercially reasonable terms, or at all, or that they would permit us to meet our scheduled debt service obligations. Our Hercules Loan Facility limits our ability to dispose of assets and, as a result, we may not be allowed, under that document or the

terms of any indebtedness we may incur in the future, to engage in such dispositions to satisfy our debt service obligations. In addition, if we incur additional indebtedness, the risks associated with our substantial leverage, including the risk that we will be unable to service our indebtedness or generate enough cash flow to fund our liquidity needs, could intensify.

Restrictive covenants in our Hercules Loan Facility and the terms of our existing convertible notes, and the terms of any indebtedness we may incur in the future, may materially restrict our ability to operate.

The agreements governing our existing indebtedness, and any indebtedness we may incur in the future, contain, and may contain, affirmative and negative covenants that 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, including some of our intellectual property. The breach of any of these covenants or the failure by us to meet any of these conditions would result in a default under any or all of such indebtedness. If a default occurs under any such indebtedness, all of the outstanding obligations thereunder could become immediately due and payable. If such indebtedness is accelerated, it may result in a default under our other outstanding indebtedness and could lead to an acceleration of such other outstanding indebtedness. Our ability to comply with the provisions of our debt agreements, including debt agreements we may enter into in the future, can be affected by events beyond our control. A default under any debt instrument, if not cured or waived, could result in a material adverse effect on us. We may not have the cash available and may not be able to raise financing in an amount sufficient to pay the indebtedness due as a result of the default or any other indebtedness that may become due as a result of such acceleration.

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 our 144A Notes, if the holders elect convert their 144A Notes on or after May 15, 2015, 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 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 144A Notes. The early conversion payment feature of the 144A Notes is accounted for under Accounting Standards Codification 815, Derivatives and Hedging (or ASC 815) as an embedded derivative. 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 feature of the notes as an embedded derivative in accordance with ASC 815. We have recorded this embedded derivative liability as a non-current liability on our consolidated balance sheet with a corresponding debt discount at the date of issuance that is netted against the principal amount of the 144A Notes. The derivative liability 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 liability being recorded in other income and loss. There is no current observable market for this type of derivative and, as such, we determine the fair value of the embedded derivative 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 liability 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 initial and planned large-scale production plants 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. 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 2015 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.

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.

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.

Our joint venture with São Martinho S.A. subjects us to certain legal and financial terms that could adversely affect us.

We have various agreements with São Martinho that contemplate construction of another large-scale manufacturing facility as a joint venture in Brazil. Under these agreements, we are responsible for designing and managing the construction project, and

are responsible for the initial construction costs. We projected the construction costs of the project to be approximately $100.0 million. While we completed a significant portion of the construction of the plant before 2012, we delayed further construction and commissioning of the plant while we constructed and commissioned our production plant in Brotas, Brazil and we expect to continue to defer the project for SMA Indústria Química (or SMA), our joint venture with São Martinho for the near term based on economic considerations and to allow us to focus on operations at our production plant in Brotas, Brazil. We entered into an amendment to the joint venture agreement with São Martinho in February 2014 which updated and documented certain preexisting business plan requirements related to the start-up of construction at the plant and set 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, which is required to occur no later than March 31, 2017, and (ii) the extension of an option held by São Martinho 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. While São Martinho was obligated to contribute up to approximately R$61.8 million (approximately US$23.3 million based on the exchange rate as of December 31, 2014) to the construction of the original plant, such contributions depended on, among other things, successful commencement of operations at the plant. Notwithstanding the February 2014 amendment to the joint venture agreement, based on our shifting manufacturing priorities and uncertainty regarding financing availability, we cannot currently predict exactly when or if our facility at São Martinho will be completed or commence commercial operations, which means that São Martinho's anticipated contribution will continue to be delayed and may never occur. São Martinho holds rights with respect to the termination and acquisition of our interests in SMA. For instance, if Amyris Brasil becomes controlled, directly or indirectly, by a competitor of São Martinho, then São Martinho has the right to acquire our interest in the joint venture and if São Martinho becomes controlled, directly or indirectly, by a competitor of ours, then we have the right to sell our interest in the joint venture to São Martinho. In either case, the purchase price is to be determined in accordance with the joint venture agreements, as amended, and we would continue to have the obligation to acquire products produced by the joint venture for the remainder of the term of the supply agreement then in effect even though we might no longer be involved in the joint venture's management.

If we are ultimately successful in establishing the plant at São Martinho, the agreements governing the joint venture subject us to terms that may not be favorable to us under certain conditions. For example, we are required to purchase the output of the joint venture for the first four years at a price that guarantees the return of São Martinho's investment plus a fixed surcharge rate. We may not be able to sell the output at a price that allows us to achieve anticipated, or any, level of profitability on the product we acquire under these terms. Similarly, the return that we are required to provide the joint venture for products after the first four years may have an adverse effect on the profitability we achieve from acquiring the mill's output. Additionally, we are required to purchase the output of the joint venture regardless of whether we have a customer for such output, and our results of operations and financial condition would be adversely affected if we are unable to sell the output that we are required to purchase.

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 and write off of property, plant and equipment of approximately $1.8 million in the year ended December 31, 2014). 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, of which $3.6 million was to satisfy outstanding obligations and $5.2 million was in lieu of additional payments otherwise owed.

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 the risk factors, "Risks Related to Our Business - 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," "Risks Related to Our Business - Our manufacturing operations require sugar feedstock, and the inability to obtain such feedstock in sufficient quantities or in a timely manner, or at reasonable prices, may limit our ability to produce products profitably or at all," and "Risks Related to Our Business - 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 benefit, 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 or jet 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, "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," "Risks Related to Our Business - We may not be able to obtain regulatory approval for the sale of our renewable products," and "Risks Related 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."

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 have initially sought 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.

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 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;
- 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 their 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 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, Total and other holders of notes issued in the first and second tranches of the August 2013 Financing (or, Tranche I Notes and Tranche II Notes, respectively) have a right to cancel certain outstanding Tranche I Notes and Tranche II Notes to exercise pro rata rights under the August 2013 SPA. To the extent Total and other investors exercise these rights, it will reduce the cash proceeds we may realize from the relevant financing. Additionally, under agreements originally signed in July 2012, as subsequently amended. Total previously had the right to cancel up to $30.0 million of certain outstanding convertible promissory notes. Total has since, in financings that closed in December 2012, October 2013, December 2013, January 2014, and May 2014 used and extinguished that right (with approximately $9.7 million of such rights extinguished by agreement of Amyris and Total in connection with the 144A Offering in May 2014 when we used approximately $9.7 million of the proceeds from the 144A Offering to repay certain senior secured convertible notes held by Total, which equaled the amount of Total's participation in the 144A Offering).

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

In July 2012 and December 2013, we entered into a series of agreements with Total to establish a research and development program and form a joint venture to produce and commercialize Biofene-based diesel and jet fuels. With an exception for our fuels business in Brazil, the collaboration and joint venture establish the exclusive means for us to develop, produce and commercialize fuels from Biofene. We granted the joint venture exclusive licenses under certain of our intellectual property to make and sell joint venture products. We also granted the joint venture, 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 has an independent right to make or sell Biofene fuels outside of Brazil without the approval of Total. If, for any reason, the joint venture is not fully supported or is not successful and the joint venture does not allow us to pursue Biofene-based fuels independently, this joint venture arrangement could impair our ability to develop and commercialize such fuels, which could have a material adverse effect on our business and long term prospects. For example, these arrangements could adversely affect our ability to enter or expand in these markets on terms that would otherwise be more favorable to us independently or with third parties.

In addition to granting the joint venture exclusive licenses, we also agreed that, if we encounter certain financial hardship situations, such as bankruptcy, insolvency and debt defaults, or upon a change of control of Amyris, Total has a right to buy out our interest in the joint venture at fair market value. The agreements also provide Total with a right to buy out our interest in the joint venture in the event of a "deadlock" in negotiating agreements to establish an operational fuels joint venture following a decision to proceed with the next phase of the joint venture. In a situation where Total buys out our interest in the joint venture, it also has rights to buy our Brazil fuels business at fair market value. If Total were to exercise these rights, we would, in effect, relinquish rights to intellectual property exclusively licensed to the joint venture, and our ability to seek future revenue from Biofene in the fuels market 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 future years.

Total's collaboration funding is in the form of convertible promissory notes.

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 for the collaboration, which, as of January 2015 Total has fully funded.The collaboration agreements were subject to a series of "Go/No-Go" decision points during the program, under which licenses to our technology could have terminated, and the notes would have remained outstanding and become payable at maturity unless otherwise converted in accordance with their terms. Following the final installment of funding in January 2015, only one "Go/No-Go" decision point remains under the collaboration agreements (such final decision point is expected to occur 30 days following the earlier of December 31, 2016 or the completion of certain milestones under the collaboration agreements). If Total makes a final decision to proceed with the operational fuels joint venture, Total is required to buy from Amyris 50% of the preferred shares (all of which are currently held by Amyris) of a related joint venture in exchange for full settlement of principal and interest outstanding under the notes. If Total makes a final decision to proceed with the joint venture only for jet fuel, Total is required to buy from Amyris 50% of the preferred shares of the joint venture in exchange for the settlement of 30% of the principal and interest outstanding under the notes. The remaining notes would continue to be outstanding and payable upon maturity unless otherwise converted in accordance with the terms of the notes. If Total makes a final decision not to proceed with any of the operational fuels joint venture, all the outstanding notes would remain outstanding and become payable upon maturity (unless otherwise converted in accordance with their terms).

As more fully described above, 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 for the collaboration, which, as of January 2015, Total has fully funded. If Total chooses, at a final decision point described above, not to proceed with an operational fuels joint venture, licenses to our technology would terminate, and the notes would remain outstanding and become payable at maturity unless otherwise converted in accordance with their terms. We cannot be certain that Total will ultimately opt to participate in an operational fuels joint venture. If Total were to decide not to proceed with the operational fuels joint venture, the outstanding notes representing amounts paid by Total to date would remain outstanding and become payable or convertible into our common stock. If Total chooses to demand repayment of amounts funded under the notes following such a decision (or a portion of such notes based on a jet fuel-only decision), we may not be able to satisfy our obligations to repay the notes by the maturity date in March 2017, which could lead to defaults and our insolvency, and Total and other creditors could pursue collections claims against us. If the notes become convertible and Total chooses to convert them, the resulting issuance of common stock would be dilutive to other stockholders.

If we do not meet technical, development and commercial milestones in our collaboration agreements, our future revenues 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 2015 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:

•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, and the inability to obtain such feedstock 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. 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.

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;
- changing interest rates;
- tax burden and policies;

- effects of changes in currency exchange rates;
- exchange controls and restrictions on remittances abroad;
- inflation;
- land reform 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;
- successful compliance with United States and foreign laws that regulate the conduct of business abroad;
- 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.

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 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 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 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 categorized 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 TSCA, which regulates the commercial registration, distribution, and use of new 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 or 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 it 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, CARB, EC and ANP. 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 collection to maintain registration. Registration with each of these bodies is required for the import, sale and use of our chemicals 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. Our jet fuel has been validated and supported by an applicable ASTM aviation turbine fuel standard and the ANP approval. In addition, for us to achieve full sale 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 pathway certifications could impair our ability to fully 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.

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 both in the United States and overseas. 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 may 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. If the price of oil falls, 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, may adversely affect the prices or demand for such products. During sustained periods of lower oil prices we may be unable to sell such products, which could impact our operating results.

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 may vary significantly from quarter to quarter and are often 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 lose or fail to renew arrangements with, 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.

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

The sales volume of our products in any given period can be difficult to predict. A 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. If such distributors are unsuccessful in creating pull-through demand for our products with their customers, such distributors may not purchase as many of our products. 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.

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. As a result, a portion of the revenues we report each quarter results from the recognition of deferred revenue from advance payments we have received from these collaborators during previous quarters. To the extent our business model depends 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 revenues from such new collaborations will often be recognized over multiple quarters or years.

Factors such as these make it difficult to predict future revenues and may result in our revenue being below our previously announced guidance or analysts' estimates, which would likely cause our stock price to decline.

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

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

- achievement, or failure, 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;

- delays or greater than anticipated expenses associated with the 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 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 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 2015, we are planning to keep our expenditures relatively consistent with prior years.

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 we may seek to operate in, is a lengthy and expensive one. The market for qualified personnel is very competitive because of the limited number of people available with 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 are dependent 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 404 at January 31, 2015. 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, 2015, we had 317 issued United States and foreign patents and 325 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, we may 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 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 by the lower courts. 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.

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. 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. 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.

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 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 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 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 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:

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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 to grant exclusive 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, or (iii) government action is necessary to meet requirements for public

use under federal regulations. 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. 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. 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. Furthermore, any such claims, even if without merit, could require us to incur significant costs to defend the claims, distract management’s attention or damage our reputation.

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.

If the value of our goodwill or other intangible assets becomes impaired, it could reduce the value of our assets and reduce our net income for the year in which the related impairment charges occur.

We apply the applicable accounting principles set forth in the United States Financial Accounting Standards Board's Accounting Standards Codification to our intangible assets (including goodwill), which prohibits the amortization of intangible assets with indefinite useful lives and requires that these assets be reviewed for impairment at least annually. There are several methods that

can be used to determine the estimated fair value of the in-process research and development 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. 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. Any finding that the value of our intangible assets has been impaired would require us to write-down the impaired portion, which could reduce the value of our assets and reduce our net income for the year in which the related impairment charges occur. As of December 31, 2014, we had a net carrying value of approximately $6.1 million in in-process research and development and goodwill associated with our acquisition of Draths Corporation.

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, 2014, 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 government 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 2014 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 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 January 31, 2015, the reported closing price for our common stock on the NASDAQ Global Select Market was $1.72 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 elsewhere in this report, 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.

The concentration of our capital stock ownership with insiders will limit the ability to influence corporate matters.

As of January 31, 2015:

- our executive officers and directors and their affiliates (including Total) together held approximately 42% of our outstanding common stock;
- Total held approximately 20.5% of our outstanding common stock; and
- two of the largest holders of outstanding common stock after Total (Temasek and Biolding Investment SA (or Biolding), each of whom has a designee on our Board of Directors) together held approximately 25.9% of our outstanding common stock.

This significant concentration of share ownership may 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.

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 and to fill board vacancies until the next annual meeting of the stockholders;
- 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 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 will dilute the ownership interests of existing stockholders. Any sales in the public market of the shares of our common stock issuable upon such conversion could adversely affect prevailing market prices of our common stock. In addition, the existence of our outstanding convertible promissory notes, particularly the 144A Notes, may encourage short selling by market participants because the anticipated conversion of such notes into 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 31, 2015:

Name	Age	Position
Executive Officers:		
John Melo	48	Director, President and Chief Executive Officer
Raffi Asadorian	45	Chief Financial Officer
Joel Cherry, Ph.D.	54	President of Research and Development
Nicholas Khadder	41	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 47,000 square feet of space in Campinas, Brazil, pursuant to two leases that will expire in October 2015 and November 2016. 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 2015.

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 Global Select 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 Global Select Market during each of the previous eight quarters.

	Price Range Per Share	
	High	Low
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
Fiscal 2013		
Fourth quarter	$6.11	$2.17
Third quarter	$3.03	$2.22
Second quarter	$3.20	$2.60
First quarter	$4.15	$2.56

Holders

As of January 31, 2015, there were approximately 104 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, 2014 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 51 MONTH CUMULATIVE TOTAL RETURN
Among Amyris, Inc., the S&P SmallCap 600 Index, and the NASDAQ Clean Edge Green Energy Index

	9/28/2010	12/31/2010	3/31/2011	6/30/2011	9/30/2011	12/31/2011	3/31/2012	6/29/2012	9/28/2012	12/31/2012	3/29/2013	6/28/2013	9/30/2013	12/31/2013	3/31/2014	6/30/2014	9/30/2014	12/31/2014
Amyris, Inc.	$ 100	$ 162	$ 173	$ 170	$ 123	$ 70	$ 31	$ 27	$ 21	$ 19	$ 19	$ 18	$ 14	$ 32	$ 23	$ 23	$ 23	$ 12
S&P SmallCap 600 Index	$ 100	$ 116	$ 124	$ 124	$ 99	$ 116	$ 129	$ 124	$ 130	$ 133	$ 148	$ 153	$ 169	$ 185	$ 187	$ 190	$ 177	$ 194
NASDAQ Clean Edge Green Energy Index	$ 100	$ 109	$ 112	$ 102	$ 66	$ 64	$ 72	$ 62	$ 59	$ 63	$ 74	$ 94	$ 108	$ 119	$ 135	$ 136	$ 127	$ 115

(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

Private Placements

On December 24, 2012, we sold 14,177,849 shares common stock at a price of $2.98 per share for aggregate cash proceeds of $37.2 million and cancellation of $5.0 million of an outstanding senior unsecured convertible promissory note we previously issued to Total. The cash settlement with respect to 5,033,557 of such shares occurred on January 14, 2013.

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.

Promissory Notes

Between 2013 and early 2015, we issued approximately $130.7 million in senior convertible promissory notes that are or may become convertible into common stock. As of December 31, 2014, we had issued an aggregate total of $255.7 million in senior convertible promissory notes, including those bearing interest payable in kind, that are or may become convertible into common stock. In January 2015, we issued a further $10.85 million in senior convertible promissory notes. As of December 31, 2014, such issued and outstanding convertible promissory notes consisted of the following:

- $48.3 million of convertible promissory notes with a conversion price of $7.0682 per share, which were originally issued under agreements signed in 2012, including the arrangement with Total for research and development-related funding. These notes were exchanged on December 2, 2013 as part of the establishment of a joint venture and the conversion terms of the new notes were generally identical to the terms of the notes that were cancelled, except that the new notes are secured by certain of our shares in the joint venture.

- $30.0 million of convertible promissory notes with a conversion price of $3.08 per share pursuant to our arrangement with Total for research and development-related funding. These notes were sold on June 6, 2013 and July 26, 2013 for $10.0 million and $20.0 million, respectively.

- $57.4 million in convertible promissory notes that are convertible into common stock at an initial conversion price of $2.44 per share issued under the first tranche of the August 2013 Financing. These notes were sold on October 16, 2013. In addition, in connection with the initial closing of the August 2013 Financing, we issued to Maxwell (Mauritius) Pte Ltd, (or Temasek) a warrant to purchase 1,000,000 shares of our common stock at an exercise price of $0.01 per share, exercisable if and to the extent Total converts certain preexisting convertible promissory notes. 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.

- $34.0 million in convertible promissory notes that are convertible into common stock at an initial conversion price of $2.87 per share issued under the second tranche of the August 2013 Financing. On December 24, 2013, we agreed to sell approximately $34.0 million of convertible promissory notes in the second tranche of the August 2013 Financing (or Tranche II Notes) for an aggregate offering price of $34.0 million, including new cash proceeds of approximately $28.0 million, and cancellation by Total of previously outstanding convertible promissory notes (approximately $6.0 million). We sold and issued these notes on January 15, 2014. The notes are due sixty months from the date of

issuance and are convertible into shares of our common stock at a conversion price equal to $2.87 per share, subject to adjustment as described below. Specifically, the notes are convertible at the option of the holder (i) at any time 12 months after issuance, (ii) on a change of control, and (iii) upon the occurrence of an event of default. The conversion price of these notes is subject to adjustment (a) according to proportional adjustments to outstanding common stock in case of certain dividends and distributions, (b) according to anti-dilution provisions, and (c) with respect to such 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. The purchasers have a right to require repayment of 101% of the principal amount of the Tranche II Notes in the event of a change of control 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.

$75.0 million in convertible promissory notes that are convertible into common stock at a conversion price of $3.74 per share issued in the144A Offering. On May 22, 2014, we 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 principal amount of its 6.50% Convertible Senior Notes due 2019 (or the 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 Rule 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 144A Notes, which option expired according to its terms. Under the terms of the 144A Purchase Agreement, 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 Indenture), between the Company and Wells Fargo Bank, National Association, as trustee. The net proceeds from the offering of the 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 144A Notes purchased by Total from the Initial Purchaser). Certain of the Company's affiliated entities, including Total, Temasek and funds affiliated with John Doerr, purchased $24.7 million in aggregate principal amount of 144A Notes from the Initial Purchaser. The 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, with the first such interest payment made on November 15, 2014. The 144A Notes will mature on May 15, 2019 unless earlier converted or repurchased. The 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 144A Notes will have an initial conversion rate of 267.0370 shares of Common Stock per $1,000 principal amount of 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, 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 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). In the event of a fundamental change, as defined in the Indenture, holders of the 144A Notes may require the Company to purchase all or a portion of the 144A Notes at a price equal to 100% of the principal amount of the 144A Notes, plus any accrued and unpaid interest to, but excluding, the fundamental change repurchase date. Holders of the 144A Notes who convert their 144A Notes in connection with a make-whole fundamental change will receive additional shares representing the present value of the remaining interest payments which will be computed using a discount rate of 0.75%. If a holder of 144A Notes elects to convert their 144A Notes prior to the effective date of any make-whole fundamental change, such holder will not be entitled to an increased conversion rate in connection with such conversion.

$21.7 million of convertible promissory notes with a conversion price of $4.11 per share pursuant to our arrangement with Total for research and development funding ($10.85 million of such $21.7 million was issued in a second installment to Total in January 2015). On July 31, 2014 and January 30, 2015, we sold $10.85 million and $10.85 million of 1.5% Senior Unsecured Convertible Notes Due 2017, respectively for the aggregate amount of $21.7 million in cash. These notes have a March 1, 2017 maturity date and a conversion price equal to $4.11 per share of our common stock. 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. Total, the holder of these notes, has a right to require repayment of 101% of the principal amount of the notes in the event of a change of control of Amyris, and the notes provide for payment of unpaid interest on conversion following such a change of control if Total does not require such repayment.

A placement agent was used in connection with the sale of securities to one of the purchasers in the convertible note financing we closed in January 2014, and in connection with the 144A Offering, 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. 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 and notes issued in, these transactions. These security holders had adequate access, through their relationships with us, to information about us.

ITEM 6. SELECTED FINANCIAL DATA

The selected consolidated statements of operations data for the years ended December 31, 2014, 2013 and 2012 and the selected consolidated balance sheets data as of December 31, 2014 and 2013 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, 2011 and 2010 and the selected consolidated balance sheets data as of December 31, 2012, 2011 and 2010 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,				
	2014	2013	2012	2011	2010
	(In Thousands, Except Share and Per Share Amounts)				
Consolidated Statements of Operations Data:					
Total revenues	$43,274	$41,119	$73,694	$146,991	$80,311
Total cost and operating expenses	$143,102	$160,735	$275,516	$326,163	$164,096
Net loss from operations	$(99,828)	$(119,616)	$(201,822)	$(179,172)	$(83,785)
Net income (loss) before income taxes and loss from investment in affiliate	$5,572	$(235,754)	$(205,052)	$(178,959)	$(82,790)
Net income (loss) before loss from investment in affiliate	$5,077	$(234,907)	$(206,033)	$(179,511)	$(82,790)
Net income (loss)	$2,167	$(234,907)	$(206,033)	$(179,511)	$(82,790)
Net income (loss) attributable to Amyris, Inc. common stockholders	$2,286	$(235,111)	$(205,139)	$(178,870)	$(123,879)
Net income (loss) per share attributable to common stockholders:					
Basic	$0.03	$(3.12)	$(3.62)	$(3.99)	$(8.35)
Diluted	$(0.90)	(3.12)	(3.62)	(3.99)	(8.35)
Weighted-average shares of common stock outstanding used in computing net income/loss per share of common stock:					
Basic	78,400,098	75,472,770	56,717,869	44,799,056	14,840,253
Diluted	121,859,441	75,472,770	56,717,869	44,799,056	14,840,253

	As of December 31,				
	2014	2013	2012	2011	2010
	(In Thousands)				
Consolidated Balance Sheets Data:					
Cash, cash equivalents, investments and restricted cash	$45,041	$9,944	$31,644	$103,592	$257,933
Working capital[2]	$33,606	$(382)	$3,668	$47,205	$242,818
Property, plant and equipment, net	$118,980	$140,591	$163,121	$128,101	$54,847
Total assets	$216,183	$198,864	$242,834	$320,111	$357,453
Derivative liabilities	$59,736	$134,717	$9,261	$—	$—
Total indebtedness[1]	$233,277	$153,305	$106,774	$47,660	$12,590

Total equity (deficit)	$(125,063)	$(135,848)	$66,229	$160,812	$307,548

(1) Total indebtedness as of December 31, 2014, 2013, 2012, 2011 and 2010 includes $0.8 million, $1.2 million, $2.6 million, $6.3 million, and $5.9 million, respectively, in capital lease obligations, zero, zero, $1.6 million, $3.1 million, and $5.7 million, respectively, in notes payable,$21.1 million, $25.3 million, $26.2 million, $19.4 million and $1.0 million, respectively, in loans payable, $35.7 million, $8.8 million, $12.4 million, $18.9 million, and zero, respectively, in credit facilities. Total indebtedness as of December 31, 2014, 2013 and 2012 also included $60.4 million, $28.5 million and $25.0 million, respectively, in convertible notes and $115.2 million,

$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 and 2010 (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. We have also advanced initial construction of a second large-scale production plant in Brazil, located at the São Martinho sugar and ethanol mill also in the state of São Paulo, Brazil, for which we intend to complete the construction when market developments support the start-up of that plant.

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 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 successfully formed such joint venture in December 2013 (collectively referred to as the July 2012 Agreements). 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 the joint venture exclusive licenses under certain of our intellectual property to make and sell joint venture products. We also granted the joint venture, 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 has 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 for the collaboration, which as of January 2015, had been completely funded by Total. The collaboration agreements were subject to a series of "Go/No-Go" decision points during the program, under which licenses to our technology could have terminated, and the notes would have remained outstanding and become payable at maturity unless otherwise converted in accordance with their

terms. Following the final installment of funding in January 2015, only one "Go/No-Go" decision point remains under the collaboration agreements (such final decision point is expected to occur 30 days following the earlier of December 31, 2016 or the completion of certain milestones under the collaboration agreements). If Total makes a final "Go" decision with respect to the full fuels collaboration, then the notes will be exchanged by Total for equity interests in the joint venture, after which the notes will not be convertible and any obligation to pay principal or interest on the exchanged notes (or a portion thereof) will be extinguished. In case of a "Go" decision only with respect to jet fuel, the parties would perform an operational joint venture only for jet fuel (and the rights associated with diesel would terminate), 70% of the outstanding notes would remain outstanding and become payable, and 30% of the outstanding notes would be cancelled. If Total makes a "No-Go" decision, all the outstanding notes would remain outstanding and become payable upon maturity (unless otherwise converted in accordance with their terms).

In April 2014, we entered into a letter agreement with Total 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 documents entered into in connection with the Total joint venture). Under the March 2014 Total Letter Agreement, we agreed to, among other things, amend the conversion price of the then-remaining $21.7 million of convertible notes from $7.0682 per share to $4.11 per share (which was funded in two equal installments in July 2014 and January 2015). In May 2014, we obtained stockholder approval with respect to the repricing of such convertible notes and the other amendments contemplated by the March 2014 Letter Agreement.

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 the largest Company in Brazil's fuel distribution segment 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 diesel and jet fuel products outside of Brazil would generally occur exclusively through certain agreements entered into by and among Amyris, Total and Total Amyris BioSolutions B.V. (or JVCO). For the industrial lubricants market, we established a joint venture with Cosan for the worldwide development, production and commercialization of renewable base oils in the lubricant sector. In the third quarter and fourth quarter we sold to one of our collaboration partners, a product for the flavors and fragrances market that we began manufacturing at our Brotas facility in Brazil. This product constituted approximately 35% of our total product revenues for the year.

Financing

In 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, the Company 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. In June 2014, we entered into a First Amendment of the Loan and Security Agreement and agreed to, among other things, issue an additional $5.0 million of secured debt to Hercules. The Hercules Loan Facility is described in more detail below under "Liquidity and Capital Resources."

In May 2014, we sold and issued $75.0 million 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 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 July 2012 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.

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 into at least 2016. As of December 31, 2014, we had an accumulated deficit of $819.2 million and had cash, cash equivalents and short term investments of $43.4 million. We have significant outstanding debt and contractual obligations related to capital and operating leases, as well as purchase commitments. 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.

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.

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, 2014 to Year Ended December 31, 2013

Revenues

	Years Ended December 31,		Year-to Year Change	Percentage Change
	2014	2013		
	(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	—	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 sales 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 Change	Percentage Change
	2014	2013		
	(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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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 Change	Percentage Change
	2014	2013		
	(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)%

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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.

Comparison of Year Ended December 31, 2013 to Year Ended December 31, 2012

Revenues

	Years Ended December 31,		Year-to Year Change	Percentage Change
	2013	2012		
	(Dollars in thousands)			
Revenues				
Renewable product sales	$14,428	$10,802	$3,626	34 %
Related party renewable product sales	1,380	—	1,380	nm
Ethanol and ethanol-blended gasoline	—	38,836	(38,836)	(100)%
Total product sales	15,808	49,638	(33,830)	(68)%
Grants and collaborations revenue	22,664	14,281	8,383	59 %
Related party grants and collaborations revenue	2,647	9,775	(7,128)	(73)%
Total grants and collaborations revenue	25,311	24,056	1,255	5 %
Total revenues	$41,119	$73,694	$(32,575)	(44)%

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Our total revenues decreased by $32.6 million to $41.1 million in 2013 as compared to the prior year primarily due to decreased revenues from product sales.

Product sales decreased by $33.8 million to $15.8 million in 2013 as compared to the prior year resulting primarily from the transition out of the ethanol and ethanol-blended gasoline business during the third quarter of 2012. Product sales of our farnesene-derived products increased $5.0 million in 2013 compared to the prior year primarily as a result of sales to new distributors, along with related party sales of renewable product to Novvi and Total.

Grants and collaborations revenue increased by $1.3 million to $25.3 million in 2013 as compared to the prior year primarily due from the increase in grants and collaborations revenue of $12.0 million, from the increase of collaborations revenue from our flavors and fragrances collaborations of $9.4 million and related party collaboration revenue from Novvi of $2.6 million, offset by the decrease in collaboration revenue from Total of $9.8 million and Cosan of $0.9 million.

Cost and Operating Expenses

	Years Ended December 31,		Year-to Year Change	Percentage Change
	2013	2012		
	(Dollars in thousands)			
Cost of products sold	$38,253	$77,314	$(39,061)	(51)%
Loss on purchase commitments and write-off of property, plant and equipment	9,366	45,854	(36,488)	(80)%
Research and development	56,065	73,630	(17,565)	(24)%
Sales, general and administrative	57,051	78,718	(21,667)	(28)%
Total cost and operating expenses	$160,735	$275,516	$(114,781)	(42)%

Cost of Products Sold

Our cost of products sold decreased by $39.1 million to $38.3 million in 2013 as compared to the prior year. In 2012, we began operating our own large-scale Biofene production plant located at Brotas, in the state of São Paulo, Brazil. The decrease in cost of products sold was mainly due from transitioning out of our ethanol and ethanol-blended gasoline business during the third quarter of 2012, resulting in a decrease of $38.6 million in the cost of products sold. Cost of products sold includes depreciation and amortization expenses of $6.1 million in 2013 compared to $2.9 million in 2012 mainly from significant additions to property, plant and equipment in 2013 and the latter part of 2012.

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 $36.5 million to $9.4 million in 2013 as compared to the prior year. The decrease was mainly due to the shift of a portion of our production capacity from contract manufacturing facilities to Amyris-owned plants. Beginning in March 2012, we initiated to shift a portion of our production capacity from contract manufacturing facilities to Amyris-owned plants. As a result, we evaluated our contract manufacturing agreements and, in the first quarter of 2012 recorded a loss of $31.2 million related to facility modification costs and fixed purchase commitments. We also recorded an impairment charge of $5.5 million in the three months ended March 31, 2012 related to Amyris-owned equipment at contract manufacturing facilities, based on the excess of the carrying value of the assets over their fair value. We recognized additional charges of $1.4 million and $7.8 million, respectively, in the third and fourth quarters of 2012 associated with losses on fixed purchase commitments. We computed the loss on facility modification costs and fixed purchase commitments using the same approach that is used to value inventory-the lower of cost or market value. The computation of the loss on firm purchase commitments is subject to several estimates, including the ultimate selling price of any of our products manufactured at the relevant production facilities, and is therefore inherently uncertain. During 2013, we recorded a loss of $9.4 million related to the termination and settlement of our existing agreements with Tate & Lyle and Antibioticos.The loss of $8.4 million related to Tate & Lyle consisted of an impairment charge of $6.7 million relating to our equipment at Tate & Lyle and a $2.7 million write off of an unamortized portion of equipment costs funded by us for Tate & Lyle, offset by a $1.0 million reversal of our remaining accrual associated with our loss on fixed purchase commitments. The loss of $1.0 million related to Antibioticos, consisted of an impairment charge relating to our equipment held at this location.

Research and Development Expenses

Our research and development expenses decreased by $17.6 million in 2013 over 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 an $8.2 million reduction in personnel-related expenses and lower stock-based compensation expense due to lower headcount, a $2.8 million decrease in consulting and outsourced services, a $2.3 million reduction in production expenses associated with development projects, a $1.3 million decrease in laboratory supplies and equipment and a $3.0 million decrease in travel-related expenses and other overhead expenses. Research and development expenses includes stock-based compensation expense of $4.3 million in 2013 compared to $6.5 million in 2012 and depreciation and amortization expenses of $8.9 million in 2013 compared to $6.3 million in 2012.

Sales, General and Administrative Expenses

Our sales, general and administrative expenses decreased by $21.7 million to $57.1 million in 2013 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 $14.5 million reduction in personnel-related expenses including stock-based compensation expense, due to lower headcount, a $4.3 million decrease in consulting and outsourced services, a $0.9 million decrease in laboratory supplies and equipment, a $0.8 million reduction in production expenses associated with development projects and a decrease of $1.2. million in travel-related expenses and other overhead expenses. Sales, general and administrative expenses includes stock-based compensation expense of $13.8 million in 2013 compared to $21.0 million in 2012 and depreciation and amortization expenses of $1.7 million in 2013 compared to $5.4 million in 2012.

Other Income (Expense)

	Years Ended December 31,	Year-to Year	Percentage

	2013	2012	Change	Change
	(Dollars in thousands)			
Other income (expense):				
Interest income	$162	$1,472	$(1,310)	(89)%
Interest expense	(9,107)	(4,926)	(4,181)	85 %
Gain (loss) from change in fair value of derivative instruments	(84,726)	1,790	(86,516)	nm
Loss from extinguishment of debt	(19,914)	(920)	(18,994)	nm
Other expense, net	(2,553)	(646)	(1,907)	295 %
Total other income (expense)	$(116,138)	$(3,230)	$(112,908)	nm

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58

nm= not meaningful

Total other expenses increased by approximately $112.9 million to $116.1 million in 2013 as compared to the prior year. The increase in other expense of $112.9 million was primarily attributable to the increase in loss from change in fair value of derivative instruments of $86.5 million, which increase was due to a change in the fair value of the compound embedded derivative liability associated with our senior secured convertible promissory notes as a result of the changes in the inputs used in the valuation models from one reporting period to another and the change in fair value of our interest rate swap derivative liability, $19.0 million increase in loss on the extinguishment of debt related to the Temasek Bridge Loan and Total convertible notes, a $1.9 million increase in other expense, net, mainly due to an increase in realized loss on foreign currency transactions, a $1.3 million decrease in interest income due to lower cash balance compared to prior year and an increase in interest expense of $4.2 million associated with increased borrowings to fund our operations.

Liquidity and Capital Resources

	December 31,	
	2014	2013
	(Dollars in thousands)	
Working capital (deficit), excluding cash and cash equivalents	$(8,441)	$(7,250)
Cash and cash equivalents and short-term investments	$43,422	$8,296
Debt and capital lease obligations	$233,277	$153,305
Accumulated deficit	$(819,152)	$(821,438)

	Years Ended December 31,		
	2014	2013	2012
	(Dollars in thousands)		
Net cash used in operating activities	$(84,708)	(105,859)	$(150,872)
Net cash provided by (used in) investing activities	(9,831)	(10,337)	(49,644)
Net cash provided by financing activities	130,921	91,181	138,117

Working Capital. Our working deficit, excluding cash and cash equivalents was $8.4 million for the year ended December 31, 2014, which represents an increase of $1.2 million compared to the working capital deficit of $7.3 million for the year ended December 31, 2013. The increase of $1.2 million in the working capital deficit during 2014 was due to the decrease in prepaid expenses and other current assets of $3.0 million, increase in deferred revenue of $3.1 million and an increase in the current portion of debt of $10.7 million, offset by an increase in accounts receivable of $1.0 million, increase in inventory of $3.6 million and a decrease in accounts payable, accrued and other current liabilities and current portion of capital lease obligations of $11.1 million.

The increase in cash and cash equivalents and short-term investments of $35.1 million was primarily due to cash provided by financing activities of $130.9 million related principally 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 144A Offering for $72.0 million (net of payments of discount and expenses of $3.0 million), $10.9 million proceeds from issuance of convertible notes to Total under the July 2012 Agreements, export financing with ABC of $2.2 million, and $4.0 million in proceeds from the sale of common stock to Kuraray, offset by the extinguishment of $9.7 million of debt to Total and $6.8 million in payments for debt obligations and capital leases. The cash received from financing activities was reduced by cash usage to fund our operating activities of $84.7 million, cash invested in an affiliate of $2.1 million, loans made to an

affiliate of $2.8 million, purchase of property plant and equipment of $5.0 million and the effect of foreign exchange rate losses on cash and cash equivalents of $1.2 million.

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 2015 working capital needs and our planned operating and capital expenditures for 2015 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 into at least 2016. As of December 31, 2014, we had an accumulated deficit of $819.2 million and had cash, cash equivalents and short term investments of $43.4 million. We have significant outstanding debt and contractual obligations related to capital and operating leases, as well as purchase commitments.

As of December 31, 2014, our debt totaled to $312.7 million, of which $17.1 million matures within the next twelve months. In addition to upcoming debt maturities, our debt service obligations over the next twelve months are significant, including $9.5 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 an amount equal to at least 50% of the principal amount outstanding under the Hercules Loan Facility. Refer to Note 5, "Debt" and Note 6, “Commitments and Contingencies” for further details of our debt arrangements.

Our operating plan for 2015 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 2014, (iii) increased cash inflows from collaborations compared to 2014, (iv) maintaining operating expenses at levels compared to 2014, and (v) access to the various financing commitments (see Note 16, "Subsequent Events").

If we are unable to generate sufficient cash contributions from product sales, payments from existing and new collaboration partners, and draw sufficient funds from certain financing commitments due to contractual restrictions and covenants, we will need to obtain additional funding from equity or debt financings, 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.

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 2015 to support our liquidity needs through the remainder of 2015 and into 2016:

- 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 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.

The contingency cash plan contemplating these actions is designed to save us an estimated $30.0 million to $40.0 million over the period through March 31, 2016.

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. In March 2014, we received an additional $10.0 million of funding under a collaboration agreement with a flavors and fragrances partner. In July 2014, 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 initial installment of the third closing under the Total Purchase Agreement. We received additional collaboration funding from various other partners during 2014, including $2.0 million in July 2014 under an isoprene collaboration with Manufacture Francaise de Pnematiques Michelin (or Michelin) and Braskem, S.A. (or Braskem) and $2.0 million in April 2014 under a farnesene collaboration with Kuraray (see Note 8, “Significant Agreements”).

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 August 2010, we were appointed as a subcontractor to National Renewable Energy Laboratory (or NREL) under a DOE grant awarded to NREL. Under this contract, we have the right to be reimbursed for up to $3.6 million of research and development expenses, and are required to fund an additional $1.4 million in cost sharing expenses. As of December 31, 2013, we had recognized the entire $3.6 million in revenue under this grant. The total cash received under this grant as of December 31, 2014 was $3.6 million, of which $0.2 million was received during the year ended December 31, 2014.

In June 2012, we entered into a Technology Investment Agreement with DARPA, 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 agreement 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 agreement had an initial term of one year and at DARPA's option, may be renewed for an additional year. The agreement was renewed by DARPA in May 2013 and extended in July 2014. Through

December 31, 2014, we had recognized $7.7 million in revenue under this agreement, of which $2.4 million was recognized during the year ended December 31, 2014. Total cash received under this agreement as of December 31, 2014 was $7.6 million, of which $4.5 million was received during the year ended December 31, 2014.

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 revenue under this agreement.

Convertible Note Offerings. In February 2012, we sold $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 to Total under the July 2012 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 Purchase Agreement (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 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. 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 Purchase Agreement.

In August 2013, we entered into an agreement with Total and Temasek to sell 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.

In October 2013, we sold and issued a senior secured promissory note to Temasek for a bridge loan of $35.0 million (or the Temasek Bridge Note). The Temasek Bridge 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 applicable if a default occurred). The Temasek 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.

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 (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."

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 Purchase Agreement for replacement 1.5% Senior Secured Convertible Notes, in principal amounts equal to the principal amount of the cancelled notes.

In the 144A Offering in May 2014, we sold and issued $75.0 million in aggregate principal amount of 6.5% 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 144A Offering is described in more detail in Note 5, "Debt."

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

Export Financing with ABC Brasil. In March 2013, we entered into an 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 Brazilian subsidiary. As of December 31, 2014 and 2013, the principal amount outstanding under this agreement was zero and $2.5 million,

respectively. In March 2014, we 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 our Brazilian subsidiary. As of December 31, 2014, the principal amount outstanding under this agreement was $2.2 million. We are also a parent guarantor for the payment of the outstanding balance under these loan agreements.

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 Desenvolvimento (or Nossa Caixa) and Banco Pine S.A. (or Banco Pine). Under these instruments, we borrowed an aggregate of R$52.0 million (approximately US$19.6 million based on the exchange rate as of December 31, 2014) 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 provided a parent guarantee to each of the lenders.

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$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, 2014 and 2013, the Company had R$11.5 million (approximately US$4.3 million based on the exchange rate as of December 31, 2014) and R$15.3 million (approximately US$6.5 million based on the exchange rate as of December 31, 2013), 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$9.4 million based on the exchange rate as of December 31, 2014). 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$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, 2014, the total outstanding loan balance under this credit facility was 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.

The FINEP Credit Facility contains the following significant terms and conditions:

- We are required to share with FINEP the costs associated with the FINEP Project. At a minimum, we are required to contribute approximately R$14.5 million (US$5.5 million based on the exchange rate as of December 31, 2014) of which R$11.1 million was contributed prior to the release of the second disbursement. All four disbursements were completed and we have fulfilled all of our cost sharing obligations;
- After the release of the first disbursement, prior to any subsequent drawdown from the FINEP Credit Facility, we were required to provide bank letters of guarantee of up to R$3.3 million in aggregate (approximately US$1.2 million based on the exchange rate as of December 31, 2014) before receiving the second installment in December 2012. We obtained the bank letters of guarantee from ABC; and
- Amounts disbursed under the FINEP Credit Facility were required to be used towards the FINEP Project within 30 months after the contract execution.

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 entered into a first amendment (or the Hercules Amendment) of the Hercules Loan Facility. Pursuant to the Hercules Amendment, the parties agreed to adjust the term loan maturity date from May 31, 2015 to February 1, 2017 and removed (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. As of December 31, 2014, $29.8 million was outstanding under the Hercules Loan Facility, net of discount of $0.2 million, and we maintain cash in excess of the approximately $15.0 million current minimum cash covenant described above.

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.

Cash Flows during the Years Ended December 31, 2014, 2013, and 2012

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 $84.7 million, $105.9 million and $150.9 million for the years ended December 31, 2014, 2013 and 2012, respectively.

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.

Net cash used in operating activities of $150.9 million for the year ended December 31, 2012 was attributable to our net loss of $206.0 million and a $33.5 million net outflow from changes in our operating assets and liabilities, offset by non-cash charges of $88.7 million. The net outflow from changes in operating assets and liabilities of $33.5 million primarily consisted of a $35.8 million decrease in accrued and other liabilities, an $11.8 million decrease in accounts payable, a $1.6 million decrease in deferred revenue and a $1.3 million increase in deferred rent, offset by a $2.8 million decrease in accounts receivable, a $2.9 million decrease in inventory, an $11.2 million decrease in prepaid expenses and other assets. Non-cash charges of $88.7 million consisted primarily of $45.9 million loss on purchase

commitments and write-off of property, plant and equipment at contract manufacturers, $27.5 million of stock-based compensation and $14.6 million of depreciation and amortization expenses.

Cash Flows from Investing Activities

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

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.

Net cash used in investing activities of $49.6 million for the year ended December 31, 2012, was a result of $56.9 million of capital expenditures and deposits on property, plant, and equipment due primarily to the construction of our first owned production facility in Brotas, Brazil and $1.0 million of restricted cash, offset by net sales of short term investments of $8.2 million.

Cash Flows from Financing Activities

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 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 July 2012 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 July 2012 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.

Net cash provided by financing activities of $138.1 million for the year ended December 31, 2012, was a result of the net receipt of $108.9 million from debt financings, of which $30.0 million is debt financing from a related party, the receipt of $84.7 million in proceeds from sales of common stock in private placements net of issuance cost, and the receipt of $0.9 million in proceeds from option exercises. These cash inflows were offset in part by principal payments on debt of $52.6 million and principal payments on capital leases of $3.7 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, 2014 (in thousands):

	Total	2015	2016	2017	2018	2019	Thereafter
Principal payments on long-term debt	$312,700	$17,100	$20,973	$96,474	$60,236	$111,595	$6,322
Interest payments on long-term debt, fixed rate[(1)]	88,004	9,482	7,800	12,946	33,321	23,997	458
Operating leases	58,613	6,694	6,564	6,565	6,653	6,791	25,346

Principal payments on capital leases	816	541	250	25	—	—	—
Interest payments on capital leases	54	39	15	—	—	—	—
Terminal storage costs	102	102	—	—	—	—	—
Purchase obligations[2]	2,871	1,407	442	985	37	—	—
Total	$463,160	$35,365	$36,044	$116,995	$100,247	$142,383	$32,126

(1) 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.

(2) Purchase obligations include noncancellable contractual obligations and construction commitments of $1.6 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.

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, 2014, 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, 2014, 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 $134.4 million at December 31, 2014 and $145.2 million at December 31, 2013. The decrease in the permanent investments in our foreign subsidiaries between 2013 and 2014 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 $13.4 million and $14.5 million for 2014 and 2013, 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$8.3 million based on the exchange rate as of December 31, 2014). 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 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.
Index to Financial Statements and Financial Statement Schedules

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, 2014 and December 31, 2013, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2014 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, 2014, 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.

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 31, 2015

Amyris, Inc.
Consolidated Balance Sheets
(In Thousands, Except Share and Per Share Amounts)

	December 31, 2014	2013
Assets		
Current assets:		
Cash and cash equivalents	$42,047	$6,868
Short-term investments	1,375	1,428
Accounts receivable, net of allowance of $479 and $479, respectively	8,687	7,734
Related party accounts receivable	455	484
Inventories, net	14,506	10,888
Prepaid expenses and other current assets	6,534	9,518
Total current assets	73,604	36,920
Property, plant and equipment, net	118,980	140,591
Restricted cash	1,619	1,648
Equity and loans in affiliates	2,260	68
Other assets	13,635	10,517
Goodwill and intangible assets	6,085	9,120
Total assets	$216,183	$198,864
Liabilities and Deficit		
Current liabilities:		
Accounts payable	$3,489	$6,512
Deferred revenue	5,303	2,222
Accrued and other current liabilities	13,565	21,221
Capital lease obligation, current portion	541	956
Debt, current portion	17,100	6,391
Total current liabilities	39,998	37,302
Capital lease obligation, net of current portion	275	287
Long-term debt, net of current portion	100,122	56,172
Related party debt	115,239	89,499
Deferred rent, net of current portion	10,250	10,191
Deferred revenue, net of current portion	6,539	5,000
Derivative liabilities	59,736	134,717
Other liabilities	9,087	1,544
Total liabilities	341,246	334,712
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, 300,000,000 and 200,000,000 shares authorized as of December 31, 2014 and 2013; 79,221,883 and 76,662,812 shares issued and outstanding as of December 31, 2014 and 2013, respectively	8	8
Additional paid-in capital	724,669	706,253
Accumulated other comprehensive loss	(29,977)	(20,087)
Accumulated deficit	(819,152)	(821,438)
Total Amyris, Inc. stockholders' deficit	(124,452)	(135,264)
Noncontrolling interest	(611)	(584)

Total stockholders' deficit	(125,063)	(135,848)
Total liabilities and stockholders' deficit	$216,183	$198,864

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,		
	2014	2013	2012
Revenues			
Renewable product sales	$22,793	$14,428	$10,802
Related party renewable product sales	646	1,380	—
Ethanol and ethanol-blended gasoline	—	—	38,836
Total product sales	23,439	15,808	49,638
Grants and collaborations revenue	19,835	22,664	14,281
Related party grants and collaborations revenue	—	2,647	9,775
Total grants and collaborations revenue	19,835	25,311	24,056
Total revenues	43,274	41,119	73,694
Cost and operating expenses			
Cost of products sold	33,202	38,253	77,314
Loss on purchase commitments and write-off of property, plant and equipment	1,769	9,366	45,854
Impairment of intangible assets	3,035	—	—
Research and development	49,661	56,065	73,630
Sales, general and administrative	55,435	57,051	78,718
Total cost and operating expenses	143,102	160,735	275,516
Loss from operations	(99,828)	(119,616)	(201,822)
Other income (expense):			
Interest income	387	162	1,472
Interest expense	(28,949)	(9,107)	(4,926)
Gain (loss) from change in fair value of derivative instruments	144,138	(84,726)	1,790
Loss from extinguishment of debt	(10,512)	(19,914)	(920)
Other income (expense), net	336	(2,553)	(646)
Total other income (expense)	105,400	(116,138)	(3,230)
Income (loss) before income taxes and loss from investments in affiliates	5,572	(235,754)	(205,052)
Benefit (provision) for income taxes	(495)	847	(981)
Net income (loss) before loss from investments in affiliates	5,077	(234,907)	(206,033)
Loss from investments in affiliates	(2,910)	—	—
Net income (loss)	2,167	(234,907)	(206,033)
Net (income) loss attributable to noncontrolling interest	119	(204)	894
Net income (loss) attributable to Amyris, Inc. common stockholders	$2,286	$(235,111)	$(205,139)
Net income (loss) per share attributable to common stockholders:			
Basic	$0.03	$(3.12)	$(3.62)
Diluted	$(0.90)	$(3.12)	(3.62)
Weighted-average shares of common stock outstanding used in computing net income (loss) per share of common stock:			
Basic	78,400,098	75,472,770	56,717,869
Diluted	121,859,441	75,472,770	56,717,869

See the accompanying notes to the consolidated financial statements.

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Amyris, Inc.
Consolidated Statements of Comprehensive Loss
(In Thousands)

	Years Ended December 31,		
	2014	2013	2012
Comprehensive loss:			
Net income (loss)	$2,167	$(234,907)	$(206,033)
Foreign currency translation adjustment, net of tax	(9,798)	(7,191)	(6,626)
Total comprehensive loss	(7,631)	(242,098)	(212,659)
Income (loss) attributable to noncontrolling interest	119	(204)	894
Foreign currency translation adjustment attributable to noncontrolling interest	(92)	(89)	(257)
Comprehensive loss attributable to Amyris, Inc.	$(7,604)	$(242,391)	$(212,022)

See the accompanying notes to the consolidated financial statements.

Amyris, Inc.
Consolidated Statements of Stockholders' Equity (Deficit)
(In Thousands, Except Share and Per Share Amounts)

	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Loss	Noncontrolling Interest	Total Equity
	Shares	Amount					
December 31, 2011	45,933,138	$ 5	$ 548,159	$ (381,188)	$ (5,924)	$ (240)	$ 160,812
Issuance of common stock upon exercise of stock options, net of restricted stock	1,441,676	—	1,509	—	—	—	1,509
Issuance of common stock in a private placement, net of issuance cost of $392	21,040,717	2	89,680	—	—	—	89,682
Recovery of shares from Draths escrow	(5,402)	—	—	—	—	—	—
Shares issued from restricted stock unit settlement	299,584	—	(588)	—	—	—	(588)
Repurchase of common stock	(53)	—		—	—	—	—
Stock-based compensation	—	—	27,473	—	—	—	27,473
Change in unrealized loss on investments	—	—	—	—		—	—
Foreign currency translation adjustment, net of tax	—	—	—	—	(6,883)	257	(6,626)
Net loss	—	—	—	(205,139)	—	(894)	(206,033)
December 31, 2012	68,709,660	$ 7	$ 666,233	$ (586,327)	$ (12,807)	$ (877)	$ 66,229

See the accompanying notes to the consolidated financial statements.

Amyris, Inc.
Consolidated Statements of Stockholders' Equity (Deficit)—(Continued)
(In Thousands, Except Share and Per Share Amounts)

	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Loss	Noncontrolling Interest	Total Deficit
	Shares	Amount					
December 31, 2012	68,709,660	$7	$666,233	$(586,327)	$(12,807)	$(877)	$66,229
Issuance of common stock upon exercise of stock options, net of restricted stock	777,099	—	1,489	—	—	—	1,489
Issuance of common stock in a private placement, net of issuance cost of $21	6,567,299	1	19,979				19,980
Shares issued from restricted stock unit settlement	608,754	—	(825)	—	—	—	(825)
Issuance of common stock warrants in connection with issuance of convertible promissory note	—		1,330				1,330
Stock-based compensation	—	—	18,047	—	—	—	18,047
Foreign currency translation adjustment, net of tax	—	—	—	—	(7,280)	89	(7,191)
Net loss	—	—	—	(235,111)	—	204	(234,907)
December 31, 2013	76,662,812	$8	$706,253	$(821,438)	$(20,087)	$(584)	$(135,848)

See the accompanying notes to the consolidated financial statements.

Amyris, Inc.
Consolidated Statements of Stockholders' Equity (Deficit)—(Continued)
(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, 2013	76,662,812	$ 8	$ 706,253	$ (821,438)	$ (20,087)	$ (584)	$ (135,848)
Issuance of common stock upon exercise of stock options, net of restricted stock	779,490	—	2,133	—	—	—	2,133
Issuance of common stock in a private placement	943,396	—	4,000				4,000
Shares issued from restricted stock unit settlement	836,185	—	(1,822)	—	—	—	(1,822)
Stock-based compensation	—	—	14,105	—	—	—	14,105
Foreign currency translation adjustment, net of tax	—	—	—	—	(9,890)	92	(9,798)
Net income	—	—	—	2,286	—	(119)	2,167
December 31, 2014	79,221,883	$ 8	$ 724,669	$ (819,152)	$ (29,977)	$ (611)	$ (125,063)

See the accompanying notes to the consolidated financial statements.

Amyris, Inc.
Consolidated Statements of Cash Flows
(In Thousands)

	Years Ended December 31,		
	2014	2013	2012
Operating activities			
Net income (loss)	$2,167	$(234,907)	$(206,033)
Adjustments to reconcile net income (loss) to net cash used in operating activities:			
Depreciation and amortization	14,969	16,639	14,570
Loss on disposal of property, plant and equipment	263	176	370
Impairment of intangible assets	3,035	—	—
Stock-based compensation	14,105	18,047	27,473
Amortization of debt discount	9,981	3,683	838
Loss from extinguishment of debt	10,512	19,914	920
Provision for doubtful accounts	—	—	236
Loss on purchase commitments and write-off of property, plant and equipment	1,769	9,366	45,854
Change in fair value of derivative instruments	(144,138)	84,726	(1,764)
Loss from investment in affiliate	2,910	—	—
Other non-cash expenses	(113)	211	159
Changes in assets and liabilities:			
Accounts receivable	(1,217)	(4,365)	2,837
Related party accounts receivable	(4)	(484)	—
Inventories, net	(4,481)	(5,612)	2,919
Prepaid expenses and other assets	(2,907)	(2,743)	11,239
Accounts payable	(3,209)	(2,636)	(11,811)
Accrued and other liabilities	6,830	(9,275)	(35,754)
Deferred revenue	4,760	1,634	(1,648)
Deferred rent	60	(233)	(1,277)
Net cash used in operating activities	(84,708)	(105,859)	(150,872)
Investing activities			
Purchase of short-term investments	(1,371)	(2,795)	(8,334)
Maturities of short-term investments	1,409	1,281	—
Sales of short-term investments	—	—	16,503
Change in restricted cash	—	(736)	(955)
Investment in affiliate	(2,075)	—	—
Loan to affiliate	(2,790)	—	—
Purchase of property, plant and equipment, net of disposals	(5,004)	(8,087)	(56,832)
Deposits on property, plant and equipment	—	—	(26)
Net cash used in investing activities	(9,831)	(10,337)	(49,644)
Financing activities			
Proceeds from issuance of common stock, net of repurchases	2,488	1,134	1,479
Employees' taxes paid upon vesting of restricted stock units	(1,822)	(825)	(588)
Proceeds from issuance of common stock in private placements, net of issuance costs	4,000	19,980	84,682
Principal payments on capital leases	(1,045)	(1,366)	(3,727)
Proceeds from debt issued	83,171	10,535	78,904
Proceeds from debt issued to related party	49,862	65,000	30,000

Principal payments on debt	(5,733)	(3,277)	(52,633)
Net cash provided by financing activities	130,921	91,181	138,117
Effect of exchange rate changes on cash and cash equivalents	(1,203)	1,291	(2,712)
Net increase (decrease) in cash and cash equivalents	35,179	(23,724)	(65,111)
Cash and cash equivalents at beginning of period	6,868	30,592	95,703
Cash and cash equivalents at end of period	$42,047	$6,868	$30,592

Amyris, Inc.
Consolidated Statements of Cash Flows—(Continued)
(In Thousands)

	Years Ended December 31,		
	2014	2013	2012
Supplemental disclosures of cash flow information:			
Cash paid for interest	$6,910	$2,978	$3,399
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	$114	$2,261	$2,538
Financing of equipment	$617	$—	$—
Warrants issued in connection with issuance of convertible promissory notes	$—	$1,330	$—
Financing of insurance premium under notes payable	$166	$425	$—
Receivable of proceeds for options exercised	$—	$355	$—
Capitalized taxes in property, plant and equipment	$—	$(8,572)	$—
Interest capitalized to property, plant and equipment	$—	$—	$554
Debt issued related to an investment in joint venture	$—	$68	$—
Conversion of other liability to related party debt	$—	$—	$(23,300)
Conversion of related party debt to common stock			