UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2016

OR

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

For the Transition Period from _____ to

Commission File Number: 001-34885

AMYRIS, INC.

(Exact name of registrant as specified in its charter)

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

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

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

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

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

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

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

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

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

As of June 30, 2016, 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 $37.0 million, based on the closing price of the registrant's common stock on the NASDAQ Stock Market on such date.

278,320,194 shares of the registrant's common stock, par value $0.0001 per share, were outstanding as of January 31, 2017.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's proxy statement to be delivered to stockholders in connection with the registrant's 2017 Annual Meeting of Stockholders to be held on or about May 23, 2017 are incorporated by reference into Part III of this Form 10-K. The registrant intends to file its proxy statement within 120 days after its fiscal year end.

AMYRIS, INC.

ANNUAL REPORT ON FORM 10-K

For the Fiscal Year Ended December 31, 2015

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FORWARD-LOOKING STATEMENTS

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

TRADEMARKS

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

ITEM 1. BUSINESS

Overview

Amyris, Inc. (or the "Company," "Amyris," "we," "us," or "our") is a leading integrated industrial biotechnology company that is applying its technology platform to engineer, manufacture and sell high performance, low cost products into the Health and Nutrition, Personal Care and Performance Materials markets. Our proven technology platform allows us to rapidly engineer microbes and use them as catalysts to metabolize renewable, plant-sourced sugars into large volume, high-value ingredients. Our biotechnology platform and industrial fermentation process replaces existing complex and expensive chemical manufacturing processes. We believe industrial synthetic biology represents a third industrial revolution, bringing together biology and engineering to generate new, more sustainable materials to meet the growing global demand for bio-based replacements for petroleum, animal- or plant-derived ingredients. We continue to build demand for our current portfolio of products through a sales network comprised of direct sales and distributors, and are engaged in collaborations across each of our three market focus areas to drive additional product sales and partnership opportunities. Via our partnership model, we co-invest in the development of each molecule to bring it from the lab to commercial scale and then capture long term revenue either via the sale of the molecule to the partner and/or value sharing of end product sales.

Background

Amyris was founded in 2003 in the San Francisco Bay Area by a group of scientists from the University of California, Berkeley. Our first major milestone came in 2005 when, through a grant from the Bill & Melinda Gates Foundation, we developed technology capable of creating microbial strains that produce artemisinic acid - a precursor of artemisinin, an effective anti-malarial drug. In 2008, we granted royalty-free licenses to allow Sanofi-Aventis (Sanofi) to produce artemisinic acid using our technology. 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 markets.

We focused our initial development efforts primarily on the production of Biofene®, our brand of renewable farnesene, a long-chain, branched hydrocarbon molecule that we manufacture through fermentation using engineered microbes. Our farnesene derivatives are sold in hundreds of products as nutraceuticals, skin care, fragrances, solvents, polymers, and lubricants ingredients. The commercialization of farnesene pushed us to create a more cost efficient, faster and accurate development process in the lab and drive costs out of our Brotas, Brazil production facility. This investment has enabled our technology platform to rapidly develop microbial strains and commercialize target molecules. In 2014, we began manufacturing additional molecules for the flavors and fragrance (F&F) industry, in 2015 we began investing to expand our capabilities to other small molecule chemical classes beyond terpenes via our collaboration with the Defense Advanced Research Project Agency (DARPA), as discussed below, and in 2016 we expanded into proteins.

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

Our Platform

Amyris has invested over $500 million in infrastructure and technology to create microbes that produce chemicals from sugar or other feedstocks at commercial scale. This platform has been used to design, build, optimize, and upscale strains producing 5 distinct molecules, leading to more than 15 commercial products used in 500 consumer products. Our time to market for molecules has decreased from 7 years to less than a year for our most recent molecule, mainly due to our ability to leverage the technology platform we have built.

Our technology platform has been in active use since 2008, and has been integrated with our commercial production since 2011, creating a seamless organism development process that we believe makes Amyris an industry leader in the successful scale-up of small molecules. The key performance characteristics of our platform that we believe differentiate Amyris include our proprietary computational tools, strain construction tools, screening and analytics tools, and advanced lab automation and data integration. Our state-of-the-art infrastructure includes industry leading strain engineering and lab automation located in Emeryville, CA, pilot scale production facilities in Emeryville, CA and Campinas, Brazil, a demonstration scale facility in Campinas, Brazil and a commercial scale production facility in Brotas, Brazil.

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

We are currently producing three molecules at our Brotas, Brazil plant: farnesene and two fragrance molecules.

Corporate Information

We were founded in 2003 and completed our initial public offering in 2010. As of January 31, 2017, we had 440 full-time employees (including 280 in the United States and 160 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 one operating subsidiary, Amyris Brasil Ltda. (Amyris Brasil) which oversees establishment and expansion of our production operations in Brazil.

Strategy and Business Model

Our mission is to apply innovative 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 and scarce products. In the past, choosing a renewable product often required producers to compromise on performance or price. With our technology, leading consumer brands can develop products made from renewable sources that offer equivalent or better performance and stable supply with competitive pricing. We call this our No Compromise® value proposition. We aim to improve the world one molecule at a time by providing the best alternatives to the products the world relies on every day.

We have developed and are operating our company under a business model that generates cash from collaborations, from product sales, and value share. 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 the solutions partners are looking for to gain a competitive advantage either through a lower cost, more reliable supply source or through access to a needed scarce ingredient. This results in our partners gaining a competitive performance and economic advantage while Amyris is able to further build upon our leading technology platform and gain access to upfront funding as well as a long-term revenue stream. These collaborative technology-based partnerships typically range from two to five years and have funded a substantial portion of our direct research and development expenses since 2012. These relationships have also provided us with a robust pipeline of molecules from which we expect to launch production of three to four products annually at our industrial scale facility in Brotas, Brazil. Our collaborations generate value in several ways, including:

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

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

Product Sales

In addition to our collaborations (including product sales to and value sharing arrangements with our collaboration partners as described above), we have been developing, manufacturing and selling high-value farnesene derivatives that are branded as our Neossance® emollients for the cosmetics industry, and our Biossance™ direct to consumer beauty brand. Both brands are based on our farnesene derivative, squalane. The Neossance brand is focused on business to business sales and is sold via our distributor network in order to accelerate commercialization. Selling squalane as a branded product has enabled us to differentiate ourselves from the other squalane sources available on the market which are either detrimental to the environment or of lower quality and subject to severe supply and pricing fluctuations. 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 December 2016, we formed a joint venture for our Neossance business with Nikko Chemicals Co., Ltd. and Nippon Surfactant Industries Co., Ltd. (collectively referred to as Nikko), in which we hold a 50% interest. See below under “Business-Joint Ventures” for more information regarding our Neossance joint venture.

In 2015, we launched our direct to consumer beauty brand, Biossance. The brand was initially developed to capture a greater value share of the direct to consumer beauty brand market versus only selling squalane into this market as an ingredient. The first Biossance product launched, The Revitalizer, is made exclusively from Neossance squalane. Biossance products were initially sold solely through our ecommerce branded website and in 2016 we expanded the product line to include an expansive line of high-performance skin care products and began sales through the Home Shopping Network (HSN). In October 2016, we announced that our Biossance product line would begin to be carried at Sephora in 2017. In February 2017, we launched a full squalane based consumer cosmetic line at participating Sephora stores and Sephora online. All of the products are based on Amyris's commitment to No Compromise ™. Since the launch, sales have grown, and with Sephora's partnership, we are looking to expand to more stores.

Via our collaboration partnership model, we also have several products we manufacture and sell to our partners in the F&F and Performance Materials industries. In 2014 we established sales of F&F ingredients to a collaboration partner, representing our first major product sales of a molecule other than farnesene and, in 2015, we established sales of a second F&F molecule.

With partners such as Kuraray Co., Ltd. (Kuraray) and Novvi LLC (Novvi), our joint-venture with Cosan US. Inc. (Cosan US and, together with its affiliates, Cosan), American Refining Group, Inc. (ARG) and Chevron Products Company, a division of Chevron U.S.A. Inc. (Chevron) we sell farnesene for the manufacture of performance materials such as polymers, lubricants and specialty adhesives. Kuraray uses our farnesene to produce liquid farnesene rubber, a highly effective tire additive with superior snow, ice and wet-grip properties. We also produce and sell a farnesene derivative, Myralene®, a solvent with very good cleaning, worker health and environmental benefits. We continue to produce and sell renewable diesel for niche markets in Brazil, and renewable jet fuel for early adoption of such jet fuel in specific routes selected by participating airlines. Though these products have not yet generated material net cash contributions to our business, we have maintained such sales as part of our industrial-scale manufacturing offtake and to support our ongoing development efforts toward a commercially-viable Biofene-based renewable fuel in collaboration with Total.

Manufacturing

We began industrial-scale production of our products at contract manufacturing facilities in 2011 and, in December 2012, commenced operations at our first purpose-built, large-scale production facility in southeastern Brazil. This multi-product production facility, located in Brotas, in the state of São Paulo, Brazil, is adjacent to an existing sugar and ethanol mill operated by Tonon Bioenergia SA (Tonon), formerly known as Paraíso Bioenergia. Through 2016, we produced farnesene and two ingredients for the F&F industry at commercial scale at such facility. Under our manufacturing agreement, Tonon supplies sugarcane syrup and certain utilities. Amyris is solely responsible for maintenance and operation of our plant. Our Brotas facility has six 200,000 liter production fermenters and was designed to process sugarcane juice and syrup, or their equivalent, from up to one million tons of raw sugarcane annually. In December 2012, we began production of farnesene at this facility. Our first shipment of farnesene produced at the Brotas facility occurred in February 2013, and our first shipment of a fragrance molecule from the facility occurred in August 2014. We began manufacturing our second fragrance molecule at the Brotas facility in September 2015 and commenced shipping the product in December 2015, with volume ramp up in 2016. In 2016, we made the first large scale shipments of Biofene to our partner who successfully produced and sold a high-value nutraceutical product to their customers. In February 2017, we broke ground on a second purpose-built, large-scale production facility adjacent to our current Brotas facility.

For many of our products, we perform additional distillation or chemical finishing steps to convert initial target molecules into other finished products, such as renewable squalane, F&F ingredients, lubricants, performance polymers and diesel. We have agreements with several facilities in the U.S. and Brazil to perform distillation, filtration, purification and hydrogenation steps for such 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. In December 2016, we purchased a facility in Leland, North Carolina, which had been previously operated by Glycotech Inc. (Glycotech) to convert our Biofene into squalane and other final products. We subsequently contributed that facility to our Neossance joint venture discuss above. See below under "Business-Joint Ventures" for more information regarding our Neossance joint venture.

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 microbes metabolize sugars. Specifically, we engineer microbes, such as yeast, and use them as catalysts to convert sugar, through fermentation, into high-value molecules. In 2015, we were awarded a DARPA investment to expand the capabilities of our technology platform beyond terpenoids. The investment has resulted in us developing an integrated platform with artificial intelligence that will speed up the development and commercialization of small molecules across 15 different chemical classes. In 2016, we entered into a partnership with Biogen. Inc. (Biogen) that is utilizing our strain engineering toolbox to develop and produce recombinant proteins, such as monoclonal antibodies, for pharmaceutical use.

Together 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 markets.

Research and Development

Our ongoing technology development is focused primarily on developing microbial strains that produce targeted molecules and on improving the performance of our production microbial strains. 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, 2017, our research and development organization included approximately 147 employees, 45 of whom held Ph.D.s. Our research and development expenditures were approximately $51.4 million, $44.6 million, and $49.7 million for the fiscal years ended December 31, 2016, 2015 and 2014, respectively.

Strain Engineering and Scale-Up Process

The primary biological pathway within the microbe that we currently use to produce our commercial molecules is called the isoprenoid or terpenoid pathway. Isoprenoids constitute a large, diverse class of as many as 40,000 identified organic chemicals produced by this pathway in nature, 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 $500 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. Our platform has also allowed us to expand beyond terpenoids to other small molecule chemical classes and proteins.

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 500,000 unique strains in 2016, surpassing 5.0 million unique strains created since our inception, with each strain testing for improved production of the target molecules. In addition, through our lab-scale and pilot-plant fermentation operations, and our proprietary analytical tools, we are now able to predict, with high reliability, the industrial performance of candidate strains in our 200,000-liter fermenters at our Brotas plant.

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

1. *Identifying target molecules***.** We start our process by identifying, usually based on input from collaborators, a commercial application for which we can deliver an attractive No Compromise® solution. We identify the key molecular properties that are essential to product performance in a specific commercial application and then analyze the chemical structures that drive those key performance characteristics. Finally, we identify target molecules or derivatives of molecules that contain these key chemical structures and that may be cost-effectively produced by our yeast strains.

2. *Developing initial strains/proof of concept***.** We identify the enzyme-catalyzed chemical conversion steps required for the target molecule's production in a biological pathway. We then seek to design a pathway to produce the target molecule, 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 in a cost-effective manner, 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 from feeding the microbe a defined amount of sugar. 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 strain, and titer, the concentration of product in the fermentation broth. In addition, we seek to develop processes to improve production cost and recovery efficiency, including optimizing cycle-time, which is the time needed to run a full fermentation cycle, fermentation process optimization to minimize cost, and separation efficiency, a measure of the amount of product that is recovered from a fermentation run.

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 (0.5 to 2 liter), operating pilot plants in our facilities in Emeryville, California and Campinas, Brazil (300 liters), and one 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 with our partners as well as with Amyris branded products. Our partner products are divided into three market areas: Health and Nutrition, Personal Care and Performance Materials. Independently, we have formulated end-user products such as our Biossance™ brand skin care products and products that are based on Biofene and Biofene derivatives that we sell into several markets.

Health and Nutrition

The Health and Nutrition markets include our pharmaceutical work in aiding new drug development and developing alternative cell lines to mammalian cell cultures, nutraceuticals, such as vitamins, and food ingredients. This is a fairly new area for Amyris and most of our work in these areas is still under development and have not been commercialized yet.

During 2016, we announced the signings of our first ingredient supply agreement and collaboration agreement for the global nutraceuticals market. Under the supply agreement, we source Biofene to our partner, which is then further processed into a nutraceutical product. In 2016, we made the first large scale shipments of Biofene to our partner, who successfully produced and sold a nutraceutical product to its customers. The availability of large volumes of Biofene as starting material enables a significant reduction in the production time, complexity and cost of producing end-use nutraceutical products. Under the collaboration agreement, we are working to create and develop additional nutraceutical compounds and, in the event we and our partner can achieve certain specified development targets, we and our partner would establish and implement a worldwide manufacturing and commercialization plan relating to such compounds.

Personal Care

The Personal Care markets include F&F ingredients, skin care ingredients and cosmetic actives. To date, we have successfully brought two F&F ingredients to market with a collaboration partner and have several other ingredients for all three areas under development.

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

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

We are currently working to develop and commercialize a variety of F&F ingredients that are either direct fermentation products or derivatives of fermentation products. Two of our Personal Care collaboration partners launched new products in 2016 using ingredients supplied by Amyris via our proprietary fermentation process. Both of these products have generated significant interest for use in consumer products. In addition, during 2016 we also completed R&D on two other ingredients and began scale-up work for commercialization.

Performance Materials

The Performance Materials markets consist consists of specialty chemicals used to produce products such as polymers, lubricants, solvents and transportation fuels.

Solvents

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

Polymers

Our partners are developing applications for our farnesene that include high-performance polymers used in tires and other end-uses. In 2011, we began collaborating with 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), a tire additive that has superior cold and wet-grip properties for better performance. LFR 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, and one such manufacturer, Sumitomo Rubber Industries, Ltd., has adopted LFR as a performance enhancing additive for use in the production of certain of its tires. Also, during this period, Kuraray produced and began customer sampling and product evaluation for a new category of elastomer, Hydrogenated Styrenic Farnesene Copolymer (HSFC), which has demonstrated performance attributes that open opportunities for vibration-dampening product applications.

Cray Valley, a division of Total, has developed a new farnesene-based addition to its line of Wingtack ® hydrocarbon resins. This product not only represents their first such product based on a renewable feedstock, rather than traditional petroleum based hydrocarbons, but also offers unique performance attributes. These attributes expand the scope of the product line's applications as tackifying additives to enhance the properties of a broad range of elastomers, including SIS, SBS, polyisoprene, butyl rubber, EPDM and SBR materials, as well as hot melt and hot melt pressure sensitive adhesives.

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. The high-purity synthetic base oil and additive molecules that can be made from Biofene 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 our joint venture Novvi. Additional details regarding Novvi are provided below under "Business-Joint Ventures."

Solvents

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

Transportation Fuels

We have partnered with Total to develop renewable transportation fuels from farnesene. Under such partnership, we produce renewable diesel (a farnesene derivative referred to as farnesane) and jet fuel that delivers energy density, engine performance and storage properties comparable to the best petroleum fuels today.

- *Jet Fuel*. Our drop-in, renewable jet fuel is compliant with Jet A/A-1 fuel specifications and outperforms conventional petroleum-derived fuel in a range of performance metrics, including fit for purpose and greenhouse gas emission reduction potential, without compromising on performance or quality. Our renewable jet fuel is approved for use at a 10% blend level with petroleum jet fuel globally and for use by the US military.

- *Diesel*. Our renewable diesel's properties are superior to those of petroleum diesel, allowing it to be used as a drop-in replacement practically in any diesel engine today. Our renewable diesel is approved for use in the US at up to a 35% blend with petroleum diesel and in Brazil at up to a 30% blend. The US Maritime Division and U.S. Department of Transportation have validated our diesel as a renewable blend with maritime diesel fuel.

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 will be conducted through a joint venture we have established with Total (described in more detail below under "Business-Joint Ventures"). We have been limiting jet fuel and diesel sales in recent periods as sales of our fuels products have not been cost-effective given the current costs of producing farnesene and current market prices for petroleum fuels.

Amyris Branded Product Markets

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. We believe that our Neossance squalane offers performance attributes equal or superior to those of squalane derived from conventional sources. The ingredient traditionally has been manufactured from olive oil or extracted from deep-sea shark liver oil, which requires that the shark be killed in order to harvest its liver oil. The relatively high price and unstable supply of squalane in the past meant that its use was generally limited to luxury products or small quantities in mass-market product formulations. With our ability to produce a reliable supply of low-cost squalane that eliminates the need to harvest shark liver oil, we offer this ingredient at a price that we believe will drive increasing adoption by formulators. In addition to Neossance squalane, we offer a second, lower-cost emollient, Neossance hemisqualane, for the cosmetics market. In December 2016, we formed a joint venture for our Neossance business with Nikko, in which we hold a 50% interest. See below under "Business-Joint Ventures" for more information regarding our Neossance joint venture. The joint venture currently has Neossance emollient supply agreements with several regional distributors, including those with locations in Japan, South Korea, Europe, Brazil and North America, and, in some cases, directly with cosmetics formulators, which we transferred to the joint venture during the formation process.

In addition, in 2015 we launched our own consumer brand, Biossance™ skin care products, featuring our Biofene-derived squalane. Under our Biossance™ brand, we market and sell our products directly to retailers and consumers, initially in the United States. Biossance was initially sold solely through our ecommerce branded website and in 2016, we expanded the product line to include an expansive line of high-performance skin care products and opened up sales through Home Shopping Network (HSN). In October 2016, we announced our Biossance product line would begin to be carried at Sephora in 2017. In February 2017, we launched a full squalane based consumer cosmetic line at participating Sephora stores and Sephora online. All of the products are based on Amyris's commitment to No Compromise™. Since the launch, sales have grown, and with Sephora's partnership, we are looking to expand to more stores.

Collaborations

We believe that our leadership in the synthetic biology sector is demonstrated by collaboration partners who come to us to access our synthetic biology platform and industrial fermentation expertise. Together we seek to reduce environmental impact, enhance performance, reduce supply and price volatility, and improve profit margins. Our partners include Total, chemical companies such as Braskem S.A. (Braskem) and Kuraray, F&F companies such as Firmenich S.A. (Firmenich) and Givaudan International, SA (Givaudan), agricultural processing companies such as China National Cereals, Oils, and Foodstuff Corporation, nutraceutical companies such as Nenter & Co., Inc. (Nenter) and pharmaceutical companies such as Biogen, Inc. and Janssen Pharmaceutical (Janssen). Our work has also been funded by the U.S. government, including the Department of Energy (DOE) and DARPA, to develop technologies and processes capable of improving the ability to utilize biotechnology for the production of a broader range of molecules.

In 2016, Amyris entered into a partnership in the field of cosmetic actives and completed the engineering of a yeast strain that can produce the first target in this space at significantly reduced cost. This will enable our partner to expand the market for this molecule into new applications and products. The speed to market for this ingredient reinforces the value proposition and strength of the Amyris technology platform and Amyris's ability to scale up products.

In addition to our collaborations for co-development of Health and Nutrition, Personal Care and Performance Material 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. For example, we have established a collaboration and joint venture with Total to commercialize Biofene-based diesel and jet fuels, as described in more detail below. In connection with this arrangement, Total has provided substantial funding for Biofene research and development. In addition to this arrangement with Total, we have established our Novvi joint venture with Cosan, ARG and Chevron for the worldwide development, production and commercialization of renewable base oils for the automotive, industrial and commercial lubricants markets. In December 2016, we formed a joint venture for our Neossance business with Nikko, as discussed below. Additionally, Amyris's proprietary synthetic biology platform may be used to provide the pharmaceutical industry with an integrated discovery and production process for therapeutic compounds for which a natural source is scarce or unavailable, or for which chemical synthesis is not cost-effective.

In 2016, we established and developed collaboration relationships with pharmaceutical partners such as Biogen in order to develop an alternative cell line to mammalian cell cultures for the production of recombinant proteins, such as monoclonal antibodies. We also initiated two µPharm™ projects that utilize Amyris's proprietary technology to develop customized libraries of natural and natural-like compounds for our partners' selected targets.

Joint Ventures

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

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

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

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

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

Upon all farnesene-or farnesane-based diesel fuel rights reverting back to us, we granted to Total, pursuant to the EU Diesel Fuel Agreement, (a) an exclusive, royalty-free license to offer for sale and sell farnesene- or farnesane-based diesel fuel in the EU, (b) the non-exclusive right to make farnesene or farnesane anywhere in the world, but Total must (i) use such farnesene or farnesane to produce only diesel fuel to offer for sale or sell in the EU and (ii) pay us a to-be-negotiated, commercially reasonable, "most-favored" basis royalty and (c) the right to purchase farnesene or farnesane for its EU diesel fuel business from us on a "most-favored" pricing basis. As a result of the EU Diesel Fuel Agreement, we generally no longer have an independent right to make or sell, without the approval of Total, farnesene- or farnesane-based diesel fuels in the EU.

In addition, as part of the closing of the Restructuring and pursuant the TAB Letter Agreement, on March 21, 2016, we sold to Total one half of our ownership stake in TAB (giving Total an aggregate ownership stake of 75% of TAB and giving us an aggregate ownership stake of 25% of TAB) in exchange for Total cancelling (i) approximately $1.3 million of R&D Notes, plus all paid-in-kind and accrued interest under all outstanding R&D Notes (including all such interest that was outstanding as of July 29, 2015) and (ii) a note in the principal amount of Euro 50,000, plus accrued interest, issued to Total in connection with the original TAB capitalization. To satisfy its purchase obligation above, Total surrendered to us the remaining R&D Note of approximately $5 million in principal amount, and we executed and delivered to Total a new R&D Note containing substantially similar terms and conditions other than it is unsecured and its payment terms are severed from TAB's business performance, in the principal amount of $3.7 million. See Note 16, "Subsequent Events" in "Notes to Consolidated Financial Statements" included in this Annual Report on Form 10-K for additional details regarding such R&D Note.

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

Novvi LLC

In June 2011, we entered into joint venture agreements with Cosan related to the formation of a joint venture to focus on the worldwide development, production and commercialization of base oils made from Biofene for the automotive, commercial and industrial lubricants markets. In September 2011, we formed Novvi, an entity that was initially jointly owned by Cosan U.S. and us. In March 2013, we entered into additional agreements with Cosan U.S. 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 U.S. each owned 50% of Novvi, and each shared equally in any costs and any profits ultimately realized by the joint venture.

In July 2016, ARG agreed to make a capital contribution of up to $10.0 million in cash to Novvi, subject to certain conditions, in exchange for a one third ownership stake in Novvi. In connection with such investment, we and Cosan U.S. also agreed to make certain contributions to Novvi in exchange for receiving additional membership units in Novvi. Following the ARG investment, assuming it is made in full, and the capital contributions of us and Cosan U.S., each of Novvi's three members (i.e., ARG, the Company and Cosan U.S.) will own one third of Novvi's issued and outstanding membership units. In July 2016, the Novvi joint venture documents were amended in order to reflect the ARG investment in Novvi and related transactions.

In November 2016, Chevron made a capital contribution of $1.0 million in cash to Novvi in exchange for 20,000 membership units, representing an approximately 3% ownership stake in Novvi, which reduced the ownership interests of Amyris, Cosan U.S. and ARG pro rata.

SMA Indústria Química S.A.

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

We completed a significant portion of the construction of the new facility in 2012. We suspended construction of the facility in 2013 in order to focus on completing and operating our smaller production facility in Brotas, Brazil and in December 2015, we and SMSA entered into termination and a Share Purchase and Sale Agreement relating to the termination of the joint venture. December 2015, we and SMSA entered into a Termination Agreement and a Share Purchase and Sale Agreement relating to the termination of the joint venture. Under the Termination Agreement, the parties agreed that the joint venture would be terminated effective upon the closing of the purchase by Amyris Brasil of SMSA's 50,000 shares of SMA (representing all of the shares of SMA held by SMSA) for R$50,000 (approximately US $15.342 based on the exchange rate as of December 31, 2016) pursuant to the Share Purchase and Sale Agreement, The purchase and sale of SMSA's shares of SMA by Amyris Brasil was consummated on January 11, 2016. The Share Purchase and Sale Agreement also provided that Amyris and Amyris Brasil would have 12 months following the closing of the share purchase to remove assets from SMSA's site, and would enter into an extension of the lease for such 12 month period for monthly rental payments of R$9,853 (approximately US$3,023 based on the exchange rate as of December 31, 2016. In September 2016, the parties entered into an addendum to the Share Purchase and Sale Agreement (and a corresponding amendment to the lease) which extended the deadline to remove assets from SMSA's site to December 31, 2017.

Neossance, LLC

In December 2016, we entered into joint venture agreements with Nikko related to the formation of a joint venture to focus on the worldwide commercialization of our Neossance cosmetic ingredients business. In December 2016, we formed the joint venture under the name Neossance, LLC (Neossance), which is jointly owned by us and Nikko. Pursuant to the joint venture agreements relating to Neossance, we contributed certain assets to Neossance, including certain intellectual property and other commercial assets relating to our Neossance cosmetic ingredients business, as well as the production facility in Leland, North Carolina and related assets purchased by us from Glycotech in December 2016. We also agreed to provide Neossance with licenses to certain intellectual property necessary to make and sell products associated with the Neossance business. At the closing of the formation of the joint venture, Nikko purchased a 50% interest in Neossance in exchange for an initial payment of $10 million and the profits, if any, distributed from Neossance to Nikko as a member in cash during the three year period following December 12, 2016, up to a maximum of $10 million. In addition, as part of the formation of Neossance, we and Nikko agreed to make working capital loans to Neossance and we further agreed to execute, and cause Amyris Brasil to execute, a supply agreement to supply farnesene to Neossance, to guarantee a maximum production cost for certain products to be produced by Neossance and to bear any cost of production above such guaranteed costs.

Product Distribution and Sales

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

For transportation fuels in Brazil, we sell our renewable diesel directly to fuels blenders and distributors. For transportation fuels outside of Brazil, we have typically sold our products to Total or to fuels blenders and distributors. Eventually, we expect to commercialize commodity products, including sales of fuels and base oils, through our joint ventures TAB and Novvi, respectively.

Renewable product sales to Firmenich and collaboration revenues from Firmenich, Ginkgo Bioworks, Inc. and DARPA each accounted for more than 10% of our reported revenues in 2016.

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 in 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 (the USPTO), and its foreign counterparts.

As of January 31, 2017, we had approximately 500 issued U.S. and foreign patents and approximately 350 pending U.S. and foreign patent applications that are owned or co-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 patents, 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 products produced from traditional sources as well as from alternative production methods that established enterprises and new companies are seeking to develop and commercialize.

Health and Nutrition

Many active ingredients in the pharmaceutical and nutraceutical markets are made via chemical synthesis by suppliers that have a deep chemistry knowhow and production facilities, including Active Pharmaceutical Ingredient (API) manufacturers and ingredient suppliers. We may compete directly with these companies with respect to specific ingredients or attempt to provide customers with more cost effective or higher performing alternatives. For food ingredients, we compete with companies that produce products from plant and animal derived sources as well as with companies that are also developing biotechnology production solutions to produce specific molecules.

Personal Care

The main competition for Personal Care ingredients, such as fragrances and cosmetic actives is from products derived from plant and animal sources as well as chemical synthesis. The products derived from plant and animal sources are typically produced at a higher cost and create a greater impact on the environment compared to our products. Products derived from chemical synthesis are often produced at a low cost but have ramifications on sustainability as well as non-natural sourcing. There are also companies that are working to develop products using similar technology to us.

Performance Materials

In the Performance Materials markets that we have entered or are seeking to enter, we compete primarily with the established providers of materials currently used in products in these markets. Producers of these incumbent products include global oil companies, large international chemical companies, independent and integrated oil refiners, advanced biofuels companies and biodiesel companies, and companies specializing in specific products that directly compete with our Biofene product and its derivatives. 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.

Competitive Factors

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

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

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

Environmental and Other Regulatory Matters

Our development and production processes involve the use, generation, handling, storage, transportation and disposal of hazardous chemicals and radioactive and biological materials. We are subject to a variety of federal, state, local and international laws, regulations and permit requirements governing the use, generation, manufacture, transportation, storage, handling and disposal of these materials in the United States, Brazil and other countries where we operate or may operate or sell our products in the future. These laws, regulations and permits can require expensive fees, pollution control equipment or operational changes to limit actual or potential impact of our technology on the environment and violation of these laws could result in significant fines, civil sanctions, permit revocation or costs from environmental remediation. We believe we are currently in substantial compliance with applicable environmental regulations and permitting. However, future developments including our commencement of commercial manufacturing of one or more of our products, more stringent environmental regulation, policies and enforcement, the implementation of new laws and regulations or the discovery of unknown environmental conditions may require expenditures that could have a material adverse effect on our business, results of operations or financial condition. See "*Risk Factors - Risks Relating to Our Business - We may incur significant costs to comply 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 Environmental Protection Agency (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 it is generally recognized as safe, 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 (CTNBio) under its Biosafety Law No. 11.105-2005. We have obtained approvals from CTNBio to use GMMs in a contained environment in our Brazil facilities for research and development purposes as well as at contract manufacturing facilities in Brazil. In addition, we have obtained initial commercial approvals from CTNBio for two of our yeast strains.

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 products may be subject to government regulations in our target markets. In the United States, the EPA administers the requirements of the Toxic Substances Control Act (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 (REACH) regulation. See "*Risk Factors - Risks Related to Our Business - We may not be able to obtain regulatory approval for the sale of our renewable products*." 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 restriction in the United States.

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 (CARB). In Brazil, this includes Brazilian Agência Nacional do Petróleo, Gas Natural e Biocombustíveis (ANP).

We have completed significant steps to validate our ability to produce a market-accepted diesel product:

- Due to the similarity of its chemical composition to that of existing petroleum-sourced diesel, our diesel product has the properties required of diesel fuel and thereby satisfies the American Society for Testing and Materials International (ASTM International) 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.

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

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.

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 ASTM International in June 2014. ASTM International 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, 2017, we had 440 full-time employees. Of these employees, 280 were in the United States and 160 were in Brazil. Except for labor union representation for Brazil-based employees based on labor code requirements in Brazil, none of our employees is represented by a labor union or is covered by a collective bargaining agreement. We have never experienced any employment-related work stoppages and consider relations with our employees to be good.

Financial Information by Geographic Areas

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

We are subject to the filing requirements of the Securities Exchange Act of 1934 (the Exchange Act). Therefore, we file periodic reports, proxy statements and other information with the Securities and Exchange Commission (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 SEC at 1-800-SEC-0330. In addition, the SEC maintains a website (www.sec.gov) that contains reports, proxy and information statements, and other information regarding issuers that file electronically.

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

ITEM 1A. RISK FACTORS

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

Risks Related to Our Business

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

We have incurred significant losses in each year since our inception and believe that we will continue to incur losses and negative cash flow from operations into at least 2018. As of December 31, 2016, we had an accumulated deficit of $1,134.4 million and had cash, cash equivalents and short term investments of $28.5 million. We have significant outstanding debt, a significant working capital deficit and contractual obligations related to capital and operating leases, as well as purchase commitments of $0.8 million. As of December 31, 2016, our debt totaled $227.0 million, net of discount of $42.5 million, of which $59.2 million is classified as current. Our debt service obligations over the next twelve months are significant, including approximately $18.3 million of anticipated interest payments (excluding interest paid in kind by adding to outstanding principal) and may include potential early conversion payments of up to approximately $15.8 million (assuming all note holders convert) under our outstanding 9.50% Convertible Senior Notes due 2019 (or the "2015 144A Notes"). Furthermore, our debt agreements contain various financial and operating covenants, including restrictions on business that could cause us to be at risk of defaults. We expect to incur additional costs and expenses related to the continued development and expansion of our business, including construction and operation of our manufacturing facilities, contract manufacturing, research and development operations, and operation of our pilot plants and demonstration facility. There can be no assurance that we will ever achieve or sustain profitability on a quarterly or annual basis.

Our audited consolidated financial statements as of and for the year ended December 31, 2016 have been prepared on the basis that we will continue as a going concern, which contemplates the realization of assets and satisfaction of liabilities in the normal course of business. We have incurred significant losses since our inception and we expect that we will continue to incur losses as we aim to successfully execute our business plan and will be dependent on additional public or private financings, collaborations or licensing arrangements with strategic partners, or additional credit lines or other debt financing sources to fund continuing operations. Based on our cash balances, recurring losses since inception and our existing capital resources to fund our planned operations for a twelve month period, there is substantial doubt about our ability to continue as a going concern. Our operating plan for 2017 contemplates a significant reduction in our net cash outflows resulting from (i) growth of sales of existing and new products with positive gross margins, (ii) reduced production costs as a result of manufacturing and technical developments, (iii) cash inflows from collaborations, (iv) access to various financing commitments and (v) strategic asset divestments. In addition, as noted below, for our 2017 operating plan, we are dependent on funding from sources that are not subject to existing commitments. We will need to obtain additional funding from equity or debt financings, which may require us to agree to burdensome covenants, grant further security interests in our assets, enter into collaboration and licensing arrangements that require us to relinquish commercial rights, or grant licenses on terms that are not favorable. No assurance can be given at this time as to whether we will be able to achieve our expense reduction or fundraising objectives, regardless of the terms. If we are unable to raise additional financing, or if other expected sources of funding are delayed or not received, our ability to continue as a going concern would be jeopardized and we may be forced to delay, scale back or eliminate some of our general and administrative, research and development, or production activities or other operations and reduce investment in new product and commercial development efforts in an effort to provide sufficient funds to continue our operations. If any of these events occurs, our ability to achieve our development and commercialization goals would be adversely affected. In addition, if we are unable to continue as a going concern, we may be unable to meet our obligations under our existing debt facilities, which could result in an acceleration of our obligation to repay all amounts outstanding under those facilities, and we may be forced to liquidate our assets. In such a scenario, the value we receive for our assets in liquidation or dissolution could be significantly lower than the value reflected in our financial statements.

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

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

To commercialize our products, we must be successful in using our yeast strains to produce target molecules at commercial scale and at a commercially viable cost. If we cannot achieve commercially-viable production economics for enough products to support our business plan, including through establishing and maintaining sufficient production scale and volume, we will be unable to achieve a sustainable integrated renewable products business. Virtually all of our production capacity is through a purpose-built, large-scale production plant in Brotas, Brazil. This plant commenced operations in 2013, and scaling and running the plant has been, and continues to be, a time-consuming, costly, uncertain and expensive process. Given our limited experience commissioning and operating our own manufacturing facilities and our limited financial resources, we cannot be sure that we will be successful in achieving production economics that allow us to meet our plans for commercialization of various products we intend to offer. In addition, 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. In addition, we will likely need to identify and secure access to additional production capacity to satisfy anticipated volume requirements in 2017. There can be no assurance that we will be able obtain such capacity on favorable or acceptable terms, if at all, and even if we are successful in obtaining such capacity, there can be no assurance that we will be able to scale and operate any additional plants to allow us to meet our operational goals, which could harm our ability to grow our business.

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

Our planned 2017 working capital needs, our planned operating and capital expenditures for 2017, and our ability to service our outstanding debt obligations are dependent on significant inflows of cash from financings, existing and new collaboration partners and 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 funding 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 funding 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 funding, or if other expected sources of funding are delayed or not received, our ability to continue as a going concern would be jeopardized and we would take the following actions as early as the second quarter of 2017 to support our liquidity needs in 2017:

- Effect significant headcount reductions, particularly with respect to employees not connected to critical or contracted activities across all functions of the Company, including employees involved in general and administrative, research and development, and production activities.
- Shift focus to existing products and customers with significantly reduced investment in new product and commercial development efforts.
- Reduce production activity at our Brotas manufacturing facility to levels only sufficient to satisfy volumes required for product revenues forecast from existing products and customers.
- Reduce expenditures for third party contractors, including consultants, professional advisors and other vendors.
- Reduce or delay uncommitted capital expenditures, including those relating to proposed additional manufacturing capacity, non-essential facility and lab equipment, and information technology projects.
- Closely monitor our working capital position with customers and suppliers, as well as suspend operations at pilot plants and demonstration facilities.

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

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

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

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

Our revenues are comprised of product revenues and grants and collaborations revenues. We generate the substantial majority of our product revenues from sales to collaborators and distributors and only a small portion from direct sales. Our collaboration, supply and distribution agreements do not usually include any specific purchase obligations. The sales volume of our products in any given period has been difficult to predict. A significant portion of our product sales is dependent upon the interest and ability of third party distributors to create demand for, and generate sales of, such products to end-users. For example, if such distributors are unsuccessful in creating pull-through demand for our products with their customers, such distributors may purchase less of our products from us than we expect. In addition, many of our new and novel products are intended to be a component of other companies' products; therefore, sales of our products may be contingent on our collaborators' and/or customers' timely and successful development and commercialization of end-use products that incorporate our products, and price volatility in the markets for such end-use products, which may include commodities, could adversely affect the demand for our products and the margin we receive for our product sales, which could harm our financial results. Furthermore, we have begun to market and sell some of our products directly to end-consumers, initially in the cosmetics market. Because we have little experience in marketing and selling directly to consumers, it is difficult to predict how successful our efforts will be and we may not achieve the product sales we expect to achieve on the timeline we anticipate, if at all.

In addition, we have in the past entered into, and expect in the future to enter into, 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 and development activities to be performed by us. It has in the past been difficult for us to know with certainty when we will sign a new collaboration arrangement and receive payments thereunder. As a result, achievement of our quarterly and annual financial goals has been difficult to predict with certainty. Once a collaboration agreement has been signed, receipt of cash payments and/or recognition of related revenues may depend on our achievement of research, development, production or cost milestones, which may be difficult to predict. In addition, a portion of the advance payments we receive under our collaboration agreements is typically classified as deferred revenue and recognized over multiple quarters or years. Since our business model depends in part on collaboration agreements with advance payments that we recognize over time, it may also be difficult for us to rapidly increase our revenues through additional collaborations in any period, as revenue from such new collaborations will often be recognized over multiple quarters or years.

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

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

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

As of December 31, 2016, our debt totaled $227.0 million, net of discount of $42.5 million, of which $59.2 million is classified as current. Our cash balance is substantially less than the principal amount of our outstanding debt, and we will be required to generate cash from operations or raise additional working capital through future financings or sales of assets to enable us to repay this indebtedness as it becomes due. There can be no assurance that we will be able to do so.

In addition, we have agreed to significant covenants in connection with our debt financing transactions, including restrictions on our ability to incur future indebtedness, and customary events of default, including failure to pay amounts due, breaches of covenants and warranties, material adverse effect events, certain cross defaults and judgments, and insolvency. A failure to comply with the covenants and other provisions of our debt instruments, including any failure to make a payment when required would generally result in events of default under such instruments, which could permit acceleration of such indebtedness and could result in a material adverse effect on us. If such indebtedness is accelerated, it would generally also constitute an event of default under our other outstanding indebtedness, permitting acceleration of such other outstanding indebtedness. Any required repayment of our indebtedness as a result of acceleration or otherwise would lower our current cash on hand such that we would not have those funds available for use in our business or for payment of other outstanding indebtedness.

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

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

Furthermore, certain of our existing convertible notes, including the Tranche Notes, contain anti-dilution conversion price adjustment provisions, which may be triggered by future issuances of equity or equity-linked instruments in financing transactions. If such adjustment provisions are triggered, the conversion price of such convertible notes will decrease and the number of shares issuable upon conversion of such convertible notes will correspondingly increase. In such event, existing stockholders will be further diluted and the effective issuance price of such equity or equity-linked instruments will be reduced, which may harm our ability to engage in future financing transactions to fund our business.

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

We continue to have substantial debt outstanding and we may incur additional indebtedness from time to time to finance working capital, product development efforts, strategic acquisitions, investments and partnerships, or capital expenditures, or for other general corporate purposes, subject to the restrictions contained in our debt agreements. 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

- 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, if at all.

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, which could permit acceleration of such indebtedness. If such indebtedness is accelerated, it could also constitute an event of default under our other outstanding indebtedness, permitting acceleration of such other outstanding indebtedness. Any required repayment of our indebtedness as a result of acceleration or otherwise would lower our current cash on hand such that we would not have those funds available for use in our business or for payment of other outstanding indebtedness.

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

Several of our outstanding convertible debt instruments are accounted for under Accounting Standards Codification 815, Derivatives and Hedging, or ASC 815, as an embedded derivative. For instance, with respect to the 2015 144A Notes, if the holders elect convert their 2015 144A Notes, 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 2015 144A Notes being converted through April 15, 2019, the maturity date of the 2015 144A Notes. Our 6.50% Convertible Senior Notes due 2019, or the 2014 144A Notes, contain a similar early conversion payment feature, provided that 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 to convert exceeds the conversion price in effect on each such trading day. The early conversion payment features of the 2014 144A Notes and the 2015 144A Notes are accounted for under ASC 815 as embedded derivatives. ASC 815 requires companies to bifurcate conversion options from their host instruments and account for them as free standing derivative financial instruments according to certain criteria. The fair value of the derivative is remeasured to fair value at each balance sheet date, with a resulting non-cash gain or loss related to the change in the fair value of the derivative being charged to earnings (loss). We have determined that we must bifurcate and account for the early conversion payment features of the 2014 144A Notes and the 2015 144A Notes, as well as certain other features of our other convertible debt instruments, as embedded derivatives in accordance with ASC 815. We have recorded these embedded derivative liabilities as non-current liabilities on our consolidated balance sheet with a corresponding debt discount at the date of issuance that is netted against the principal amount of the 2014 144A Notes, the 2015 144A Notes or other convertible debt instrument, as applicable. The derivative liabilities are remeasured to fair value at each balance sheet date, with a resulting non-cash gain or loss related to the change in the fair value of the derivative liabilities being recorded in other income or loss. There is no current observable market for this type of derivative and, as such, we determine the fair value of the embedded derivatives using the binomial lattice model. The valuation model uses the stock price, conversion price, maturity date, risk-free interest rate, estimated stock volatility and estimated credit spread. Changes in the inputs for these valuation models may have a significant impact on the estimated fair value of the embedded derivative liabilities. For example, an increase in our stock price results in an increase in the estimated fair value of the embedded derivative liabilities. The embedded derivative liabilities may have, on a GAAP basis, a substantial effect on our balance sheet from quarter to quarter and it is difficult to predict the effect on our future GAAP financial results, since valuation of these embedded derivative liabilities are based on factors largely outside of our control and may have a negative impact on our earnings and balance sheet. The effects of these embedded derivatives may cause our GAAP operating results to be below expectations, which may cause our stock price to decline.

If we are not able to successfully commence, scale up or sustain operations at our existing and planned manufacturing facilities, 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 existing and potential large-scale production plants. We are currently operating our first purpose-built, large-scale production plant in Brotas, Brazil and may complete construction of certain other facilities in the coming years. Delays or problems in the construction, start-up or operation of these facilities will cause delays in our ramp-up of production and hamper our ability to reduce our production costs. Delays in construction can occur due to a variety of factors, including regulatory requirements and our ability to fund construction and commissioning costs. For example, in 2012 we determined it was necessary to delay further construction of our large-scale manufacturing facility with São Martinho in order to focus on the construction and commissioning of our Brotas facility. We have since permanently ceased construction of the São Martinho facility. In 2016 we produced at capacity at our Brotas facility and will likely need to identify and secure access to additional production capacity in 2017 based on anticipated volume requirements, either by constructing a new custom-built facility, acquiring an existing facility from a third party, retrofitting an existing facility operated by a current or potential partner or increasing our use of contract manufacturing facilities. In December 2016, we acquired a production facility in Leland, North Carolina, which facility had been previously operated by our partner Glycotech to perform chemical conversion and production of our end-products, and which facility was subsequently transferred to our newly-formed joint venture with Nikko Chemicals Co., Ltd. and Nippon Surfactant Industries Co., Ltd. (or collectively "Nikko"), as further described in Note 7, "Joint Ventures and Noncontrolling Interest" in "Notes to Consolidated Financial Statements" included in this Annual Report on Form 10-K. In addition, in February 2017 we broke ground on a second custom-built production facility adjacent to our existing Brotas facility. However, there can be no assurance that we will be able to complete such facility on our expected timeline, if at all.

Once our large-scale production facilities are built, acquired or retrofitted, we must successfully commission them, if necessary, and they must perform as we expect. 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 renewable products in the time frame and at the cost we have planned. Industrial scale fermentation is an emerging field and it is difficult to predict the effects of scaling up production to commercial scale, which involves various risks to the quality and consistency of our molecules. In addition, in order to produce molecules at our existing and potential future plants, we have been and may in the future 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 operations of the plant, which could result in delays or failures in production. If any of these risks occur, or if we are unable to create or obtain additional manufacturing capacity necessary to meet existing and potential customer demand, we may need to continue to use, or increase our use of, contract manufacturing sources, which generally entail greater cost to us to produce our products and would therefore reduce our anticipated gross margins and may also 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, our partners 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. If we are unable to create and sustain manufacturing capacity and operations sufficient to satisfy the existing and potential demand of our customers and partners, our business and results of operations may be adversely affected.

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 our manufacturing facility in Brotas, Brazil means that we have limited manufacturing sources for our products in 2017 and beyond. While we have undertaken efforts to identify and obtain additional manufacturing capacity for 2017 and beyond, including the manufacturing facility in Leland, North Carolina and the proposed second manufacturing facility at the Brotas site discussed above, there can be no assurance that such efforts will be successful on the timelines or at the cost we require, if at all. Any production delays could have a significant negative impact on our business, including our ability to achieve commercial viability for our products and meeting existing and potential customer demand. With the facility in Brotas, Brazil, we are, for the first time, operating a commercial fermentation and separation facility ourselves. We have in the past faced, and may in the future face, unexpected difficulties associated with the operation of our plants. 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 Bioenergia S.A., (Tonon), to purchase from Tonon sugarcane juice and syrup 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 or syrup 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 sugarcane juice from them. As such, we will be relying on Tonon to supply such juice and syrup 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 or syrup 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 or syrup to us if the price of one of the other products is substantially higher than the one setting the price for the juice or syrup 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 syrup or juice for a given month, the penalty may not be enough to compensate us for the increased cost if third-party suppliers do not offer competitive prices. Also, if the prices of the other products produced by Tonon increase, we could be forced to pay those increased prices for production without a related increase in the price at which we can sell our products, reducing or eliminating any margins we can otherwise achieve. If in the future these supply terms no longer provide a viable economic structure for the operation in Brotas, Brazil we may be required to renegotiate our agreement, which could result in manufacturing disruptions and delays. In December 2015, Tonon filed for bankruptcy protection in Brazil. If Tonon is unable to supply sugarcane juice or syrup, water and steam in accordance with our agreement, we may not be able to obtain substitute supplies from third parties in necessary quantities or at favorable prices, or at all. In such event, our ability to manufacture our products in a timely or cost-effective manner, or at all, would be negatively affected, which would have a material adverse effect on our business.

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

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

As we have focused on building and commissioning, acquiring or retrofitting our own plants or the plants of existing or potential partners, respectively, 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 for such operations, 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 our labs 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 our Brotas, Brazil and Leland, North Carolina plants, 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. 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.

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 such 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.

Our operations rely on sophisticated information technology and equipment systems and infrastructure, a disruption of which could harm our operations.

We rely on various information technology and equipment systems, some of which are dependent on services provided by third parties, to manage our technology platform and operations. These systems provide critical data and services for internal and external users, including procurement and inventory management, transaction processing, financial, commercial and operational data, human resources management, legal and tax compliance information and other information and processes necessary to operate and manage our business. These systems are complex and are frequently updated as technology improves, and include software and hardware that is licensed, leased or purchased from third parties. If our information technology and equipment systems experience breaches or other failures or disruptions, our systems and the information could be compromised. While we have implemented security measures and disaster recovery plans designed to mitigate the effects of any failures or disruption of these systems, such measures may not adequately prevent adverse events such as breaches or failures from occurring or mitigate their severity if they do occur. If our information technology or equipment systems are breached, damaged or fail to function properly due to internal errors or defects, implementation or integration issues, catastrophic events or power outages, we may experience a material disruption in our ability to manage our business operations. Failure or disruption of these systems could have an adverse effect on our operating results and financial condition.

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

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

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

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 compete successfully in our target markets, we must produce our 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 or to attract and maintain collaboration partners, 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. 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. 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.

We expect to face competition for our 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 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 markets that we are initially entering, and in other markets that we may seek to enter in the future, we will compete primarily with the established providers of ingredients 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.

With the emergence of many new companies seeking to produce products from alternative sources, we may face increasing competition from such 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 our target 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.

Certain rights we have granted to Total and other existing stockholders, including in relation to our future securities offerings, could have substantial impacts on our company.

Under certain agreements between us and Total related to Total's 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. In addition, in connection with Total's investments in Amyris, our certificate of incorporation includes a provision that excludes Total from prohibitions on business combinations between Amyris and an "interested stockholder." These provisions could have the effect of discouraging potential acquirers from making offers to acquire us, and give Total more access to Amyris than other stockholders if Total decides to pursue an acquisition.

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

Our relationship with Ginkgo Bioworks, Inc. exposes us to financial and commercial risks.

In June 2016, we entered into an initial strategic partnership agreement with Ginkgo Bioworks, Inc., or Ginkgo, pursuant to which we licensed certain intellectual property to Ginkgo in exchange for a license fee and royalty, and agreed to pursue the negotiation and execution of a definitive partnership agreement setting forth the terms of a long-term commercial partnership and collaboration arrangement between us and Ginkgo, and in September 2016 we executed a definitive collaboration agreement with Ginkgo setting forth the terms of a commercial partnership under which the parties would collaborate to develop, manufacture and sell commercial products and would share in the value of such products. In connection with the entry into such commercial agreements, we received a waiver under, and subsequently entered into an amendment of, our senior secured credit facility, the agent and lender under which is an affiliate of Ginkgo, which amendment extended, subject to certain conditions which were satisfied in January 2017, the maturity of the loans under the senior secured credit facility, eliminated principal repayments under the facility prior to maturity, subject to the requirement that we apply certain monies received by us under the collaboration agreement with Ginkgo to repay the outstanding loans under the facility, and waived the covenant in the senior secured loan facility requiring the Company to maintain unrestricted, unencumbered cash in defined U.S. bank accounts in an amount equal to at least 50% of the principal amount outstanding under the facility until the maturity date. For more details on our transactions with Ginkgo, please see Note 5, "Debt" and Note 8, "Significant Agreements" to our consolidated financial statements contained in this Annual Report on Form 10-K.

There can be no assurance that our partnership with Ginkgo will be successful, and the partnership may prevent us from pursuing other business opportunities in the future. If the partnership is unsuccessful, our ability to continue with our business plans would be adversely affected. In addition, negative developments in our commercial partnership with Ginkgo could negatively affect our relationship with the agent and lender under our senior secured credit facility, an affiliate of Ginkgo, which could adversely impact our ability to incur additional indebtedness in the future or take other actions the consent for which would be required from the agent and lender under the facility. In such event, our financial condition and business operations could be adversely affected.

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

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

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

For most product markets we are seeking to enter, 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 2017 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 the pharmaceutical market 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 collaboration arrangements may restrict or prevent our future business activity in certain markets or industries, which could harm our ability to grow our business.

As part of our collaboration arrangements in the ordinary course of business, we may grant to our partners exclusive rights with respect to the development, production and/or commercialization of particular products or types of products in specific markets in exchange for up-front funding and/or downstream value sharing arrangements. These rights might inhibit potential collaboration or strategic partners or potential customers from entering into negotiations with us about further business opportunities, and we may be restricted or prevented from engaging with other partners or customers in those markets, which may limit our ability to grow our business.

For example, under our Amended and Restated Jet Fuel Agreement with TAB and our License Agreement regarding Diesel Fuel in the European Union with Total described above, we granted TAB and Total, respectively, certain exclusive rights to produce and commercialize farnesene- or farnesane-based jet and diesel fuel in certain jurisdictions, as well as certain purchase rights. As a result of these agreements, we generally no longer have an independent right to make or sell farnesene- or farnesane-based jet or diesel fuels in such jurisdictions without the approval of TAB or Total, as applicable. If, for any reason, we would like to pursue farnesene- or farnesane-based jet or diesel fuels in such jurisdictions independently or with a third party, these arrangements could impair our ability to develop, produce or commercialize such jet or diesel fuels, which could have a material adverse effect on our business and long term prospects.

In the past, we have had to grant concessions to existing partners in exchange for such partners waiving or modifying their exclusive rights with respect to a particular product, type of product or market so that we could engage with a third party with respect to such product, product type or market. There can be no assurance that existing partners will be willing to grant waivers or modify their exclusive rights in the future on favorable terms, if at all. If we are unable to engage other potential partners with respect to particular products, products types or markets for which we have previously granted exclusive rights, our ability to grow our business would be harmed and our results of operations may be adversely effected.

If our collaboration partners are not successful in commercializing products that incorporate our technology, our business and results of operations may be adversely affected.

We rely on our collaboration partners to create demand with end-users for products that incorporate our products and technologies. If such collaboration partners are unable to create such demand, we may not be able to successfully market or sell our products. In addition, while we maintain certain clawback rights to our technology in the event our collaboration partners are unable or unwilling to commercialize the products we create for them under the applicable collaboration arrangement, if our collaboration partners do not commercialize the products covered by our collaboration or supply arrangements, we may be restricted from or unable to market or sell such products or technologies to other potential collaboration partners, which could hinder the growth of our business. If we allocate resources to collaborations that do not lead to products that are commercially viable, our revenues, financial condition and results of operations could be adversely affected.

In addition, certain of our collaboration partners have the right to terminate their agreements with us if we undergo a change of control or a sale of our business, which could discourage a potential acquirer from making an offer to acquire us.

We have limited control over our joint ventures.

As a result of the restructuring of our joint ventures TAB and Novvi during 2016, as discussed above, we do not have the right or power to control the management of such entities, and our joint venture partners may take action with respect to such joint ventures which is contrary to our interests or objectives. In addition, with respect to the joint venture we formed in December 2016 with Nikko relating to our Neossance cosmetic ingredients business, while we hold a 50% equity interest in such joint venture and have a right to appoint one half of its board of directors, our joint venture partners acting together will have the right to designate the Chief Executive Officer and certain other officers, which would restrict our ability to control the operations of such joint venture. If our joint venture partners act contrary to our interest, it could harm our brand, business, results of operations and financial condition. In addition, operating a joint venture often requires additional organizational formalities as well as time-consuming procedures for sharing information and making decisions, which can divert management resources, and if a joint venture partner changes or relationships deteriorate, our success in the joint venture may be materially adversely affected, which could harm our business. Furthermore, with respect to TAB, if we were to experience a change of control or fail to make any required capital contribution to TAB, Total has a right to buy out our interest in TAB at fair market value. If Total were to exercise these rights, we would, in effect, relinquish our economic rights to the intellectual property we have exclusively licensed to TAB, and our ability to seek future revenue from farnesene-based jet fuel outside of Brazil would be adversely affected (or completely prevented). This could significantly reduce the value of our product offerings and have a material adverse effect on our ability to grow our business in the future.

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

We anticipate that the production of our products will require large volumes of feedstock. We have relied on a mixture of feedstock sources for use at our contract manufacturing operations, including cane sugar, corn-based dextrose and beet molasses. For our large-scale production facility in Brazil, we are relying primarily on Brazilian sugarcane. We cannot predict the future availability or price of these various feedstocks, nor can we be sure that our mill partners, which we expect to supply the sugarcane feedstock necessary to produce our products in Brazil, will be able to supply it in sufficient quantities or in a timely manner. For example, in December 2015, Tonon, one of our suppliers of sugarcane juice and syrup, filed for bankruptcy protection in Brazil, which may adversely affect its ability to supply us with sugarcane juice and syrup in the future. Furthermore, to the extent we are required to rely on sugar feedstock other than Brazilian sugarcane, the cost of such feedstock may be higher than we expect, increasing our anticipated production costs. Feedstock crop yields and sugar content depend on weather conditions, such as rainfall and temperature. Weather conditions have historically caused volatility in the ethanol and sugar industries by causing crop failures or reduced harvests. Excessive rainfall can adversely affect the supply of sugarcane and other sugar feedstock available for the production of our products by reducing the sucrose content and limiting growers' ability to harvest. Crop disease and pestilence can also occur from time to time and can adversely affect feedstock growth, potentially rendering useless or unusable all or a substantial portion of affected harvests. With respect to sugarcane, our initial primary feedstock, seasonal availability and price, the limited amount of time during which it keeps its sugar content after harvest, and the fact that sugarcane is not itself a traded commodity, increases these risks and limits our ability to substitute supply in the event of such an occurrence. If production of sugarcane or any other feedstock we may use to produce our products is adversely affected by these or other conditions, our production will be impaired, and our business will be adversely affected.

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

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

In Brazil, Conselho dos Produtores de Cana, Açúcar e Álcool (Council of Sugarcane, Sugar and Ethanol Producers or Consecana), an industry association of producers of sugarcane, sugar and ethanol, sets market terms and prices for general supply, lease and partnership agreements for sugarcane. If Consecana makes changes to such terms and prices, it 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 the 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;
- any changes in currency exchange policy that lead to the imposition of exchange controls or restrictions on remittances abroad;
- inflation;
- land reform or nationalization movements;

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

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

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

In addition, during the 2016 U.S. presidential election campaign, President Trump made comments suggesting that he was not supportive of certain existing international trade agreements as well as that he might take action to restrict or tax products imported into the U.S. from foreign jurisdictions. At this time, it remains unclear what President Trump will or will not do with respect to these international trade agreements or U.S. trade policy. If President Trump takes action to withdraw from or materially modify international trade agreements or place restrictions or tariffs on products imported from Brazil, our business, financial condition and results of operations could be adversely affected.

We maintain operations in foreign jurisdictions other than Brazil, and may in the future expand our operations to additional foreign jurisdictions. Many, if not all of the above-mentioned risks also apply to our operations in such jurisdictions. If any of these risks were to occur, our operations and business would be adversely affected.

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 elsewhere, 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.

Ethical, legal and social concerns about products using genetically modified microorganisms could limit or prevent the use of our products and technologies and could harm our business.

Our technologies and products involve the use of genetically modified microorganisms, or GMMs. Public perception about the safety of, and ethical, legal or social concerns over, genetically engineered products, including GMMs, could affect public acceptance of our products. If we are not able to overcome any such concerns relating to our products, our technologies may not be accepted by our customers or end-users. In addition, the use of GMMs has in the past received negative publicity, which could lead to greater regulation or restrictions on imports of our products. Further, there is a risk that products produced using our technologies could cause adverse health effects or other adverse events, which could also lead to negative publicity. If our technologies and products are not accepted by our customers or their end-users due to negative publicity or lack of public acceptance, our business could be significantly harmed.

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. In the United States, the Environmental Protection Agency (EPA), regulates the commercial use of GMMs as well as potential products produced from 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 commercial production of our target molecules, *S. cerevisiae*, is eligible for exemption from EPA review because it is generally recognized as safe, we must satisfy certain criteria to achieve this exemption, including but not limited to use of compliant containment structures and safety procedures, and we cannot be sure that we will meet such criteria in a timely manner, or at all. If exemption of *S. cerevisiae* is not obtained, our business may be substantially harmed. In addition to *S. cerevisiae*, we may seek to use different GMMs in the future that will require EPA approval. If approval of different GMMs is not secured, our ability to grow our business could be adversely affected.

In Brazil, GMMs are regulated by the National Biosafety Technical Commission, or CTNBio. We have obtained approvals from CTNBio to use GMMs in a contained environment in our Brazil facilities for research and development purposes as well as at contract manufacturing facilities in Brazil. In addition, we have obtained initial commercial approvals from CTNBio for two of our 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 or sell products using our yeast strains, or if it takes longer than anticipated to obtain such approvals, our business could be adversely affected. Furthermore, there are various non-governmental and quasi-governmental organizations that review and certify products with respect to the determination of whether products can be classified as “natural” or other similar classifications. While the certification from such non-governmental and quasi-governmental organizations is generally not mandatory, some of our current or prospective customers, collaborators or distributors may require that we meet the standards set by such organizations as a condition precedent to purchasing or distributing our products. We cannot be certain that we will be able to satisfy the standards of such organizations, and any delay or failure to do so could harm our ability to sell or distribute some or all of our products to certain customers and prospective customers, which could have a negative impact on our business.

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

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

Our diesel and jet fuel is subject to regulation by various government agencies, including the EPA and the California Air Resources Board, or CARB, in the United States and Agência Nacional do Petróleo, Gas Natural e Biocombustíveis, or ANP, in Brazil. To date, we have obtained registration with the EPA for the use of our diesel fuel in the United States at a 35% blend rate with petroleum diesel. Farnesane is also listed on the TSCA registry. In addition, ANP has authorized the use of our diesel fuel at blend rates of 10% and 30% for specific transportation fleets. In Europe, we obtained REACH registration for importing/manufacturing less than 1,000 metric tons of farnesane (for use as diesel and jet fuel) per year and are pursuing data validation to maintain such registration. Registration with each of these bodies is required for the production, import, sale and use of our fuels within their respective jurisdictions. Jet fuel (aviation turbine fuel) validation and specifications are subject to the ASTM International industry consensus process and the Brazilian ANP national adoption process. Any failure to achieve required validation and certifications for our jet fuel could impair or delay future development, production or commercialization plans, which could have a material adverse impact on our renewable product revenues. In addition, for us to achieve full access to the United States fuels market for our fuel products, we will need to obtain EPA and CARB (and potentially other state agencies) certifications for our feedstock pathway and production facilities, including certification of a feedstock lifecycle analysis relating to greenhouse gas emissions. Any delay in obtaining these additional certifications could impair our ability to sell our renewable fuels to refiners, importers, blenders and other parties that produce transportation fuels as they comply with federal and state requirements to include certified renewable fuels in their products.

We expect to encounter regulations in most, if not all, of the countries in which we may seek to produce, import or sell our 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 products do not meet applicable regulatory requirements in a particular country, then we (or our customers) may not be able to commercialize our products in such country and our business will be adversely affected.

In addition, many of our products are intended to be a component of our collaborators' and/or customers' (or their customers') end-use products. Such end-use products may be subject to various regulations, including regulations promulgated by the EPA or the United States Food and Drug Administration. If our collaborators and customers (or their customers) are not successful in obtaining any required regulatory approval for their end-use products that incorporate our products, or fail to comply with any applicable regulations for such end-use products, whether due to our products or otherwise, demand for our products may decline and our revenues will be adversely affected.

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

The market for renewable chemical products 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 chemical products may harm our business. The uncertainty regarding 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.

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, or encourage the use of feedstocks more advantageous to our competitors, which would put us at a commercial disadvantage and could negatively impact our future revenues and results of operations.

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

We use hazardous chemicals and radioactive and biological materials in our business, and such materials are subject to a variety of federal, state and local laws and regulations governing the use, generation, manufacture, storage, handling and disposal of these materials in the United States and in Brazil. Although we have implemented safety procedures for handling and disposing of these materials and related waste products in an effort to comply with these laws and regulations, we cannot be sure that our safety measures will prevent accidental injury or contamination from the use, storage, handling or disposal of hazardous materials. In the event of contamination or injury, we could be held liable for any resulting damages, and any liability could exceed our insurance coverage. There can be no assurance that violations of environmental, health and safety laws will not occur in the future as a result of human error, accident, equipment failure or other causes. Compliance with applicable environmental laws and regulations may be expensive, and the failure to comply with past, present, or future laws could result in the imposition of fines, third party property damage, product liability and personal injury claims, investigation and remediation costs, the suspension of production, or a cessation of operations, and our liability may exceed our total assets. Liability under environmental laws can be joint and several, without regard to comparative fault, and may be punitive in nature. Furthermore, 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 otherwise harm our business.

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

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

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

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

- 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, commissioning, acquisition or retrofittting of new production facilities, or the time to ramp up and stabilize production following completion, acquisition or retrofittting of a new production facility or the transition to, and ramp up of, producing new molecules at our existing facilities;
- impairment of assets based on shifting business priorities and working capital limitations;
- disruptions in the production process at any manufacturing facility, including disruptions due to seasonal or unexpected downtime at our facilities as a result of feedstock availability, contamination, safety or other issues or other technical difficulties or the scheduled downtime at our facilities as a result of transitioning our equipment to the production of different molecules;
- losses of, or the inability to secure new, major customers, collaboration partners, suppliers or distributors;
- losses associated with producing our products as we ramp to commercial production levels;
- failure to recover value added tax (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 product sales to customers;
- increases in price or decreases in availability of feedstock;
- the unavailability of contract manufacturing capacity altogether or at reasonable cost;
- exit costs associated with terminating contract manufacturing relationships;
- fluctuations in foreign currency exchange rates;
- gains or losses associated with our hedging activities;
- change in the fair value of derivative instruments;
- fluctuations in the price of and demand for sugar, ethanol, and petroleum-based and other products for which our products are alternatives;
- seasonal variability in production and sales of our products;
- competitive pricing pressures, including decreases in average selling prices of our products;

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

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

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

Our business involves complex, global operations across a variety of markets and requires a management team and employee workforce that is knowledgeable in the many areas in which we operate. As we continue to build our business, we will need to hire and retain qualified research and development, management and other personnel to succeed. The process of hiring, training and successfully integrating qualified personnel into our operations, in the United States, Brazil and other countries in which we may seek to operate, is a lengthy and expensive one. The market for qualified personnel is very competitive because of the limited number of people available who have the necessary technical skills and understanding of our technology and 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. In addition, we 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. Furthermore, reductions to our workforce as part of cost-saving measures, such as those discussed above with respect to our 2017 operating plan, may make it more difficult for us to attract and retain key employees. If we do not maintain the necessary personnel to accomplish our business objectives, we may experience staffing constraints that will adversely affect our ability to meet the demands of our collaborators and customers in a timely fashion or to support our internal research and development programs and operations. In particular, our product and process development programs depend on our ability to attract and retain highly skilled technical and operational personnel. Competition for such personnel from numerous companies and academic and other research institutions may limit our ability to do so on acceptable terms. All of our employees are "at-will" employees, which means that either the employee or we may terminate their employment at any time.

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

We have experienced, and expect to continue to experience, expansion of our business as we continue to make efforts to develop and bring our products to market. We have grown from 18 employees at the end of 2005 to 440 full-time employees at January 31, 2017. 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, 2017, we had approximately 500 issued United States and foreign patents and approximately 350 pending United States and foreign patent applications that were owned or co-owned by or licensed to us. We will be able to protect our proprietary rights from unauthorized use by third parties only to the extent that our proprietary technologies and future products are covered by valid and enforceable patents or are effectively maintained as trade secrets.

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

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

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

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

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

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

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

We require new employees and consultants to execute confidentiality agreements upon the commencement of an employment or consulting arrangement with us. We additionally require consultants, contractors, advisors, corporate collaborators, outside scientific collaborators and other third parties that may receive trade secret information to execute confidentiality agreements. These agreements generally require that all confidential information developed by the individual or made known to the individual by us during the course of the individual's relationship with us be kept confidential and not disclosed to third parties. These agreements also generally provide that inventions conceived by the individual in the course of rendering services to us shall be our exclusive property. Nevertheless, our proprietary information may be disclosed, or these agreements may be unenforceable or difficult to enforce. If any of our trade secrets were to be lawfully obtained or independently developed by a competitor, we would have no right to prevent such third party, or those to whom they communicate such technology or information, from using that technology or information to compete with us. Additionally, trade secret law in Brazil differs from that in the United States, which requires us to take a different approach to protecting our trade secrets in Brazil. Some of these approaches to trade secret protection may be novel and untested under Brazilian law and we cannot guarantee that we would prevail if our trade secrets are contested in Brazil. If any of the above risks materializes, our failure to obtain or maintain trade secret protection could adversely affect our competitive business position.

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

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

Third parties may misappropriate our yeast strains.

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

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

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

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

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

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

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

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

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

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

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

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

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

We may become subject to lawsuits or indemnity claims in the ordinary course of business, 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, indemnity claims and other legal proceedings. These actions may seek, among other things, compensation for alleged personal injury, employment discrimination, breach of contract, property damage and other losses or injunctive or declaratory relief. In the event that such actions, claims or proceedings are ultimately resolved unfavorably to us at amounts exceeding our accrued liability, or at material amounts, the outcome could materially and adversely affect our reputation, business and results of operations. In addition, payments of significant amounts, even if reserved, could adversely affect our liquidity position.

If we fail to maintain an effective system of internal controls, we may 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, or Section 404, requires us 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. In particular, this may occur 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, it could cause delays in our external reporting. Even if we conclude 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 in our internal control over financial reporting, 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 we fail to comply with our obligations as a public company, our business may be adversely affected.

As a public company, we incur significant legal, accounting and other expenses in connection with our obligations under applicable securities laws, including the internal and external costs of maintaining the system of internal controls discussed above as well as the costs of preparing and distributing periodic public reports, including financial statements and footnotes. In addition, changing laws, rules and regulations relating to corporate governance and public disclosure, including regulations implemented by the SEC and NASDAQ, increase our legal and financial costs, including costs relating to monitoring, evaluating and complying with such laws, rules and regulations. These laws, rules and regulations are subject to varying interpretations and may evolve over time as new guidance is provided by regulatory and governing bodies, which may result in increased compliance and governance costs and the diversion of management resources. If our efforts to comply with such laws, rules and regulations are not successful, we could be subject to fines, penalties or regulatory proceedings, which can be time consuming and costly to litigate and could lead to negative publicity about our company. These events could also make it more difficult for us to attract and retain qualified members of our board of directors, executive officers and other employees. If any of these risks occur, or if these requirements divert our management's attention from other business concerns, they could have a material adverse effect on our business, financial condition and results of operations.

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 in the future, 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 under Section 382 of the Code. For these reasons, we may not be able to utilize a material portion of our NOLs as of December 31, 2016, even if we attain profitability, which could adversely affect our results of operations.

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

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

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

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

Risks Related to Ownership of Our Common Stock

Our stock price may be volatile.

The market price of our common stock has been, and we expect it to continue to be, subject to significant volatility, and it has declined significantly from our initial public offering price. As of December 31, 2016, the reported closing price of our common stock on The NASDAQ Stock Market was $0.73 per share. Market prices for securities of early stage companies have historically been particularly volatile. Such fluctuations could be in response to, among other things, the factors described in this “Risk Factors” section, or other factors, some of which are beyond our control, such as:

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

- changes in our capital structure, such as future issuances of securities or the incurrence of debt;
- announcements by us or our competitors of significant contracts, acquisitions or strategic alliances;
- regulatory developments in the United States, Brazil, and/or other foreign countries;
- litigation involving us, our general industry or both;
- additions or departures of key personnel;
- investors' general perception of us; and
- changes in general economic, industry and market conditions.

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

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

If our common stock is delisted from The NASDAQ Stock Market, our business, financial condition, results of operations and stock price could be adversely affected, and the liquidity of our stock and our ability to obtain financing could be impaired.

On June 14, 2016, we received a notice from The NASDAQ Stock Market LLC, or NASDAQ, notifying us that we were not in compliance with the requirement of NASDAQ Listing Rule 5450(a)(1) for continued listing on The NASDAQ Global Market, or the Minimum Bid Price Listing Rule, as a result of the closing bid price of our common stock being below $1.00 per share for 30 consecutive business days. In accordance with NASDAQ Listing Rule 5810(c)(3)(A), we had 180 calendar days, or until December 12, 2016, to regain compliance with the Minimum Bid Price Listing Rule. To regain compliance, the closing bid price of our common stock had to be at least $1.00 per share for a minimum of 10 consecutive business days. On November 1, 2016, we received a notice from NASDAQ that we had regained compliance with the Minimum Bid Price Listing Rule. Subsequently, on December 19, 2016, we received a notice from NASDAQ notifying us that we were again not in compliance with the Minimum Bid Price Listing Rule as a result of the closing bid price of our common stock being below $1.00 per share for 30 consecutive business days. In accordance with NASDAQ Listing Rule 5810(c)(3)(A), we have 180 calendar days, or until June 19, 2017, to regain compliance with the Minimum Bid Price Listing Rule. If we do not regain compliance during such period, we may be eligible for an additional compliance period of 180 calendar days, provided that we meet NASDAQ's continued listing requirement for market value of publicly held shares and all other initial listing standards for The NASDAQ Capital Market, other than the minimum bid price requirement, and provide written notice to NASDAQ of our intention to cure the deficiency during the second compliance period. If we do not regain compliance during the initial compliance period and are not eligible for an additional compliance period, NASDAQ will provide notice that our common stock will be subject to delisting from The NASDAQ Stock Market. In that event, we may appeal such determination to a hearings panel. There can be no assurance that we will satisfy these conditions and that our common stock will remain listed on The NASDAQ Stock Market.

Any delisting of our common stock from The NASDAQ Stock Market could adversely affect our ability to attract new investors, decrease the liquidity of our outstanding shares of common stock, reduce our flexibility to raise additional capital, reduce the price at which our common stock trades, and increase the transaction costs inherent in trading such shares with overall negative effects for our stockholders. In addition, the delisting of our common stock could deter broker-dealers from making a market in or otherwise seeking or generating interest in our common stock, and might deter certain institutions and persons from investing in our securities at all. Furthermore, the delisting of our common stock from The NASDAQ Stock Market would constitute a breach under certain of our financing agreements, including agreements governing our outstanding convertible indebtedness, which could result in an acceleration of such indebtedness. If such indebtedness is accelerated, it would generally also constitute an event of default under our other outstanding indebtedness, permitting acceleration of such other outstanding indebtedness as well. For these reasons and others, the delisting of our common stock from The NASDAQ Stock Market could materially adversely affect our business, financial condition and results of operations.

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

As of January 31, 2017:

- our executive officers and directors and their affiliates together held approximately 9% of our outstanding common stock;
- Maxwell (Mauritius) Pte Ltd, or Temasek (which has a designee on our Board of Directors), held approximately 21% of our outstanding common stock; and
- Total (which has a designee on our Board of Directors) held approximately 23% of our outstanding common stock.

Furthermore, Total and Temasek each hold certain of our convertible promissory notes, which are convertible into approximately 20,596,778 and 2,670,370 shares of our common stock, respectively, as of January 31, 2017. Total and Temasek also hold certain warrants pursuant to which they may purchase shares of our common stock. This significant concentration of share ownership may adversely affect the trading price of our common stock because investors often perceive disadvantages in owning stock in companies with stockholders with significant interests. 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 all or substantially all of our assets, and may not act in the best interests of our other stockholders. 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 a change in our management or Board of Directors, or discouraging a potential acquirer from making a tender offer or otherwise attempting to obtain control of the company, even if such actions would benefit our other stockholders.

The concentration of our capital stock ownership also presents risks related to the operations of significant holders of our capital stock, including their international operations. For example, certain affiliates of Total that we do not control and that may be deemed to be our affiliates solely due to their control by Total may be deemed to have engaged in certain transactions or dealings with the government of Iran in 2016, for which Total has provided disclosure under Section 13(r) of the Exchange Act. Such disclosure is set forth in Exhibit 99.4 to this annual report on Form 10-K and is incorporated herein by reference. Disclosure of such activity, even if such activity is not subject to sanctions under applicable law, and any sanctions actually imposed on Total as a result of these activities or for other violations of applicable laws, such as anti-bribery laws, could harm our reputation and have a negative impact on our business.

In addition, our commercial partners, including Total, hold a significant portion of our capital stock and have various rights in connection with their security ownership in us. These stockholders may have interests that are different from those of our other stockholders, including commercial transactions between our company and such commercial partners or their affiliates. While we have a related-party transactions policy which requires certain approvals of any transaction between our company and a significant stockholder or its affiliates, there can be no assurance that such stockholders will act in the best interests of our other stockholders, which could harm our results of operations and cause our stock price to decline.

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

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

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

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

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

The conversion of some or all of our outstanding convertible promissory notes or the exercise of some or all of outstanding warrants to purchase our common stock will dilute the ownership interests of existing stockholders. In particular, the exercise of certain warrants which have a $0.01 per share exercise price may significantly dilute the economic ownership interest of our existing stockholders. In addition, any sales in the public market of the shares of our common stock issuable upon such conversion or exercise could adversely affect prevailing market prices of our common stock. Furthermore, the existence of our outstanding convertible promissory notes (including anti-dilution conversion price adjustment provisions contained therein which could lead to additional shares of common stock being issuable upon conversion) and warrants may encourage short selling by market participants because the anticipated conversion of such notes into, or exercise of such warrants for, shares of our common stock could depress the market price of our common stock.

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

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

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

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

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

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

- a staggered board of directors;
- authorizing the board of directors to issue, without stockholder approval, preferred stock with rights senior to those of our common stock;
- authorizing the board of directors to amend our bylaws, to increase the number of directors and to fill board vacancies until the end of the term of the applicable class of directors;
- prohibiting stockholder action by written consent;
- limiting the liability of, and providing indemnification to, our directors and officers;
- eliminating the ability of our stockholders to call special meetings; and
- requiring advance notification of stockholder nominations and proposals.

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

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

These and other provisions in our certificate of incorporation and our 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.

EXECUTIVE OFFICERS OF THE REGISTRANT

The following table provides the names, ages and offices of each of our executive officers as of April 17, 2017:

Name	Age	Position
John Melo	51	Director, President and Chief Executive Officer
Kathleen Valiasek	53	Chief Financial Officer
Joel Cherry, Ph.D.	56	President of Research and Development

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 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.

Kathleen Valiasek

Kathleen Valiasek has served as our Chief Financial Officer since January 2017. Prior to joining us, Ms. Valiasek served as Chief Executive Officer of a finance and strategic consulting firm she founded in 1994, in this capacity she worked closely with the senior management teams of fast-growing companies including start-ups, venture-backed and Fortune 500 companies. Prior to this, she served in key venture capital, real estate development and accounting roles. Ms. Valiasek holds a Bachelor of Business Administration degree from the University of Massachusetts, Amherst.

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.

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.

Amyris Brasil leases approximately 44,000 square feet of space in Campinas, Brazil, pursuant to two leases that will expire in November 2018 and October 2019. 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 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. (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 and syrup, or their 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. In February 2017, we broke ground on a second purpose-built, large-scale production facility adjacent to our current facility in Brotas.

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 is under a month-to-month lease.

In December 2016, we purchased a manufacturing facility in Leland, North Carolina, which had been previously operated by Glycotech to convert our Biofene into squalane and other final products. We subsequently contributed that facility to our Neossance joint venture with Nikko in December 2016. See Note 7, “Joint Ventures and Noncontrolling Interest” in “Notes to Consolidated Financial Statements” included in this Annual Report on Form 10-K for additional details regarding our Neossance joint venture and the Leland manufacturing facility.

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. Based on our anticipated volume requirement for 2017, we will likely need to identify and secure access to additional production capacity in 2017, either by constructing a new custom-built facility, acquiring an existing facility from a third party, retrofitting an existing facility operated by a current or potential partner or increasing our use of contract manufacturing facilities. We are currently in the process of identifying and securing such additional production capacity.

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 Stock Market during each of the previous eight quarters.

	Price Range Per Share	
	High	Low
Fiscal 2016		
Fourth quarter	$ 1.12	$ 0.58
Third quarter	$ 0.58	$ 0.33
Second quarter	$ 1.30	$ 0.35
First quarter	$ 1.65	$ 1.11
Fiscal 2015		
Fourth quarter	$ 2.57	$ 1.46
Third quarter	$ 2.62	$ 1.51
Second quarter	$ 2.74	$ 1.55
First quarter	$ 3.11	$ 1.56

Holders

As of January 31, 2017, there were approximately 106 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

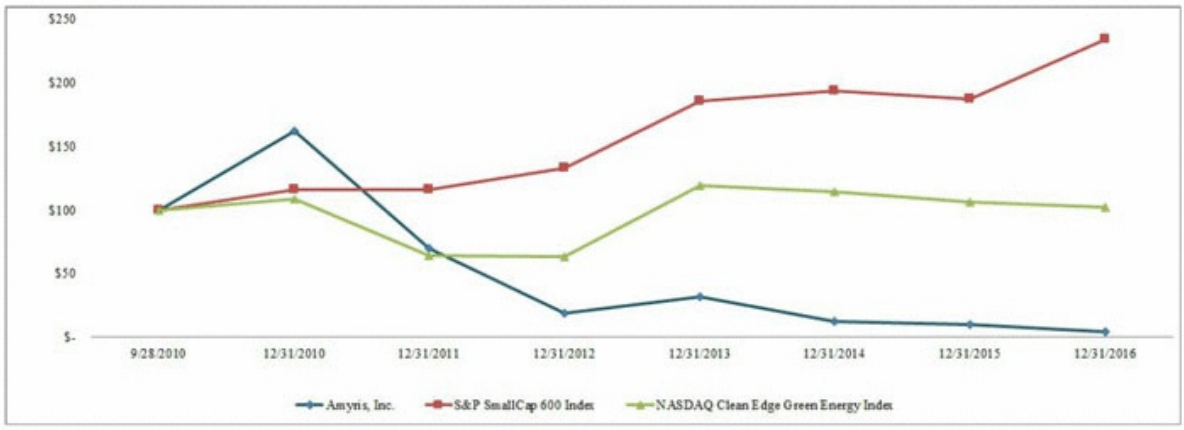
See Item 11 of Part III of this Report regarding information about securities authorized for issuance under our equity compensation plans.

Performance Graph[(1)]

The following graph shows a comparison from September 28, 2010 through December 31, 2016 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 75 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	12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015	12/31/2016
Amyris, Inc.	100	162	70	19	32	12	10	4
S&P SmallCap 600 Index	100	116	116	133	185	194	187	234
NASDAQ Clean Edge Green Energy Index	100	109	64	63	119	115	106	102

(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, or otherwise subject to the liabilities under that Section, and shall not be deemed incorporated by reference into any filing of Amyris, Inc. under the Securities Act of 1933, as amended.

Recent Sales of Unregistered Securities

Sales of Common Stock

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

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

On July 29, 2015, we sold 16,025,642 shares of common stock at a price of $1.56 per share for aggregate cash proceeds of $25.0 million. In addition, we issued warrants for the purchase, at an exercise price of $0.01 per share, of an aggregate of 1,602,562 shares of our common stock to the purchasers of shares in the offering. The exercisability of these warrants was subject to stockholder approval, which was obtained on September 17, 2015. As of December 31, 2016, 160,255 of such warrants had been exercised.

On May 10, 2016, we sold 4,385,964 shares of common stock at a price of $1.14 per share for aggregate cash proceeds of approximately $5 million.

On August 6, 2016, we issued a warrant to purchase 5,000,000 shares of our common stock, at an exercise price of $0.50 per share, to Ginkgo Bioworks, Inc. ("Ginkgo") in exchange for the transfer of certain information technology from Ginkgo to Amyris.

On November 16, 2016, we issued a warrant to purchase 10,000,000 shares of our common stock, at an exercise price of $0.50 per share, to Nenter & Co., Inc. ("Nenter") pursuant to the terms of, and as consideration for, that certain Cooperation Agreement, dated as of October 26, 2016, between Amyris and Nenter. As of December 31, 2016, such warrant had been exercised in full.

Sales of Promissory Notes

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

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

On October 16, 2013, we issued an aggregate of approximately $51.8 million of senior convertible promissory notes ("Tranche I Notes") with an initial conversion price of $2.44 per share, subject to certain adjustments, for aggregate cash proceeds of approximately $7.6 million. The remaining approximately $44.2 million of notes was paid through the cancellation of the same amount of previously outstanding convertible promissory notes held by purchasers of the Tranche I Notes. The conversion price of the Tranche I Notes is subject to adjustment (a) according to proportional adjustments to our outstanding common stock in case of certain dividends and distributions, (b) according to anti-dilution provisions, and (c) with respect to Tranche I Notes held by any purchaser other than Total, in the event that Total exchanges existing convertible notes for new securities of the company in connection with future financing transactions in excess of its pro rata amount. The conversion price of the Tranche I Notes was reduced to approximately $1.42 per share upon the completion of a private placement of common stock and warrants to purchase common stock in July 2015, as described above. Following our private offering of unsecured promissory notes and warrants in February 2016, as described below, the conversion price of the Tranche I Notes was adjusted to $1.40 per share, and following our sale of shares of common stock in May 2016, as described above, the conversion price of the Tranche I Notes was further adjusted to $1.14 per share.

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

On January 15, 2014, we issued an aggregate of approximately $34.0 million of senior convertible promissory notes ("Tranche II Notes") with an initial conversion price of $2.87 per share, subject to certain adjustments, for aggregate cash proceeds of approximately $28.0 million. The remaining approximately $6.0 million of notes was paid through the cancellation of the same amount of previously outstanding convertible promissory notes held by a purchaser of the Tranche II Notes. The conversion price of the Tranche II Notes is subject to adjustment (a) according to proportional adjustments to our outstanding common stock in case of certain dividends and distributions, (b) according to anti-dilution provisions, and (c) with respect to Tranche II Notes held by any purchaser other than Total, in the event that Total exchanges existing convertible notes for new securities of the company in connection with future financing transactions in excess of its pro rata amount. The conversion price of the Tranche II Notes was reduced to approximately $1.42 per share upon the completion of a private placement of common stock and warrants to purchase common stock in July 2015, as described above. Following our private offering of unsecured promissory notes and warrants in February 2016, as described below, the conversion price of the Tranche II Notes was adjusted to $1.40 per share, and following our sale of shares of common stock in May 2016, as described above, the conversion price of the Tranche II Notes was further adjusted to $1.14 per share.

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

On July 31, 2014 and January 27, 2015, we issued an aggregate of $21.7 million of additional Secured R&D Notes with an initial conversion price of $4.11 per share, subject to certain adjustments, to Total pursuant to our arrangement with Total for research and development funding, for aggregate cash proceeds of $21.7 million. The conversion price of these notes is subject to adjustment for proportional adjustments to outstanding common stock and under anti-dilution provisions in case of certain dividends and distributions.

On July 29, 2015, Temasek exchanged its Tranche I Notes and Tranche II Notes and Total exchanged $70 million in principal amount of R&D Notes for shares of the company's common stock (the “Exchange”). The exchange price was $2.30 per share (Exchange Price) and was paid by the exchange and cancellation of outstanding principal of Tranche I Notes, Tranche II Notes and R&D Notes, as the case may be, including paid-in-kind and accrued interest in the case of Temasek's Tranche I Notes and Tranche II Notes. Temasek exchanged and canceled all Tranche I Notes and Tranche II Notes held by it, having an aggregate principal amount of $71.0 million, in exchange for approximately 30.86 million shares of our common stock. Total exchanged and canceled all but $5.0 million of R&D Notes held by it, such cancelled notes having in an aggregate principal amount of $70 million, in exchange for approximately 30.4 million shares of our common stock. In addition, in connection with the Exchange, on July 29, 2015, Total received the following warrants: (i) a warrant to purchase 18,924,191 shares of the company's Common Stock (the “Total Funding Warrant”); and (ii) a warrant to purchase 2,000,000 shares of the company's common stock that would only be exercisable if the company failed, as of March 1, 2017, to achieve a target cost per liter to manufacture farnesene (Total R&D Warrant). The Total Funding Warrant and the Total R&D Warrant are collectively referred to as the "Total Warrants." Additionally, in connection with the Exchange, on July 29, 2015, Temasek received the following warrants: (i) a warrant to purchase 14,677,861 shares of the company's common stock (the “Temasek Exchange Warrant”); (ii) a warrant exercisable for that number of shares of the company's common stock equal to (1) (A) the number of shares for which Total exercises the Total Funding Warrant plus (B) the number of additional shares for which the Tranche I Notes and Tranche II Notes remaining outstanding following the completion of the Exchange may become convertible as a result of a reduction in the conversion price of such remaining notes as a result of and/or subsequent to the date of the Exchange plus (C) that number of additional shares in excess of 2,000,000, if any, for which the Total R&D Warrant becomes exercisable multiplied by a fraction equal to 30.6% divided by 69.4% plus (2) (A) the number of any additional shares for which the 2014 144A Notes may become convertible as a result of a reduction to the conversion price of the 2014 144A Notes multiplied by (B) a fraction equal to 13.3% divided by 86.7% (the “Temasek Funding Warrant”); and (iii) a warrant exercisable for that number of shares of the company's common stock equal to 880,339 multiplied by a fraction equal to the number of shares for which Total exercises the Total R&D Warrant divided by 2,000,000 (the “Temasek R&D Warrant”). As of December 31, 2016, the Total Funding Warrant and the Temasek Exchange Warrant had been fully exercised and Temasek had exercised the Temasek Funding Warrant with respect to 12,700,244 shares of common stock. Neither the Total R&D Warrant nor the Temasek R&D Warrant were exercisable as of December 31, 2016. See Note 16, “Subsequent Events” in “Notes to Consolidated Financial Statements” included in this Annual Report on Form 10-K for additional details regarding the Total R&D Warrant and Temasek R&D Warrant. Warrants to purchase 2,462,536 shares of common stock under the Temasek Funding Warrant were unexercised as of December 31, 2016.

On October 20, 2015, we issued an aggregate of $57.6 million of our 9.50% Convertible Senior Notes due 2019 ("2015 144A Notes") with an initial conversion rate of 443.6557 shares of common stock per $1,000 principal amount of 2015 144A Notes (representing an initial effective conversion price of approximately $2.25 per share of common stock), subject to certain adjustments, for aggregate cash proceeds of approximately $54.4 million, after payment of offering expenses and placement agent fees. The 2015 144A Notes are convertible into shares of the Company's common stock at any time prior to the close of business on April 15, 2019. For any conversion on or after November 27, 2015, the holders, in addition to the shares deliverable upon conversion, will be entitled to receive a payment equal to the present value of the remaining scheduled payments of interest that would have been made on the 2015 144A Notes being converted from the conversion date (or, in the case of conversion between a record date and the following interest payment date, from such interest payment date) to the earlier of the date that is three years after the date the Company receives such notice of conversion and maturity (April 15, 2019), which will be computed using a discount rate of 0.75%. The Company may pay an Early Conversion Payment either in cash or in common stock, at its election. In addition, holders of the 2015 144A Notes who convert their 2015 144A Notes in connection with a make-whole fundamental change will, under certain circumstances, be entitled to an increase in the conversion rate. Following our issuance of warrants to purchase common stock in a private placement transaction in February 2016 and our issuance of convertible notes in May, September and October 2016, as described below, the conversion rate of the 2015 144A Notes was adjusted to 446.8707 shares of common stock per $1,000 principal amount of 2015 144A Notes. On January 11, 2017, we exchanged $15.3 million of our outstanding 3% Senior Unsecured Convertible Notes due 2017, originally issued in February 2012, together with accrued and unpaid interest thereon, for approximately $19.1 million in aggregate principal amount of additional 2015 144A Notes.

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

On March 21, 2016, we sold to Total one half of our ownership stake in our fuels joint venture with Total, Total Amyris BioSolutions B.V. ("TAB") (giving Total an aggregate ownership stake of 75% of TAB and giving us an aggregate ownership stake of 25% of TAB) in exchange for Total cancelling (i) approximately $1.3 million of R&D Notes held by Total, plus all paid-in-kind and accrued interest under all outstanding R&D Notes (including all such interest that was outstanding as of July 29, 2015) and (ii) a note in the principal amount of Euro 50,000, plus accrued interest, issued by the Company to Total in connection with the original TAB capitalization. To satisfy its purchase obligation above, Total surrendered the remaining Secured R&D Note of approximately $5 million in principal amount, and we executed and delivered to Total a new Unsecured R&D Note (the "March 2016 R&D Note") in the principal amount of $3.7 million. Other than it is unsecured and its payment terms are severed from TAB's business performance, the March 2016 R&D Note contains substantially similar terms and conditions to the previous Secured R&D Notes. The March 2016 R&D Note upon issuance had a March 1, 2017 maturity date and an initial conversion price equal to $3.08 per share, which is subject to adjustment for proportional adjustments to outstanding common stock and under anti-dilution provisions in case of certain dividends and distributions. On February 27, 2017, we entered into an amendment of the March 2016 R&D Note with Total to extend the maturity of the March 2016 R&D Note to May 15, 2017.

A placement agent was used in connection with the sale of the Tranche II Notes to one of the purchasers in such financing and in connection with the sale of the 2015 144A Notes in October 2015. In connection with the sale of the 2014 144A Notes, Morgan Stanley & Co. LLC served as the initial purchaser. An exchange agent was used in connection with the issuance of the additional 2015 144A Notes in January 2017. In the other sales of securities described above, no underwriters were involved. Such securities were issued in private transactions pursuant to Section 4(2) of the Securities Act and Regulation D promulgated under Section 3(b) of the Securities Act. The recipients of these securities acquired the securities for investment purposes only and without intent to resell, were able to fend for themselves in these transactions, and were accredited investors as defined in Rule 501 of Regulation D promulgated under Section 3(b) of the Securities Act, and appropriate restrictions were set out in the agreements for, and stock certificates, notes and warrants issued in, these transactions. These security holders had adequate access, through their relationships with us, to information about us.

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

ITEM 6. SELECTED FINANCIAL DATA

The selected consolidated statement of operations data for the years ended December 31, 2016, 2015 and 2014 and the selected consolidated balance sheet data as of December 31, 2016 and 2015 are derived from our audited Consolidated Financial Statements appearing elsewhere in this annual report on Form 10-K. The selected consolidated statement of operations data for the years ended December 31, 2013 and 2012 and the selected consolidated balance sheet data as of December 31, 2014, 2013 and 2012 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 and 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,				
	2016	2015	2014	2013	2012
Consolidated Statements of Operations Data:					
Total revenues	$ 67,192	$ 34,153	$ 43,274	$ 41,119	$ 73,694
Total cost and operating expenses	$ 163,116	$ 182,686	$ 143,102	$ 160,735	$ 275,516
Net loss from operations	$ (95,924)	$ (148,533)	$ (99,828)	$ (119,616)	$ (201,822)
Net income (loss) before income taxes and loss from investment in affiliate	$ (96,781)	$ (213,400)	$ 5,572	$ (235,754)	$ (205,052)
Net income (loss) before loss from investment in affiliate	$ (97,334)	$ (213,868)	$ 5,077	$ (234,907)	$ (206,033)
Net income (loss)	$ (97,334)	$ (218,052)	$ 2,167	$ (234,907)	$ (206,033)
Net income (loss) attributable to Amyris, Inc. common stockholders	$ (97,334)	$ (217,952)	$ 2,286	$ (235,111)	$ (205,139)
Net income (loss) per share attributable to common stockholders:					
Basic	$ (0.41)	$ (1.75)	$ 0.03	$ (3.12)	$ (3.62)
Diluted	$ (0.44)	$ (1.75)	$ (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	238,440,197	126,961,576	78,400,098	75,472,770	56,717,869
Diluted	264,644,449	126,961,576	121,859,441	75,472,770	56,717,869

	As of December 31,				
	2016	2015	2014	2013	2012
Consolidated Balance Sheets Data:					
Cash, cash equivalents, investments and restricted cash	$ 33,807	$ 14,685	$ 45,041	$ 9,944	$ 31,644
Working capital (deficit)[2]	$ (50,745)	$ (41,147)	$ 33,606	$ (382)	$ 3,668
Property, plant and equipment, net	$ 53,735	$ 59,797	$ 118,980	$ 140,591	$ 163,121
Total assets	$ 129,873	$ 110,198	$ 216,183	$ 198,864	$ 242,834
Derivative liabilities	$ 6,894	$ 51,439	$ 59,736	$ 134,717	$ 9,261
Total indebtedness[1][3]	$ 228,299	$ 156,755	$ 233,277	$ 153,305	$ 106,774
Total equity (deficit)	$ (183,508)	$ (158,456)	$ (125,063)	$ (135,848)	$ 66,229

(1) Total indebtedness as of December 31, 2016, 2015, 2014, 2013 and 2012 includes $1.3 million, $0.7 million, $0.8 million, $1.2 million, and $2.6 million, respectively, in capital lease obligations, zero, zero, zero, zero, and $1.6 million, respectively, in notes payable, $43.8 million, $14.0 million, $21.1 million, $25.3 million and $26.2 million, respectively, in loans payable, and $49.1 million, $34.4 million, $35.7 million, $8.8 million, and $12.4 million, respectively, in credit facilities. Total indebtedness as of December 31, 2016, 2015, 2014 and 2013 also included $79.0 million, $64.6 million and $60.4 million and $28.5 million, respectively, in convertible notes and $42.8 million, $43.0 million and $115.2 million and $89.5 million, respectively, in related party convertible notes.

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

(3) We adopted ASU 2015-03 *Interest - Imputation of Interest: Simplifying the Presentation of Debt Issuance Costs,* in 2016 and applied the guidance to the December 31, 2016 and 2015 Consolidated Balance Sheets Data, thereby classifying debt issuance costs as a direct reduction of the carrying amount of debt. For the years ending December 31, 2014, 2013 and 2012, we did not reclassify debt issuance costs as such amounts were not material.

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 products. We have 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 catalysts in established fermentation processes to convert plant-sourced sugars into renewable ingredients. We are developing, and, in some cases, already commercializing, products from these ingredients in the Health and Nutrition, Personal Care and Performance Materials markets. 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 and other traditional products. We have focused our initial 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. In 2014, we began manufacturing additional molecules for the flavors and fragrance (F&F) industry, in 2015 we began investing to expand our capabilities to other small molecule chemical classes beyond terpenes via our collaboration with the Defense Advanced Research Project Agency (DARPA), as discussed below, and in 2016 we expanded into proteins.

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 renewability, low cost and relative price stability. We have also been able to produce our ingredients through the use of other feedstocks such as sugar beets, corn dextrose, sweet sorghum and cellulosic sugars.

Our first purpose-built, large-scale 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. In February 2017, we broke ground on a second purpose-built, large-scale production facility adjacent to our current Brotas facility.

Our business strategy is to generally focus our direct commercialization efforts on 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 the Health and Nutrition, Personal Care and Performance Materials markets, including pharmaceutical products, nutraceuticals, food ingredients, F&F ingredients, skin care ingredients, cosmetic actives, polymers, lubricants, solvents and transportation fuels.

Sales and Revenues

Our revenues are comprised of product revenues and grants and collaborations (including license fees for intellectual property and value share) revenues. Our business model has been a key enabler for short and long-term revenue growth. The three components of our business model are: first, collaborations. Our partners fund the development of key ingredients to support their business strategy which allows us to maintain strong performance levels in our collaboration revenue. The second component, we produce and sell the products we develop to our partners. The third component, we have a value share mechanism where our partners share a portion of the value created from our products. We have entered into research and development collaboration arrangements pursuant to which we receive payments from our collaborators, which include Total, Manufacture Francaise de Pnematiques Michelin, DARPA, DOE, Firmenich, Givaudan and Cosan. Some of such collaboration arrangements include advance payments in consideration for grants of exclusivity or research efforts to be performed by us. Once a collaboration agreement has been signed, receipt of payments may depend on our achievement of milestones. See Note 8, “Significant Agreements” in “Notes to Consolidated Financial Statements” included in this Annual Report on Form 10-K for more details regarding certain of these agreements and arrangements.

Financing

In 2016 and 2015, we completed multiple financings involving loans, convertible debt, non-convertible debt, mezzanine equity and equity offerings.

In January 2015, we closed a second installment of the $21.7 million in convertible notes from Total under the Total Fuel Agreements, as described in more detail in Note 5, "Debt" in “Notes to Consolidated Financial Statements” included in this Annual Report on Form 10-K, in the amount of $10.85 million.

In July 2015, we sold to certain purchasers 16,025,642 shares of our common stock at a price per share of $1.56, for aggregate proceeds to us of $25 million. We also granted to the purchasers warrants exercisable at an exercise price of $0.01 per share for the purchase of an aggregate of 1,602,562 shares of our common stock. The exercisability of these warrants was subject to stockholder approval, which was obtained on September 17, 2015. As of December 31, 2016, 160,255 of such warrants had been exercised.

In October 2015, we issued $57.6 million aggregate principal amount of 9.50% Convertible Senior Notes due 2019 to certain qualified institutional buyers, as described in more detail in Note 5, “Debt” in “Notes to Consolidated Financial Statements” included in this Annual Report on Form 10-K.

In February 2016, we issued to certain purchasers an aggregate of $20.0 million of unsecured promissory notes and warrants for the purchase, at an exercise price of $0.01 per share, of an aggregate of 2,857,142 shares of our common stock, as described in more detail in Note 5, “Debt” in “Notes to Consolidated Financial Statements” included in this Annual Report on Form 10-K. The exercisability of these warrants was subject to stockholder approval, which was obtained on May 17, 2016. As of December 31, 2016, all of such warrants remained outstanding and unexercised.

In March 2016, we sold to Total one half of our ownership stake in TAB in exchange for Total cancelling $1.3 million of R&D Notes and certain other indebtedness, as described in more detail under “Relationship with Total” above and in Note 5, “Debt” and Note 7, “Joint Ventures and Noncontrolling Interest” in “Notes to Consolidated Financial Statements” included in this Annual Report on Form 10-K.

In May 2016, we sold and issued 4,385,964 shares of common stock to the Bill & Melinda Gates Foundation at a purchase price per share of $1.14, as described in more detail in Note 8, “Significant Agreements” in “Notes to Consolidated Financial Statements” included in this Annual Report on Form 10-K.

In May, September, October and December 2016, we sold and issued $25.0 million in aggregate principal amount of convertible promissory notes to a private investor, as described in more detail in Note 5, “Debt” in “Notes to Consolidated Financial Statements” included in this Annual Report on Form 10-K.

In June and October 2016, we sold and issued $19.5 million in aggregate principal amount of secured promissory notes to Foris Ventures, LLC, an entity affiliated with director John Doerr of Kleiner Perkins Caufield & Byers, a current stockholder, and Ginkgo, as described in more detail in Note 5, “Debt” in “Notes to Consolidated Financial Statements” included in this Annual Report on Form 10-K.

In October 2016, we entered into a credit agreement with Guanfu Holding Co., Ltd. to make available to Amyris an unsecured credit facility with an aggregate principal amount of up to $25.0 million, which amount was fully drawn on December 31, 2016, as described in more detail in Note 5, “Debt” in “Notes to Consolidated Financial Statements” included in this Annual Report on Form 10-K.

In December 2016, we sold and issued a purchase money promissory note in the principal amount of $3.5 million to Salisbury Partners, LLC in connection with our purchase of a production facility in Leland, North Carolina, as described in more detail in Note 5, “Debt” and Note 7, "Joint Ventures and Noncontrolling Interest" in “Notes to Consolidated Financial Statements” included in this Annual Report on Form 10-K.

In December 2016, we sold and issued a promissory note in the principal amount of $3.9 million to Nikko Chemicals Co., Ltd. in connection with the formation of our Neossance joint venture, as described in more detail in Note 5, “Debt” and Note 7, “Joint Ventures and Noncontrolling Interest” in “Notes to Consolidated Financial Statements” included in this Annual Report on Form 10-K.

See Note 16, “Subsequent Events” in “Notes to Consolidated Financial Statements” included in this Annual Report on Form 10-K for details regarding financing transactions completed subsequent to December 31, 2016.

Exchange (Debt Conversion)

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

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

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

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

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

Additionally, under the Exchange Agreement, Temasek received the following warrants at the closing of the Exchange:

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

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

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

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

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

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

In February and May 2016, as a result of adjustments to the conversion price of our senior convertible notes issued in October 2013 (or the "Tranche I Notes") and January 2014 (or the "Tranche II Notes") discussed in Note 5, "Debt" in "Notes to Consolidated Financial Statements" included in this Annual Report on Form 10-K, the Temasek Funding Warrant became exercisable for an additional 127,194 and 2,335,342 shares of common stock, respectively.

As of December 31, 2016, the Total Funding Warrant, the Temasek Exchange Warrant and the 2013 Warrant had been fully exercised, and Temasek had exercised the Temasek Funding Warrant with respect to 12,700,244 shares of our common stock. Neither the Total R&D Warrant nor the Temasek R&D Warrant were exercisable as of December 31, 2016. See Note 16, "Subsequent Events" in "Notes to Consolidated Financial Statements" included in this Annual Report on Form 10-K for additional details regarding the Total R&D Warrant and Temasek R&D Warrant. Warrants to purchase 2,462,536 shares of common stock under the Temasek Funding Warrant were unexercised as of December 31, 2016.

Maturity Treatment Agreement

At the closing of the Exchange, we, Total and Temasek also entered into a Maturity Treatment Agreement, dated as of July 29, 2015, pursuant to which Total and Temasek agreed to convert any Tranche I Notes, Tranche II Notes or 2014 144A Notes held by them that were not cancelled in the Exchange (or the "Remaining Notes") into shares of our common stock in accordance with the terms of such Remaining Notes upon maturity, provided that certain events of default had not occurred with respect to the applicable Remaining Notes prior to such maturity. As of immediately following the closing of the Exchange and December 31, 2016, Temasek held $10.0 million in aggregate principal amount of Remaining Notes and Total held approximately $27.0 million and $29.5 million, respectively, in aggregate principal amount of Remaining Notes.

Liquidity

We have incurred significant losses since our inception and we believe that we will continue to incur losses and may have negative cash flow from operations through at least 2017. As of December 31, 2016, we had negative working capital of $50.7, an accumulated deficit of $1,134.4 million and had cash, cash equivalents and short term investments of $28.5 million. We have significant outstanding debt, working capital deficit and contractual obligations related to capital and operating leases, as well as purchase commitments. We will likely need additional financing as early as the second quarter of 2017 to support our liquidity needs. Our audited consolidated financial statements have been prepared on the basis that the Company will continue as a going concern. If we are unable to raise additional financing, our ability to continue as a going concern would be jeopardized and we may be unable to meet our obligations under our existing debt facilities, which could result in an acceleration of our obligations to repay all amounts outstanding under those facilities, and may be forced to liquidate our assets or we may be forced to delay, scale back or eliminate some of our activities to provide sufficient funds to continue our operations. In such a liquidation scenario, the values we receive for our assets in liquidation or dissolution could be significantly lower than the values reflected in our financial statement. The financial statements do not include any adjustments that might result from the outcome of this uncertainty, which could have a material adverse effect on our financial condition. Refer to "Liquidity and Capital Resources" for further details.

Critical Accounting Policies and Estimates

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

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

Revenue Recognition

We recognize revenue from the sale of renewable products, from the delivery of collaborative research and development services, from licensing intellectual property, government grants and from value share. 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 and other 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, Collaborative Research Services and License Fees

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. License fees for intellectual property transferred to other parties, representing non-refundable payments received at the time of signature of license agreements, are recognized as revenue upon signature of the license agreements when the Company has no significant future performance obligations and collectability of the fees is assured. Upfront payments received at the beginning of licensing agreements are deferred and recognized as revenue on a systematic basis over the period during which the related services are rendered and all obligations are performed.

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

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

Factors that could trigger an impairment review include significant under-performance relative to historical or projected future operating results, significant changes in the manner of our use of the acquired assets or the strategy for our overall business or significant negative industry or economic trends. If this evaluation indicates that the value of the intangible asset may be impaired, we make an assessment of the recoverability of the net carrying value of the asset over its remaining useful life. If this assessment indicates that the intangible asset is not recoverable, based on the estimated discounted future cash flows of the technology over the estimated useful life of the technology, we will reduce the net carrying value of the related intangible asset to fair value and may adjust the remaining amortization period. Any such impairment charge could be significant and could have a material adverse effect on our reported financial results. As of December 31, 2016, the Company's intangible assets had a carrying amount of zero.

Stock-Based Compensation

Stock-based compensation cost for restricted stock units (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" in “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 (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" in “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, 2016 to Year Ended December 31, 2015

Revenues

	Years Ended December 31,		Year to Year	Percentage
	2016	2015	Change	Change
	(Dollars in thousands)			
Revenues				
Renewable product sales	$ 24,788	$ 14,032	$ 10,756	77%
Related party renewable product sales	1,561	864	697	81%
Total product sales	26,349	14,896	11,453	77%
Grants and collaborations revenue	25,843	19,257	6,586	34%
License fees	15,000	—	15,000	nm
Total grants, collaborations and license fee revenue	40,843	19,257	21,586	112%
Total revenues	$ 67,192	$ 34,153	$ 33,039	97%

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nm= not meaningful

Our total revenues increased by $33.0 million to $67.2 million in 2016 as compared to the prior year, primarily due to significant growth in product sales and grants, collaborations and license fee revenues.

Product sales increased by $11.5 million to $26.3 million in 2016 as compared to the prior year primarily due to increases in the personal care and health and nutrition segments.

Grants, collaborations and license fee revenue increased by $21.6 million to $40.8 million in 2016 compared to the prior year. This increase was due to new contracts with DARPA and Givaudan and license fee revenues resulting from the transfer of intellectual property to Ginkgo Bioworks for $15 million.

Cost and Operating Expenses

	Years Ended December 31,		Year-to Year	Percentage
	2016	2015	Change	Change
Costs and Operating Expenses	(Dollars in thousands)			
Cost of products sold	$ 56,678	$ 37,374	$ 19,304	52%
Loss on purchase commitments, impairment of property, plant and equipment and other asset allowances	7,305	34,166	(26,861)	(79)%
Withholding tax related to conversion of related party notes	—	4,723	(4,723)	(100)%
Impairment of intangible assets	—	5,525	(5,525)	(100)%
Research and development	51,412	44,636	6,776	15%
Sales, general and administrative	47,721	56,262	(8,541)	(15)%
Total cost and operating expenses	$ 163,116	$ 182,686	$ (19,570)	(11)%

Cost of Products Sold

Our cost of products sold includes the cost of raw materials, labor and overhead, amounts paid to contract manufacturers, period costs related to inventory write-downs resulting from applying lower of cost or market inventory valuations, and costs related to scale-up in production of such products. Our cost of products sold increased by $19.3 million to $56.7 million in 2016 as compared to the prior year, primarily driven by product mix, higher volumes of products sold and production scale-up costs.

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

The loss on purchase commitments and impairment of property, plant and equipment and other asset allowances decreased by $26.9 million to $7.3 million in 2016 as compared to the prior year. This decline was primarily as a result of lower asset impairment charges.

Research and Development Expenses

Our research and development expenses increased by $6.8 million to $51.4 million in 2016 as compared to the prior year, primarily as a result of increases of $3.8 million in consulting and outside services, $1.5 million in salaries and benefits expense, $1.7 million in facilities costs and $0.1 million in lab supplies and equipment, offset by a decrease of $0.3 million in stock-based compensation expense.

Sales, General and Administrative Expenses

Our sales, general and administrative expenses decreased by $8.5 million to $47.7 million in 2016 as compared to the prior year, primarily due to decreases of $3.2 million in consulting and outside services expenses, $2.2 million in salaries and benefits, $1.7 million in facilities expenses and $1.4 million in stock-based compensation expense.

Other Income (Expense)

	Years Ended December 31,		Year-to Year	Percentage
	2016	2015	Change	Change
	(Dollars in thousands)			
Other income (expense):				
Interest income	$ 258	$ 264	$ (6)	(2)%
Interest expense	(37,629)	(78,854)	41,225	(52)%
Gain from change in fair value of derivative instruments	41,355	16,287	25,068	154%
Loss from extinguishment of debt	(4,146)	(1,141)	(3,005)	263%
Other income (expense), net	(695)	(1,423)	728	(51)%
Total other income (expense)	$ (857)	$ (64,867)	$ 64,010	(99)%

Total other expense was $0.9 million in 2016, compared to $64.9 million in 2015. The decrease in net expense of $64.0 million was primarily attributable to the decreases of $41.2 million in interest expense associated with our acceleration of accretion of debt discount related to debt extinguishments and conversions in 2015 and of $0.7 million in other expense, the increase in gain from change in fair value of derivative instruments of $25.1 million, attributed to the compound embedded derivative liabilities associated with certain of our convertible promissory notes, and the change in fair value of our interest rate swap derivative liability, which was partially offset by the increase in loss from extinguishment of debt of $3.0 million.

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

Revenues

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

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

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

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

Cost and Operating Expenses

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

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nm= not meaningful

Cost of Products Sold

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

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

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

Impairment of Intangible Assets

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

Research and Development Expenses

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

Sales, General and Administrative Expenses

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

Other Income (Expense)

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

Total other income (expense) was $64.9 million net expense in 2015, compared to $105.4 million net income in 2014. The decrease in net income of $170.3 million was primarily attributable to the decrease in gain from change in fair value of derivative instruments of $127.9 million, attributed to the compound embedded derivative liabilities associated with our senior secured convertible promissory notes, the change in fair value of our interest rate swap derivative liability and the increases of $49.9 million in interest expense associated with our acceleration of accretion of debt discount related to debt extinguishments and conversions, which was offset by the decrease in losses from the extinguishment of debt of $9.4 million.

Liquidity and Capital Resources

	December 31,	
	2016	2015
	(Dollars in thousands)	
Working capital (deficit), excluding cash and cash equivalents	$ (77,895)	$ (53,139)
Cash and cash equivalents and short-term investments	$ 28,524	$ 13,512
Debt and capital lease obligations	$ 228,299	$ 156,755
Accumulated deficit	$ (1,134,438)	$ (1,037,104)

	Years Ended December 31,		
	2016	2015	2014
	(Dollars in thousands)		
Net cash used in operating activities	$ (82,367)	$ (85,132)	$ (84,708)
Net cash provided by (used in) investing activities	$ 5,642	$ (5,144)	$ (9,831)
Net cash provided by financing activities	$ 92,199	$ 61,424	$ 130,921

Working Capital. Our working capital deficit, excluding cash and cash equivalents was $77.9 million as of December 31, 2016, which represents an increase of $24.8 million compared to our working capital deficit of $53.1 million as of December 31, 2015. The increase of $24.8 million in working capital deficit for 2016 as compared to the prior year was due to increases of $4.9 million in accrued and other current liabilities, $7.4 million in accounts payable and $21.6 million in current portion of debt, partially offset by an increase of $9.1 million in accounts receivable.

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, cash inflows from collaboration and grant funding, cash contributions from product sales, and proceeds from new investor debt and equity financings as well as strategic asset divestments. Some of our anticipated financing sources, such as research and development collaborations, debt and equity financings and strategic asset divestments, are subject to the 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 2017 working capital needs and our planned operating and capital expenditures for 2017 are dependent on significant inflows of cash from renewable product sales and existing collaboration partners, as well as additional funding from new collaborations, new debt and equity financings and proceeds from strategic asset divestments. We will continue to need to fund our research and development and related activities and to provide working capital to fund production, storage, distribution and other aspects of our business.

Liquidity. We have incurred significant losses since our inception and we believe that we will continue to incur losses and may have negative cash flow from operations through at least 2017. As of December 31, 2016, we had an accumulated deficit of $1,134.4 million and had cash, cash equivalents and short term investments of $28.5 million. In March 2016, we entered into an At Market Issuance Sales Agreement with third party Agents under which we may issue and sell shares of our common stock through the Agents having an aggregate offering price of up to $50.0 million from time to time in “at the market” offerings under our Registration Statement on Form S-3 (File No. 333-203216). This agreement includes no commitment by other parties to purchase shares we offer for sale. See Note 8, “Significant Agreements” in “Notes to Consolidated Financial Statements” included in this Annual Report on Form 10-K for further details. As of the date hereof, $50.0 million remained available for future issuance under this facility. We have significant outstanding debt and contractual obligations related to capital and operating leases, as well as purchase commitments.

As of December 31, 2016, our debt, net of discount of $42.5 million, totaled $227.0 million, of which $59.2 million is classified as current. In addition to upcoming debt maturities, our debt service obligations over the next twelve months are significant, including $18.3 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 restrictions on additional indebtedness, material adverse effect and cross default clauses. A failure to comply with the covenants and other provisions of our debt instruments, including any failure to make a payment when required would generally result in events of default under such instruments, which could permit acceleration of such indebtedness. If such indebtedness is accelerated, it would generally also constitute an event of default under our other outstanding indebtedness, permitting acceleration of such other outstanding indebtedness. Any required repayment of our indebtedness as a result of acceleration or otherwise would lower our current cash on hand such that we would not have those funds available for use in our business or for payment of other outstanding indebtedness. Refer to Note 5, "Debt", Note 6, “Commitments and Contingencies” and Note 16, “Subsequent Events” in “Notes to Consolidated Financial Statements” included in this Annual Report on Form 10-K for further details of our debt arrangements.

The Company has incurred significant operating losses since its inception and believes that it will continue to incur losses and negative cash flow from operations into at least 2018. As of December 31, 2016, the 76 Company had negative working capital of $40.7 million, an accumulated deficit of $1,124.4 million and had cash, cash equivalents and short term investments of $28.5 million. The Company will likely need additional financing as early as the second quarter of 2017 to support its liquidity needs. These factors raise substantial doubt about the Company's ability to continue as a going concern within one year after the date that the financial statements are issued. The financial statements do not include any adjustments that might result from the outcome of this uncertainty, which could have a material adverse effect on our financial condition. In addition, if we are unable to continue as a going concern, we may be unable to meet our obligations under our existing debt facilities, which could result in an acceleration of our obligation to repay all amounts outstanding under those facilities, and we may be forced to liquidate our assets. In such a scenario, the values we receive for our assets in liquidation or dissolution could be significantly lower than the values reflected in our financial statements.

Our operating plan for 2017 contemplates a significant reduction in our net cash outflows, resulting from (i) revenue growth from sales of existing and new products with positive gross margins, (ii) reduced production costs as a result of manufacturing and technical developments, (iii) cash inflows from collaborations, (iv) access to various financing commitments, and (v) strategic asset divestments (see Note 5, "Debt" and Note 8, "Significant Agreements" in "Notes to Consolidated Financial Statements" included in this Annual Report on Form 10-K for details of financing commitments).

If we are unable to generate sufficient cash contributions from product sales, payments from existing and new collaboration partners and strategic asset divestments and draw sufficient funds from financing commitments due to contractual restrictions and covenants, we will need to obtain additional funding from equity or debt financings, which could require us to agree to burdensome covenants or 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, our ability to continue as a going concern would be jeopardized and we would take the following actions as early as the second quarter of 2017 to support our liquidity needs through the remainder of 2017 and into 2018:

- Effect significant headcount reductions, particularly with respect to employees not connected to critical or contracted activities across all functions of the Company, including employees involved in general and administrative, research and development, and production activities.
- Shift focus to existing products and customers with significantly reduced investment in new product and commercial development efforts.
- Reduce production activity at our Brotas manufacturing facility to levels only sufficient to satisfy volumes required for product revenues forecast from existing products and customers.
- Reduce expenditures for third party contractors, including consultants, professional advisors and other vendors.
- Reduce or delay uncommitted capital expenditures, including those relating to proposed additional manufacturing capacity, non-essential facility and lab equipment, and information technology projects.
- Closely monitor our working capital position with customers and suppliers, as well as suspend operations at pilot plants and demonstration facilities.

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

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

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

Collaboration Funding. For the year ended December 31, 2016, we received $30.6 million in cash from collaborations, including $13.2 million under flavors and fragrances collaboration agreements and $15.0 million for licensing of intellectual property.

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, existing debt and equity financings and strategic asset divestments, we may need to issue preferred and/or discounted equity, agree to onerous covenants, grant further security interests in our assets, and 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 September 2015, we entered into a Technology Investment Agreement (as amended, the "TIA") with The Defense Advanced Research Project Agency (or "DARPA") under which we, with the assistance of five specialized subcontractors, will work to create new research and development tools and technologies for strain engineering and scale-up activities. The program that is the subject of the TIA is being performed and funded on a milestone basis. Under the TIA, we and our subcontractors could collectively receive DARPA funding of up to $35.0 million over the program's four year term if all of the program's milestones are achieved. In conjunction with DARPA's funding, we and our subcontractors are obligated to collectively contribute approximately $15.5 million toward the program over its four year term (primarily by providing specified labor and/or purchasing certain equipment). We can elect to retain title to the patentable inventions we produce in the program, but DARPA receives certain data rights as well as a government purposes license to certain of such inventions. Either party may, upon written notice and subject to certain consultation obligations, terminate the TIA upon a reasonable determination that the program will not produce beneficial results commensurate with the expenditure of resources. We recognized $9.7 million in revenue under this agreement for the year ended December 31, 2016. Total cash received under this agreement as of December 31, 2016 was $8.1 million for the year ended December 31, 2016.

In October 2016, we entered into an assistance agreement with the United States Department of Energy (DOE) relating to a research grant award (Award) under which we, with the assistance of two specialized subcontractors, Total and Renmatix, which are related parties of the Company, will work to develop a manufacturing-ready process utilizing wood as the cellulosic feedstock to produce farnesene. The program that is the subject of the Award is being performed and funded on a milestone basis. Under the Award, we and our subcontractors could collectively receive reimbursement for up to $8.8 million in costs expended by us and our subcontractors over the program's three year term if all of the program's milestones are achieved. We can elect to retain title to the patentable inventions we produce in the program, but DOE receives certain data rights as well as a government purposes license to certain of such inventions. Either party may, upon written notice and subject to certain consultation obligations, terminate the Award upon a reasonable determination that the program will not produce beneficial results commensurate with the expenditure of resources. We recognized zero in revenue under this agreement for the year ended December 31, 2016. Total cash received under this agreement as of December 31, 2016 was zero for the year ended December 31, 2016.

Convertible Note Offerings. In February 2012, we sold $25.0 million in aggregate principal amount of senior unsecured convertible promissory notes due March 1, 2017, $9.7 million of which notes were repurchased in October 2015 with a portion of the proceeds from our sale of the 2015 144A Notes (as defined below), and the remainder of which were subsequently exchanged for $19.1 million of additional 2015 144A Notes in January 2017, as described in more detail in Note 5, "Debt" and Note 16, "Subsequent Events" in "Notes to Consolidated Financial Statements" included in this Annual Report on Form 10-K.

In July and September 2012, we issued $53.3 million in aggregate principal amount of 1.5% Senior Unsecured Convertible Notes to Total under the Total Fuel Agreements for an aggregate of $30.0 million in cash proceeds and our repayment of $23.3 million in previously-provided research and development funds pursuant to the Total Fuel Agreements, as described in more detail under "Related Party Convertible Notes" in Note 5, "Debt" in "Notes to Consolidated Financial Statements" included in this Annual Report on Form 10-K. As part of our December 2012 private placement, we issued 1,677,852 shares of our common stock to Total in exchange for the cancellation of $5.0 million of an outstanding senior unsecured convertible promissory note held by Total.

In June and July 2013, we sold and issued $30.0 million in aggregate principal amount of 1.5% Senior Unsecured Convertible Notes to Total with a March 1, 2017 maturity date pursuant to the Total Fuel Agreements.

In August 2013, we entered into an agreement with Total and Temasek to issue up to $73.0 million in convertible promissory notes in private placements over a period of up to 24 months from the date of signing as described in more detail in Note 5, "Debt" in "Notes to audited Consolidated Financial Statements" included in this Annual Report on Form 10-K (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, $25.0 million was to be paid in the form of cash by Temasek ($25.0 million in the second tranche), $35.0 million was to be paid by the exchange and cancellation of the Temasek Bridge Note, as described below, and $13.0 million was to be paid by the exchange and cancellation of outstanding convertible promissory notes held by Total in connection with its exercise of pro rata rights ($7.6 million in the first tranche and $5.4 million in the second tranche).

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

In October 2013, we amended the August 2013 SPA to include certain entities affiliated with FMR LLC (or the “Fidelity Entities”) in the first tranche closing (participating for a principal amount of $7.6 million), and to proportionally increase the amount acquired by exchange and cancellation of outstanding convertible promissory notes by Total to $14.6 million ($9.2 million in the first tranche and up to $5.4 million in the second tranche). Also in October 2013, we completed the closing of the issuance and sale of senior convertible notes under the first tranche of the August 2013 Financing (or 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 exchange and cancellation of the Temasek Bridge Note and the remaining $9.2 million from the exchange and cancellation of an outstanding convertible promissory notes held by Total. In December 2013, we further amended the August 2013 SPA to sell $3.0 million of senior convertible notes under the second tranche of the August 2013 Financing (or the “Tranche II Notes”) to funds affiliated with Wolverine Asset Management, LLC and we elected to call $25.0 million in additional funds from Temasek pursuant to its previous commitment to purchase such amount of Tranche II Notes. Additionally, pursuant to that amendment, we sold approximately $6.0 million of Tranche II Notes to Total through exchange and 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 issuance and 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 “Notes to Consolidated Financial Statements” included in this Annual Report on Form 10-K.

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

In May 2014, we issued and sold $75.0 million in aggregate principal amount of 6.50% Convertible Senior Notes due 2019 (or the “2014 144A Notes”) to Morgan Stanley & Co. LLC as the Initial Purchaser in a private placement, and for initial resale by the Initial Purchaser to qualified institutional buyers pursuant to Rule 144A of the Securities Act (or the “2014 144A Offering”). The 2014 144A Offering is described in more detail in Note 5, "Debt" in “Notes to Consolidated Financial Statements” included in this Annual Report on Form 10-K. In October 2015, we repurchased $22.9 million in aggregate principal amount of the 2014 144A Notes with a portion of the proceeds from our sale of the 2015 144A Notes (as defined below), as described in more detail in Note 5, "Debt" in “Notes to Consolidated Financial Statements” included in this Annual Report on Form 10-K.

In July 2014 and January 2015, we issued and sold $21.7 million in aggregate principal amount of 1.5% Senior Secured Convertible Notes with a March 1, 2017 maturity date to Total pursuant to the Total Fuel Agreements.

In July 2015, Temasek exchanged approximately $71.0 million in principal amount of outstanding convertible promissory notes and Total exchanged $70.0 million in principal amount of outstanding convertible promissory notes for shares of our common stock, as further described above under “Exchange (debt conversion)”.

In October 2015, we issued and sold $57.6 million in aggregate principal amount of 9.50% Convertible Senior Notes due 2019 (2015 144A Notes), which were sold only to qualified institutional buyers and institutional accredited investors in a private placement (2015 144A Offering) under the Securities Act. The 2015 144A Offering is described in more detail in Note 5, "Debt" in “Notes to Consolidated Financial Statements” included in this Annual Report on Form 10-K. In January 2017, we issued an additional $19.1 million in aggregate principal amount of 2015 144A Notes in exchange for the cancellation of $15.3 million in aggregate principal amount of outstanding senior unsecured convertible promissory notes issued in February 2012, as described in more detail in Note 16, "Subsequent Events" in “Notes to Consolidated Financial Statements” included in this Annual Report on Form 10-K.

In March 2016, we sold to Total one half of our ownership stake in TAB in exchange for Total cancelling $3.7 million in aggregate principal amount of outstanding 1.5% Senior Secured Convertible Notes and certain other indebtedness, as described in more detail under “Relationship with Total” above and in Note 5, “Debt” and Note 7, “Joint Ventures and Noncontrolling Interest” in “Notes to Consolidated Financial Statements” included in this Annual Report on Form 10-K. In February 2017, we and Total agreed to extend the maturity of the remaining outstanding indebtedness under the Total Fuel Agreements from March 1, 2017 to May 15, 2017, as described in more detail in Note 16, "Subsequent Events" in “Notes to Consolidated Financial Statements” included in this Annual Report on Form 10-K.

In May, September, October and December 2016, we issued $25.0 million in aggregate principal amount of convertible promissory notes to a private investor in offerings registered under the Securities Act, as described in more detail in Note 5, “Debt” in “Notes to Consolidated Financial Statements” included in this Annual Report on Form 10-K.

Export Financing with ABC Brasil. In March 2013, we entered into a one-year export financing agreement with Banco ABC Brasil S.A. (or “ABC Brasil”) for approximately $2.5 million to fund exports through March 2014. This loan was collateralized by future exports from our subsidiary in Brazil. As of December 31, 2016, the loan was fully paid.

In March 2014, we entered into an additional one-year-term export financing agreement with ABC Brasil for approximately $2.2 million to fund exports through March 2015. This loan is collateralized by future exports from our subsidiary in Brazil. As of December 31, 2016, the loan was fully paid.

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

Banco Pine/Nossa Caixa Financing. In July 2012, we entered into a Note of Bank Credit and a Fiduciary Conveyance of Movable Goods agreement with each of Nossa Caixa and Banco Pine. Under these instruments, we borrowed an aggregate of R$52.0 million (approximately US$16.0 million based on the exchange rate as of December 31, 2016) as financing for capital expenditures relating to our manufacturing facility in Brotas, Brazil. Under the loan agreements, Banco Pine agreed to lend R$22.0 million and Nossa Caixa agreed to lend R$30.0 million. The loans have a final maturity date of July 15, 2022 and bear a fixed interest rate of 5.5% per year. The loans are also subject to early maturity and delinquency charges upon occurrence of certain events including interruption of manufacturing activities at our manufacturing facility in Brotas, Brazil for more than 30 days, except during sugarcane off-season. The loans are secured by certain of our farnesene production assets at the manufacturing facility in Brotas, Brazil and we were required to provide parent guarantees to each of the lenders. As of December 31, 2016 and 2015, a principal amount of $11.1 million and $11.0 million, respectively, was outstanding under these loan agreements.

BNDES Credit Facility. In December 2011, we entered into a credit facility with Banco Nacional de Desenvolvimento Econômico e Social (or BNDES), a government-owned bank headquartered in Brazil (BNDES Credit Facility) to finance a production site in Brazil. The BNDES Credit Facility was for R$22.4 million (approximately US$6.9 million based on the exchange rate as of December 31, 2016). The credit line was divided into an initial tranche of up to approximately R$19.1 million and an additional tranche of approximately R$3.3 million that would become available upon delivery of additional guarantees. The credit line was cancelled in 2013. As of December 31, 2016 and 2015, the Company had R$3.8 million (approximately US$1.2 million based on the exchange rate as of December 31, 2016) and R$7.6 million (approximately US$1.9 million based on the exchange rate as of December 31, 2015), 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$7.7 million based on the exchange rate as of December 31, 2016). 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 (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") and provided for loans of up to an aggregate principal amount of R$6.4 million (approximately US$2.0 million based on the exchange rate as of December 31, 2016) which are secured by a chattel mortgage on certain equipment of Amyris as well as by bank letters of guarantee. All available credit under this facility was fully drawn. As of December 31, 2016 and 2015, the total outstanding loan balance under this credit facility was R$2.3 million (approximately US$0.7 million based on the exchange rate as of December 31, 2016) and R$3.4 million (approximately US$0.9 million based on the exchange rate as of December 31, 2015).

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. Additional interest on late balances will be 1.0% per month, levied on the overdue amount. Payment of the outstanding loan balance is being made in 81 monthly installments, which commenced in July 2012 and extends through March 2019. Interest on loans drawn and other charges are paid on a monthly basis and commenced in March 2011.

Senior Secured Loan Facility. In March 2014, we entered into a Loan and Security Agreement (LSA) with Hercules Technology Growth Capital, Inc. (Hercules) to make available a secured loan facility (Senior Secured Loan Facility) in the aggregate principal amount of up to $25.0 million, which loan facility was fully drawn at the closing. The initial loan of $25.0 million under the Senior Secured 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 outstanding amounts under the Senior Secured Credit Facility before the maturity date (October 15, 2018) if we pay an additional fee of 1% of the outstanding amounts. We were also required to pay a 1% facility charge at the closing of the Senior Secured Credit Facility, and are required to pay a 10% end of term charge with respect to the initial loan of $25.0 million. In connection with the entry into the LSA, we agreed to certain customary representations and warranties and covenants, as well as certain covenants that were subsequently amended (as described below).

In June 2014, we entered into a first amendment of the LSA with Hercules. Pursuant to the first amendment, the parties agreed to extend the maturity date of the loans under the Senior Secured Loan Facility from May 31, 2015 to February 1, 2017 and remove (i) a requirement for us to pay a forbearance fee of $10.0 million in the event certain covenants were not satisfied, (ii) a covenant that we maintain positive cash flow commencing with the fiscal quarter beginning October 1, 2014, (iii) a covenant that, commencing 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 in the LSA requiring us to maintain unrestricted, unencumbered cash in an amount equal to at least 50% of the principal amount of the loans then outstanding under the Senior Secured Loan Facility (Minimum Cash Covenant) and borrow an additional $5.0 million under the Senior Secured Loan Facility. The additional $5.0 million borrowing was completed in June 2014, and accrues interest at a rate per annum equal to the greater of (i) the prime rate reported in the Wall Street Journal plus 5.25% and (ii) 8.5%.

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

In November 2015, the Company and Hercules entered into a third amendment of the LSA. Pursuant to the third amendment, the Company borrowed an additional $10,960,000 (Third Amendment Borrowed Amount) from Hercules on November 30, 2015. As of December 1, 2015, after the funding of the Third Amendment Borrowed Amount (and including repayment of $9.1 million of principal that had occurred prior to the third amendment), the aggregate principal amount outstanding under the Senior Secured Loan Facility was approximately $31.7 million. The Third Amendment Borrowed Amount accrues interest at a rate per annum equal to the greater of (i) 9.5% and (ii) the prime rate reported in the Wall Street Journal plus 6.25%, and, like the previous loans under the Senior Secured Loan Facility, has a maturity date of October 15, 2018. Upon the earlier of the maturity date, prepayment in full or such obligations otherwise becoming due and payable, in addition to repaying the outstanding Third Amendment Borrowed Amount (and all other amounts owed under the Senior Secured Loan Facility, as amended), the Company is also required to pay an end-of-term charge of $767,200. Pursuant to the third amendment, the Company also paid Hercules fees of $1.0 million, $750,000 of which was owed in connection with the expired $15.0 million facility under the second amendment and $250,000 of which was related to the Third Amendment Borrowed Amount. Under the third amendment, the parties agreed that the Company would, commencing on December 1, 2015, be required to pay only the interest accruing on all outstanding loans under the Senior Secured Loan Facility until February 29, 2016. Commencing on March 1, 2016, the Company would have been required to begin repaying principal of all loans under the Senior Secured Loan Facility, in addition to the applicable interest. However, pursuant to the third amendment, the Company could, by achieving certain cash inflow targets in 2016, extend the interest-only period to December 1, 2016. Upon the issuance and sale by the Company of $20.0 million of unsecured promissory notes and warrants in a private placement in February 2016 for aggregate cash proceeds of $20.0 million, the Company satisfied the conditions for extending the interest-only period to May 31, 2016. On June 1, 2016, the Company commenced the repayment of outstanding principal under the Senior Secured Loan Facility. In June 2016, the Company was notified by Hercules that it had transferred and assigned its rights and obligations under the Senior Secured Loan Facility to Stegodon Corporation (Stegodon), an affiliate of Ginkgo Bioworks, Inc. (Ginkgo). On June 29, 2016, in connection with the execution by the Company and Ginkgo of an initial strategic partnership agreement, the Company received a deferment of all scheduled principal repayments under the Senior Secured Loan Facility, as well as a waiver of the Minimum Cash Covenant, through October 31, 2016. Refer to Note 8, “Significant Agreements” in “Notes to Consolidated Financial Statements” included in this Annual Report on Form 10-K for additional details. On October 6, 2016, in connection with the execution by the Company and Ginkgo of a definitive collaboration agreement (or the “Ginkgo Collaboration Agreement”), the Company and Stegodon entered into a fourth amendment of the LSA, pursuant to which the parties agreed to (i) subject to the Company extending the maturity of certain of its other outstanding indebtedness (or the “Extension Condition”), extend the maturity date of the Senior Secured Loan Facility, (ii) make the Senior Secured Loan Facility interest-only until maturity, subject to the requirement that the Company apply certain monies received by it under the Ginkgo Collaboration Agreement to repay the amounts outstanding under the Senior Secured Loan Facility, up to a maximum amount of $1 million per month and (iii) waive the Minimum Cash Covenant until the maturity date of the Senior Secured Loan Facility. In January 2017, the Company satisfied the Extension Condition and the maturity date of the loans under the Senior Secured Credit Facility was extended to October 15, 2018. In December 2016, in connection with Stegodon granting certain waivers and releases under the LSA in connection with the Company’s formation of its Neossance joint venture with Nikko, as described in more detail in Note 7, "Joint Ventures and Noncontrolling Interest" in “Notes to Consolidated Financial Statements” included in this Annual Report on Form 10-K, the Company agreed to pay to Stegodon (i) a fee of $425,000 on or prior to December 31, 2017 and (ii) a fee of $450,000 on or prior to the maturity date of the loans under the Senior Secured Credit Facility. Subsequently, in January 2017 the Company and Stegodon entered into a fifth amendment of the LSA, pursuant to which the Company agreed to apply additional monies received by it under the Ginkgo Collaboration Agreement towards repayment of the outstanding loans under the Senior Secured Loan Facility, up to a maximum amount of $3 million. Refer to Note 5, “Debt”, Note 8, “Significant Agreements” and Note 16, “Subsequent Events” in “Notes to Consolidated Financial Statements” included in this Annual Report on Form 10-K for additional details regarding the LSA and Senior Secured Loan Facility.

As of December 31, 2016, $27.7 million was outstanding under the Senior Secured Loan Facility, net of discount and issuance cost of $0.9 million. The Senior Secured Loan Facility is secured by liens on our assets, including on certain of our intellectual property. The Senior Secured 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, Stegodon may require immediate repayment of all amounts outstanding under the Senior Secured Loan Facility.

February 2016 Private Placement. In February 2016, we sold and issued to certain purchasers affiliated with members of our board of directors an aggregate of $20.0 million of unsecured promissory notes and warrants for the purchase, at an exercise price of $0.01 per share, of an aggregate of 2,857,142 shares of our common stock, as described in more detail in Note 5, “Debt” in “Notes to Consolidated Financial Statements” included in this Annual Report on Form 10-K. The exercisability of these warrants was subject to stockholder approval, which was obtained on May 17, 2016.

June 2016 Private Placement. In June 2016, we sold and issued $5.0 million in aggregate principal amount of secured promissory notes to Foris Ventures, LLC (or “Foris”), an entity affiliated with director John Doerr of Kleiner Perkins Caufield & Byers, a current stockholder, as described in more detail in Note 5, “Debt” in “Notes to Consolidated Financial Statements” included in this Annual Report on Form 10-K.

October 2016 Private Placements. In October 2016, we sold and issued to Foris and Ginkgo, respectively, $6.0 million and $8.5 million in principal amount of secured promissory notes, as described in more detail in Note 5, “Debt” in “Notes to Consolidated Financial Statements” included in this Annual Report on Form 10-K.

Guanfu Credit Facility. In October 2016, we entered into a credit agreement with Guanfu Holding Co., Ltd. to make available to the Company an unsecured credit facility with an aggregate principal amount of up to $25.0 million, which amount was fully drawn on December 31, 2016, as described in more detail in Note 5, “Debt” in “Notes to Consolidated Financial Statements” included in this Annual Report on Form 10-K.

Salisbury Purchase Money Promissory Note. In December 2016, we sold and issued a purchase money promissory note in the principal amount of $3.5 million to Salisbury Partners, LLC in connection with our purchase of a production facility in Leland, North Carolina, as described in more detail in Note 5, “Debt” and Note 7, "Joint Ventures and Noncontrolling Interest" in “Notes to Consolidated Financial Statements” included in this Annual Report on Form 10-K.

Nikko Promissory Note. In December 2016, we sold and issued a promissory note in the principal amount of $3.9 million to Nikko Chemicals Co., Ltd. in connection with the formation of our Neossance joint venture, as described in more detail in Note 5, “Debt” and Note 7, “Joint Ventures and Noncontrolling Interest” in “Notes to Consolidated Financial Statements” included in this Annual Report on Form 10-K.

Common Stock Offerings. In December 2012, we completed a private placement of 14,177,849 shares of our common stock for aggregate cash proceeds of $37.2 million, of which $22.2 million 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 cancellation of $5.0 million of an outstanding 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 SA (Biolding), which is affiliated with one of our directors, for aggregate proceeds of $5.0 million. This private placement represented the final tranche of Biolding's preexisting contractual obligation to fund $15.0 million upon satisfaction by us of certain criteria associated with the commissioning of our production plant in Brotas, Brazil.

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

In July 2015, we entered into a Securities Purchase Agreement with certain purchasers, including entities affiliated with members of our board of directors, under which we agreed to sell 16,025,642 shares of our common stock at a price of $1.56 per share, for aggregate proceeds to the Company of $25 million. The sale of common stock under the Securities Purchase Agreement was completed on July 29, 2015. Pursuant to the Securities Purchase Agreement, the Company granted to each of the purchasers a warrant exercisable at an exercise price of $0.01 per share for the purchase of a number of shares of the Company's common stock equal to 10% of the shares purchased by such investor. The exercisability of the warrants was subject to stockholder approval, which was obtained on September 17, 2015. As of December 31, 2016, 160,255 of such warrants had been exercised.

In May 2016, we sold and issued 4,385,964 shares of our common stock to the Bill & Melinda Gates Foundation in a private placement at a purchase price per share equal to $1.14, for aggregate proceeds to the Company of approximately $5.0 million, as described in more detail in Note 8, "Significant Agreements" " in "Notes to Consolidated Financial Statements" included in this Annual Report on Form 10-K.

Cash Flows during the Years Ended December 31, 2016, 2015, and 2014

Cash Flows from Operating Activities

Our primary uses of cash from operating activities are for costs related to production and sales of our products and personnel-related expenditures, offset by cash received from product sales, grants, collaborations and license fees. Cash used in operating activities was $82.4 million, $85.1 million and $84.7 million for the years ended December 31, 2016, 2015 and 2014, respectively.

Net cash used in operating activities of $82.4 million for the year ended December 31, 2016 was attributable to our net loss of $97.3 million, offset by net non-cash charges of $4.0 million and net change in our operating assets and liabilities of $10.9 million. Net non-cash charges of $4.0 million for the year ended December 31, 2016 consisted primarily of $14.4 million of amortization of debt discount and issuance costs, $11.4 million of depreciation and amortization expenses, $7.3 million of asset impairment charges, $7.3 million of stock-based compensation, $4.1 million of loss from extinguishment of debt, $0.9 million of loss on foreign currency exchange rates, partially offset by $41.4 million of gain from the change in the fair value of derivative instruments related to the embedded derivative liabilities associated with certain of our convertible promissory notes and currency interest rate swap derivative liability and $0.1 million of gain on disposition of property, plant and equipment. Net change in operating assets and liabilities of $10.9 million for the year ended December 31, 2016 primarily consisted of a $19.1 million increase in accounts payable and accrued other liabilities, a $5.7 million decrease in inventory and a $0.7 million increase in deferred revenue related to funds received under collaboration agreements, partially offset by a $5.7 million increase in prepaid expenses and other assets and deferred rent and a $8.9 million increase in accounts receivable and related party accounts receivable.

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

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

Cash Flows from Investing Activities

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

Net cash provided from investing activities of $5.6 million for the year ended December 31, 2016, was a result of $10.0 million of proceeds on disposal of noncontrolling interest and $6.2 million of maturities of short-term investments, offset by $0.9 million of purchase of property, plant and equipment, a $4.0 million increase in restricted cash and $5.5 million of purchase of short-term investments.

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

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

Cash Flows from Financing Activities

Net cash provided by financing activities of $92.2 million for the year ended December 31, 2016, was a result of the receipt of $63.9 million from debt financings, $29.7 million from notes payable issued to related parties, $5.0 million from proceeds from exercise of warrants and $5.0 million from proceeds from issuance of contingently redeemable equity, offset by $9.8 million of repayment of debt and $1.6 million of principal payments on capital leases.

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

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

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, 2016 (in thousands):

	Total	2017	2018	2019	2020	2021	Thereafter
Principal payments on debt[1]	$ 267,985	$ 61,657	$ 52,802	$ 120,504	$ 2,225	$ 27,237	$ 3,560
Interest payments on long-term debt, fixed rate[2]	50,562	18,257	18,344	7,936	2,867	2,642	516
Operating leases	45,703	6,854	6,883	6,774	7,004	7,240	10,948
Principal payments on capital leases	1,286	1,233	47	6	—	—	—
Interest payments on capital leases	30	28	2	—	—	—	—
Purchase obligations[3]	837	808	29	—	—	—	—
Total	$ 366,403	$ 88,837	$ 78,107	$ 135,220	$ 12,096	$ 37,119	$ 15,024

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(1) *The forecast payments assume no proceeds to be received by the Company under the Ginkgo Collaboration Agreement, which, if received, would need to be applied by the Company up to $1 million per month towards repayment of the debt due to Stegodon. Also including $11.8 million in 2017 related to Nomis Bay convertible note which, at the Company's election, may be settled in shares or cash, and $46.8 million in 2018 and 2019 subject to Maturity Treatment Agreement, which will be converted to common stock at maturity, subject to there being no default under the terms of the debt.*

(2) *Does not include any obligations related to make-whole interest or downround provisions. The fixed interest rates are more fully described in Note 5, "Debt" in "Notes to Consolidated Financial Statements" included in this Annual Report on Form 10-K.*

(3) *Purchase obligations include noncancellable contractual obligations and construction commitments of $0.8 million, of which $0.6 million have been accrued as loss on purchase commitments.*

Recent Accounting Pronouncements

The information contained in Note 2 in "Notes to Consolidated Financial Statements" included in this Annual Report on Form 10-K 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, 2016, 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, 2016, 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 $119.4 million at December 31, 2016 and $99.5 million at December 31, 2015. The increase in the permanent investments in our foreign subsidiaries between 2015 and 2016 is due to the appreciation of the Brazilian real versus the U.S. dollar, offset by the additional capital contributions made. 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 $2.7 million and $4.9 million for 2016 and 2015, respectively. Actual results may differ.

We make limited use of derivative instruments, which include currency interest rate swap agreements, to manage the Company's exposure to foreign currency exchange rate and interest rate fluctuations 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$6.8 million based on the exchange rate as of December 31, 2016). 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 currency exchange rate between the U.S. dollar and Brazilian real. The swap has a fixed interest rate of 3.94%. This arrangement hedges the Company’s foreign currency exchange rate and interest 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, 2016 and December 31, 2015, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2016 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. These financial statements and financial statement schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and on the financial statement schedule based on our audits. We conducted our audits of these financial statements in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes 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. We believe that our audits provide a reasonable basis for our opinion.

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

/s/ PricewaterhouseCoopers LLP
San Jose, California
April 17, 2017

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

	December 31,	
	2016	**2015**
Assets		
Current assets:		
Cash and cash equivalents	$ 27,150	$ 11,992
Restricted cash	4,326	216
Short-term investments	1,374	1,520
Accounts receivable, net of allowance of $478 and $479, respectively	13,105	4,004
Related party accounts receivable, net of allowance of $23 and $490, respectively	872	1,176
Inventories, net	6,213	10,886
Prepaid expenses and other current assets	6,083	4,583
Total current assets	59,123	34,377
Property, plant and equipment, net	53,735	59,797
Restricted cash	957	957
Equity and loans in affiliates	34	68
Other assets	15,464	10,357
Goodwill and intangible assets	560	560
Total assets	$ 129,873	$ 106,116
Liabilities, Mezzanine Equity and Stockholders' Deficit		
Current liabilities:		
Accounts payable	$ 15,315	$ 7,943
Deferred revenue	5,288	6,509
Accrued and other current liabilities	29,188	24,268
Capital lease obligation, current portion	922	523
Debt, current portion (Note 16)	25,853	36,281
Related party debt	33,302	—
Total current liabilities	109,868	75,524
Capital lease obligation, net of current portion	334	176
Long-term debt, net of current portion	128,744	72,854
Related party debt	39,144	42,839
Deferred rent, net of current portion	8,906	9,682
Deferred revenue, net of current portion	6,650	4,469
Derivative liabilities	6,894	51,439
Other liabilities	7,841	7,589
Total liabilities	308,381	264,572
Commitments and contingencies (Note 6)		
Mezzanine Equity		
Contingently redeemable common stock (Note 8)	5,000	—
Stockholders' deficit:		
Preferred stock - $0.0001 par value, 5,000,000 shares authorized, none issued and outstanding	—	—
Common stock - $0.0001 par value, 500,000,000 and 400,000,000 shares authorized as of December 31, 2016 and 2015; 274,108,808 and 206,130,282 shares issued and outstanding as of December 31, 2016 and 2015, respectively	27	21
Additional paid-in capital	990,870	926,216
Accumulated other comprehensive loss	(40,904)	(47,198)
Accumulated deficit	(1,134,438)	(1,037,104)
Total Amyris, Inc. stockholders' deficit	(184,445)	(158,065)
Noncontrolling interest	937	(391)
Total stockholders' deficit	(183,508)	(158,456)
Total liabilities, mezzanine equity and stockholders' deficit	$ 129,873	$ 106,116

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,		
	2016	2015	2014
Revenues			
Renewable product sales	$ 24,788	$ 14,032	$ 22,793
Related party renewable product sales	1,561	864	646
Total product sales	26,349	14,896	23,439
Grants, collaborations and license fee revenue	40,843	19,257	19,835
Total revenues	67,192	34,153	43,274
Cost and operating expenses			
Cost of products sold	56,678	37,374	33,202
Loss on purchase commitments, impairment of property, plant and equipment and other asset allowances	7,305	34,166	1,769
Withholding tax related to conversion of related party notes	—	4,723	—
Impairment of intangible assets	—	5,525	3,035
Research and development	51,412	44,636	49,661
Sales, general and administrative	47,721	56,262	55,435
Total cost and operating expenses	163,116	182,686	143,102
Loss from operations	(95,924)	(148,533)	(99,828)
Other income (expense):			
Interest income	258	264	387
Interest expense	(37,629)	(78,854)	(28,949)
Gain from change in fair value of derivative instruments	41,355	16,287	144,138
Loss upon extinguishment of debt	(4,146)	(1,141)	(10,512)
Other income (expense), net	(695)	(1,423)	336
Total other income (expense)	(857)	(64,867)	105,400
Income (loss) before income taxes and loss from investments in affiliates	(96,781)	(213,400)	5,572
Provision for income taxes	(553)	(468)	(495)
Net income (loss) before loss from investments in affiliates	(97,334)	(213,868)	5,077
Loss from investments in affiliates	—	(4,184)	(2,910)
Net income (loss)	(97,334)	(218,052)	2,167
Net loss attributable to noncontrolling interest	—	100	119
Net income (loss) attributable to Amyris, Inc. common stockholders	$ (97,334)	$ (217,952)	$ 2,286
Net income (loss) per share attributable to common stockholders:			
Basic	$ (0.41)	$ (1.75)	$ 0.03
Diluted	$ (0.44)	$ (1.75)	$ (0.90)
Weighted-average shares of common stock outstanding used in computing net income (loss) per share of common stock:			
Basic	238,440,197	126,961,576	78,400,098
Diluted	264,644,449	126,961,576	121,859,441

See the accompanying notes to the consolidated financial statements.

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

	Years Ended December 31,		
	2016	2015	2014
Comprehensive loss:			
Net income (loss)	$ (97,334)	$ (218,052)	$ 2,167
Foreign currency translation adjustment, net of tax	6,294	(16,901)	(9,798)
Total comprehensive loss	(91,040)	(234,953)	(7,631)
Income attributable to noncontrolling interest	—	100	119
Foreign currency translation adjustment attributable to noncontrolling interest	—	(320)	(92)
Comprehensive loss attributable to Amyris, Inc.	$ (91,040)	$ (235,173)	$ (7,604)

See the accompanying notes to the consolidated financial statements.

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

	Common Stock							
	Shares	Amount	Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Loss	Noncontrolling Interest	Total Deficit	Mezzanine Equity
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	—	—	—	—	(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)	$ —
Issuance of common stock upon exercise of stock options, net of restricted stock	13,250	—	18	—	—	—	18	—
Issuance of common stock upon conversion of debt	62,192,238	6	96,616	—	—	—	96,622	—
Issuance of warrants on conversion of debt	—	—	51,704	—	—	—	51,704	—
Shares issued from restricted stock settlement	908,877	—	(333)	—	—	—	(333)	—
Shares issued upon ESPP purchase	385,892	—	595	—	—	—	595	—
Issuance of common stock in a private placement, net of issuance costs	16,025,642	2	24,624	—	—	—	24,626	—
Stock-based compensation	—	—	9,134	—	—	—	9,134	—
Issuance of common stock upon exercise of warrants	47,382,500	5	19,189	—	—	—	19,194	—
Foreign currency translation adjustment	—	—	—	—	(17,221)	320	(16,901)	—
Net loss	—	—	—	$ (217,952)	—	(100)	(218,052)	—
December 31, 2015	206,130,282	$ 21	$ 926,216	$ (1,037,104)	$ (47,198)	$ (391)	$(158,456)	$ —
Issuance of common stock upon exercise of stock options, net of restricted stock	134	—	—	—	—	—	—	—
Issuance of common stock upon conversion of debt	15,729,015	2	14,364	—	—	—	14,366	—
Issuance of common stock for settlement of debt principal payments	35,723,842	4	17,410	—	—	—	17,414	—
Issuance of warrants with debt private placement and collaboration agreements	—	—	4,387	—	—	—	4,387	—
Shares issued from restricted stock settlement	1,803,496	—	(254)	—	—	—	(254)	—
Stock-based compensation	—	—	7,325	—	—	—	7,325	—
Disposal of noncontrolling interest in Neossance LLC			9,063			937	10,000	
Contribution upon restructuring of Fuels JV	—	—	4,252	—	—	—	4,252	—
Issuance of contingently redeemable common stock	4,385,964	—	—	—	—	—	—	5,000
Shares issued upon ESPP purchase	336,075	—	180	—	—	—	180	—
Issuance of common stock upon exercise of warrants	10,000,000	—	10,435	—	—	—	10,435	—
Acquisitions of noncontrolling interests	—	—	(2,508)	—	—	391	(2,117)	
Foreign currency translation adjustment	—	—	—	—	6,294	—	6,294	—
Net loss	—	—	—	(97,334)	—	—	(97,334)	—
December 31, 2016	274,108,808	$ 27	$ 990,870	$ (1,134,438)	$ (40,904)	$ 937	$(183,508)	$ 5,000

See the accompanying notes to the consolidated financial statements.

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

	Years Ended December 31,		
	2016	2015	2014
Operating activities			
Net income (loss)	$ (97,334)	$ (218,052)	$ 2,167
Adjustments to reconcile net income (loss) to net cash used in operating activities:			
Depreciation and amortization	11,374	12,920	14,969
Loss (gain) on disposal of property, plant and equipment	(161)	154	263
Impairment of intangible assets	—	5,525	3,035
Stock-based compensation	7,325	9,134	14,105
Amortization of debt discount and issuance costs	14,445	58,559	9,981
Loss upon extinguishment of debt	4,146	1,141	10,512
Loss on purchase commitments, impairment of property, plant and equipment and other asset allowances	7,305	34,166	1,769
Withholding tax related to conversion of related party debt	—	4,723	—
Change in fair value of derivative instruments	(41,355)	(16,287)	(144,138)
Loss from investments in affiliates	—	4,184	2,910
Other non-cash expenses	999	(413)	(113)
Changes in assets and liabilities:			
Accounts receivable	(9,331)	4,920	(1,217)
Related party accounts receivable	372	(649)	(4)
Inventories, net	5,686	4,470	(4,481)
Prepaid expenses and other assets	(4,913)	(4,297)	(2,907)
Accounts payable	6,442	4,373	(3,209)
Accrued and other liabilities	12,696	10,954	6,830
Deferred revenue	714	(89)	4,760
Deferred rent	(777)	(568)	60
Net cash used in operating activities	(82,367)	(85,132)	(84,708)
Investing activities			
Purchase of short-term investments	(5,559)	(2,759)	(1,371)
Maturities of short-term investments	6,187	2,321	1,409
Change in restricted cash	(4,040)	240	—
Proceeds on disposal of noncontrolling interest	10,000	—	(2,075)
Loan to affiliate	—	(1,579)	(2,790)
Purchase of property, plant and equipment, net of disposals	(922)	(3,367)	(5,004)
Change in restricted stock	(24)	—	—
Net cash provided (used) in investing activities	5,642	(5,144)	(9,831)
Financing activities			
Proceeds from exercise of common stock, net of repurchases	180	614	2,488
Employees' taxes paid upon vesting of restricted stock units	(253)	(333)	(1,822)
Proceeds from issuance of common stock in private placements, net of issuance costs	—	24,625	4,000
Proceeds from exercise of warrants	5,000	285	—
Proceeds from issuance of contingently redeemable equity	5,000	—	—
Principal payments on capital leases	(1,579)	(729)	(1,045)
Proceeds from debt issued, net of discounts and issuance costs	63,911	66,931	83,171
Proceeds from debt issued to related parties	29,699	10,850	49,862
Principal payments on debt	(9,759)	(40,819)	(5,733)
Net cash provided by financing activities	92,199	61,424	130,921
Effect of exchange rate changes on cash and cash equivalents	(316)	(1,203)	(1,203)
Net increase/(decrease) in cash and cash equivalents	15,158	(30,055)	35,179
Cash and cash equivalents at beginning of period	11,992	42,047	6,868
Cash and cash equivalents at end of period	$ 27,150	$ 11,992	$ 42,047

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

	Years Ended December 31,		
	2016	2015	2014
Supplemental disclosures of cash flow information:			
Cash paid for interest	$ 9,983	$ 9,425	$ 6,910
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	$ (1,276)	$ (73)	$ 114
Financing of equipment	$ 2,136	$ 613	$ 617
Financing of insurance premium under notes payable	$ (123)	$ 53	$ 166
Acquisition of noncontrolling interest in Glycotech via debt	$ 3,906	$ —	$ —
Purchase of property, plant and equipment via deposit	$ 24	$ (392)	$ —
Interest capitalized to debt	$ 3,147	$ 6,354	$ 5,590
Issuance of common stock upon conversion of debt	$ 14,364	$ —	$ —
Issuance of common stock for settlement of debt principal payments	$ 17,410	$ —	$ —
Cancellation of debt and accrued interest on disposal of interest in affiliate	$ 4,252	$ —	$ —
Non-cash investment in joint venture	$ —	$ —	$ 1,281

See the accompanying notes to the consolidated financial statements.

1. The Company

Amyris, Inc. (or the Company) was incorporated in California on July 17, 2003 and reincorporated in Delaware on April 15, 2010 for the purpose of leveraging breakthroughs in bioscience technology to develop and provide renewable compounds for a variety of markets. The Company is currently applying its industrial synthetic biology platform to engineer, manufacture and sell high performance, low cost products into Health and Nutrition, Personal Care and Performance Material markets. The Company's first commercialization efforts have been focused on a renewable hydrocarbon molecule called farnesene (Biofene®), which forms the basis for a wide range of products including nutraceuticals, skin care, fragrances, solvents, polymers, and lubricants ingredients. In 2014, the Company began manufacturing additional molecules for the flavors and fragrance (F&F) industry, in 2015 the Company began investing to expand its capabilities to other small molecule chemical classes beyond terpenes via its collaboration with the Defense Advanced Research Project Agency, as discussed below, and in 2016 the Company expanded into proteins. While the Company's platform is able to use a wide variety of feedstocks, the Company has initially focused on Brazilian sugarcane because of its renewability, low cost and relative price stability. The Company has established one principal operating subsidiaries, Amyris Brasil Ltda. (formerly Amyris Brasil S.A., or Amyris Brasil) which oversees the Company's production operations in Brazil.

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

Liquidity

The Company expects to fund its operations for the foreseeable future with cash and investments currently on hand, with cash inflows from collaborations and grants, with cash contributions from product sales, with new debt and equity financings and with proceeds from strategic asset divestments. The Company's planned 2017 and 2018 working capital needs and its planned operating and capital expenditures are dependent on significant inflows of cash from new and existing collaboration partners and from cash generated from renewable product sales and from strategic asset divestments, and will also require additional funding from debt or equity financings.

The Company has incurred significant operating losses since its inception and believes that it will continue to incur losses and negative cash flow from operations into at least 2018. As of December 31, 2016, the Company had negative working capital of $50.7 million, an accumulated deficit of $1,134.4 million and had cash, cash equivalents and short term investments of $28.5 million. The Company will likely need additional financing as early as the second quarter of 2017 to support its liquidity needs. These factors raise substantial doubt about the Company's ability to continue as a going concern within one year after the date that the financial statements are issued. The financial statements do not include any adjustments that might result from the outcome of this uncertainty. If the Company is unable to continue as a going concern, it may be unable to meet its obligations under its existing debt facilities, which could result in an acceleration of its obligation to repay all amounts outstanding under those facilities, and it may be forced to liquidate its assets.

As of December 31, 2016, the Company's debt, net of discount of $42.5 million, totaled $227.0 million, of which $59.2 million is classified as current. In addition to upcoming debt maturities, the Company's debt service obligations over the next twelve months are significant, including $18.3 million of anticipated cash interest payments. The Company's debt agreements contain various covenants, including certain restrictions on the Company's business that could cause the Company to be at risk of defaults such as restrictions on additional indebtedness, material adverse effect and cross default clauses. A failure to comply with the covenants and other provisions of the Company's debt instruments, including any failure to make a payment when required would generally result in events of default under such instruments, which could permit acceleration of such indebtedness. If such indebtedness is accelerated, it would generally also constitute an event of default under the Company's other outstanding indebtedness, permitting acceleration of such other outstanding indebtedness. Any required repayment of such indebtedness as a result of acceleration or otherwise would consume current cash on hand such that the Company would not have those funds available for use in its business or for payment of other outstanding indebtedness. Please refer to Note 5, "Debt", Note 6, "Commitments and Contingencies" and Note 16, "Subsequent Events" for further details regarding the Company's debt service obligations and commitments. The Company also has a significant working capital deficit and contractual obligations related to capital and operating leases, as well as purchase commitments.

In addition to the need for financing described above, the Company may take the following actions as early as the second quarter of 2017 to support its liquidity needs through the remainder of 2017 and into 2018:

- Effect significant headcount reductions, particularly with respect to employees not connected to critical or contracted activities across all functions of the Company, including employees involved in general and administrative, research and development, and production activities.
- Shift focus to existing products and customers with significantly reduced investment in new product and commercial development efforts.
- Reduce production activity at the Company's Brotas manufacturing facility to levels only sufficient to satisfy volumes required for product revenues forecast from existing products and customers.
- Reduce expenditures for third party contractors, including consultants, professional advisors and other vendors.
- Reduce or delay uncommitted capital expenditures, including those relating to proposed additional manufacturing capacity, non-essential facility and lab equipment, and information technology projects.
- Closely monitor the Company's working capital position with customers and suppliers, as well as suspend operations at pilot plants and demonstration facilities.

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

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

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

2. Summary of Significant Accounting Policies

Basis of Presentation

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

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

Principles of Consolidation

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

Variable Interest Entities

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

Use of Estimates

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

Concentration of Credit Risk

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

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

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

	December 31,	
Customers	**2016**	**2015**
Customer L	33%	**
Customer K	22%	*
Customer H	**	23%
Customer C	**	26%
Customer G	**	10%

_____
** No outstanding balance*
*** Less than 10%*

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

	Years Ended December 31,		
Customers	**2016**	**2015**	**2014**
Customer N	14%	*	*
Customer M	22%	*	*
Customer E	27%	37%	47%
Customer J	**	10%	**
Customer C	**	**	10%

_____
** Not a customer*
*** Less than 10%*

Fair Value of Financial Instruments

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

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

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

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

Changes in the inputs into these valuation models have a significant impact on the estimated fair value of the embedded derivatives. For example, a decrease (increase) in the estimated credit spread for the Company results in an increase (decrease) in the estimated fair value of the embedded derivatives. Conversely, a decrease (increase) in the stock price results in a decrease (increase) in the estimated fair value of the embedded derivatives. The changes during 2016, 2015 and 2014 in the fair values of the bifurcated compound embedded derivatives are primarily related to the change in price of the Company's common stock and are reflected in the consolidated statements of operations as "Gain (loss) from change in fair value of derivative instruments."

Cash and Cash Equivalents

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

Short Term Investments

Investments with original maturities greater than 90 days that mature less than 1 year from the consolidated balance sheet date are classified as short-term investments. The Company classifies investments as short-term or long-term based upon whether such assets are reasonably expected to be realized in cash or sold or consumed during the normal cycle of business. The Company invests its excess cash balances primarily in certificates of deposit. Certificates of deposits that have maturities greater than 90 days that mature less than one year from the consolidated balance sheet date are classified as short term investments. The Company classifies all of its investments as available-for-sale and records such assets at estimated fair value in the consolidated balance sheets, with unrealized gains and losses, if any, reported as a component of accumulated other comprehensive income (loss) in stockholders' equity (deficit). Debt securities are adjusted for amortization of premiums and accretion of discounts and such amortization and accretion are reported as a component of interest income. Realized gains and losses and declines in value that are considered to be other-than-temporary are recognized in the statements of operations. The cost of securities sold is determined on the specific identification method. There were no material realized gains or losses from sales of debt securities during the years ended December 31, 2016, 2015 and 2014. As of December 31, 2016 and 2015, the Company did not have any other-than-temporary declines in the fair value of its debt securities.

Accounts Receivable

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

Inventories

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

Investments in Affiliates

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

Restricted Cash

Cash accounts that are restricted as to withdrawal or usage are presented as restricted cash. As of December 31, 2016 and 2015, the Company had $5.3 million and $1.2 million, respectively, of restricted cash for the purposes of lease terms, bank guarantees and other contractual commitments.

Derivative Instruments

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

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

Property, Plant and Equipment, net

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

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

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

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

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

Impairment of Long-Lived Assets

Long-lived assets to be held and used are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable or the estimated useful life is no longer appropriate. If indicators of impairment exist and the undiscounted projected cash flows associated with such assets are less than the carrying amount of the asset, an impairment loss is recorded to write the assets down to their estimated fair values. Fair value is estimated based on discounted future cash flows. There were $7.3 million, $28.5 million, and $1.8 million of impairment charges recorded during the years ended December 31, 2016, 2015 and 2014, respectively.

Goodwill and Intangible Assets

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

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

Factors that could trigger an impairment review include significant under-performance relative to expected historical or projected future operating results, significant changes in the manner of use of the acquired assets or the strategy for the Company's overall business or significant negative industry or economic trends. If this evaluation indicates that the value of the intangible asset may be impaired, we make an assessment of the recoverability of the net carrying value of the asset. If this assessment indicates that the intangible asset is not recoverable, based on the estimated discounted future cash flows of the technology over its expected life, we reduce the net carrying value of the related intangible asset to fair value. As a result of the impairment assessment of IPR&D, the Company recognized an impairment of its IPR&D asset of zero, $5.5 million and $3.0 million for the years ended December 31, 2016, 2015 and 2014, respectively. As of December 31, 2016, the Company's intangible assets had a carrying amount of zero.

Noncontrolling Interest

Changes in noncontrolling interest ownership that do not result in a change of control and where there is a difference between the fair value of the consideration paid/received and the amount by which the noncontrolling interest is adjusted are accounted for as equity transactions.

Revenue Recognition

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

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

Product Sales

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

Grants, Collaborative Research Services and License Fees

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. License fees for intellectual property transferred to other parties, representing non-refundable payments received at the time of signature of license agreements, are recognized as revenue upon signature of the license agreements when the Company has no significant future performance obligations and collectability of the fees is assured. Upfront payments received at the beginning of licensing agreements are deferred and recognized as revenue on a systematic basis over the period during which the related services are rendered and all obligations are performed.

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

Cost of Products Sold

Cost of products sold includes production costs of renewable products, which include cost of raw materials, amounts paid to contract manufacturers and period costs including inventory write-downs resulting from applying lower-of-cost-or-market inventory valuation. Cost of products sold also includes certain costs related to the scale-up in production of such products.

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

Research and Development

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

Debt Extinguishment

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

Income Taxes

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

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

Currency Translation

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

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

Stock-Based Compensation

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

Comprehensive Income (Loss)

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

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

	December 31,	
	2016	**2015**
Foreign currency translation adjustment, net of tax	$ (40,904)	$ (47,198)
Total accumulated other comprehensive loss	$ (40,904)	$ (47,198)

Net Loss Attributable to Common Stockholders and Net Loss per Share

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

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

	Years Ended December 31,		
	2016	2015	2014
Numerator:			
Net income (loss) attributable to Amyris, Inc. common stockholders	$ (97,334)	$ (217,952)	$ 2,286
Adjustment to exclude fair value gain on liability classified warrants[1]	—	(3,825)	—
Net income (loss) attributable to Amyris, Inc. common stockholders (for basic income (loss) per share)	(97,334)	(221,777)	2,286
Interest on convertible debt	4,428	—	9,365
Accretion of debt discount	2,889	—	5,597
Gain from change in fair value of derivative instruments	(25,630)	—	(127,109)
Net loss attributable to Amyris, Inc. common stockholders after assumed conversion	$ (115,647)	$ (221,777)	$ (109,861)
Denominator:			
Weighted-average shares of common stock outstanding used in computing net loss per share of common stock, basic	238,440,197	126,961,576	78,400,098
Basic income (loss) per share	$ (0.41)	$ (1.75)	$ 0.03
Weighted average shares of common stock outstanding	238,440,197	126,961,576	78,400,098
Effect of dilutive securities:			
Convertible promissory notes	26,204,252	—	43,459,343
Weighted common stock equivalents	26,204,252	—	43,459,343
Diluted weighted-average common shares	264,644,449	126,961,576	121,859,441
Diluted loss per share	$ (0.44)	$ (1.75)	$ (0.9)

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

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

	Years Ended December 31,		
	2016	2015	2014
Period-end stock options to purchase common stock	13,487,685	12,930,112	10,539,978
Convertible promissory notes [1]	35,933,931	72,537,306	26,887,005
Period-end common stock warrants	5,021,087	2,901,926	1,021,087
Period-end restricted stock units	6,991,133	5,554,844	1,975,503
Total	61,433,836	93,924,188	40,423,573

(1) The potentially dilutive effect of convertible promissory notes was computed based on conversion ratios in effect as of December 31, 2016. A portion of the convertible promissory notes issued carries a provision for a reduction in conversion price under certain circumstances, which could potentially increase the dilutive shares outstanding. Another portion of the convertible promissory notes issued carries a provision for an increase in the conversion rate under certain circumstances, which could also potentially increase the dilutive shares outstanding.

Recent Accounting Pronouncements

In May 2014, the FASB issued new guidance related to revenue recognition. In March, April, May and December 2016, the FASB issued additional amendments to the new revenue guidance relating to reporting revenue on a gross versus net basis, identifying performance obligations, licensing arrangements, collectability, noncash consideration, presentation of sales tax, and transition. This new standard will replace all current GAAP guidance on this topic and eliminate all industry-specific guidance. The new revenue recognition update guidance provides a unified model to determine how revenue is recognized. The core principle of the guidance is that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The FASB has issued several updates to the standard which i) clarify the application of the principal versus agent guidance (ASU 2016-08); ii) clarify the guidance on inconsequential and perfunctory promises and licensing (ASU 2016-10) and iii) narrow-scope improvements and practical expedients (ASU 2016-12). On July 9, 2015, the FASB voted to defer the effective date by one year to December 15, 2017 for interim and annual reporting periods beginning after that date and permitted early adoption of the standard, but not before the original effective date of December 15, 2016. Entities have the option of using either a full retrospective or a modified retrospective approach to adopt the new standard. Therefore, the new standard will be effective commencing with our quarter ending March 31, 2018. The Company is currently assessing the potential impact of this new standard on its consolidated financial statements and has not selected the transition method. While the Company continues to assess the impact of the new guidance on its revenue recognition policies, it is expected that a key area will be the assessment of contract modifications and collaboration contracts to determine if identification of performance obligations is impacted, which may impact the timing of revenue recognition. In addition, the Company expects additional disclosures related to revenue.

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

In January 2015, FASB issued an update related to the presentation of extraordinary and unusual items. The update eliminates the concept of extraordinary items found in Subtopic 225-20, which required that an entity separately classify, present and disclose extraordinary events and transactions when the event or activity met both criteria of being unusual in nature and infrequent in occurrence. Although the concept of extraordinary items will be eliminated, the presentation and disclosure guidance for items that are unusual in nature or occur infrequently will be retained and will be expanded to include items that are both unusual in nature and infrequently occurring. The standard is effective for annual and interim periods within those annual years beginning after December 15, 2015. The Company adopted this standard in 2016 and this did not have a material impact on the financial statements.

In February 2015, FASB issued an amendment to ASC 810 Consolidation. The amendments affect reporting entities that are required to evaluate whether they should consolidate certain legal entities. The amendments are effective for the fiscal years and interim periods within those fiscal years, beginning after December 15, 2015. The Company adopted this standard in 2016 and this did not have a material impact on the financial statements.

In April 2015, FASB issued Accounting Standards Update 2015-3, *Simplifying the Presentation of Debt Issuance Costs*, which requires debt issuance costs to be presented in the balance sheet as a direct deduction from the carrying value of the associated debt liability, consistent with the presentation of a debt discount. The recognition and measurement guidance for debt issuance costs are not affected by this guidance. The guidance is effective for financial statements issued for fiscal years beginning after December 15, 2015, and interim periods within those fiscal years. The Company adopted the guidance in 2016. As of December 31, 2015, this resulted in the reduction of noncurrent debt by $2.8 million, current debt by $1.4 million, other noncurrent assets by $2.8 million and prepaid expenses and other current assets by $1.4 million.

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

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

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

In March 2016, FASB issued ASU No. 2016-06, *Contingent Put and Call Options in Debt Instruments*. The amendments in this ASU clarify the requirements for assessing whether contingent call (put) options that can accelerate the payment of principal on debt instruments are clearly and closely related to their debt hosts. An entity performing the assessment under the amendments in this ASU is required to assess the embedded call (put) options solely in accordance with the four-step decision sequence. The ASU is effective for financial statements issued for fiscal years beginning after December 15, 2016, and interim periods within those fiscal years. Early adoption is permitted. The Company does not expect this ASU to have a material impact on its financial statements.

In March 2016, FASB issued ASU No. 2016-09, *Compensation - Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting*. This ASU identifies areas for simplification involving several aspects of accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, an option to recognize gross stock compensation expense with actual forfeitures recognized as they occur, as well as certain classifications on the statement of cash flows. This ASU will be effective for fiscal years beginning after December 15, 2016, and interim periods within those annual periods. Early adoption is permitted. The Company does not expect this ASU to have a material impact on its financial statements.

In June 2016, FASB issued ASU No. 2016-13, *Allowance for Loan and Lease Losses (Financial Instruments - Credit Losses Topic 326.)*. New impairment guidance for certain financial instruments (including trade receivables) will replace the current "incurred loss" model for estimating credit losses with a forward looking "expected loss" model. The ASU is effective for the Company for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years. Early application is permitted as of the fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. The Company is evaluating the impact of this standard on its consolidated financial statements.

In August 2016, FASB issued ASU 2016-15 *Classification of Certain Cash Receipts and Cash Payments* on the statement of cash flows. The new guidance clarifies classification of certain cash receipts and cash payments in the statement of cash flows. This guidance will be effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2017 and interim periods within those fiscal years. Early adoption is permitted. The Company is evaluating the impact of adopting this accounting standard update on the financial statements and related disclosures.

In October 2016, FASB issued ASU 2016-16, *Intra-Entity Transfers of Assets Other Than Inventory* on simplifying the accounting for income taxes related to intra-entity asset transfers. The new guidance allows an entity to recognize the tax expense from the sale of an asset in the seller's tax jurisdiction when the transfers occurs, even though the pre-tax effects of that transaction are eliminated in consolidation. This guidance will be effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2017. Early adoption is permitted only in the first quarter of 2017. The Company does not expect a material impact on its financial statements upon adoption of this standard.

In November 2016, FASB issued ASU 2016-18 *Statement of Cash Flows - Restricted Cash.* The amendments in this update require that a statement of cash flows explain the change during the period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents. Therefore, amounts generally described as restricted cash and restricted cash equivalents should be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. The amendments in this update are effective for public business entities for fiscal years beginning after December 15, 2017, and interim periods within those fiscal years. Early adoption is permitted, including adoption in an interim period. The amendments in this update should be applied using a retrospective transition method to each period presented. The Company has not adopted the update. Upon adoption this would result in a change in the presentation of restricted cash in the statement of cash flows.

3. Fair Value of Financial Instruments

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

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

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

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

There were no transfers between the levels during 2016, and as of December 31, 2016, the Company's financial assets and financial liabilities at fair value were classified within the fair value hierarchy as follows (in thousands):

	Level 1	Level 2	Level 3	Balance as of December 31, 2016
Financial Assets				
Money market funds	$ 1,549	$ —	$ —	$ 1,549
Certificates of deposit	1,373	—	—	1,373
Total financial assets	$ 2,922	$ —	$ —	$ 2,922
Financial Liabilities				
Loans payable [1]	$ —	$ 53,579	$ —	$ 53,579
Credit facilities [1]	—	51,261	—	51,261
Convertible notes [1]	—	—	117,767	117,767
Compound embedded derivative liabilities	—	—	4,135	4,135
Currency interest rate swap derivative liability	—	3,343	—	3,343
Total financial liabilities	$ —	$ 108,183	$ 121,902	$ 230,085

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

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

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

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

	Level 1	Level 2	Level 3	Balance as of December 31, 2015
Financial Assets				
Money market funds	$ 2,078	$ —	$ —	$ 2,078
Certificates of deposit	1,520	—	—	1,520
Total financial assets	$ 3,598	$ —	$ —	$ 3,598
Financial Liabilities				
Loans payable [1]	$ —	$ 9,541	$ —	$ 9,541
Credit facilities [1]	—	34,893	—	34,893
Convertible notes [1]	—	—	96,291	96,291
Compound embedded derivative liabilities	—	—	46,430	46,430
Currency interest rate swap derivative liability	—	5,009	—	5,009
Total financial liabilities	$ —	$ 49,443	$ 142,721	$ 192,164

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

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

	2016	2015
Balance at January 1	$ 96,291	$ 222,031
Additions to convertible notes	25,000	31,984
Conversion/extinguishment of convertible notes	(28,310)	(127,583)
Change in fair value of convertible notes	24,786	(30,141)
Balance at December 31	$ 117,767	$ 96,291

Derivative Instruments

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

	2016	2015
Balance at January 1	$ 46,430	$ 56,026
Additions to Level 3	2,050	40,359
Derecognition on conversion/extinguishment	(2,886)	(30,806)
Gain from change in fair value of derivative liabilities	(41,459)	(19,149)
Balance at December 31	$ 4,135	$ 46,430

The compound embedded derivative liabilities represent the fair value of the equity conversion options and "make-whole" provisions, as well as the down round conversion price adjustment or conversion rate adjustment provisions of the R&D Notes, the Tranche I Notes, the Tranche II Notes, the 2014 144A Notes and the 2015 144A Notes (see Note 5, "Debt"). There is no current observable market for these types of derivatives and, as such, the Company determined the fair value of the embedded derivatives using a Monte Carlo simulation valuation model for the R&D Notes and the binomial lattice model for the Tranche I Notes, the Tranche II Notes, the 2014 144A Notes and the 2015 144A Notes (or, collectively, Convertible Notes). A Monte Carlo simulation valuation model combines expected cash outflows with market-based assumptions regarding risk-adjusted yields, stock price volatility, probability of a change of control and the trading information of the Company's common stock into which the notes are or may be convertible. A binomial lattice model generates two probable outcomes - one up and another down - arising at each point in time, starting from the date of valuation until the maturity date. A lattice model was used to determine if the Convertible Notes would be converted, called or held at each decision point. Within the lattice model, the following assumptions are made: (i) the Convertible Notes will be converted early if the conversion value is greater than the holding value and (ii) the Convertible Notes will be called if the holding value is greater than both (a) redemption price and (b) the conversion value at the time. If the Convertible Notes are called, then the holder will maximize their value by finding the optimal decision between (1) redeeming at the redemption price and (2) converting the Convertible Notes. Using this lattice method, the Company valued the embedded derivatives using the "with-and-without method", where the fair value of the Convertible Notes including the embedded derivative is defined as the "with", and the fair value of the Convertible Notes excluding the embedded derivatives is defined as the "without". This method estimates the fair value of the embedded derivatives by looking at the difference in the values between the Convertible Notes with the embedded derivatives and the fair value of the Convertible Notes without the embedded derivatives. The lattice model uses the stock price, conversion price, maturity date, risk-free interest rate, estimated stock volatility and estimated credit spread. The Company marks the compound embedded derivatives to market due to the conversion price not being indexed to the Company's own stock. As of December 31, 2016 and 2015, included in "Derivative Liabilities" on the consolidated balance sheet are the Company's compound embedded derivative liabilities of $4.1 million and $46.4 million, respectively.

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

	December 31, 2016	December 31, 2015
Risk-free interest rate	0.55% - 1.31%	1.26% - 1.40%
Risk-adjusted yields	12.80% - 22.93%	35.80% - 45.93%
Stock-price volatility	45%	45%
Probability of change in control	5%	5%
Stock price	$0.73	$1.62
Credit spread	11.59% - 21.64%	34.48% - 44.55%
Estimated conversion dates	2017 - 2019	2016 - 2019

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

In June 2012, the Company entered into a loan agreement with Banco Pine S.A. (or Banco Pine) under which Banco Pine provided the Company with a loan (or the Banco Pine Bridge Loan) (see Note 5, "Debt"). At the time of the Banco Pine Bridge Loan, the Company also entered into a currency interest rate swap arrangement with Banco Pine with respect to the repayment of R$22.0 million (approximately US$6.8 million based on the exchange rate as of December 31, 2016) of the Banco Pine Bridge Loan. The swap arrangement exchanges the principal and interest payments under the Banco Pine Bridge Loan for alternative principal and interest payments that are subject to adjustment based on fluctuations in the foreign currency exchange rate between the U.S. dollar and Brazilian real. The swap has a fixed interest rate of 3.94%. Changes in the fair value of the swap are recognized in "Gain (loss) from change in fair value of derivative instruments" in the consolidated statements of operations are as follows (in thousands):

Type of Derivative Contract	Income Statement Classification	Years Ended December 31, 2016	2015	2014
		Gain (Loss) Recognized		
Currency interest rate swap	Gain (loss) from change in fair value of derivative instruments	$ 1,946	$ (3,367)	$ (480)

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

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

The Company recognized a derivative liability for the Temasek Funding Warrant of $19.4 million on July 29, 2015. On December 15, 2015, Temasek exercised the Temasek Funding Warrant for cash of $0.1 million. At the day of exercise, the Temasek Funding Warrant was valued at $18.9 million, being the fair value of the 12.7 million shares issued upon exercise of the warrant. In February and May 2016, as a result of adjustments to the conversion price of the Tranche I Notes and the Tranche II Notes (see Note 5, "Debt"), the Temasek Funding Warrant became exercisable for an additional 127,194 and 2,335,342 shares of common stock, respectively.

Derivative instruments measured at fair value as of December 31, 2016 and 2015, and their classification on the consolidated balance sheets are as follows (in thousands):

	December 31,	
	2016	2015
Non-current fair market value of swap obligation	3,343	5,009
Fair value of compound embedded derivative liabilities	4,135	46,430
Total derivative liabilities (of which $584 is a current liability)	$ 7,478	$ 51,439

4. Balance Sheet Components

Inventories, net

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

	December 31,	
	2016	2015
Raw materials	$ 3,159	$ 2,204
Work-in-process	1,848	3,583
Finished goods	1,206	5,099
Inventories, net	$ 6,213	$ 10,886

Property, Plant and Equipment, net

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

	December 31,	
	2016	2015
Leasehold improvements	$ 38,785	$ 38,519
Machinery and equipment	82,688	72,876
Computers and software	9,585	9,117
Furniture and office equipment	2,333	2,234
Buildings	4,699	3,922
Vehicles	164	215
Land	460	—
Construction in progress	2,216	5,736
	140,930	132,619
Less: accumulated depreciation and amortization	(87,195)	(72,822)
Property, plant and equipment, net	$ 53,735	$ 59,797

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

In July 2015, the Company announced that it was in discussions with São Martinho S.A. ("SMSA") regarding the continuation of its joint venture with SMSA. In December 2015, the Company and SMSA agreed to terminate the joint venture. Pursuant to the Termination Agreement, the Company is required to remove the existing assets of the joint venture, which are currently situated on land owned by SMSA (the "SMSA site"). In December 2016, due to a lack of financing for the expansion of the Brotas plant, management recognized an additional impairment of assets intended to be used for such expansion.

As a result of the above developments, the Company recorded an impairment charge of $7.3 million (included in 'Loss on purchase commitments, impairment of property, plant and equipment and other asset allowances'), related to the assets at the SMSA site of $4.2 million and the Biomin assets of $3.1 million in Brazil for the year ended December 31, 2016. The impairment is based on the estimated sales value of the remaining assets, which have a net book value of $1.9 million. If the Company's plans or estimate of the fair value of the remaining assets change, additional impairment charges may arise in future periods.

Property, plant and equipment, net includes $3.1 million and $2.7 million of machinery and equipment under capital leases as of December 31, 2016 and 2015, respectively. Accumulated amortization of assets under capital leases totaled $0.6 million and $0.5 million as of December 31, 2016 and 2015, respectively.

Depreciation and amortization expense, including amortization of assets under capital leases, was $11.4 million, $12.9 million and $15.0 million for the years ended December 31, 2016, 2015 and 2014, respectively.

Other Assets

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

	December 31,	
	2016	**2015**
Deposits on property and equipment, including taxes	$ 291	$ 243
Recoverable taxes from Brazilian government entities, net	13,723	8,887
Other	1,450	1,227
Total other assets	$ 15,464	$ 10,357

Recoverable taxes from Brazilian government entities represents value added taxes paid on purchases in Brazil, which are reclaimable from the Brazilian tax authorities, net of reserves for amounts estimated not to be recoverable.

Accrued and Other Current Liabilities

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

	December 31,	
	2016	2015
Professional services	$ 6,876	$ 4,017
Accrued vacation	2,034	2,023
Payroll and related expenses	4,310	3,122
Tax-related liabilities	2,610	2,505
Withholding tax related to conversion of related party notes	1,370	4,723
Deferred rent, current portion	1,111	1,111
Accrued interest	4,847	1,984
SMA relocation accrual	3,641	3,641
Other	2,389	1,142
Total accrued and other current liabilities	$ 29,188	$ 24,268

5. Debt and Mezzanine Equity

Debt is comprised of the following (in thousands):

	December 31,	
	2016	2015
FINEP credit facility	$ 696	$ 840
BNDES credit facility	1,172	1,956
Guanfu credit facility	19,564	—
Senior secured loan facility	27,658	31,590
Total credit facilities	49,090	34,386
Convertible notes	78,981	61,233
Related party convertible notes	42,754	42,749
Related party loan payable	29,691	—
Loans payable	26,527	13,606
Total debt	227,043	151,974
Less: current portion	(59,155)	(36,281)
Long-term debt	$ 167,888	$ 115,693
Mezzanine equity(1)	$ 5,000	$ —

(1) See Note 8, "Significant Agreements" for details regarding the Bill & Melinda Gates Foundation Investment, classified as mezzanine equity.

Senior Secured Loan Facility

In March 2014, the Company entered into a Loan and Security Agreement (or the LSA) with Hercules Technology Growth Capital, Inc. (or Hercules) to make available to Amyris a secured loan facility (or the Senior Secured Loan Facility) in the aggregate principal amount of up to $25.0 million, which loan facility was fully drawn at the closing. The initial loan of $25.0 million under the Senior Secured Loan Facility accrues interest at a rate per annum equal to the greater of either the prime rate reported in the Wall Street Journal plus 6.25% or 9.50%. The Company may repay the outstanding amounts under the Senior Secured Credit Facility before the maturity date (October 15, 2018) if it pays an additional fee of 1% of the outstanding loans. The Company was also required to pay a 1% facility charge at the closing of the Senior Secured Credit Facility, and is required to pay a 10% end of term charge with respect to the initial loan of $25.0 million. In connection with the entry into the LSA, Amyris agreed to certain customary representations and warranties and covenants, as well as certain covenants that were subsequently amended (as described below).

In June 2014, the Company and Hercules entered into a first amendment of the LSA. Pursuant to the first amendment, the parties agreed to extend the maturity date of the loans under the Senior Secured Loan Facility from May 31, 2015 to February 1, 2017 and remove (i) a requirement for the Company to pay a forbearance fee of $10.0 million in the event certain covenants were not satisfied, (ii) a covenant that the Company maintain positive cash flow commencing with the fiscal quarter beginning October 1, 2014, (iii) a covenant that, commencing with the fiscal quarter beginning July 1, 2014, the Company and its subsidiaries achieve certain projected cash product revenues and projected cash product gross profits, and (iv) an obligation for the Company to file a registration statement on Form S-3 with the SEC by no later than June 30, 2014 and complete an equity financing of more than $50.0 million by no later than September 30, 2014. The Company further agreed to include a new covenant in the LSA requiring the Company to maintain unrestricted, unencumbered cash in defined U.S. bank accounts in an amount equal to at least 50% of the principal amount of the loans then outstanding under the Senior Secured Loan Facility (or the "Minimum Cash Covenant") and borrow an additional $5.0 million. The additional $5.0 million borrowing under the Senior Secured Credit Facility was completed in June 2014, and accrues interest at a rate per annum equal to the greater of (i) the prime rate reported in the Wall Street Journal plus 5.25% and (ii) 8.5%.

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

In November 2015, the Company and Hercules entered into a third amendment of the LSA. Pursuant to the third amendment, the Company borrowed $10,960,000 (or the Third Amendment Borrowed Amount) from Hercules on November 30, 2015. As of December 1, 2015, after the funding of the Third Amendment Borrowed Amount (and including repayment of $9.1 million of principal that had occurred prior to the third amendment), the aggregate principal amount outstanding under the Senior Secured Loan Facility was approximately $31.7 million. The Third Amendment Borrowed Amount accrues interest at a rate per annum equal to the greater of (i) 9.5% and (ii) the prime rate reported in the Wall Street Journal plus 6.25%, and, like the previous loans under the Senior Secured Loan Facility, has a maturity date of October 15, 2018. Upon the earlier of the maturity date, prepayment in full or such obligations otherwise becoming due and payable, in addition to repaying the outstanding Third Amendment Borrowed Amount (and all other amounts owed under the Senior Secured Loan Facility, as amended), the Company is also required to pay an end-of-term charge of $767,200. Pursuant to the third amendment, the Company also paid Hercules fees of $1.0 million, $750,000 of which was owed in connection with the expired $15.0 million facility under the second amendment and $250,000 of which was related to the Third Amendment Borrowed Amount. Under the third amendment, the parties agreed that the Company would, commencing on December 1, 2015, be required to pay only the interest accruing on all outstanding loans under the Senior Secured Loan Facility until February 29, 2016. Commencing on March 1, 2016, the Company would have been required to begin repaying principal of all loans under the Senior Secured Loan Facility, in addition to the applicable interest. However, pursuant to the third amendment, the Company could, by achieving certain cash inflow targets in 2016, extend the interest-only period to December 1, 2016. Upon the issuance and sale by the Company of $20.0 million of unsecured promissory notes and warrants in a private placement in February 2016 for aggregate cash proceeds of $20.0 million, the Company satisfied the conditions for extending the interest-only period to May 31, 2016. On June 1, 2016, the Company commenced the repayment of outstanding principal under the Senior Secured Loan Facility. In June 2016, the Company was notified by Hercules that it had transferred and assigned its rights and obligations under the Senior Secured Loan Facility to Stegodon Corporation (Stegodon), an affiliate of Ginkgo Bioworks, Inc. (Ginkgo). On June 29, 2016, in connection with the execution by the Company and Ginkgo of an initial strategic partnership agreement, the Company received a deferment from Stegodon of all scheduled principal repayments under the Senior Secured Loan Facility, as well as a waiver of the Minimum Cash Covenant, through October 31, 2016. Refer to Note 8, “Significant Agreements” for additional details. On October 6, 2016, in connection with the execution by the Company and Ginkgo of a definitive collaboration agreement (or the Ginkgo Collaboration Agreement), the Company and Stegodon entered into a fourth amendment of the LSA, pursuant to which the parties agreed to (i) subject to the Company extending the maturity of certain of its other outstanding indebtedness (or the Extension Condition), extend the maturity date of the Senior Secured Loan Facility, (ii) make the Senior Secured Loan Facility interest-only until maturity, subject to the requirement that the Company apply certain monies received by it under the Ginkgo Collaboration Agreement to repay the amounts outstanding under the Senior Secured Loan Facility, up to a maximum amount of $1 million per month and (iii) waive the Minimum Cash Covenant until the maturity date of the Senior Secured Loan Facility. In January 2017, the Company satisfied the Extension Condition and the maturity date of the loans under the Senior Secured Credit Facility was extended to October 15, 2018. Refer to Note 16, “Subsequent Events” for additional details. In December 2016, in connection with Stegodon granting certain waivers and releases under the LSA in connection with the Company’s formation of its Neossance joint venture with Nikko, as described in more detail in Note 7, “Joint Ventures and Noncontrolling Interest”, the Company agreed to pay to Stegodon (i) a fee of $425,000 on or prior to December 31, 2017 and (ii) a fee of $450,000 on or prior to the maturity date of the loans under the Senior Secured Credit Facility. Subsequently, in January 2017 the Company and Stegodon entered into a fifth amendment of the LSA, pursuant to which the Company agreed to apply additional monies received by it under the Ginkgo Collaboration Agreement towards repayment of the outstanding loans under the Senior Secured Loan Facility, up to a maximum amount of $3 million. Refer to Note 16, “Subsequent Events” for additional details.

As of December 31, 2016, $27.7million was outstanding under the Senior Secured Loan Facility, net of discount and issuance costs of $0.9 million. The amount outstanding is classified as noncurrent debt at December 31, 2016 because the Company had the intent and ability to extend the maturity of the debt beyond December 31, 2017, as evidenced by the completion of the amendment of the debt terms in January 2017. The Senior Secured Loan Facility is collateralized by liens on the Company's assets, including on certain Company intellectual property. The Senior Secured 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, Stegodon may require immediate repayment of all amounts outstanding under the Senior Secured Loan Facility.

BNDES Credit Facility

In December 2011, the Company entered into a credit facility with the Brazilian Development Bank (or BNDES and such credit facility, the BNDES Credit Facility) in the amount of R$22.4 million (approximately US$6.9 million based on the exchange rate as of December 31, 2016). This BNDES Credit Facility was extended as project financing for a production site in Brazil. The credit line was divided into an initial tranche of up to approximately R$19.1 million and an additional tranche of approximately R$3.3 million that would become available upon delivery of additional guarantees. The credit line was cancelled in 2013.

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

The BNDES Credit Facility is collateralized by a first priority security interest in certain of the Company's equipment and other tangible assets totaling R$24.9 million (approximately US$7.7 million based on the exchange rate as of December 31, 2016). The Company is a parent guarantor for the payment of the outstanding balance under the BNDES Credit Facility. Additionally, the Company was required to provide a bank guarantee equal to 10% of the total approved amount (R$22.4 million in total debt) available under the BNDES Credit Facility. For advances of the second tranche (above R$19.1 million), the Company is required to provide additional bank guarantees equal to 90% of each such advance, plus additional Company guarantees equal to at least 130% of such advance. The BNDES Credit Facility contains customary events of default, including payment failures, failure to satisfy other obligations under this credit facility or related documents, defaults in respect of other indebtedness, bankruptcy, insolvency and inability to pay debts when due, material judgments, and changes in control of Amyris Brasil. If any event of default occurs, BNDES may terminate its commitments and declare immediately due all borrowings under the facility. As of December 31, 2016 and 2015, the Company had R$3.8 million (approximately US$1.2 million based on the exchange rate as of December 31, 2016) and R$7.6 million (approximately US$1.9 million based on the exchange rate as of December 31, 2015), respectively, in outstanding advances under the BNDES Credit Facility.

FINEP Credit Facility

In November 2010, the Company entered into a credit facility with Financiadora de Estudos e Projetos (or the FINEP Credit Facility). The FINEP Credit Facility was extended to partially fund expenses related to the Company’s research and development project on sugarcane-based biodiesel (or the FINEP Project) and provided for loans of up to an aggregate principal amount of R$6.4 million (approximately US$2.0 million based on the exchange rate as of December 31, 2016), which is secured by a chattel mortgage on certain equipment of Amyris Brasil as well as by bank letters of guarantee. All available credit under this facility is fully drawn.

Interest on loans drawn under the FINEP Credit Facility is fixed at 5% per annum. In case of default under or non-compliance with the terms of the agreement, the interest on loans will be dependent on the long-term interest rate as published by the Central Bank of Brazil (such rate, the "TJLP"). If the TJLP at the time of default is greater than 6%, then the interest will be 5% plus a TJLP adjustment factor, otherwise the interest will be 11% per annum. In addition, a fine of up to 10% shall apply to the amount of any obligation in default. Additional interest on late balances will be 1% per month, levied on the overdue amount. Payment of the outstanding loan balance is being made in 81 monthly installments, which commenced in July 2012 and extends through March 2019. Interest on loans drawn and other charges are paid on a monthly basis and commenced in March 2011. As of December 31, 2016 and December 31, 2015, the total outstanding loan balance under this credit facility was R$2.3 million (approximately US$0.7 million based on the exchange rate as of December 31, 2016) and R$3.4 million (approximately US$0.9 million based on exchange rate as of December 31, 2015), respectively.

Guanfu Credit Facility

On October 26, 2016, the Company and Guanfu Holding Co., Ltd. (or, together with its subsidiaries, Guanfu), an existing commercial partner of the Company, entered into a credit agreement (or the Guanfu Credit Agreement) to make available to the Company an unsecured credit facility (or the Guanfu Credit Facility) with an aggregate principal amount of up to $25.0 million, which the Company could borrow from time to time in up to three closings. The effectiveness of the Guanfu Credit Agreement was subject to the parties obtaining certain required approvals, which occurred on November 16, 2016, and upon the effectiveness of the Guanfu Credit Agreement, the Company granted to Guanfu the global exclusive purchase right with respect to the Company products subject to the parties' pre-existing commercial relationship. The initial funding of the Guanfu Credit Facility was scheduled to occur on December 1, 2016, subject to Guanfu's right to extend such initial funding to a date no later than December 31, 2016. Guanfu exercised its right to extend the initial funding to December 31, 2016, and on such date the Company borrowed the full amount under the Guanfu Credit Facility and issued to Guanfu a note in the principal amount of $25.0 million (or the Guanfu Note). The Guanfu Note has a term of five years and will accrue interest at a rate of 10% per annum, payable quarterly beginning March 31, 2017. The Company may, at its option, repay the Guanfu Note before its maturity date, in whole or in part, at a price equal to 100% of the amount being repaid plus accrued and unpaid interest on such amount to the date of repayment.

Upon the occurrence of certain specified events of default under the Guanfu Credit Facility, the Company will grant to Guanfu an exclusive, royalty-free, global license to certain intellectual property useful in connection with Guanfu's existing commercial relationship with the Company. In addition, in the event the Company fails to pay interest or principal under the Guanfu Note within ten days of when due, the Company will also be required, subject to applicable laws and regulations, to repay the outstanding principal amount under the Guanfu Note, together with accrued and unpaid interest, in the form of shares of the Company's common stock at a per share price equal to 90% of the volume weighted average closing sale price of the Company's common stock for the 90 trading days ending on and including the trading day that is two trading days preceding such default.

Convertible Notes

Fidelity

In February 2012, the Company completed the sale of senior unsecured convertible promissory notes in an aggregate principal amount of $25.0 million pursuant to a securities purchase agreement between the Company and certain investment funds affiliated with FMR LLC (or the Fidelity Securities Purchase Agreement). The offering consisted of the sale of 3% senior unsecured convertible promissory notes with a March 1, 2017 maturity date and an initial conversion price equal to $7.0682 per share of the Company's common stock, subject to proportional adjustment for adjustments to outstanding common stock and anti-dilution provisions in case of dividends and distributions (or the Fidelity Notes). In October 2015, the Company issued and sold $57.6 million of convertible senior notes and used approximately $8.8 million of the proceeds therefrom to repurchase $9.7 million aggregate principal amount of outstanding Fidelity Notes. As of December 31, 2016, the Fidelity Notes were convertible into an aggregate of up to 2,165,898 shares of the Company's common stock. The holders of the Fidelity Notes have a right to require repayment of 101% of the principal amount of the Fidelity Notes in an acquisition of the Company, and the Fidelity Notes provide for payment of unpaid interest on conversion following such an acquisition if the note holders do not require such repayment. The Fidelity Securities Purchase Agreement and Fidelity Notes include covenants regarding payment of interest, maintaining the Company's listing status, limitations on debt, maintenance of corporate existence, and timely filing of SEC reports. The Fidelity Notes include standard events of default resulting in acceleration of indebtedness, including failure to pay, bankruptcy and insolvency, cross-defaults and breaches of the covenants in the Fidelity Securities Purchase Agreement and Fidelity Notes, with default interest rates and associated cure periods applicable to the covenant regarding SEC reporting. Furthermore, the Fidelity Notes include restrictions on the amount of debt the Company is permitted to incur. With exceptions for certain existing debt, refinancing of such debt and certain other exclusions and waivers, the Fidelity Notes provide that the Company's total outstanding debt at any time cannot exceed the greater of $200.0 million or 50% of its consolidated total assets and its secured debt cannot exceed the greater of $125.0 million or 30% of its consolidated total assets. In connection with the Company's closing of a short-term bridge loan for $35.0 million in October 2013 (or the Temasek Bridge Note), holders of the Fidelity Notes waived compliance with the debt limitations outlined above as to the Temasek Bridge Note and the August 2013 Financing (as defined below). In consideration for such waiver, the Company granted to holders of the Fidelity Notes or their affiliates the right to purchase up to an aggregate of $7.6 million worth of convertible promissory notes in the first tranche of the August 2013 Financing (as defined below). See "Related Party Convertible Notes" in this Note 5, "Debt" for additional details. On December 28, 2016, Company entered into an Exchange Agreement (or the Fidelity Exchange Agreement) with the holders of the outstanding Fidelity Notes. Pursuant to the Fidelity Exchange Agreement, the Company and the holders agreed to exchange (or the Fidelity Exchange) all outstanding Fidelity Notes, together with accrued and unpaid interest thereon, for approximately $19.1 million in aggregate principal amount of additional 2015 144A Notes (as defined below), representing an exchange ratio of approximately 1:1.25 (*i.e.*, each $1.00 of Fidelity Notes would be exchanged for approximately $1.25 of additional 2015 144A Notes), in a private placement exempt from registration under the Securities Act of 1933, as amended (or the Securities Act). In January 2017, we closed the Fidelity Exchange, as described in more detail in Note 16, "Subsequent Events". The amount outstanding at December 31, 2016 is classified as noncurrent debt at December 31, 2016 because the Company had the intent and ability to extend the maturity of the debt beyond December 31, 2017, as evidenced by the completion of the Fidelity Exchange in January 2017.

2014 Rule 144A Convertible Note Offering

In May 2014, the Company entered into a Purchase Agreement with Morgan Stanley & Co. LLC, as the initial purchaser (or the Initial Purchaser), relating to the sale of $75.0 million aggregate in principal amount of 6.50% Convertible Senior Notes due 2019 (or the 2014 144A Notes) to the Initial Purchaser in a private placement, and for initial resale by the Initial Purchaser to certain qualified institutional buyers (or the 2014 144A Convertible Note Offering). In addition, the Company granted the Initial Purchaser an option to purchase up to an additional $15.0 million aggregate principal amount of 2014 144A Notes, which option expired unexercised according to its terms. Under the terms of the purchase agreement for the 2014 144A Notes, the Company agreed to customary indemnification of the Initial Purchaser against certain liabilities. The Notes were issued pursuant to an Indenture, dated as of May 29, 2014 (or the 2014 Indenture), between the Company and Wells Fargo Bank, National Association, as trustee. The net proceeds from the offering of the 2014 144A Notes were approximately $72.0 million after payment of the Initial Purchaser's discounts and offering expenses. In addition, in connection with obtaining a waiver from Total of its preexisting contractual right to exchange certain senior secured convertible notes previously issued by the Company for new notes issued in the 2014 144A Convertible Note Offering, the Company used approximately $9.7 million of the net proceeds to repay previously issued notes (representing the amount of 2014 144A Notes purchased by Total from the Initial Purchaser). Certain of the Company's affiliated entities purchased $24.7 million in aggregate principal amount of 2014 144A Notes from the Initial Purchaser (described further below under "Related Party Convertible Notes"). In October 2015, as discussed below, the Company issued $57.6 million of convertible senior notes and used approximately $18.3 million of the net proceeds therefrom to repurchase $22.9 million aggregate principal amount of outstanding 2014 144A Notes. The 2014 144A Notes bear interest at a rate of 6.50% per year, payable semiannually in arrears on May 15 and November 15 of each year, beginning November 15, 2014. The 2014 144A Notes mature on May 15, 2019, unless earlier converted or repurchased. The 2014 144A Notes are convertible into shares of the Company's common stock at any time prior to the close of business on the business day immediately preceding the maturity date of the 2014 144A Notes, at the initial conversion rate of 267.037 shares of Common Stock per $1,000 principal amount of 2014 144A Notes (subject to adjustment in certain circumstances). This represents an 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 then-applicable conversion price per share on each such trading day, the holders, in addition to the shares deliverable upon conversion, noteholders will be entitled to receive a cash payment equal to the present value of the remaining scheduled payments of interest that would have been made on the 2014 144A Notes being converted from the conversion date to the earlier of the date that is three years after the date the Company receives such notice of conversion and maturity (May 15, 2019), which will be computed using a discount rate of 0.75%. In the event of a fundamental change, as defined in the 2014 Indenture, holders of the 2014 144A Notes may require the Company to purchase all or a portion of the 2014 144A Notes at a price equal to 100% of the principal amount of the 2014 144A Notes, plus any accrued and unpaid interest to, but excluding, the fundamental change repurchase date. In addition, holders of the 2014 144A Notes who convert their 2014 144A Notes in connection with a make-whole fundamental change will, under certain circumstances, be entitled to an increase in the conversion rate of such notes. Refer to the "Exchange" and "Maturity Treatment Agreement" sections of this Note 5, "Debt", for details of the impact of the Maturity Treatment and Exchange Agreements on the 2014 144A Notes.

2015 Rule 144A Convertible Note Offering

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

The 2015 144A Notes are convertible into shares of the Company's common stock at any time prior to the close of business on April 15, 2019. The 2015 144A Notes had an initial conversion rate of 443.6557 shares of Common Stock per $1,000 principal amount of 2015 144A Notes (subject to adjustment in certain circumstances). This represented an initial effective conversion price of approximately $2.25 per share of common stock. Following the issuance by the Company of warrants to purchase common stock in a private placement transaction in February 2016 and the issuance by the Company of convertible notes in May and September 2016, as described below, the conversion rate of the 2015 144A Notes was 446.6719 shares of Common Stock per $1,000 principal amount of 2015 144A Notes as of December 31, 2016. Furthermore, following the issuance by the Company of additional convertible notes in October 2016, the conversion rate of the 2015 144A Notes is 446.8707 shares of Common Stock per $1,000 principal amount of 2015 144A Notes as of the date hereof, representing an effective conversion price of approximately $2.24 per share of common stock. For any conversion on or after November 27, 2015, in addition to the shares deliverable upon conversion, noteholders will be entitled to receive a payment equal to the present value of the remaining scheduled payments of interest that would have been made on the 2015 144A Notes being converted from the conversion date to the earlier of the date that is three years after the date the Company receives such notice of conversion and maturity (April 15, 2019), which will be computed using a discount rate of 0.75%. The Company may make such payment (the “Early Conversion Payment”) either in cash or in common stock, at its election, provided that it may only make such payment in common stock if such common stock is not subject to restrictions on transfer under the Securities Act by persons other than the Company’s affiliates. If the Company elects to pay an Early Conversion Payment in common stock, then the stock will be valued at 92.5% of the simple average of the daily volume-weighted average price per share for the 10 trading days ending on and including the trading day immediately preceding the conversion date. Through December 31, 2016, the Company has elected to make each Early Conversion Payment in shares of common stock. In the event of a fundamental change, as defined in the 2015 Indenture, holders of the 2015 144A Notes may require the Company to purchase all or a portion of the 2015 144A Notes at a price equal to 100% of the principal amount of the 2015 144A Notes, plus any accrued and unpaid interest to, but excluding, the fundamental change repurchase date. In addition, holders of the 2015 144A Notes who convert their 2015 144A Notes in connection with a make-whole fundamental change will, under certain circumstances, be entitled to an increase in the conversion rate. The issuance of shares of common stock upon conversion of the 2015 144A Notes, upon the Company’s election to pay interest on the 2015 144A Notes in shares of common stock and upon the Company’s election to pay the Early Conversion Payment in shares of common stock in an aggregate amount in excess of 38,415,626 shares of the Company’s common stock was subject to stockholder approval, which was obtained on May 17, 2016. With exceptions for certain existing debt, refinancing of such debt and certain other exclusions and waivers, the 2015 144A Notes provide that, as long as the aggregate outstanding principal amount of the 2015 144A Notes exceeds $25.0 million, the Company's outstanding unsecured debt at any time cannot exceed $200.0 million and its secured debt cannot exceed the greater of $65.0 million or 30% of its consolidated total assets. In January 2017, the Company issued an additional $19.1 million in aggregate principal amount of 2015 144A Notes in exchange for the cancellation of $15.3 million in aggregate principal amount of outstanding Fidelity Notes, as described in more detail in Note 16, “Subsequent Events”.

May 2016 Convertible Note Offering

In May 2016, the Company entered into a securities purchase agreement (or the May 2016 Purchase Agreement) between the Company and a private investor relating to the sale of up to $15.0 million aggregate principal amount of convertible notes (or the May 2016 Convertible Notes) that are convertible into shares of the Company's common stock at an initial conversion price of $1.90 per share. The conversion price will be subject to adjustment in the event of any stock split, reverse stock split, recapitalization, reorganization or similar transaction. The May 2016 Purchase Agreement includes customary representations, warranties and covenants by the Company. The May 2016 Purchase Agreement also provides the purchaser with a right of first refusal with respect to any variable rate transaction on the same terms and conditions as are offered to a third-party purchaser for as long as the purchaser holds any May 2016 Convertible Notes or shares of the Company's common stock underlying the May 2016 Convertible Notes.

Pursuant to the May 2016 Purchase Agreement, the May 2016 Convertible Notes were to be issued and sold in two separate closings. The initial closing occurred on May 10, 2016. At the initial closing, the Company issued and sold a May 2016 Convertible Note in a principal amount of $10.0 million to the purchaser, resulting in net proceeds to the Company of approximately $9.9 million. The second closing was to occur on the first trading day following the completion of the first three installment periods under the May 2016 Convertible Notes and the satisfaction or waiver of certain other closing conditions, including certain equity conditions, such as that no Triggering Event (as defined below) had occurred. At the second closing, the Company was to issue and sell a May 2016 Convertible Note in a principal amount of $5.0 million to the purchaser, resulting in expected net proceeds to the Company of approximately $5.0 million. On September 2, 2016, in connection with the Company and the purchaser waiving certain conditions to the second closing under the May 2016 Purchase Agreement, the Company issued and sold an additional May 2016 Convertible Note in the principal amount of $3.0 million to the purchaser, for proceeds to the Company of approximately $3.0 million, and granted the purchaser the option to purchase a further May 2016 Convertible Note in the principal amount of $2.0 million (or the Remaining May 2016 Note), representing the remaining May 2016 Convertible Notes provided for in the May 2016 Purchase Agreement, on or before December 31, 2016. On October 13, 2016, the Company issued and sold the Remaining May 2016 Note to the purchaser for proceeds to the Company of $2.0 million.

The May 2016 Convertible Notes are general unsecured obligations of the Company. Unless earlier converted or redeemed, the May 2016 Convertible Notes will mature on the 18-month anniversary of their respective issuance, subject to the rights of the holders to extend the maturity date in certain circumstances.

The May 2016 Convertible Notes are payable in monthly installments, in either cash at 118% of such installment amount or, at the Company's option, subject to the satisfaction of certain equity conditions, shares of common stock at a discount to the then-current market price, subject to a price floor. In addition, in the event that the Company elects to pay all or any portion of a monthly installment in common stock, the holders of the May 2016 Convertible Notes shall have the right to require that the Company repay in common stock an additional amount of the May 2016 Convertible Notes not to exceed 50% of the cumulative sum of the aggregate amounts by which the dollar-weighted trading volume of the Company's common stock for all trading days during the applicable installment period exceeds $200,000. The Company elected to make the May, June, July, August, September and October 2016 installment payments on the May 2016 Convertible Notes in shares of common stock. As of October 31, 2016, all May 2016 Convertible Notes had been repaid in full.

The May 2016 Convertible Notes contain customary terms and covenants, including certain events of default, including failure to pay amounts due, breaches of warranties, material adverse effect events, certain cross defaults and judgments, and insolvency, after which the holders may require the Company to redeem all or any portion of their May 2016 Convertible Notes in cash at a price equal to the greater of (i) 118% of the amount being redeemed and (ii) the intrinsic value of the shares of common stock issuable upon an installment payment of the amount being redeemed in shares.

In the event of a Fundamental Transaction (as defined in the May 2016 Convertible Notes), holders of the May 2016 Convertible Notes may require the Company to redeem all or any portion of their May 2016 Convertible Notes at a price equal to the greater of (i) 118% of the amount being redeemed and (ii) the intrinsic value of the shares of common stock issuable upon an installment payment of the amount being redeemed in shares.

The Company has the right to redeem the May 2016 Convertible Notes for cash, in whole, at any time, or in part, from time to time, at a redemption price equal to 118% of the principal amount of the May 2016 Convertible Notes being redeemed. In addition, if the volume-weighted average price of the Company's common stock is (i) less than $1.00 for 30 consecutive trading days or (ii) less than $0.50 for five consecutive trading days (each, a "Triggering Event") within four months of the issuance of any 2016 Convertible Notes, the Company will have the option to redeem such May 2016 Convertible Notes in whole for cash at a redemption price equal to 112% of the principal amount of such May 2016 Convertible Notes.

Notwithstanding the foregoing, the holders will not have the right to convert any portion of a May 2016 Convertible Note, and the Company may not issue shares of common stock upon conversion or repayment of the May 2016 Convertible Notes, if (a) the holder, together with its affiliates, would beneficially own in excess of 4.99% (or such other percentage as determined by the holder and notified to the Company in writing, not to exceed 9.99%, provided that any increase of such percentage will not be effective until 61 days after notice thereof) of the number of shares of the Company's common stock outstanding immediately after giving effect to such conversion or payment, as applicable, or (b) the aggregate number of shares issued with respect to the May 2016 Convertible Notes after giving effect to such conversion or payment, as applicable, would exceed 19.99% of the number of shares of the Company's common stock outstanding as of May 10, 2016. In the event that the Company is prohibited from issuing any shares of common stock in respect of the May 2016 Convertible Notes as a result of such limits, the Company will pay cash in lieu of any shares that would otherwise be deliverable in excess thereof.

For as long as they hold the May 2016 Convertible Notes or shares of common stock issued under the May 2016 Convertible Notes, the holders may not sell any shares of the Company's common stock at a price less than $1.05 per share; provided, that with respect to any shares of common stock issued under the May 2016 Convertible Notes at a price less than $1.00, the holders may sell such shares at a price not less than the price floor applicable to the installment period with respect to which such shares were issued.

December 2016 Convertible Note Offering

On December 1, 2016, the Company entered into a securities purchase agreement (or the December 2016 Purchase Agreement) with a private investor relating to the sale of a convertible note in the original principal amount $10.0 million (or the December 2016 Convertible Note) that is convertible into shares of the Company's common stock at an initial conversion price of $1.90 per share. The conversion price will be subject to adjustment in the event of any stock split, reverse stock split, recapitalization, reorganization or similar transaction. The December 2016 Purchase Agreement includes customary representations, warranties and covenants by the Company. The Purchase Agreement also provides the purchaser with a right of first refusal with respect to any variable rate transaction, subject to certain exceptions, on the same terms and conditions as are offered to a third-party purchaser for as long as the purchaser holds the December 2016 Convertible Note or shares of common stock underlying the December 2016 Convertible Note.

The December 2016 Convertible Note was issued on December 2, 2016, resulting in net proceeds to the Company of approximately $9.9 million.

The December 2016 Convertible Note is a general unsecured obligation of the Company. Unless earlier converted or redeemed, the December 2016 Convertible Note will mature on May 1, 2018, subject to the rights of the holder to extend the maturity date in certain circumstances.

The December 2016 Convertible Note is payable in monthly installments, beginning January 1, 2017, in either cash at 118% of such installment amount or, at the Company's option, subject to the satisfaction of certain equity conditions, shares of common stock at a discount to the then-current market price, subject to a price floor. In addition, between December 1, 2016 and December 31, 2016, or in the event that the Company elects to pay all or any portion of a monthly installment in common stock, the holder of the December 2016 Convertible Note shall have the right to require that the Company repay in common stock an additional amount of the December 2016 Convertible Note not to exceed 50% of the cumulative sum of the aggregate amounts by which the dollar-weighted trading volume of the Company's common stock for all trading days during the applicable period exceeds $200,000.

The December 2016 Convertible Note contains customary terms and covenants, including certain events of default, including failure to pay amounts due, breaches of warranties, material adverse effect events, certain cross defaults and judgments, and insolvency, after which the holders may require the Company to redeem all or any portion of their December 2016 Convertible Note in cash at a price equal to the greater of (i) 118% of the amount being redeemed and (ii) the intrinsic value of the shares of common stock issuable upon an installment payment of the amount being redeemed in shares.

In the event of a Fundamental Transaction (as defined in the December 2016 Convertible Note), the holder of the December 2016 Convertible Note may require the Company to purchase all or any portion of its December 2016 Convertible Note at a price equal to the greater of (i) 118% of the amount being redeemed and (ii) the intrinsic value of the shares of Common Stock issuable upon an installment payment of the amount being redeemed in shares.

The Company has the right to redeem the December 2016 Convertible Note for cash, in whole, at any time, or in part, from time to time, at a redemption price equal to 118% of the principal amount of the December 2016 Convertible Note to be redeemed.

Notwithstanding the foregoing, the holder will not have the right to convert any portion of the December 2016 Convertible Note, and the Company will not have the option to pay any amount in shares of common stock, if (a) the holder, together with its affiliates, would beneficially own in excess of 4.99% (or such other percentage as determined by the holder and notified to the Company in writing, not to exceed 9.99%, provided that any increase of such percentage will not be effective until 61 days after notice thereof) of the number of shares of the Company's common stock outstanding immediately after giving effect to such conversion or payment, as applicable, or (b) the aggregate number of shares issued with respect to the December 2016 Convertible Note (and any other transaction aggregated for such purpose) after giving effect to such conversion or payment, as applicable, would exceed 19.99% of the number of shares of the Company's common stock outstanding as of December 1, 2016. In the event that the Company is prohibited from issuing any shares of common stock in respect of the December 2016 Convertible Note as a result of such limits, the Company will pay cash in lieu of any shares that would otherwise be deliverable in excess thereof.

For as long as it holds the December 2016 Convertible Note or shares of common stock issued under the December 2016 Convertible Note, the holder may not sell any shares of the Company's common stock at a price less than $1.05 per share; provided, that with respect to any shares of common stock issued under the December 2016 Convertible Note at a price less than $1.00, the holder may sell such shares at a price not less than the price floor applicable to the period with respect to which such shares were issued. The embedded derivative features in this instrument are separately accounted for and the fair value of such features was not material at issuance of the instrument and at December 31, 2016.

Related Party Convertible Notes

Total R&D Convertible Notes

In July 2012 and December 2013, the Company entered into a series of agreements (or the Total Fuel Agreements) with Total Energies Nouvelles Activités USA (formerly known as Total Gas & Power USA, SAS, and referred to as Total) to establish a research and development program (or the Program) and form a joint venture (or the Fuels JV) with Total to produce and commercialize farnesene- or farnesane-based diesel and jet fuels, and established a convertible debt structure for the collaboration funding from Total.

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

- As part of an initial closing under the purchase agreement (which was completed in two installments), (i) on July 30, 2012, the Company sold an Unsecured R&D Note with a principal amount of $38.3 million, including $15.0 million in new funds and $23.3 million in previously-provided diesel research and development funding by Total, and (ii) on September 14, 2012, the Company sold another Unsecured R&D Note for $15.0 million in new funds from Total. These Unsecured R&D Notes had an initial conversion price of $7.0682 per share.

- At a second closing under the Total Purchase Agreement (also completed in two installments) the Company sold additional Unsecured R&D Notes for an aggregate of $30.0 million in new funds from Total ($10.0 million in June 2013 and $20.0 million in July 2013). These Unsecured R&D Notes had an initial conversion price of $3.08 per share, as described below.

- At a third closing under the Total Purchase Agreement (also completed in two installments) the Company sold additional Unsecured R&D Notes for an aggregate of $21.7 million in new funds from Total ($10.85 million in July 2014 and $10.85 million in January 2015). These Unsecured R&D Notes had an initial conversion price of $4.11 per share, as described below.

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

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

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

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

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

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

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

In April 2014, the Company and Total entered into a letter agreement dated as of March 29, 2014 (or the March 2014 Total Letter Agreement) to amend the Amended and Restated Master Framework Agreement entered into as of December 2, 2013 (included as part of JV Documents) and the Total Purchase Agreement. Under the March 2014 Total Letter Agreement, the Company agreed to (i) amend the conversion price of the Secured R&D Notes to be issued in the third closing under the Total Purchase Agreement from $7.0682 per share to $4.11 per share subject to stockholder approval at the Company's 2014 annual meeting (which was obtained in May 2014), (ii) extend the period during which Total may exchange for other Company securities Secured R&D Notes issued under the Total Fuel Agreements from June 30, 2014 to the later of December 31, 2014 and the date on which the Company shall have raised $75.0 million of equity and/or convertible debt financing (excluding any convertible promissory notes issued pursuant to the Total Purchase Agreement), (iii) eliminate the Company's ability to qualify, in a disclosure letter to Total, certain of the representations and warranties that the Company must make at the closing of any third closing sale, and (iv) beginning on March 31, 2014, provide Total with monthly reporting on the Company's cash, cash equivalents and short-term investments. In consideration of these agreements, Total agreed to waive its right not to consummate the third closing under the Total Purchase Agreement if it had decided not to proceed with the collaboration and had made a "No-Go" decision with respect thereto.

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

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

In July 2015, Total exchanged all but $5.0 million of Secured R&D Notes then held by Total, such cancelled notes having an aggregate principal amount of $70 million, in exchange for approximately 30.4 million shares of the Company's common stock in connection with the Exchange. Refer to the "Exchange" section of this Note 5, "Debt", for additional details of the impact of the Exchange on the R&D Notes.

In March 2016, in connection with the restructuring of TAB (see Note 7, "Joint Ventures and Noncontrolling Interest"), the Company sold to Total one half of the Company's ownership stake in TAB (giving Total an aggregate ownership stake of 75% of TAB and giving the Company an aggregate ownership stake of 25% of TAB) in exchange for Total cancelling (i) approximately $1.3 million of Secured R&D Notes, plus all paid-in-kind and accrued interest under all outstanding Secured R&D Notes ($2.8 million, including all such interest that was outstanding as of July 29, 2015) and (ii) a note in the principal amount of Euro 50,000, plus accrued interest, issued to Total in connection with the original capitalization of TAB. To satisfy its purchase obligation above, Total surrendered to the Company the remaining Secured R&D Note of approximately $5.0 million in principal amount, and the Company executed and delivered to Total a new Unsecured R&D Note in the principal amount of $3.7 million. The disposal of the 25% ownership stake in the Fuels JV resulted in a gain to the Company of $4.2 million, which was recognized as a capital contribution from Total within equity.

As of December 31, 2016 and December 31, 2015, $3.7 million and $5.0 million, respectively, of R&D Notes were outstanding. As of December 31, 2016, the outstanding R&D Notes had a maturity date of March 1, 2017 and a conversion price equal to $3.08 per share, subject to certain adjustments as described below. In February 2017, the Company and Total agreed to extend the maturity of the outstanding R&D Notes from March 1, 2017 to May 15, 2017. See Note 16, "Subsequent Events" for additional details. The R&D Notes bear interest of 1.5% per annum (with a default rate of 2.5%), accruing from the date of issuance and payable at maturity or on conversion or a change of control where Total exercises the right to require the Company to repay the notes, as described below.

The R&D Notes become convertible into the Company's common stock (i) within 10 trading days prior to maturity, (ii) on a change of control of the Company, and (iii) on a default by the Company. The conversion price of the R&D Notes are subject to adjustment for proportional adjustments to outstanding common stock and under anti-dilution provisions in case of certain dividends and distributions. Total has a right to require repayment of 101% of the principal amount of the R&D Notes in the event of a change of control of the Company and the R&D Notes provide for payment of unpaid future interest through the maturity date on conversion following such a change of control, subject to a cap, if Total does not require such repayment. The Total Purchase Agreement and R&D Notes include covenants regarding payment of interest, maintenance of the Company's listing status, limitations on debt, maintenance of corporate existence, and filing of SEC reports. The R&D Notes include standard events of default resulting in acceleration of indebtedness, including failure to pay, bankruptcy and insolvency, cross-defaults, and breaches of the covenants in the Total Purchase Agreement and R&D Notes, with added default interest rates and associated cure periods applicable to the covenant regarding SEC reporting. Furthermore, with exceptions for certain existing debt, refinancing of such debt and certain other exclusions and waivers, the R&D Notes provide that the Company's total outstanding debt at any time may not exceed the greater of $200.0 million or 50% of its consolidated total assets and its secured debt may not exceed the greater of $125.0 million or 30% of its consolidated total assets.

August 2013 Financing Convertible Notes and Temasek Bridge Note

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

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

In October 2013, the Company amended the August 2013 SPA to include the investment by the Fidelity Entities in the first tranche of the August 2013 Financing of $7.6 million, and to proportionally increase the amount of first tranche notes acquired by exchange and cancellation of outstanding R&D Notes held by Total in connection with its exercise of pro rata rights up to $9.2 million in the first tranche. Also in October 2013, the Company completed the closing of the first tranche of senior convertible notes provided for in the August 2013 Financing (or the Tranche I Notes), issuing a total of $51.8 million in Tranche I Notes for cash proceeds of $7.6 million and exchange and cancellation of outstanding convertible promissory notes of $44.2 million, of which $35.0 million resulted from the exchange and cancellation of the Temasek Bridge Note and the remaining $9.2 million from the exchange and cancellation of an outstanding R&D Note held by Total. As a result of the exchange and cancellation of the $35.0 million Temasek Bridge Note and the $9.2 million R&D Note held by Total for the Tranche I Notes, the Company recorded a loss from extinguishment of debt of $19.9 million. The Tranche I Notes are due sixty months from the date of issuance and were initially convertible into the Company's common stock at a conversion price equal to $2.44 per share, which represents a 15% discount to the trailing 60-day weighted-average closing price of the common stock on The NASDAQ Stock Market (or NASDAQ) through August 7, 2013, subject to certain adjustments as described below. The Tranche I Notes are convertible at the option of the holder: (i) at any time after 18 months from the date of the August 2013 SPA, (ii) on a change of control of the Company and (iii) upon the occurrence of an event of default. Each Tranche I Note accrues interest from the date of issuance until the earlier of the date that such Tranche I Note is converted into the Company's common stock or is repaid in full. Interest accrues on the Tranche I Notes at a rate of 5% per six months, compounded semiannually (with graduated interest rates of 6.5% applicable to the first 180 days and 8% applicable thereafter as the sole remedy should the Company fail to maintain NASDAQ listing status or of 6.5% for all other defaults). Interest for the first 30 months is payable in kind and added to the principal every six months and thereafter, the Company may continue to pay interest in kind by adding to the principal every six months or may elect to pay interest in cash. Through December 31, 2016, the Company has elected to pay interest on the Tranche I Notes in kind. The Tranche I Notes may be prepaid by the Company on the 30-month anniversary of the issuance date, and thereafter every six months at the date of payment of the semi-annual coupon.

In December 2013, the Company further amended the August 2013 SPA to sell $3.0 million of senior convertible notes under the second tranche of the August 2013 Financing (or the Tranche II Notes) to funds affiliated with Wolverine Asset Management, LLC (or Wolverine) and the Company elected to call $25.0 million in additional funds from Temasek pursuant to its previous commitment to purchase such amount of Tranche II Notes. In January 2014, the Company sold and issued, for face value, approximately $34.0 million of Tranche II Notes in the second tranche of the August 2013 Financing. At the closing, Temasek purchased $25.0 million of the Tranche II Notes and funds affiliated with Wolverine purchased $3.0 million of the Tranche II Notes, each for cash. Total purchased approximately $6.0 million of the Tranche II Notes through exchange and cancellation of the same amount of principal of previously outstanding R&D Notes held by Total. As a result of the exchange and cancellation of the $6.0 million R&D Note held by Total for the Tranche II Notes, the Company recorded a loss from extinguishment of debt of $9.4 million. The Tranche II Notes will be due sixty months from the date of issuance and were initially convertible into shares of common stock at a conversion price equal to $2.87 per share, which represents the trailing 60-day weighted-average closing price of the common stock on NASDAQ through August 7, 2013, subject to certain adjustments as described below. The Tranche II Notes are convertible at the option of the holder (i) at any time after the 12 month anniversary of the issue date, (ii) on a change of control of the Company and (iii) upon the occurrence of an event of default. Each Tranche II Note will accrue interest from the date of issuance until the earlier of the date that such Tranche II Note is converted into common stock or repaid in full. Interest will accrue on the Tranche II Notes at a rate per annum equal to 10%, compounded annually (with graduated interest rates of 13% applicable to the first 180 days and 16% applicable thereafter as the sole remedy should the Company fail to maintain NASDAQ listing status or of 12% for all other defaults). Interest for the first 36 months shall be payable in kind and added to principal every year following the issue date and thereafter, the Company may continue to pay interest in kind by adding to the principal on every year anniversary of the issue date or may elect to pay interest in cash.

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

In July 2015, Temasek exchanged all of the Tranche I and Tranche II Notes then held by Temasek, such notes having an aggregate principal amount of approximately $71.0 million, in exchange for approximately 30.86 million shares of the Company's common stock in connection with the Exchange. Refer to the "Exchange" section of this Note 5, "Debt", for additional details of the impact of the Exchange on the Tranche I Notes and Tranche II Notes.

The conversion price of the Tranche I Notes and Tranche II Notes was reduced to $1.42 per share upon the completion of a private placement of common stock and warrants to purchase common stock in July 2015, as described below. Following the issuance by the Company of warrants to purchase common stock in a private placement transaction in February 2016, as described below, the conversion price of the Tranche I Notes and Tranche II Notes was further adjusted to $1.40 per share, and following the sale by the Company of shares of common stock to the Bill & Melinda Gates Foundation in May 2016, as described below, the conversion price of the Tranche I Notes and Tranche II Notes was further adjusted to $1.14 per share.

As of December 31, 2016 and December 31, 2015, the related party convertible notes outstanding under the Tranche I Notes and Tranche II Notes were $21.8 million and $23.3 million, respectively, net of debt discount of $0.0 million and $0.0 million, respectively. Refer to the "Exchange" and "Maturity Treatment Agreement" sections of this Note 5, "Debt", for details of the impact of the Maturity Treatment and Exchange Agreements on the Tranche I and Tranche II Notes.

2014 144A Notes Sold to Related Parties

As of December 31, 2016 and December 31, 2015, the related party convertible notes outstanding under the 2014 144A Offering were $17.3 million and $14.6 million, respectively, net of discount and issuance costs of $7.4 million and $10.1 million, respectively.

As of December 31, 2016 and December 31, 2015, the total related party convertible notes outstanding were $42.8 million and $42.8 million, respectively, net of discount and issuance costs of $5.4 million and $4.9 million, respectively.

Loans Payable

In July 2012, the Company entered into a Note of Bank Credit and a Fiduciary Conveyance of Movable Goods Agreement (together, the July 2012 Bank Agreements) with each of Nossa Caixa Desenvolvimento (or Nossa Caixa) and Banco Pine S.A. (or Banco Pine). Under the July 2012 Bank Agreements, the Company pledged certain farnesene production assets as collateral for the loans of R$52.0 million. The Company's total acquisition cost for such pledged assets was approximately R$68.0 million (approximately US$20.9 million based on the exchange rate as of December 31, 2016). The Company is also a parent guarantor for the payment of the outstanding balance under these loan agreements. Under the July 2012 Bank Agreements, the Company could borrow an aggregate of R$52.0 million (approximately US$16.0 million based on the exchange rate as of December 31, 2016) as financing for capital expenditures relating to the Company's manufacturing facility located in Brotas, Brazil. Specifically, Banco Pine, agreed to lend R$22.0 million and Nossa Caixa agreed to lend R$30.0 million. The funds for the loans are provided by BNDES, but are guaranteed by the lenders. The loans have a final maturity date of July 15, 2022 and bear a fixed interest rate of 5.5% per year. The loans are also subject to early maturity and delinquency charges upon occurrence of certain events including interruption of manufacturing activities at the Company's manufacturing facility in Brotas, Brazil for more than 30 days, except during the sugarcane off-season. For the first two years that the loans are outstanding, the Company is required to pay interest only on a quarterly basis. Since August 15, 2014, the Company has been required to pay equal monthly installments of both principal and interest for the remainder of the term of the loans. As of December 31, 2016 and December 31, 2015, a principal amount of R$36.3 million (approximately US$11.1 million based on the exchange rate as of December 31, 2016) and R$43.0 million (approximately US$11.0 million based on the exchange rate as of December 30, 2015), respectively, was outstanding under these loan agreements.

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

Exchange (Debt Conversion - Related Party Transaction)

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

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

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

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

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

Additionally, under the Exchange Agreement, Temasek received the following warrants at the closing of the Exchange:

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

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

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

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

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

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

As of December 31, 2016, the Total Funding Warrant, the Temasek Exchange Warrant, and the 2013 Warrant had been fully exercised and Temasek had exercised the Temasek Funding Warrant with respect to 12,700,244 shares of common stock. Neither the Total R&D Warrant nor the Temasek R&D Warrant were exercisable as of December 31, 2016. See Note 16, "Subsequent Events" for additional details regarding the Total R&D Warrant and Temasek R&D Warrant. Warrants to purchase 2,462,536 shares of common stock under the Temasek Funding Warrant were unexercised as of December 31, 2016.

Maturity Treatment Agreement - Related Party Transaction

At the closing of the Exchange, the Company, Total and Temasek also entered into a Maturity Treatment Agreement, dated as of July 29, 2015, pursuant to which Total and Temasek agreed to convert any Tranche I Notes, Tranche II Notes or 2014 144A Notes held by them that were not cancelled in the Exchange (or the Remaining Notes) into shares of the Company's common stock in accordance with the terms of such Remaining Notes upon maturity, provided that certain events of default had not occurred with respect to the applicable Remaining Notes prior to such maturity. As of immediately following the closing of the Exchange, Temasek held $10.0 million in aggregate principal amount of Remaining Notes (consisting of 2014 144A Notes) and Total held approximately $27.0 million in aggregate principal amount of Remaining Notes (consisting of $9.7 million of 2014 144A Notes and $15.3 million of Tranche I and II Notes).

February 2016 Private Placement - Related Party Transaction

On February 12, 2016, the Company entered into a Note and Warrant Purchase Agreement (or the February 2016 Purchase Agreement) with the purchasers named therein for the sale of $18.0 million in aggregate principal amount of unsecured promissory notes (or the February 2016 Notes) to the purchasers, as well as warrants to purchase 2,571,428 shares of the Company's common stock at an exercise price of $0.01 per share, representing aggregate proceeds to the Company of $18 million (or the Initial Sale). On February 15, 2016, an additional purchaser joined the February 2016 Purchase Agreement and purchased $2.0 million in aggregate principal amount of the February 2016 Notes, as well as warrants to purchase 285,714 shares of the Company's common stock at an exercise price of $0.01 per share, representing aggregate proceeds to the Company of $2 million (or the Subsequent Sale and together with the Initial Sale, the February 2016 Private Placement). The February 2016 Notes and the warrants were issued in a private placement exempt from registration under the Securities Act. The purchasers are existing stockholders of the Company and affiliated with certain members of the Company's Board of Directors: Foris Ventures, LLC (or Foris, an entity affiliated with director John Doerr of Kleiner Perkins Caufield & Byers, a current stockholder), which purchased $16.0 million aggregate principal amount of the February 2016 Notes and warrants to purchase 2,285,714 shares of the Company's common stock; Naxyris S.A. (an investment vehicle owned by Naxos Capital Partners SCA Sicar; director Carole Piwnica is Director of NAXOS UK, which is affiliated with Naxos Capital Partners SCA Sicar), which purchased $2.0 million aggregate principal amount of the February 2016 Notes and warrants to purchase 285,714 shares of the Company's common stock; and Biolding Investment SA, a fund affiliated with director HH Sheikh Abdullah bin Khalifa Al Thani, which purchased $2.0 million aggregate principal amount of the February 2016 Notes and warrants to purchase 285,714 shares of the Company's common stock. The Initial Sale closed on February 12, 2016, and the Subsequent Sale closed on February 15, 2016.

The February 2016 Notes are unsecured obligations of the Company and are subordinate to the Company's obligations under the Senior Secured Loan Facility pursuant to a Subordination Agreement, dated as of February 12, 2016, by and among the Company, the purchasers and the administrative agent under the Senior Secured Loan Facility. Interest will accrue on the February 2016 Notes from and including, with respect to the Initial Sale, February 12, 2016, and with respect to the Subsequent Sale, February 15, 2016, at a rate of 13.50% per annum and is payable on May 15, 2017, the maturity date of the February 2016 Notes, unless the February 2016 Notes are prepaid in accordance with their terms prior to such date. The February 2016 Purchase Agreement and the February 2016 Notes contain customary terms, provisions, representations and warranties, including certain events of default after which the February 2016 Notes may be due and payable immediately, as set forth in the February 2016 Notes.

The exercisability of the warrants issued in the February 2016 Private Placement, which each have a term of five years, was subject to stockholder approval, which was obtained on May 17, 2016. As of December 31, 2016, the carrying amount of the February 2016 Notes was $18.7 million.

June 2016 Private Placement - Related Party Transaction

On June 24, 2016, the Company entered into a Note Purchase Agreement (or the June 2016 Purchase Agreement) with Foris for the sale of $5.0 million in aggregate principal amount of secured promissory notes (or the June 2016 Notes) to Foris in exchange for aggregate proceeds to the Company of $5.0 million (or the June 2016 Private Placement). The June 2016 Notes were issued in a private placement exempt from registration under the Securities Act. The June 2016 Private Placement closed on June 24, 2016.

The June 2016 Notes are collateralized by a second priority lien on the assets securing the Company's obligations under the Senior Secured Loan Facility, and are subordinate to the Company's obligations under the Senior Secured Loan Facility pursuant to a Subordination Agreement, dated as of June 24, 2016, by and among the Company, Foris and the administrative agent under the Company's Senior Secured Loan Facility. Interest will accrue on the June 2016 Notes from and including June 24, 2016 at a rate of 13.50% per annum and is payable in full on May 15, 2017, the maturity date of the June 2016 Notes, unless the June 2016 Notes are prepaid in accordance with their terms prior to such date. The June 2016 Purchase Agreement and the June 2016 Notes contain customary terms, provisions, representations and warranties, including certain events of default after which the June 2016 Notes may be due and payable immediately, as set forth in the June 2016 Notes.

October 2016 Private Placements

On October 21 and October 27, 2016, the Company entered into separate Note Purchase Agreements (or the October 2016 Purchase Agreements) with Foris and Ginkgo, respectively, for the sale of $6.0 million and $8.5 million, respectively, in aggregate principal amount of secured promissory notes (or the October 2016 Notes) in exchange for aggregate proceeds to the Company of $6.0 million and $8.5 million, respectively (or the October 2016 Private Placements). The October 2016 Notes were issued in private placements exempt from registration under the Securities Act. The October 2016 Private Placements closed on October 21 and October 27, 2016, respectively.

The October 2016 Notes are collateralized by a second priority lien on the assets securing the Company's obligations under the Senior Secured Loan Facility, and are subordinate to the Company's obligations under the Senior Secured Loan Facility pursuant to Subordination Agreements, dated as of the respective dates of the October 2016 Purchase Agreements, by and among the Company, the applicable purchaser and the administrative agent under the Company's Senior Secured Loan Facility. Interest will accrue on the October 2016 Notes from and including October 21 and 27, 2016, respectively, at a rate of 13.50% per annum and is payable in full on May 15, 2017, the maturity date of the October 2016 Notes, unless the October 2016 Notes are prepaid in accordance with their terms prior to such date. The October 2016 Purchase Agreements and the October 2016 Notes contain customary terms, provisions, representations and warranties, including certain events of default after which the October 2016 Notes may be due and payable immediately, as set forth in the October 2016 Notes.

Salisbury Note

In December 2016, in connection with the Company's purchase of a manufacturing facility in Leland, North Carolina and related assets (Glycotech Assets), as discussed in more detail in Note 7, "Joint Venture and Noncontrolling Interests," the Company issued a purchase money promissory note in the principal amount of $3.5 million (Salisbury Note) in favor of Salisbury Partners, LLC (Salisbury). The Salisbury Note (i) bears interest at a rate of 5% per year, (ii) has a term of 13 years, (iii) is payable in equal monthly installments of principal and interest beginning on January 1, 2017 (which payments are subject to a penalty of 5% if delinquent more than 5 days) and (iv) is secured by a purchase money lien on the Glycotech Assets. The Salisbury Note contains customary terms and provisions, including certain events of default after which the Salisbury Note may become immediately due and payable. In addition, the Salisbury Note may be prepaid in full or in part at any time without penalty or premium. In January 2017, the Salisbury Note was repaid with proceeds from the Nikko Note (as defined below).

Nikko Note

In December 2016, in connection with the Company's formation of its cosmetics joint venture (or the Neossance JV) with Nikko Chemicals Co., Ltd. (or Nikko), an existing commercial partner of the Company, and Nippon Surfactant Industries Co., Ltd., an affiliate of Nikko, as discussed in more detail in Note 7, "Joint Venture and Noncontrolling Interests," Nikko made a loan to the Company in the principal amount of $3.9 million, and the Company in consideration therefor issued a promissory note (or the Nikko Note) to Nikko in an equal principal amount. The proceeds of the Nikko Note were used to satisfy the Company's remaining liabilities relating to the Company's purchase of the Glycotech Assets, including liabilities under the Salisbury Note. The Nikko Note (i) bears interest at a rate of 5% per year, (ii) has a term of 13 years, (iii) is payable in equal monthly installments of principal and interest beginning on January 1, 2017 (which payments are subject to a penalty of 5% if delinquent more than 5 days) and (iv) is collateralized by a first-priority lien on 10% of the Neossance JV interests owned by the Company. In addition to the payments under the Nikko Note set forth in the preceding sentence, the Company is required to (i) repay $400,000 of the Nikko Note in equal monthly installments of $100,000 on January 1, 2017, February 1, 2017, March 1, 2017 and April 1, 2017 and (ii) commencing with the distributions from the Neossance JV to its members relating to the fourth fiscal year of the Neossance JV and continuing for each fiscal year thereafter until the Nikko Note is fully repaid, repay the Nikko Note in an amount equal to the profits, if any, distributed to the Company by the Neossance JV. The Note contains customary terms and provisions, including certain events of default after which the Note may become immediately due and payable. In addition, the Nikko Note may be prepaid in full or in part at any time without penalty or premium.

Letters of Credit

In June 2012, the Company entered into a letter of credit agreement for $1.0 million under which it provided a letter of credit to the landlord for its headquarters in Emeryville, California in order to cover the security deposit on the lease. This letter of credit is secured by a certificate of deposit. Accordingly, the Company has $1.0 million as restricted cash under this arrangement as of December 31, 2016 and 2015.

Future minimum payments under the debt agreements as of December 31, 2016 are as follows (in thousands):

Years ending December 31:	Related Party Convertible Debt	Convertible Debt	Loans Payable	Related Party Loans Payable	Credit Facility	Total
2017	$ 4,837	$ 18,883	$ 16,628	$ 32,551	$ 7,014	$ 79,913
2018	16,550	18,142	2,808	—	33,648	71,148
2019	34,260	88,902	2,699	—	2,578	128,439
2020	—	—	2,592	—	2,500	5,092
2021	—	—	2,483	—	27,395	29,878
Thereafter	—	—	4,075	—	—	4,075
Total future minimum payments[1]	55,647	125,927	31,285	32,551	73,135	318,545
Less: amount representing interest[2]	(12,893)	(46,946)	(4,758)	(2,860)	(24,045)	(91,502)
Present value of minimum debt payments	42,754	78,981	26,527	29,691	49,090	227,043
Less: current portion	(3,610)	(8,957)	(15,448)	(29,691)	(1,449)	(59,155)
Noncurrent portion of debt	$ 39,144	$ 70,024	$ 11,079	$ —	$ 47,641	$ 167,888

(1) Including $11.8 million in 2017 related to Nomis Bay convertible note which , at the Company's election, may be settled in shares or cash, be settled in shares and $46.8 million in 2018 and 2019 subject to Maturity Treatment Agreement, which will be converted to common stock at maturity, subject to there being no default under the terms of the debt.

(2) Including debt discount and issuance cost of $42.5 million associated with the related party and non-related party debt which will be accreted to interest expense under the effective interest method over the term of the debt.

During the year ended December 31, 2016, the Company adopted ASU 2015-03, *Interest - Imputation of Interest: Simplifying the Presentation of Debt Issuance Costs*, which requires debt issuance costs previously reported as a deferred charge within other noncurrent assets and prepaid expenses and other current assets to be presented as a direct reduction from the carrying amount of debt, consistent with debt discounts, applied retrospectively for all periods presented. As of December 31, 2015, this resulted in the reduction of noncurrent debt by $2.8 million, current debt by $1.4 million, other noncurrent assets by $2.8 million and prepaid expenses and other current assets by $1.4 million.

6. Commitments and Contingencies

Lease Obligations

The Company leases certain facilities and finances certain equipment under operating and capital leases, respectively. Operating leases include leased facilities and capital leases include leased equipment (see Note 4, "Balance Sheet Components"). The Company recognizes rent expense on a straight-line basis over the non-cancellable lease term and records the difference between cash rent payments and the recognition of rent expense as a deferred rent liability. Where leases contain escalation clauses, rent abatements, and/or concessions, such as rent holidays and landlord or tenant incentives or allowances, the Company applies them as straight-line rent expense over the lease term. The Company has non-cancellable operating lease agreements for office, research and development, and manufacturing space that expire at various dates, with the latest expiration in February 2031. Rent expense under operating leases was $5.3 million, $5.5 million and $5.4 million for the years ended December 31, 2016, 2015 and 2014, respectively.

Future minimum payments under the Company's lease obligations as of December 31, 2016, are as follows (in thousands):

Years ending December 31:	Capital Leases	Operating Leases	Total Lease Obligations
2017	$ 1,233	$ 6,854	$ 8,087
2018	47	6,883	6,930
2019	6	6,774	6,780
2020	—	7,004	7,004
2021	—	7,240	7,240
Thereafter	—	10,948	10,948
Total future minimum lease payments	1,286	$ 45,703	$ 46,989
Less: amount representing interest	(30)		
Present value of minimum lease payments	1,256		
Less: current portion	(922)		
Long-term portion	$ 334		

Guarantor Arrangements

The Company has agreements whereby it indemnifies its officers and directors for certain events or occurrences while the officer or director is serving in his or her official capacity. The indemnification period remains enforceable for the officer's or director's lifetime. The maximum potential amount of future payments the Company could be required to make under these indemnification agreements is unlimited; however, the Company has a director and officer insurance policy that limits its exposure and enables the Company to recover a portion of any future payments. As a result of its insurance policy coverage, the Company believes the estimated fair value of these indemnification agreements is minimal. Accordingly, the Company had no liabilities recorded for these agreements as of December 31, 2016 and 2015.

The Company entered into the FINEP Credit Facility to finance a research and development project on sugarcane-based biodiesel (see Note 5, "Debt"). The FINEP Credit Facility is guaranteed by a chattel mortgage on certain equipment of the Company. The Company's total acquisition cost for the equipment under this guarantee is approximately R$6.0 million (approximately US$1.8 million based on the exchange rate as of December 31, 2016).

The Company entered into the BNDES Credit Facility to finance a production site in Brazil (see Note 5, "Debt").The BNDES Credit Facility is collateralized by a first priority security interest in certain of the Company's equipment and other tangible assets with a total acquisition cost of R$24.9 million (approximately US$7.7 million based on the exchange rate as of December 31, 2016). The Company is a parent guarantor for the payment of the outstanding balance under the BNDES Credit Facility. Additionally, the Company is required to provide certain bank guarantees under the BNDES Credit Facility. Accordingly, the Company had zero of restricted cash as of each of December 31, 2016 and 2015 related to the BNDES Credit Facility.

The Company entered into loan agreements and a security agreement whereby the Company pledged certain farnesene production assets as collateral (the fiduciary conveyance of movable goods) with each of Nossa Caixa and Banco Pine (see Note 5, "Debt"). The Company's total acquisition cost for the farnesene production assets pledged as collateral under these agreements is approximately R$68.0 million (approximately US$20.9 million based on the exchange rate as of December 31, 2016). The Company is also a parent guarantor for the payment of the outstanding balance under these loan agreements.

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

In December 2013, in connection with the execution of the JV Documents entered into by and among the Company, Total and TAB relating to the establishment of TAB (see Note 5, "Debt" and Note 7, “Joint Venture and Noncontrolling Interests”), the Company agreed to exchange the $69.0 million of outstanding Unsecured R&D Notes issued pursuant to the Total Purchase Agreement for replacement 1.5% Senior Secured Convertible Notes due March 2017, and grant a security interest to Total in and lien on all the Company’s rights, title and interest in and to the Company’s shares in the capital of TAB. Following execution of the JV Documents, all Unsecured R&D Notes that had been issued were exchanged for Secured R&D Notes. Further, the $10.85 million in principal amount of such notes issued in the initial tranche of the third closing under the Total Purchase Agreement in July 2014 and the $10.85 million in principal amount of such notes issued in the second tranche of the third closing in January 2015 were Secured R&D Notes instead of Unsecured R&D Notes. See Note 5,"Debt" for details regarding the impact of the Exchange and Maturity Treatment Agreement on the R&D Notes. In March 2016, as a result of the restructuring of TAB discussed under Note 5, “Debt” and Note 7, “Joint Venture and Noncontrolling Interests,” the remaining Secured R&D Notes were exchanged for an Unsecured R&D Note in the principal amount of $3.7 million. Further, in February 2017, the Company and Total agreed to extend the maturity of the outstanding R&D Notes from March 1, 2017 to May 15, 2017, as discussed under Note 16, “Subsequent Events.”

The Senior Secured Loan Facility and the June 2016 Notes and October 2016 Notes (see Note 5, "Debt") are collateralized by first- and second- priority liens, respectively, on substantially all of the Company's assets, including Company intellectual property. In addition, as discussed above, the Nikko Note is collateralized by a first-priority lien on 10% of the Neossance JV interests owned by the Company.

Purchase Obligations

As of December 31, 2016, the Company had $0.8 million in purchase obligations which included $0.6 million in non-cancellable contractual obligations and construction commitments.

Production Cost Commitment

As of December 31, 2016, the Company committed to manufacture Squalane and Hemisqualane supplied to our Neossance JV at specified cost targets. The Company is obligated to pay all manufacturing costs above the production cost target but is not obligated to produce squalane and hemisqualane at a loss and no liability has been accrued for the Company's commitment to produce at the specified cost target.

Other Matters

Certain conditions may exist as of the date the financial statements are issued, which may result in a loss to the Company but will only be recorded when one or more future events occur or fail to occur. The Company's management assesses such contingent liabilities, and such assessment inherently involves an exercise of judgment. In assessing loss contingencies related to legal proceedings that are pending against and by the Company or unasserted claims that may result in such proceedings, the Company's management evaluates the perceived merits of any legal proceedings or unasserted claims as well as the perceived merits of the amount of relief sought or expected to be sought.

If the assessment of a contingency indicates that it is probable that a material loss has been incurred and the amount of the liability can be estimated, then the estimated liability would be accrued in the Company's financial statements. If the assessment indicates that a potential material loss contingency is not probable but is reasonably possible, or is probable but cannot be reasonably estimated, then the nature of the contingent liability, together with an estimate of the range of possible loss if determinable and material would be disclosed. Loss contingencies considered to be remote by management are generally not disclosed unless they involve guarantees, in which case the guarantee would be disclosed. The Company has levied indirect taxes on sugarcane-based biodiesel sales by Amyris Brasil to customers in Brazil based on advice from external legal counsel. In the absence of definitive rulings from the Brazilian tax authorities on the appropriate indirect tax rate to be applied to such product sales, the actual indirect rate to be applied to such sales could differ from the rate we levied.

The Company is subject to disputes and claims that arise or have arisen in the ordinary course of business and that have not resulted in legal proceedings or have not been fully adjudicated. Such matters that may arise in the ordinary course of business are subject to many uncertainties and outcomes are not predictable with reasonable assurance and therefore an estimate of all the reasonably possible losses cannot be determined at this time. Therefore, if one or more of these legal disputes or claims resulted in settlements or legal proceedings that were resolved against the Company for amounts in excess of management's expectations, the Company's consolidated financial statements for the relevant reporting period could be materially adversely affected.

7. Joint Ventures and Noncontrolling Interest

Novvi LLC

In September 2011, the Company and Cosan US, Inc. (Cosan U.S.) formed Novvi LLC (or Novvi), a U.S. entity that was initially jointly owned by the Company and Cosan U.S. In March 2013, the Company and Cosan U.S. entered into agreements to (i) expand their base oils joint venture to also include additives and lubricants and (ii) operate their joint venture exclusively through Novvi. Specifically, the parties entered into an Amended and Restated Operating Agreement for Novvi (or the Novvi Operating Agreement), which sets forth the governance procedures for Novvi and the parties' initial contribution. The Company also entered into an IP License Agreement with Novvi (as amended, the Novvi IP License Agreement) under which the Company granted Novvi (i) an exclusive (subject to certain limited exceptions for the Company), worldwide, royalty-free license to develop, produce and commercialize base oils, additives, and lubricants derived from Biofene for use in automotive, commercial, and industrial lubricants markets, and (ii) a non-exclusive, royalty free license, subject to certain conditions, to manufacture Biofene solely for its own products. In addition, both the Company and Cosan U.S. granted Novvi certain rights of first refusal with respect to alternative base oil and additive technologies that may be acquired by the Company or Cosan U.S. during the term of the IP License Agreement. Under these agreements, through December 31, 2015 the Company and Cosan U.S. each owned 50% of Novvi and each party shared equally in any costs and any profits ultimately realized by the joint venture. Novvi is governed by a six member Board of Managers (or the Board of Managers). The Board of Managers appoints the officers of Novvi, who are responsible for carrying out the daily operating activities of Novvi as directed by the Board of Managers. The Novvi IP License Agreement has an initial term of 20 years from the date of the agreement, subject to standard early termination provisions such as uncured material breach or a party's insolvency. Under the terms of the Novvi Operating Agreement, Cosan U.S. was obligated to fund its initial 50% ownership share of Novvi in cash in the amount of $10.0 million and the Company was obligated to fund its initial 50% ownership share of Novvi through the granting of an intellectual property license to develop, produce and commercialize base oils, additives, and lubricants derived from Biofene for use in the automotive, commercial and industrial lubricants markets, which Cosan U.S. and Amyris agreed was valued at $10.0 million. In March 2013, the Company measured its initial contribution of intellectual property to Novvi at the Company's carrying value of the licenses granted under the Novvi IP License Agreement, which was zero.

In April 2014, the Company, via its forgiveness of existing receivables due from Novvi related to rent and other services performed by the Company, purchased additional membership units of Novvi for a purchase price of $0.2 million. Concurrently, Cosan U.S. purchased an equal amount of additional membership units of Novvi. Also in April 2014, the Company and Cosan U.S. each contributed $2.1 million in cash in exchange for receiving additional membership units in Novvi. Following such transactions, the Company and Cosan U.S. continued to each own 50% of Novvi's issued and outstanding membership units.

In September 2014, the Company and Cosan U.S. entered into a member senior loan agreement to grant Novvi a loan amounting to approximately $3.7 million. The loan is due on September 1, 2017 and bears interest at a rate of 0.36% per annum. Interest accrues daily and is due and payable in arrears on September 1, 2017. The Company and Cosan U.S. each agreed to provide 50% of the loan. The Company's share of approximately $1.8 million was disbursed in two installments. The first installment of $1.2 million was made in September 2014 and the second installment of $0.6 million was made in October 2014. In November 2014, the Company and Cosan U.S. entered into a second member senior loan agreement to grant Novvi a loan of approximately $1.9 million on the same terms as the loan issued in September 2014, except that the due date is November 10, 2017. The Company and Cosan U.S. each agreed to provide 50% of the loan. The Company disbursed its share of the loan (i.e., approximately $1.0 million) in November 2014. In May 2015, the Company and Cosan U.S. entered into a third member senior loan agreement to grant Novvi a loan of approximately $1.1 million on the same terms as the loan issued in September 2014, except that the due date is May 14, 2018. The Company and Cosan U.S. each agreed to provide 50% of the loan.

In the fourth quarter of 2015, the Company and Cosan U.S. entered into four additional member senior loan agreements to grant Novvi an aggregate loan of approximately $1.6 million on the same terms as the loan issued in September 2014, except that the respective due dates are August 19, 2018, October 15, 2018, November 12, 2018 and December 17, 2018. The Company and Cosan U.S. each agreed to provide 50% of each of these four loans. In July 2016, the Company contributed all outstanding amounts owing by Novvi to the Company under the seven member senior loan agreements in exchange for receiving additional membership units in Novvi.

In February 2016, the Company purchased additional membership units of Novvi for an aggregate purchase price of approximately $0.6 million in the form of forgiveness of existing receivables due from Novvi related to rent and other services performed by the Company, and Cosan U.S. purchased an equal number of additional membership units in Novvi for approximately $0.6 million in cash. Following such transactions, each member continued to own 50% of Novvi's issued and outstanding membership units.

On July 19, 2016, American Refining Group, Inc. (ARG) agreed to make a capital contribution of up to $10.0 million in cash to Novvi, subject to certain conditions, in exchange for a one third ownership stake in Novvi. In connection with such investment, the Company agreed to contribute all outstanding amounts owed by Novvi to the Company under the seven existing member senior loan agreements between the Company and Novvi, as well as certain existing receivables due from Novvi to the Company related to rent and other services performance by the Company, in exchange for receiving additional membership units in Novvi. Likewise, Cosan U.S. contributed an equal amount to Novvi as the Company in exchange for receiving an equal amount of additional membership interests in Novvi. Following the ARG investment, assuming it is made in full, and the capital contributions of the Company and Cosan U.S., each of Novvi’s three members (i.e., ARG, the Company and Cosan U.S.) would own one third of Novvi’s issued and outstanding membership units and would each be represented by two members of the Board of Managers. In order to reflect the ARG investment in Novvi and related transactions, the Novvi Operating Agreement was amended and restated on July 19, 2016. In addition, the Novvi IP License Agreement was also amended on July 19, 2016. As of December 31, 2016, $9.0 million of ARG's capital contribution to Novvi had been funded. See Note 16, “Subsequent Events” for additional details regarding ARG’s investment in Novvi.

In November 2016, Chevron U.S.A. Inc. (Chevron) made a capital contribution of $1.0 million in cash to Novvi in exchange for 20,000 membership units, representing an approximately 3% ownership stake in Novvi, which reduced the ownership interests of the Company, Cosan U.S. and ARG pro rata. In connection with its investment in Novvi, for so long as Chevron or its affiliates owns any membership units in Novvi, Chevron shall have the right to purchase up to such additional membership units as would result in Chevron owning the greater of (i) 25% of the aggregate membership units then outstanding held by Chevron, the Company, Cosan U.S. and ARG (including their affiliates and successors-in-interest) following such purchase and (ii) the highest percentage of such membership units held by the Company, Cosan U.S. and ARG (including their affiliates and successors-in-interest) following such purchase. In addition, Chevron shall have the right to purchase up to its pro rata share (as determined by the then issued and outstanding membership units, excluding any such units beneficially owned by Novvi) of all additional membership units that Novvi may, from time to time, propose to sell or issue.

Additional funding requirements to finance the ongoing operations of Novvi are expected to happen through revolving credit or other loan facilities provided by unrelated parties (i.e., such as financial institutions); cash advances or other credit or loan facilities provided by Novvi's members or their affiliates; or additional capital contributions by the existing Novvi members or new investors.

The Company has identified Novvi as a VIE and determined that the power to direct activities which most significantly impact the economic success of the joint venture (i.e., continuing research and development, marketing, sales, distribution and manufacturing of Novvi products) are shared among the Company, Cosan U.S. and ARG. Accordingly, the Company is not the primary beneficiary and therefore accounts for its investment in Novvi under the equity method of accounting. The Company will continue to reassess its primary beneficiary analysis of Novvi if there are changes in events and circumstances impacting the power to direct activities that most significantly affect Novvi's economic success. Under the equity method, the Company's share of profits and losses and impairment charges on investments in affiliates are included in "Loss from investments in affiliates" in the consolidated statements of operations. The carrying amount of the Company's equity investment in Novvi was zero as of each of December 31, 2016 and 2015.

Total Amyris BioSolutions B.V.

In November 2013, the Company and Total formed Total Amyris BioSolutions B.V. (TAB), a joint venture to produce and commercialize farnesene- or farnesane-based jet and diesel fuels. Prior to the restructuring of TAB in March 2016 as described below, the common equity of TAB was owned equally by the Company and Total, and TAB's purpose was limited to executing the License Agreement dated December 2, 2013 between the Company, Total and TAB and maintaining such licenses under it, unless and until either (i) Total elected to go forward with either the full (diesel and jet fuel) TAB commercialization program (R&D Program) or the jet fuel component of the R&D Program (or a Go Decision), (ii) Total elected to not continue its participation in the R&D Program and TAB (or a No-Go Decision), or (iii) Total exercised any of its rights to buy out the Company's interest in TAB. Following a Go Decision, the articles and shareholders' agreement of TAB would be amended and restated to be consistent with the shareholders' agreement contemplated by the Total Fuel Agreements (see Note 5, "Debt" and Note 8, "Significant Agreements").

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

On February 12, 2016, the Company and Total entered into an amendment to the TAB Letter Agreement, pursuant to which the parties agreed that, upon the closing of the Restructuring, Total would cancel R&D Notes in an aggregate principal amount of approximately $1.3 million, plus all paid-in-kind and accrued interest as of the closing of the Restructuring under all outstanding R&D Notes (including all such interest that was outstanding as of July 29, 2015), and a note in the principal amount of Euro 50,000, plus accrued interest, issued by the Company to Total in connection with the existing TAB capitalization, in exchange for an additional 25% ownership interest of TAB (giving Total an aggregate ownership stake of 75% of TAB and giving the Company an aggregate ownership stake of 25% of TAB). In connection therewith, Total would surrender to the Company the remaining R&D Notes and the Company would provide to Total a new R&D Note containing substantially similar terms and conditions to the outstanding R&D Notes other than it would be unsecured and its payment terms would be severed from TAB's business performance, in the principal amount of $3.7 million (collectively, the "TAB Share Purchase").

On March 21, 2016, the Company, Total and TAB closed the Restructuring and the TAB Share Purchase. See Note 5, “Debt” and Note 16, “Subsequent Events” for further details of these transactions and the impact of these transaction on the Company’s consolidated financial statements.

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

Upon all farnesene-or farnesane-based diesel fuel rights reverting back to the Company, the Company granted to Total, pursuant to the EU Diesel Fuel Agreement, (a) an exclusive, royalty-free license to offer for sale and sell farnesene- or farnesane-based diesel fuel in the EU, (b) the non-exclusive right to make farnesene or farnesane anywhere in the world, but Total must (i) use such farnesene or farnesane to produce only diesel fuel to offer for sale or sell in the EU and (ii) pay the Company a to-be-negotiated, commercially reasonable, “most-favored” basis royalty and (c) the right to purchase farnesene or farnesane for its EU diesel fuel business from the Company on a “most-favored” pricing basis. As a result of the EU Diesel Fuel Agreement, the Company generally no longer has an independent right to make or sell, without the approval of Total, farnesene- or farnesane-based diesel fuels in the EU.

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

As of December 31, 2016, the common equity of TAB was owned 25% by the Company and 75% by Total. TAB has a capitalization as of December 31, 2016 of €0.1 million (approximately US$0.1 million based on the exchange rate as of December 31, 2016). The Company has identified TAB as a VIE and determined that the Company is not the primary beneficiary and therefore accounts for its investment in TAB under the equity method of accounting. Under the equity method, the Company's share of profits and losses are included in “Loss from investment in affiliate” in the consolidated statements of operations.

SMA Indústria Química S.A.

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

SMA was initially managed by a three member executive committee, of which the Company appointed two members, one of whom is the plant manager who is the most senior executive responsible for managing the construction and operation of the facility. SMA was initially governed by a four member board of directors, of which the Company and SMSA each appointed two members. The board of directors had certain protective rights which include final approval of the engineering designs and project work plan developed and recommended by the executive committee.

The joint venture agreements required the Company to fund the construction costs of the new facility and SMSA would reimburse the Company up to R$61.8 million (approximately US$19.0 million based on the exchange rate as of December 31, 2016) of the construction costs after SMA commences production. After commercialization, the Company would market and distribute Amyris renewable products produced by SMA and SMSA would sell feedstock and provide certain other services to SMA. The cost of the feedstock to SMA would be a price that is based on the average return that SMSA could receive from the production of its current products, sugar and ethanol. The Company would be required to purchase the output of SMA for the first four years at a price that guarantees the return of SMSA's investment plus a fixed interest rate. After this four year period, the price would be set to guarantee a break-even price to SMA plus an agreed upon return.

Under the terms of the joint venture agreements, if the Company became controlled, directly or indirectly, by a competitor of SMSA, then SMSA would have the right to acquire the Company's interest in SMA. If SMSA became controlled, directly or indirectly, by a competitor of the Company, then the Company would have the right to sell its interest in SMA to SMSA. In either case, the purchase price would be determined in accordance with the joint venture agreements, and the Company would continue to have the obligation to acquire products produced by SMA for the remainder of the term of the supply agreement then in effect even though the Company would no longer be involved in SMA's management.

The Company initially had a 50% ownership interest in SMA. The Company had identified SMA as a VIE pursuant to the accounting guidance for consolidating VIEs because the amount of total equity investment at risk was not sufficient to permit SMA to finance its activities without additional subordinated financial support, as well as because the related commercialization agreement provides a substantive minimum price guarantee. Under the terms of the joint venture agreement, the Company directed the design and construction activities, as well as production and distribution. In addition, the Company had the obligation to fund the design and construction activities until commercialization was achieved. Subsequent to the construction phase, both parties equally would fund SMA for the term of the joint venture. Based on those factors, the Company was determined to have the power to direct the activities that most significantly impact SMA's economic performance and the obligation to absorb losses and the right to receive benefits. As of December 31, 2016, the Company indirectly owned 100% of the equity interest in SMA and as a wholly owned subsidiary its financial results are included in the Company's consolidated financial statements.

The Company completed a significant portion of the construction of the new facility in 2012. The Company suspended construction of the facility in 2013 in order to focus on completing and operating the Company's smaller production facility in Brotas, Brazil. In February 2014, the Company entered into an amendment to the joint venture agreement with SMSA which updated and documented certain preexisting business plan requirements related to the recommencement of construction at the joint venture operated plant and sets forth, among other things, (i) the extension of the deadline for the commencement of operations at the joint venture operated plant to no later than 18 months following the construction of the plant no later than March 31, 2017, and (ii) the extension of an option held by SMSA to build a second large-scale farnesene production facility to no later than December 31, 2018 with the commencement of operations at such second facility to occur no later than April 1, 2019. On July 1, 2015 SMSA filed a material fact document with CVM, the Brazilian securities regulator, that announced that certain contractual targets undertaken by the Company have not been achieved, which affects the feasibility of the project. Therefore, SMSA decided not to approve continuing construction of the plant for the joint venture with the Company and its Brazilian subsidiary Amyris Brasil. In July 2015, the Company announced that it was in discussions with SMSA regarding the continuation of the joint venture. In December 2015, the Company and SMSA entered into a Termination Agreement and a Share Purchase and Sale Agreement relating to the termination of the joint venture. Under the Termination Agreement, the parties agreed that the joint venture would be terminated effective upon the closing of a purchase by Amyris Brasil of SMSA's shares of SMA. Under the Share Purchase and Sale Agreement, Amyris Brasil agreed to purchase, for R$50,000 (approximately US$15,342 based on the exchange rate as of December 31, 2016), 50,000 shares of SMA (representing all the outstanding shares of SMA held by SMSA), which purchase and sale was consummated on January 11, 2016. The Share Purchase and Sale Agreement also provided that the Company and Amyris Brasil would have 12 months following the closing of the share purchase to remove assets from SMSA's site, and enter into an extension of the lease for such 12 month period for monthly rental payments of R$9,853 (approximately US$3,023 based on the exchange rate as of December 31, 2016). The Share Purchase and Sale Agreement also clarified that the Company and Amyris Brasil would not be required to demolish or remove the foundations of the plant at the SMSA site. On September 1, 2016, the parties entered into an addendum to the Share Purchase and Sale Agreement (and a corresponding amendment to the lease) which extended the deadline for the Company and Amyris Brasil to remove assets from SMSA's site until December 31, 2017.

Salisbury transaction

In January 2011, the Company entered into a production service agreement (Glycotech Agreement) with Glycotech, Inc. (or Glycotech), under which Glycotech provides process development and production services for the manufacturing of various Company products at its leased facility in Leland, North Carolina (Glycotech Facility). The Company products manufactured by Glycotech are owned and distributed by the Company. Pursuant to the terms of the Glycotech Agreement, the Company is required to pay the manufacturing and operating costs of the Glycotech facility, which is dedicated solely to the manufacture of Amyris products. The initial term of the Glycotech Agreement was for a two year period commencing on February 1, 2011 and the Glycotech Agreement renews automatically for successive one-year terms, unless terminated by the Company. Concurrent with the Glycotech Agreement, the Company also entered into a Right of First Refusal Agreement with Salisbury Partners, LLC (or Salisbury), the lessor of the facility and site leased by Glycotech (ROFR Agreement). Per conditions of the ROFR Agreement, Salisbury agreed not to sell the facility and site leased by Glycotech during the term of the Glycotech Agreement. In the event that Salisbury was presented with an offer to sell or decides to sell an adjacent parcel, the Company had the right of first refusal to acquire it.

On November 10, 2016, the Company, Glycotech and Salisbury entered into a Purchase and Sale Agreement (PSA) for the purchase and sale of the Glycotech Facility, the real property on which the Glycotech Facility is located and the fixtures, equipment, materials and supplies and other tangible assets located at or used in connection with the Facility (collectively, the Glycotech Assets). Pursuant to the PSA, on December 5, 2016, the Company purchased the Glycotech Assets from Glycotech and Salisbury for an aggregate purchase price of $4.35 million, of which $3.5 million was paid in the form of a purchase money promissory note in favor of Salisbury, as described in more detail in Note 5, "Debt." In connection with the closing of the purchase and sale of the Glycotech Assets under the PSA, the Company, Glycotech and Salisbury terminated the current lease of the Glycotech Facility and the Glycotech Agreement and modified the ROFR Agreement such that the Company's right of first refusal with respect to certain parcels of real property owned by Salisbury adjacent to the Glycotech Facility would be an appurtenant right running with the ownership of the real property on which the Glycotech Facility is located. The Glycotech Assets were subsequently transferred to the Company's cosmetics joint venture with Nikko Chemicals Co., Ltd. and Nippon Surfactant Industries Co., Ltd. in connection with the formation of such joint venture, as described below under "Neossance JV."

Neossance JV

On December 12, 2016, the Company, Nikko Chemicals Co., Ltd. an existing commercial partner of the Company, and Nippon Surfactant Industries Co., Ltd., an affiliate of Nikko (collectively, Nikko) entered into a Joint Venture Agreement (Neossance JV Agreement), pursuant to which the Company and Nikko agreed to form a joint venture under the name Neossance, LLC, a Delaware limited liability company (Neossance JV). Pursuant to the Neossance JV Agreement, the Company agreed to initially form the Neossance JV and contribute certain assets of the Company, including certain intellectual property and other commercial assets relating to its Neossance cosmetic ingredients business (Neossance JV Business), as well as the Glycotech Assets. The Company also agreed to provide the Neossance JV with exclusive (to the extent not already granted to a third party), royalty-free licenses to certain intellectual property of the Company necessary to make and sell products associated with the Neossance JV Business (Neossance JV Products), and, in the event the Company is unable to meet its supply commitments under the Neossance JV Supply Agreement (as defined below), or Nikko terminates the Neossance JV Supply Agreement due to a material breach or default thereunder by the Company, the Company would be required to grant to the Neossance JV and Nikko additional non-exclusive, royalty-free licenses to certain intellectual property rights of the Company related to the production of farnesene in connection with the manufacture, production and sale of the Neossance JV Products.

At the closing of the formation of the Neossance JV, which occurred on December 19, 2016, Nikko purchased a 50% interest in the Neossance JV in exchange for the following payments to the Company: (i) an initial payment of $10 million and (ii) the profits, if any, distributed to Nikko in cash as members of the Neossance JV during the three year period following the date of the Joint Venture Agreement, up to a maximum of $10 million.

Pursuant to the Joint Venture Agreement, the Company and Nikko agreed to make working capital loans to the Neossance JV in the amounts of $500,000 and $1,500,000, respectively. In addition, the Company agreed to execute, and cause Amyris Brasil to execute, a supply agreement (Neossance JV Supply Agreement) to supply farnesene to the Neossance JV, and further agreed to conduct its business in the Neossance JV Products through the Neossance JV, to purchase all of its requirements for the Neossance JV Products from the Neossance JV and to transfer all of its customers for the Neossance JV Products to the Neossance JV. In addition, the Company agreed to guarantee a maximum production cost for certain Neossance JV Products to be produced by the Neossance JV and to bear any cost of production above such guaranteed costs.

Under the Neossance JV Agreement, in the event of a merger, acquisition, sale or other similar reorganization, or a bankruptcy, dissolution, insolvency or other similar event, of the Company, on the one hand, or Nikko, on the other hand, the other member will have a right of first purchase with respect to such member's interest in the Neossance JV, at the fair market value of such interest, in the case of a merger, acquisition, sale or other similar reorganization, and at the lower of the fair market value or book value of such interest, in the case of a bankruptcy, dissolution, insolvency or other similar event.

In connection with the formation of the Neossance JV, the members entered into a First Amended and Restated LLC Operating Agreement of the Neossance JV (Operating Agreement). Pursuant to the Operating Agreement, the Neossance JV will be managed by a Board of Directors, which shall initially consist of four directors, two of which will be appointed by the Company and two of which will be appointed by Nikko. In addition, Nikko will have the right to designate the Chief Executive Officer of the Neossance JV from among the directors and the Company will have the right to designate the Chief Financial Officer. Pursuant to the Joint Venture Agreement, Nikko designated John Melo, the President and CEO of the Company, to serve as the initial CEO of the Neossance JV for a period of one year and the Company designated Shizuo Ukaji, the President and CEO of Nikko, to serve as the initial CFO of the Neossance JV for a period of one year. The Company has determined that it controls the Neossance JV because of its significant ongoing involvement in operational decision making and its guarantee of production costs for squalane/hemisqualane.

Under the Operating Agreement, profits from the operations of the Neossance JV, if any, will be distributed as follows: (i) first, to the members in proportion to their respective unreturned capital contribution balances, until each member's unreturned capital contribution balance equals zero and (ii) second, to the members in proportion to their respective interests. In addition, future capital contributions will be made from time to time as the members shall determine, in each case on an equal (50%/50%) basis between the Company, on the one hand, and Nikko, on the other hand, unless otherwise mutually agreed by the members.

In connection with the contribution of the Glycotech Assets by the Company to the Neossance JV, at the closing of the formation of the Neossance JV, Nikko made a loan to the Company in the principal amount of $3.9 million, and the Company in consideration therefor issued a promissory note to Nikko in an equal principal amount, as described in more detail in Note 5, "Debt."

The table table below reflects the carrying amount of the assets and liabilities of the consolidated VIE for which the Company is the primary beneficiary at December 31, 2016 (two at December 31, 2015). The creditors of each consolidated VIE have recourse only to the assets of that VIE.

(In thousands)	December 31, 2016	December 31, 2015
Assets	$ 2,277	$ 6,993
Liabilities	$ 135	$ 1,221

The change in noncontrolling interest for the years ended December 31, 2016 and 2015 is summarized below (in thousands):

	2016	2015
Balance at January 1	$ 391	$ 611
Foreign currency translation adjustment	—	(320)
Income attributable to noncontrolling interest	(1,328)	100
Balance at December 31	$ (937)	$ 391

8. Significant Agreements

Research and Development Activities

Firmenich Collaboration Agreement

In March 2013, the Company entered into a Collaboration Agreement (or, as amended, the Firmenich Collaboration Agreement) with Firmenich SA (or Firmenich), a global flavors and fragrances company, to establish a collaboration arrangement for the development and commercialization of multiple renewable flavors and fragrances compounds. Under the Firmenich Collaboration Agreement, except for rights granted under pre-existing collaboration relationships, the Company granted Firmenich exclusive access to specified Company intellectual property for the development and commercialization of flavors and fragrances compounds in exchange for research and development funding and a profit sharing arrangement. The Firmenich Collaboration Agreement superseded and expanded the November 2010 Master Collaboration and Joint Development Agreement between the Company and Firmenich. Unless sooner terminated in accordance with its terms, the Firmenich Collaboration Agreements has an initial term of 10 years and will automatically renew at the end of such term (and at the end of any extension) for an additional 3-year term unless and until a party provides the other party written notice, at least twelve months before the end of the then-current term, of its desire to terminate the agreement at the end of the then-current term.

The Firmenich Collaboration Agreement provided for annual, up-front funding to the Company by Firmenich of $10.0 million for each of the first three years of the collaboration. Payments of $10.0 million were received by the Company in each of March 2013, 2014 and 2015. The Firmenich Collaboration Agreement contemplates additional funding by Firmenich of up to $5.0 million under four potential milestone payments, as well as additional funding by the collaboration partner on a discretionary basis. Through December 2016, the Company had achieved the third performance milestone under the Firmenich Collaboration Agreement and recognized collaboration revenues of $7.5 million and $11.0 million for the years ended December 31, 2016 and 2015, respectively. The Firmenich Collaboration Agreement does not impose any specific research and development obligations on either party after year six, but provides that if the parties mutually agree to perform research and development activities after year six, the parties will fund such activities equally.

Under the Firmenich Collaboration Agreement, the parties agreed to jointly select target compounds, subject to final approval of compound specifications by Firmenich. During the development phase, the Company would be required to provide labor, intellectual property and technology infrastructure and Firmenich would be required to contribute downstream polishing expertise and market access. The Firmenich Collaboration Agreement provides that the Company will own research and development and strain engineering intellectual property, and Firmenich will own blending and, if applicable, chemical conversion intellectual property. Under certain circumstances, such as the Company's insolvency, Firmenich would gain expanded access to the Company's intellectual property. The Firmenich Collaboration Agreement contemplates that, following development of flavors and fragrances compounds, the Company will manufacture the initial target molecules for the compounds and Firmenich will perform any required downstream polishing and distribution, sales and marketing. The Firmenich Collaboration Agreement provides that the parties will mutually agree on a supply price for each compound developed under the agreement and, subject to certain exceptions, will share product margins from sales of each such compound on a 70/30 basis (70% for Firmenich) until Firmenich receives $15.0 million more than the Company in the aggregate from such sales, after which time the parties will share the product margins 50/50. The Company also agreed to pay a one-time success bonus to Firmenich of up to $2.5 million if certain commercialization targets are met.

In September 2014, the Company entered into a supply agreement with the collaboration partner for compounds developed under the Firmenich Collaboration Agreement. The Company recognized $9.7 million and $1.4 million of revenues from product sales under this agreement for the years ended December 31, 2016 and 2015, respectively.

In December 2016, the Company and Firmenich entered into an amendment of the Firmenich Collaboration Agreement, pursuant to which the parties agreed to exclude certain compounds from the scope of the agreement and to permit the Company to engage in certain activities relating to such excluded compounds with a third party, in exchange for a ten percent royalty on net sales by the Company to such third party of products related to such excluded compounds, as well as (i) the transfer of certain technical materials relating to the Firmenich Collaboration Agreement, previously held in escrow, to Firmenich, (ii) a credit to Firmenich against products previously ordered from the Company under the parties' existing supply agreement, (iii) a reduced price for the sale of additional products to Firmenich under such supply agreement, and (iv) training for the employees of Firmenich at the Company's manufacturing plant located in Brotas, Brazil.

DARPA Technology Investment Agreement

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

The Company recognized collaboration revenues of $9.7 million and zero under this agreement for the years ended December 31, 2016 and 2015, respectively.

Ginkgo Initial Strategic Partnership Agreement and Collaboration Agreement

In June 2016, the Company entered into an Initial Strategic Partnership Agreement (Initial Ginkgo Agreement) with Ginkgo Bioworks, Inc. (or "Ginkgo"), pursuant to which the Company licensed certain intellectual property to Ginkgo in exchange for a fee of $20.0 million, to be paid by Ginkgo to the Company in two installments, and a ten percent royalty on net revenue, including without limitation net sales, royalties, fees and any other amounts received by Ginkgo related directly to such license. The first installment of $15.0 million was received on July 25, 2016. The second installment, in the amount of $5.0 million may be received, based upon the satisfaction of certain conditions as set forth below, by March 31, 2017. As of March 31, 2017, the Company had not received such second installment payment.

In addition, pursuant to the Initial Ginkgo Agreement, (i) the Company and Ginkgo agreed to pursue the negotiation and execution of a detailed definitive partnership and license agreement setting forth the terms of a commercial partnership and collaboration arrangement between the parties (Ginkgo Collaboration), (ii) the Company agreed to issue to Ginkgo an option to purchase five million shares of the Company's common stock at an exercise price of $0.50, exercisable for one year from the date of issuance, in connection with the execution of such definitive agreement for the Ginkgo Collaboration, (iii) the Company received a deferment of all scheduled principal repayments under the Senior Secured Loan Facility, the lender and administrative agent under which is an affiliate of Ginkgo, as well as a waiver of the Minimum Cash Covenant, through October 31, 2016 and (iv) in connection with the execution of the definitive agreement for the Ginkgo Collaboration, the parties would effect an amendment of the LSA to (x) extend the maturity date of all outstanding loans under the Senior Secured Loan Facility, (y) waive any required amortization payments under the Senior Secured Loan Facility until maturity and (z) eliminate the Minimum Cash Covenant under the Senior Secured Loan Facility. See Note 5, "Debt" and Note 16, "Subsequent Events" for details regarding the amendments to the LSA entered into in connection with the Initial Ginkgo Agreement and Ginkgo Collaboration Agreement (as defined below).

On August 6, 2016, the Company issued to Ginkgo a warrant to purchase five million shares of the Company's common stock at an exercise price of $0.50 per share, exercisable for one year from the date of issuance. The warrant was issued prior to the execution of the definitive agreement for the Ginkgo Collaboration in connection with the transfer of certain information technology from Ginkgo to the Company.

On September 30, 2016, the Company and Ginkgo entered into a Collaboration Agreement (Ginkgo Collaboration Agreement) setting forth the terms of the Ginkgo Collaboration, under which the parties will collaborate to develop, manufacture and sell commercial products and will share in the value created thereby. The Ginkgo Collaboration Agreement provides that, subject to certain exceptions, all third party contracts for the development of chemical small molecule compounds whose manufacture is enabled by the use of microbial strains and fermentation technologies that are entered into by the Company or Ginkgo during the term of the Ginkgo Collaboration Agreement will be subject to the Ginkgo Collaboration and the approval of the other party (not to be unreasonably withheld). Responsibility for the engineering and small-scale process development of the newly developed products will be allocated between the parties on a project-by-project basis, and the Company will be principally responsible for the commercial scale-up and production of such products, with each party generally bearing their own respective costs and expenses relating to the Ginkgo Collaboration, including capital expenditures. Notwithstanding the foregoing, subject to the Company sourcing funding and breaking ground on a new production facility by March 30, 2017, Ginkgo will pay the Company a fee of $5 million on or before March 31, 2017. As of March 31, 2017, the Company had not received such second installment payment.

Under the Ginkgo Collaboration Agreement, subject to certain exceptions, including excluded or refused products and cost savings initiatives, the profit on the sale of products subject to the Ginkgo Collaboration Agreement as well as cost-sharing, milestone and "value-creation" payments associated with the development and production of such products will be shared equally between the parties. The parties also agreed to provide each other with a license and other rights to certain intellectual property necessary to support the development and manufacture of the products under the Ginkgo Collaboration, and also to provide each other with access to certain other intellectual property useful in connection with the activities to be undertaken under the Ginkgo Collaboration Agreement, subject to certain carve-outs.

The initial term of the Ginkgo Collaboration Agreement is three years, and will automatically renew for successive one-year terms unless either party provides written notice of termination not less than 90 days prior to the expiration of the then-current term. In addition, the Ginkgo Collaboration Agreement provides that the parties will evaluate the performance of the Ginkgo Collaboration as of the 18-month anniversary of the Ginkgo Collaboration Agreement, and if either party has been repeatedly unable to perform or meet its commitments under the Ginkgo Collaboration Agreement, the other party will have the right to terminate the Ginkgo Collaboration Agreement on 30 days written notice.

The Company recognized $15.0 million and zero of collaboration revenue under the Initial Ginkgo Agreement and the Ginkgo Collaboration Agreement, respectively, for the year ended December 31, 2016. As of December 31, 2016, $1.6 million is payable by the Company to Ginkgo for its share of collaboration fees.

Intellectual Property License and Strain Access Agreement

In December 2016, the Company entered into an Intellectual Property License and Strain Access Agreement with a food ingredients and nutraceuticals company. Pursuant to the agreement, the Company granted the company a royalty-free, non-exclusive, worldwide, license to access and use certain Company intellectual property for the purpose of research and development, scale-up, manufacturing and commercialization activities. In exchange for such license, the company agreed to pay the Company a fee of $10 million in cash. The terms of the agreement are being renegotiated such that non-cash consideration may be received, instead of cash. The financial impact of the agreement will be recognized when the renegotiation is completed.

Financing Agreements

2016 Private Placements

See Note 5, “Debt” for details regarding the February, June and October 2016 Private Placements.

At Market Issuance Sales Agreement

On March 8, 2016, the Company entered into an At Market Issuance Sales Agreement (ATM Sales Agreement) with FBR Capital Markets & Co. and MLV & Co. LLC (Agents) under which the Company may issue and sell shares of its common stock having an aggregate offering price of up to $50.0 million (ATM Shares) from time to time through the Agents, acting as its sales agents, under the Company’s Registration Statement on Form S-3 (File No. 333-203216), effective April 15, 2015. Sales of the ATM Shares through the Agents, if any, will be made by any method that is deemed an “at the market offering” as defined in Rule 415 under the Securities Act, including by means of ordinary brokers’ transactions at market prices, in block transactions, or as otherwise agreed by the Company and the Agents. Each time that the Company wishes to issue and sell ATM Shares under the ATM Sales Agreement, the Company will notify one of the Agents of the number of ATM Shares to be issued, the dates on which such sales are anticipated to be made, any minimum price below which sales may not be made and other sales parameters as the Company deems appropriate. The Company will pay the designated Agent a commission rate of up to 3.0% of the gross proceeds from the sale of any ATM Shares sold through such Agent as agent under the ATM Sales Agreement. The ATM Sales Agreement contains customary terms, provisions, representations and warranties. The ATM Sales Agreement includes no commitment by other parties to purchase shares the Company offers for sale.

During the year ended December 31, 2016, the Company did not sell any shares of common stock under the ATM Sales Agreement. As of the date hereof, $50.0 million remained available for future sales under the ATM Sales Agreement.

March 2016 R&D Note

See Note 7, “Joint Ventures and Noncontrolling Interest” for details regarding the March 2016 R&D Note.

Bill & Melinda Gates Foundation Investment

On April 8, 2016, the Company entered into a Securities Purchase Agreement with the Bill & Melinda Gates Foundation (Gates Foundation), pursuant to which the Company agreed to sell and issue 4,385,964 shares of its common stock to the Gates Foundation in a private placement at a purchase price per share equal to $1.14, the average of the daily closing price per share of the Company’s common stock on the NASDAQ Stock Market for the twenty consecutive trading days ending on April 7, 2016, for aggregate proceeds to the Company of approximately $5 million (Gates Foundation Investment). The Securities Purchase Agreement includes customary representations, warranties and covenants of the parties. The closing of the Gates Foundation Investment occurred on May 10, 2016.

In connection with the entry into the Securities Purchase Agreement, on April 8, 2016, the Company and the Gates Foundation entered into a Charitable Purposes Letter Agreement, pursuant to which the Company agreed to expend an aggregate amount not less than the amount of the Gates Foundation Investment to develop a yeast strain that produces artemisinic acid and/or amorphadiene at a low cost and to supply such artemisinic acid and amorphadiene to companies qualified to convert artemisinic acid and amorphadiene to artemisinin for inclusion in artemisinin combination therapies used to treat malaria commencing in 2017. If the Company defaults in its obligation to use the proceeds from the Gates Foundation Investment as set forth above or defaults under certain other commitments in the Charitable Purposes Letter Agreement, the Gates Foundation will have the right to request that the Company redeem, or facilitate the purchase by a third party of, the Gates Foundation Investment shares then held by the Gates Foundation at a price per share equal to the greater of (i) the closing price of the Company’s common stock on the trading day prior to the redemption or purchase, as applicable, or (ii) an amount equal to $1.14 plus a compounded annual return of 10%. As of December 31, 2016, $5.0 million of the funding received was classified as mezzanine equity.

2016 Convertible Note Offerings

See Note 5, “Debt” for details regarding the May and December 2016 Convertible Note Offerings.

Fourth Amendment to LSA

See Note 5, “Debt” for details regarding the fourth amendment to the LSA.

Guanfu Credit Facility

See Note 5, “Debt” for details regarding the Guanfu Credit Facility.

Glycotech Acquisition and Salisbury Note

See Note 5, “Debt” and Note 7, “Joint Ventures and Noncontrolling Interest” for details regarding the acquisition of the Glycotech Assets and related Salisbury Note.

Neossance JV and Nikko Note

See Note 5, “Debt” and Note 7, “Joint Ventures and Noncontrolling Interest” for details regarding the formation of the Neossance JV and related Nikko Note.

Fidelity Exchange

See Note 5, “Debt” and Note 16, “Subsequent Events” for details regarding the Fidelity Exchange.

9. Goodwill and Intangible Assets

The following table presents the components of the Company's goodwill and intangible assets (in thousands):

		December 31, 2016			December 31, 2015		
	Useful Life in Years	Gross Carrying Amount	Accumulated Amortization/ Impairment	Net Carrying Value	Gross Carrying Amount	Accumulated Amortization/ Impairment	Net Carrying Value
In-process research and development	Indefinite	$ 8,560	$ (8,560)	$ —	$ 8,560	$ (8,560)	$ —
Acquired licenses and permits	2	772	(772)	—	772	(772)	—
Goodwill	Indefinite	560	—	560	560	—	560
		$ 9,892	$ (9,332)	$ 560	$ 9,892	$ (9,332)	$ 560

The in-process research and development (IPR&D) of $8.6 million was acquired through the acquisition of Draths in October 2011 and was treated as indefinite lived intangible assets pending completion or abandonment of the projects to which the IPR&D related. The IPR&D was fully impaired in 2015.

The Company has a single reportable segment (see Note 15, “Reporting Segments” for further details). Consequently, all of the Company's goodwill is attributable to that single reportable segment.

10. Stockholders’ Deficit

Private Placement

December 2012 Private Placement

In December 2012, the Company completed a private placement of 14,177,849 shares of its common stock at a price of $2.98 per share for aggregate proceeds of $37.2 million and the cancellation of $5.0 million worth of outstanding senior unsecured convertible promissory notes previously issued to Total by the Company. The Company issued 1,677,852 shares to Total in exchange for this note cancellation. Net cash received for this private placement as of December 31, 2012 was $22.2 million and the remaining $15.0 million of proceeds was received in January 2013. In connection with this, the Company entered into a letter of agreement with an investor under which the Company acknowledged that the investor's initial investment of $10.0 million in December 2012 represented partial satisfaction of the investor's preexisting contractual obligation to fund $15.0 million by March 31, 2013 upon satisfaction by the Company of criteria associated with the commissioning of the Company's production plant in Brotas, Brazil.

In January 2013, the Company received $15.0 million in proceeds from the private placement offering that closed in December 2012. Consequently, the Company issued 5,033,557 shares of the 14,177,849 shares of the Company's common stock.

March 2013 Private Placement

In March 2013, the Company completed a private placement of 1,533,742 shares of its common stock at a price of $3.26 per share for aggregate proceeds of $5.0 million. This private placement represented the final tranche of an investor’s preexisting contractual obligation to fund $15.0 million upon satisfaction by the Company of certain criteria associated with the commissioning of a production plant in Brotas, Brazil.

April 2014 Private Placement

In April 2014, the Company completed a private placement of 943,396 shares of its common stock at a price of $4.24 per share for aggregate proceeds of $4.0 million.

July 2015 Private Placement

In July 2015, the Company completed a private placement of 16,025,642 shares of its common stock at a price of $1.56 per share and warrants for the purchase of 1,602,562 shares of its common stock, exercisable at an exercise price of $0.01 per share, for aggregate proceeds to the Company of $25 million.

May 2016 Private Placement

In May 2016, the Company completed a private placement of 4,385,964 shares of its common stock at a price of $1.14 per share, for aggregate proceeds to the Company of approximately $5.0 million (see Note 8, "Significant Agreements").

Evergreen Shares for 2010 Equity Plan and 2010 ESPP

In January 2016, the Company's Board of Directors (or Board) approved an increase to the number of shares available for issuance under the Company's 2010 Equity Incentive Plan (or Equity Plan) and the 2010 Employee Stock Purchase Plan (or ESPP). These shares represent an automatic annual increase in the number of shares available for issuance under the Equity Plan and the ESPP of 10,301,709 and 1,030,170, respectively. These increases are equal to 5% and 0.5%, respectively, of 206,034,184 shares, the total outstanding shares of the Company's common stock as of December 31, 2015. This automatic increase was effective as of January 1, 2016. Shares available for issuance under the Equity Plan and ESPP were initially registered on a registration statement on Form S-8 filed with the Securities and Exchange Commission on October 1, 2010 (Registration No. 333-169715). The Company filed a registration statement on Form S-8 on April 1, 2016 (Registration No. 333-210569) with respect to the shares added by the automatic increase on January 1, 2016.

Common Stock

As of December 31, 2016 and 2015, the Company was authorized to issue 500,000,000 and 400,000,000 shares of common stock, respectively, pursuant to the Company's certificate of incorporation, as amended and restated (in May 2016, the Company filed an amendment to its restated certificate of incorporation to increase the shares of common stock authorized by the Company from 400,000,000 to 500,000,000 in connection with the approval thereof by the Company's stockholders at the annual meeting of the Company's stockholders held in May 2016). Holders of the Company's common stock are entitled to dividends as and when declared by the Board, subject to the rights of holders of all classes of stock outstanding having priority rights as to dividends. There have been no dividends declared to date. The holder of each share of common stock is entitled to one vote.

Preferred Stock

Pursuant to the Company's amended and restated certificate of incorporation, the Company is authorized to issue 5,000,000 shares of preferred stock. The Board has the authority, without action by its stockholders, to designate and issue shares of preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions thereof. As of December 31, 2016 and December 31, 2015, the Company had zero shares of convertible preferred stock outstanding.

Common Stock Warrants

In December 2011, in connection with a capital lease agreement, the Company issued warrants to purchase 21,087 shares of the Company's common stock at an exercise price of $10.67 per share. The Company estimated the fair value of these warrants as of the issuance date to be $0.2 million and recorded these warrants as other assets, amortizing them subsequently over the term of the lease. The fair value was based on the contractual term of the warrants of 10 years, risk free interest rate of 2%, expected volatility of 86% and zero expected dividend yield. These warrants remain unexercised and outstanding as of December 31, 2016.

In October 2013, in connection with the issuance of the Tranche I Notes (see Note 5, "Debt"), the Company issued to Temasek contingently exercisable warrants to purchase 1,000,000 shares of the Company's common stock at an exercise price of $0.01 per share. The Company estimated the fair value of these warrants as of the issuance date at $1.3 million and recorded these warrants as debt issuance cost to be amortized over the term of the Tranche I Notes. The fair-value was calculated using a Monte Carlo simulation valuation model based on the contractual term of the warrants of 3.4 years, risk free interest rate of 0.77%, expected volatility of 45% and zero expected dividend yield. These warrants have been exercised in full as of December 31, 2016.

Each of these warrants includes a cashless exercise provision which permits the holder of the warrant to elect to exercise the warrant without paying the cash exercise price, and receive a number of shares determined by multiplying (i) the number of shares for which the warrant is being exercised by (ii) the difference between the fair market value of the stock on the date of exercise and the warrant exercise price, and dividing such by (iii) the fair market value of the stock on the date of exercise. During the years ended December 31, 2016 and 2015, no warrants were exercised through the cashless exercise provision.

The Temasek Exchange Warrant and Total Funding Warrant issued under the Exchange Agreement were recognized in equity at fair value on July 29, 2015. The fair value was calculated using a Black-Scholes valuation model based on the contractual term of the warrants, risk free interest rate of 2%, expected volatility of 74% and zero expected dividend yield. See Note 5, "Debt," for further details.

In July 2015, in connection with a private offering of the Company's common stock, the Company issued warrants to purchase a total of 1,602,562 of shares of common stock to the investors in the private offering. The warrants have an exercise price of $0.01 per share and, as of December 31, 2016, 1,442,307 of these warrants remain unexercised and outstanding.

In February 2016, in connection with a private offering of promissory notes, the Company issued warrants for the purchase, at an exercise price of $0.01 per share, of an aggregate of 2,857,142 shares of its common stock. See Note 5, "Debt," for further details. As of December 31, 2016, these warrants remain unexercised and outstanding.

In August 2016, the Company issued warrants to purchase 5,000,000 shares of our common stock, at an exercise price of $0.50 per share, to Ginkgo in exchange for the transfer of certain information technology from Ginkgo to the Company. See Note 8, "Significant Agreements," for further details. As of December 31, 2016, these warrants remain unexercised and outstanding.

In November 2016, the Company issued warrants to purchase 10,000,000 shares of our common stock, at an exercise price of $0.50 per share, to Nenter & Co., Inc. (Nenter) pursuant to the terms of, and as consideration for, that certain Cooperation Agreement, dated as of October 26, 2016, between the Company and Nenter. As of December 31, 2016, such warrant had been exercised in full.

As of December 31, 2016 and 2015, the Company had 14,663,411 and 4,343,733 of unexercised common stock warrants, respectively.

11. Stock-Based Compensation Plans

2010 Equity Incentive Plan

The Company's 2010 Equity Incentive Plan (or 2010 Equity Plan) became effective on September 28, 2010 and will terminate in 2020. Pursuant to the 2010 Equity Plan, any shares of the Company's common stock (i) issued upon exercise of stock options granted under the Company's 2005 Stock Option/Stock Issuance Plan (2005 Plan) that cease to be subject to such option and (ii) issued under the 2005 Plan that are forfeited or repurchased by the Company at the original purchase price will become part of the 2010 Equity Plan. Subsequent to the effective date of the 2010 Equity Plan, an additional 2,193,704 shares that were forfeited under the 2005 Plan were added to the shares reserved for issuance under the 2010 Equity Plan.

The number of shares reserved for issuance under the 2010 Equity Plan increase automatically on January 1st of each year starting with January 1, 2011, by a number of shares equal to 5% percent of the Company's total outstanding shares as of the immediately preceding December 31st. However, the Company's Board of Directors or the Leadership Development and Compensation Committee of the Board of Directors retains the discretion to reduce the amount of the increase in any particular year. The 2010 Equity Plan provides for the granting of common stock options, restricted stock awards, stock bonuses, stock appreciation rights, restricted stock units and performance awards. It allows for time-based or performance-based vesting for the awards. Options granted under the 2010 Equity Plan may be either incentive stock options (or ISOs) or non-statutory stock options (or NSOs). ISOs may be granted only to Company employees (including officers and directors who are also employees). NSOs may be granted to Company employees, non-employee directors and consultants. The Company will be able to issue no more than 30,000,000 shares pursuant to the grant of ISOs under the 2010 Equity Plan. Options under the 2010 Equity Plan may be granted for periods of up to ten years. All options issued to date have had a ten year life. Under the plan, the exercise price of any ISOs and NSOs may not be less than 100% of the fair market value of the shares on the date of grant. The exercise price of any ISOs and NSOs granted to a 10% stockholder may not be less than 110% of the fair value of the underlying stock on the date of grant. The options granted to date generally vest over four to five years.

As of December 31, 2016 and 2015, options to purchase 11,924,020 and 11,321,194 shares, respectively, of the Company's common stock granted from the 2010 Equity Plan were outstanding. As of December 31, 2016 and 2015, 8,285,891 and 1,833,004 shares, respectively, of the Company's common stock remained available for future awards that may be granted from the 2010 Equity Plan. The options outstanding as of December 31, 2016 and 2015 had a weighted-average exercise price of approximately $3.01 per share and $4.27 per share, respectively.

2005 Stock Option/Stock Issuance Plan

In 2005, the Company established its 2005 Stock Option/Stock Issuance Plan (or 2005 Plan) which provided for the granting of common stock options, restricted stock units, restricted stock and stock purchase rights awards to employees and consultants of the Company. The 2005 Plan allowed for time-based or performance-based vesting for the awards. Options granted under the 2005 Plan were ISOs or NSOs. ISOs were granted only to Company employees (including officers and directors who are also employees). NSOs were granted to Company employees, non-employee directors, and consultants.

All options issued under the 2005 Plan had a ten year life. The exercise prices of ISOs and NSOs granted under the 2005 Plan were not less than 100% of the estimated fair value of the shares on the date of grant, as determined by the Board of Directors. The exercise price of an ISO and NSO granted to a 10% stockholder could not be less than 110% of the estimated fair value of the underlying stock on the date of grant as determined by the Board. The options generally vested over 5 years.

As of December 31, 2016 and 2015, options to purchase 1,503,665 and 1,548,918 shares, respectively, of the Company's common stock granted from the 2005 Plan remained outstanding and as a result of the adoption of the 2010 Equity Plan discussed above, zero shares of the Company's common stock remained available for future awards issuance under the 2005 Plan. The options outstanding under the 2005 Plan as of December 31, 2016 and 2015 had a weighted-average exercise price of approximately $8.51 per share and $8.46 per share, respectively.

2010 Employee Stock Purchase Plan

The 2010 Employee Stock Purchase Plan (2010 ESPP) became effective on September 28, 2010. The 2010 ESPP is designed to enable eligible employees to purchase shares of the Company's common stock at a discount. Each offering period is for one year and consists of two six-month purchase periods. Each twelve-month offering period generally commences on May 16th and November 16th, each consisting of two six-month purchase periods. The purchase price for shares of common stock under the 2010 ESPP is the lesser of 85% of the fair market value of the Company's common stock on the first day of the applicable offering period or the last day of each purchase period. A total of 168,627 shares of common stock were initially reserved for future issuance under the 2010 Employee Stock Purchase Plan. During the life of the 2010 ESPP, the number of shares reserved for issuance increases automatically on January 1st of each year, starting with January 1, 2011, by a number of shares equal to 1% of the Company's total outstanding shares as of the immediately preceding December 31st. However, the Company's Board of Directors or the Leadership Development and Compensation Committee of the Board of Directors retains the discretion to reduce the amount of the increase in any particular year. No more than 10,000,000 shares of the Company's common stock may be issued under the 2010 ESPP and no other shares may be added to this plan without the approval of the Company's stockholders.

During the years ended December 31, 2016 and 2015, 336,075 and 385,892 shares, respectively, of the Company's common stock were purchased under the 2010 ESPP. At December 31, 2016 and 2015, 885,821 and 1,221,896 shares, respectively, of the Company's common stock remained available for issuance under the 2010 ESPP.

Stock Option Activity

The Company's stock option activity and related information for the year ended December 31, 2016 was as follows:

	Number Outstanding	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Life (Years)	Aggregate Intrinsic Value
				(in thousands)
Outstanding - December 31, 2015	12,930,112	$ 4.77	7.39	$ 22
Options granted	3,585,175	$ 0.59	—	—
Options exercised	(134)	$ 0.28	—	—
Options cancelled	(3,087,468)	$ 4.92	—	—
Outstanding - December 31, 2016	13,427,685	$ 3.63	6.70	$ 443
Vested and expected to vest after December 31, 2016	12,387,314	$ 3.84	6.54	$ 361
Exercisable at December 31, 2016	7,357,308	$ 5.48	5.32	$ 1

The aggregate intrinsic value of options exercised under all option plans was $0.0 million, $0.0 million and $0.6 million for the years ended December 31, 2016, 2015 and 2014, respectively, determined as of the date of option exercise.

The Company's restricted stock units (or RSUs) and restricted stock activity and related information for the year ended December 31, 2016 was as follows:

	RSUs	Weighted-Average Grant-Date Fair Value	Weighted Average Remaining Contractual Life (Years)
Outstanding - December 31, 2015	5,554,844	$ 2.03	1.61
Awarded	4,897,840	$ 0.61	—
Vested	(2,064,881)	$ 1.98	—
Forfeited	(1,390,719)	$ 1.39	—
Outstanding - December 31, 2016	6,997,084	$ 1.18	1.44
Expected to vest after December 31, 2016	5,642,538	$ 1.20	1.28

The following table summarizes information about stock options outstanding as of December 31, 2016:

	Options Outstanding			Options Exercisable	
Exercise Price	Number of Options	Weighted-Average Remaining Contractual Life (Years)	Weighted-Average Exercise Price	Number of Options	Weighted-Average Exercise Price
$0.28—$0.57	346,234	9.47	$ 0.43	2,734	$ 0.28
$0.59—$0.59	2,424,375	8.62	$ 0.59	—	$ —
$0.78—$1.67	1,461,082	8.53	$ 1.46	396,916	$ 1.61
$1.69—$1.96	2,218,041	7.30	$ 1.84	863,045	$ 1.85
$1.98—$2.85	1,371,168	5.82	$ 2.61	1,129,021	$ 2.67
$2.87—$3.44	1,255,796	6.52	$ 3.02	1,095,271	$ 3.01
$3.51—$3.51	1,503,891	7.06	$ 3.51	1,020,549	$ 3.51
$3.55—$4.08	1,354,152	3.90	$ 3.88	1,296,826	$ 3.88
$4.31—$24.20	1,350,946	3.40	$ 13.05	1,350,946	$ 12.05
24.50—$30.17	202,000	4.31	$ 27.52	202,000	$ 27.52
$0.28—$30.17	13,487,685	6.70	$ 3.63	7,357,308	$ 5.48

Stock-Based Compensation Expense

Stock-based compensation expense related to options and restricted stock units granted to employees was allocated to research and development expense and sales, general and administrative expense as follows (in thousands):

	Years Ended December 31,		
	2016	2015	2014
Research and development	$ 1,948	$ 2,306	$ 3,508
Sales, general and administrative	5,377	6,828	10,597
Total stock-based compensation expense	$ 7,325	$ 9,134	$ 14,105

During the years ended December 31, 2016, 2015 and 2014, the Company granted options to purchase 3,585,175 shares, 4,720,278 shares, and 3,683,791 shares of its common stock, respectively, with weighted-average grant date fair values of $0.59, $1.21, and $2.31 per share, respectively. Compensation expense of $3.5 million, $6.0 million, and $10.1 million was recorded for the years ended December 31, 2016, 2015 and 2014, respectively, for stock-based options granted. As of December 31, 2016, 2015 and 2014, there were unrecognized compensation costs of $4.4 million, $8.0 million, and $11.4 million, respectively, related to these stock options. The Company expects to recognize those costs over a weighted-average period of 2.7 years and 3.0 years as of December 31, 2016 and 2015, respectively. Future option grants will increase the amount of compensation expense to be recorded in these periods.

During the years ended December 31, 2016, 2015 and 2014, 4,897,840, 4,988,539 and 1,083,300 of restricted stock units, respectively, were granted with a weighted-average service-inception date fair value of $0.61, $1.82 and $3.51 per unit, respectively. The Company recognized a total of $3.6 million, $2.8 million and $3.3 million, respectively, for the years ended December 31, 2016, 2015 and 2014 in stock-based compensation expense for restricted stock units granted. As of December 31, 2016, 2015 and 2014, there were unrecognized compensation costs of $5.4 million, $7.7 million and $3.6 million, respectively, related to these restricted stock units.

During the years ended December 31, 2016, 2015 and 2014, the Company also recognized stock-based compensation expense related to its 2010 ESPP of $0.1 million, $0.3 million, and $0.5 million, respectively.

Employee stock-based compensation expense recognized for the years ended December 31, 2016, 2015 and 2014 included zero, zero and $0.1 million, respectively, related to option modifications. As part of separation agreements with certain former senior employees, the Company agreed to accelerate the vesting of options for zero, zero and zero shares of common stock and extend the exercise period for certain grants in the years ended December 31, 2016, 2015 and 2014, respectively.

Stock-based compensation cost for RSUs is measured based on the closing fair market value of the Company's common stock on the date of grant. Stock-based compensation expense for stock options and employee stock purchase plan rights is estimated at the grant date and offering date, respectively, based on the fair-value using the Black-Scholes option pricing model. The fair value of employee stock options is being amortized on a straight-line basis over the requisite service period of the awards. The fair value of employee stock options was estimated using the following weighted-average assumptions:

	Years Ended December 31,		
	2016	**2015**	**2014**
Expected dividend yield	—%	—%	—%
Risk-free interest rate	1.4%	1.8%	1.9%
Expected term (in years)	6.16	6.08	6.10
Expected volatility	73%	74%	75%

Expected Dividend Yield - The Company has never paid dividends and does not expect to pay dividends.

Risk-Free Interest Rate - The risk-free interest rate was based on the market yield currently available on United States Treasury securities with maturities approximately equal to the options' expected terms.

Expected Term—Expected term represents the period that the Company’s stock-based awards are expected to be outstanding. The Company’s assumption about the expected term has been based on historical data on employee exercises.

Expected Volatility—The expected volatility is based on historical volatility for the Company's stock.

Forfeiture Rate—The Company estimates its forfeiture rate based on an analysis of its actual forfeitures and will continue to evaluate the adequacy of the forfeiture rate based on actual forfeiture experience, analysis of employee turnover behavior, and other factors. The impact from a forfeiture rate adjustment will be recognized in full in the period of adjustment, and if the actual number of future forfeitures differs from that estimated by the Company, the Company may be required to record adjustments to stock-based compensation expense in future periods.

Each of the inputs discussed above is subjective and generally requires significant management and director judgment.

12. Employee Benefit Plan

The Company established a 401(k) Plan to provide tax deferred salary deductions for all eligible employees. Participants may make voluntary contributions to the 401(k) Plan up to 90% of their eligible compensation, limited by certain Internal Revenue Service (or IRS) restrictions. Effective January 2014, the Company implemented a discretionary employer match plan whereby the Company matches employee contributions for the year ended December 31, 2014 onwards up to the IRS limit or 90% of compensation, with a minimum one year of service required for vesting. The total matching amount for each of the years ended December 31, 2016 and 2015 was $0.5 million.

13. Related Party Transactions

Related Party Financings

See Note 5, “Debt” for a description of the February 2016 Private Placement transaction with Foris Ventures, LLC (or Foris), Naxyris S.A. and Biolding SA, each a related party of the Company, the March 2016 R&D Note transaction with Total and the June 2016 and October 2016 Private Placement transactions with Foris. See Note 16, “Subsequent Events” for additional details regarding the March 2016 R&D Note.

As of December 31, 2016 and December 31, 2015, convertible notes and loans with related parties were outstanding in an aggregate amount of $72.4 million and $42.7 million, respectively, net of debt discount and issuance costs of $6.7 million and $4.9 million, respectively.

The fair value of the derivative liabilities related to the related party convertible notes as of December 31, 2016 and December 31, 2015 was $0.8 million and $7.9 million, respectively. The Company recognized a gain from change in fair value of these derivative liabilities of $7.6 million, $10.5 million and $141.2 million for the years ended December 31, 2016, 2015 and 2014, respectively, (see Note 3, "Fair Value of Financial Instruments" for further details).

Related Party Revenues

The Company recognized related party revenues from product sales to Total of $0.2 million, $0.9 million and $0.6 million for the years ended December 31, 2016, 2015 and 2014, respectively. Related party accounts receivable from Total as of December 31, 2016 and 2015, were $0.8 million and $1.2 million, respectively. The Company recognized related party revenues from product sales to Novvi of $1.4 million, zero and $0.1 million for the years ended December 31, 2016, 2015 and 2014, respectively. Related party accounts receivable from Novvi were zero as of each of December 31, 2016 and 2015. In addition, in October 2016 the Company entered into a collaboration contract with the Department of Energy, in which Total and Renmatix participate as subcontractors. There were no revenues, receivables or payables related to the Department of Energy contract in fiscal year 2016.

Loans to Related Parties

See Note 7, "Joint Ventures and Noncontrolling Interest" for details of the Company's transactions with its affiliate, Novvi LLC.

Joint Venture with Total

In November 2013, the Company and Total formed TAB as discussed above under Note 7, "Joint Ventures and Noncontrolling Interest."

Pilot Plant and Secondee Agreements

In May 2014, the Company received the final consents necessary for the Pilot Plant Services Agreement (Pilot Plant Services Agreement) and a Sublease Agreement (Sublease Agreement), each dated as of April 4, 2014 (collectively the Pilot Plant Agreements), between the Company and Total. The Pilot Plant Agreements generally have a term of five years. Under the terms of the Pilot Plant Services Agreement, the Company agreed to provide certain fermentation and downstream separations scale-up services and training to Total and receives an aggregate annual fee payable by Total for all services in the amount of up to approximately $0.9 million per annum. In July 2015, Total and the Company entered into Amendment #1 (Pilot Plant Agreement Amendment) to the Pilot Plant Services Agreement whereby the Company agreed to waive a portion of these fees, up to approximately $2.0 million, over the term of the Pilot Plant Services Agreement in connection with the restructuring of TAB discussed above. Under the Sublease Agreement, the Company receives an annual base rent payable by Total of approximately $0.1 million per annum.

As of December 31, 2016, the Company had received $1.7 million in cash under the Pilot Plant Agreements from Total. In connection with these arrangements, sublease payments and service fees of $0.4 million and $0.9 million for the years ended December 31, 2016 and 2015, respectively, were offset against costs and operating expenses. Total charges its secondees to the Company for research and development services. The amount charged to the Company by Total in 2016 and 2015 was $0.8 million and $0.9 million, respectively. The payable to Total under these arrangements was $2.2 million and $1.4 million as of December 31, 2016 and 2015, respectively.

Office Sublease

As of December 31, 2016, the Company recharged office rental expenses to Novvi of $0.4 million (net of $0.4 million forgiven) for 2016 and $0.7 million for 2015. As of December 31, 2016, 2015, $0.2 million and zero, respectively, was receivable from Novvi.

14. Income Taxes

For each of the years ended December 31, 2016, 2015 and 2014, the Company recorded a provision for income taxes of $0.5 million. The provision for income taxes for the years ended December 31, 2016, 2015 and 2014, primarily relates to accrued withholding taxes that would be due in connection with the payment of interest on intercompany loans. Other than the above mentioned provision for income taxes, no additional provision for income taxes has been made, net of the valuation allowance, due to cumulative losses since the commencement of operations.

The components of income (loss) before income taxes, loss from investments in affiliates and noncontrolling interest are as follows for the years ended December 31, 2016, 2015 and 2014 (in thousands):

	Years Ended December 31,		
	2016	2015	2014
United States	$ (101,210)	$ (188,943)	$ 10,847
Foreign	4,429	(24,457)	(5,275)
Income (loss) before income taxes and loss from investments in affiliates	$ (96,781)	$ (213,400)	$ 5,572

The components of the provision for income taxes are as follows for the years ended December 31, 2016, 2015 and 2014 (in thousands):

	Years Ended December 31,		
	2016	2015	2014
Current:			
Federal	$ —	$ —	$ —
State	—	—	—
Foreign	553	468	495
Total current provision	553	468	495
Deferred:			
Federal	—	—	—
State	—	—	—
Foreign	—	—	—
Total deferred provision	—	—	—
Total provision for income taxes	$ 553	$ 468	$ 495

A reconciliation between the statutory federal income tax and the Company's effective tax rates as a percentage of income (loss) before income taxes is as follows:

	Years Ended December 31,		
	2016	2015	2014
Statutory tax rate	(34.0)%	(34.0)%	(34.0)%
State tax rate, net of federal benefit	0.0%	(0.3)%	23.3%
Stock-based compensation	—%	0.1%	(2.8)%
Federal R&D credit	(0.8)%	(0.6)%	31.0%
Derivative liabilities	1.4%	3.6%	541.5%
Non-Deductible Interest	5.0%	5.5%	0.0%
Other	(3.2)%	0.1%	(7.8)%
Foreign losses	0.5%	(1.2)%	32.3%
Change in valuation allowance	31.7%	27.1%	(592.4)%
Effective income tax rate	0.6%	0.3%	(8.9)%

Temporary differences and carryforwards that gave rise to significant portions of deferred taxes are as follows (in thousands):

	December 31,		
	2016	2015	2014
Net operating loss carryforwards	$ 236,741	$ 207,241	$ 195,536
Fixed assets	12,917	10,519	1,299
Research and development credits	17,348	16,612	14,701
Foreign Tax Credit	2,452	1,899	1,431
Accruals and reserves	30,303	26,366	16,425
Stock-based compensation	17,184	19,048	18,773
Capitalized start-up costs	9,182	9,568	13,095
Capitalized research and development costs	65,962	63,339	56,880
Other	6,714	9,999	6,700
Total deferred tax assets	398,803	364,591	324,840
Fixed assets	—	—	—
Debt discount and derivative	(11,936)	(4,402)	(12,517)
Total deferred tax liabilities	(11,936)	(4,402)	(12,517)
Net deferred tax asset prior to valuation allowance	386,867	360,189	312,323
Less: Valuation allowance	(386,867)	(360,189)	(312,323)
Net deferred tax assets (liabilities)	$ —	$ —	$ —

Recognition of deferred tax assets is appropriate when realization of such assets is more likely than not. Based upon the weight of available evidence, especially the uncertainties surrounding the realization of deferred tax assets through future taxable income, the Company believes it is more likely than not that the net deferred tax assets will not be fully realizable. Accordingly, the Company has provided a full valuation allowance against its net deferred tax assets as of December 31, 2016, 2015 and 2014. The valuation allowance increased by $26.7 million, $47.9 million, and $28.3 million, during the years ended December 31, 2016, 2015 and 2014, respectively.

As of December 31, 2016, the Company had federal net operating loss carryforwards of approximately $645.3 million, and state net operating loss carryforwards $208.7 million, available to reduce future taxable income, if any. As of December 31, 2016 approximately $27.2 million, of the federal loss carryforwards and $12.9 million of state net operating loss carryforwards, respectively, related to excess stock-based compensation, and accordingly no deferred tax asset is recognized for such amounts prior to the adoption of ASU 2016-09, discussed above in the *Recent Accounting Pronouncements* section of Note 2, "Summary of Significant Accounting Policies." Any deferred tax asset recognized on adoption of ASU 2016-09 related to excess stock-based compensation, net of any applicable valuation allowance, will be recorded to retained earnings as of the date of adoption.

During the year ended December 31, 2015, unrecognized tax benefits of $8.5 million were resolved in connection with the outcome of a California Supreme Court case, involving another taxpayer, that concluded on a methodology which follows that certain of the Company's net operating losses cannot be sustained. The decision had no impact on the Company's gross deferred tax assets as presented, as the Company's deferred tax asset for net operating losses was previously reported, net of a reserve for this same item.

As of December 31, 2016, the Company had federal research and development credits of $9.8 million and California research and development credit carryforwards of $11.4 million.

The Tax Reform Act of 1986 (TRA) and similar state provisions limit the use of net operating loss and credit carryforwards in certain situations where equity transactions result in a change of ownership as defined by Internal Revenue Code Section 382. In the event the Company has experienced an ownership change, as defined in the TRA, utilization of its federal and state net operating loss and credit carryforwards could be limited. If not utilized, the federal net operating loss carryforward begins expiring in 2025, and the California net operating loss carryforward begins expiring in 2016. The federal research and development credit carryforwards will expire starting in 2024 if not utilized. The California tax credits can be carried forward indefinitely.

A reconciliation of the beginning and ending amounts of unrecognized tax benefits is as follows:

Balance at December 31, 2013	$	6,080
Increases in tax positions for prior period		4,736
Increases in tax positions during current period		6,265
Balance at December 31, 2014	$	17,081
Decreases in tax positions for prior period		(9,404)
Increases in tax positions during current period		957
Balance at December 31, 2015	$	8,634
Decreases in tax positions for prior period		(314)
Increases in tax positions during current period		781
Balance at December 31, 2016		9,101

The Company's policy is to include interest and penalties related to unrecognized tax benefits within the provision for taxes. The Company determined that no accrual for interest and penalties was required as of December 31, 2016, December 31, 2015 or December 31, 2014.

None of the tax benefits, if recognized, would affect the effective income tax rate for any of the above years due to the valuation allowance that currently offsets deferred tax assets. The Company does not anticipate the total amount of unrecognized income tax benefits will significantly increase or decrease in the next 12 months.

The Company's primary tax jurisdiction is the United States. For United States federal and state tax purposes, returns for tax years 2004 and forward remain open and subject to tax examination by the appropriate federal or state taxing authorities. Brazil tax years 2009 through the current remain open and subject to examination.

As of December 31, 2016, the US Internal Revenue Service (IRS) has completed its audit of the Company for tax year 2008 which concluded that there were no adjustments resulting from the audit. While the statutes are closed for tax year 2008, the US federal tax carryforwards (net operating losses and tax credits) may be adjusted by the IRS in the year in which the carryforward is utilized.

15. Reportable Segments

The chief operating decision maker for the Company is the chief executive officer. The chief executive officer reviews financial information presented on a consolidated basis, accompanied by information about revenues by geographic region, for purposes of allocating resources and evaluating financial performance. The Company has one business activity comprised of research and development and sales of fuels and farnesene-derived products and there are no segment managers who are held accountable for operations, operating results or plans for levels or components below the consolidated unit level. Accordingly, the Company has determined that it has a single reportable segment and operating segment structure.

Revenues by geography are based on the location of the customer. The following tables set forth revenues and long-lived assets by geographic area (in thousands):

Revenues

	Years Ended December 31,		
	2016	**2015**	**2014**
United States	$ 30,944	$ 20,897	$ 21,331
Brazil	489	5,070	5,961
Europe	23,612	3,557	9,738
Asia	12,068	4,629	6,244
Other	79	—	—
Total	$ 67,192	$ 34,153	$ 43,274

Long-Lived Assets

	December 31,	
	2016	**2015**
United States	$ 9,342	$ 18,401
Brazil	44,153	41,093
Europe	240	303
Total	$ 53,735	$ 59,797

16. Subsequent Events

LSA Amendment

On January 10, 2017, in connection with Stegodon granting certain waivers of the debt and transfer covenants under the LSA, the Company, certain of its subsidiaries and Stegodon entered into a fifth amendment of the LSA. Pursuant to the fifth amendment, the Company agreed to apply additional monies received by the Company under the Ginkgo Collaboration Agreement towards repayment of the outstanding loans under the Senior Secured Loan Facility, up to a maximum amount of $3 million, to the extent any such monies are received by the Company.

As described in more detail below under "Fidelity Notes Exchange," on January 11, 2017, the Stegodon debt was extended from a maturity of February 1, 2017 to October 15, 2018 due to conditions being met as a result of the Fidelity Exchange (as defined below). The extension of the Stegodon debt met the requirements for a troubled debt restructuring with the future undiscounted cash flows being greater than the carrying value of the debt prior to extension. No gain will be recorded and a new effective interest rate will be established based on the carrying value of the debt and the revised cash flows.

Fidelity Notes Exchange

As described in more detail in Note 5, "Debt", on December 28, 2016, the Company entered into an Exchange Agreement with the holders of its outstanding Fidelity Notes, pursuant to which the Company and the holders agreed to exchange such Fidelity Notes, together with accrued and unpaid interest thereon, for approximately $19.1 million in aggregate principal amount of the Company's 2015 144A Notes, representing an exchange ratio of approximately 1:1.25, in a private placement exempt from registration under the Securities Act (Fidelity Exchange).

The closing of the Fidelity Exchange occurred on January 11, 2017. At the closing, the Company issued approximately $19.1 million in aggregate principal amount of its 2015 144A Notes (Additional 2015 144A Notes) to the holders in exchange for the cancellation of the outstanding Fidelity Notes. The Company did not receive any cash proceeds from the Fidelity Exchange. The exchange will be accounted for as an extinguishment of the Fidelity Notes and issuance of the Additional 2015 144A Notes. A gain of approximately $0.1 million will be recognized in the first quarter to recognize excess of the fair value of the Additional 2015 144A Notes compared to the carrying value of the Fidelity Notes at the time of extinguishment.

The Additional 2015 144A Notes were issued pursuant to the 2015 Indenture, as amended by the First Supplemental Indenture thereto, dated as of January 11, 2017, which amended the 2015 Indenture to clarify the Exchange Cap (as defined below) for the Additional 2015 144A Notes. See Note 5, "Debt" for details regarding the terms of the 2015 144A Notes and the 2015 Indenture. Unless and until the Company obtains stockholder approval to issue a number of shares of the Company's common Stock in excess of the Exchange Cap (as defined below), holders of the Additional 2015 144A Notes will not have the right to receive shares of the Company's common stock upon conversion of the Additional 2015 144A Notes, and the Company will not have the right to issue shares of common stock as payment of interest on the Additional 2015 144A Notes, including any Early Conversion Payment, if the aggregate number of shares issued with respect to the Additional 2015 144A Notes (and any other transaction aggregated for such purpose) after giving effect to such conversion or payment, as applicable, would exceed 19.99% of the number of shares of the Company's common stock outstanding as of December 28, 2016 (Exchange Cap). The Company will pay cash in lieu of any shares that would otherwise be deliverable in excess of the Exchange Cap.

Pursuant to the Exchange Agreement, upon the closing of the Fidelity Exchange, the Fidelity Securities Purchase Agreement terminated. In addition, upon the closing of the Fidelity Exchange, in accordance with the terms of the fourth amendment to the Senior Secured Loan Facility, the maturity date of all outstanding loans under the Senior Secured Loan Facility was extended to October 15, 2018. See Note 5, "Debt" for details regarding the fourth amendment to the Senior Secured Loan Facility.

Novvi Investment

As discussed above in Note 7, “Joint Ventures and Noncontrolling Interest,” in July 2016, ARG agreed to make a capital contribution of up to $10.0 million in cash to Novvi, subject to certain conditions, in exchange for a one third ownership stake in Novvi, which capital contribution had been funded in the amount of $9.0 million as of December 31, 2016. On February 15, 2017, ARG funded the remaining $1.0 million capital contribution to Novvi.

Amendment to March 2016 R&D Note

On February 27, 2017, the Company and Total entered into an amendment to the R&D Note issued by the Company to Total on March 21, 2016 in the principal amount of $3.7 million to extend the maturity date of such R&D Note from March 1, 2017 to May 15, 2017. See Note 5, “Debt” for additional details regarding the R&D Notes.

Total and Temasek R&D Warrants

As discussed above under Note 5, “Debt”, in connection with the Exchange in July 2015, the Company issued (i) a warrant to Total to purchase 2,000,000 shares of the Company's common stock that would only be exercisable if the Company failed, as of March 1, 2017, to achieve a target cost per liter to manufacture farnesene (Total R&D Warrant) and (ii) a warrant to Temasek exercisable for that number of shares of the Company's common stock equal to 880,339 multiplied by a fraction equal to the number of shares for which Total exercises the Total R&D Warrant divided by 2,000,000 (Temasek R&D Warrant). As of March 1, 2017, the Company had not achieved the target cost per liter to manufacture farnesene provided in the Total R&D Warrant, and as a result, on March 1, 2017 the Total R&D Warrant became exercisable in accordance with its terms. In addition, upon any exercise by Total of the Total R&D Warrant, the Temasek R&D Warrant will become exercisable for that number of shares of the Company's common stock equal to 880,339 multiplied by a fraction equal to the number of shares for which Total exercises the Total R&D Warrant divided by 2,000,000.

Ginkgo Collaboration Note

On April 13, 2017, the Company issued a secured promissory note to Ginkgo, in the principal amount of $3 million dollars (the “***Ginkgo Collaboration Note***”), in satisfaction of certain payments owed by the Company to Ginkgo under the Ginkgo Collaboration Agreement (see Note 8, “Significant Agreements” above for details regarding the Ginkgo Collaboration Agreement). The Ginkgo Collaboration Note is collateralized by a second priority lien on the assets securing the Company’s obligations under the Senior Secured Loan Facility, and is subordinate to the Company’s obligations under the Senior Secured Loan Facility pursuant to a Subordination Agreement, dated as of October 27, 2016 and ratified on April 13, 2017, by and among the Company, Ginkgo and Stegodon. Interest will accrue on the Ginkgo Collaboration Note from and including April 13, 2017 at a rate of 13.50% per annum and is payable in full on May 15, 2017, the maturity date of the Ginkgo Collaboration Note, unless the Ginkgo Collaboration Note is prepaid in accordance with their terms prior to such date. The Ginkgo Collaboration Note contains customary terms, provisions, representations and warranties, including certain events of default after which the Ginkgo Collaboration Note may be due and payable immediately, as set forth in the Ginkgo Collaboration Note.

SUPPLEMENTARY FINANCIAL DATA
Selected Quarterly Financial Data (unaudited)

The following table presents selected unaudited consolidated financial data for each of the eight quarters in the two-year periods ended December 31, 2016. In the Company's opinion, this unaudited information has been prepared on the same basis as the audited information and includes all adjustments (consisting of only normal recurring adjustments) necessary for a fair statement of the financial information for the periods presented. Net income (loss) per share—basic and diluted, for the four quarters of each fiscal year may not sum to the total for the fiscal year because of the different number of shares outstanding during each period.

	Quarter			
	First	Second	Third	Fourth
	(In thousands, except share and per share amounts)			
Year Ended December 31, 2016				
Total revenues	$ 8,811	$ 9,599	$ 26,544	$ 22,238
Product sales	$ 3,140	$ 4,922	$ 6,820	$ 11,467
Gross loss from product sales	$ (8,038)	$ (2,969)	$ (8,056)	$ (11,290)
Net loss attributable to common stockholders (for basic loss per share)[1]	$ (15,308)	$ (13,566)	$ (19,704)	$ (48,756)
Net loss attributable to common stockholders (for diluted loss per share)	$ (30,273)	$ (29,245)	$ (19,704)	$ (48,756)
Net loss per share:				
Basic[1]	$ (0.07)	$ (0.06)	$ (0.08)	$ (0.18)
Diluted	$ (0.12)	$ (0.11)	$ (0.08)	$ (0.18)
Shares used in calculation:				
Basic	207,199,563	223,112,019	249,190,339	273,406,492
Diluted	260,932,085	262,896,140	249,190,339	273,406,492
Year Ended December 31, 2015				
Total revenues	$ 7,872	$ 7,843	$ 8,591	$ 9,847
Product sales	$ 2,095	$ 3,340	$ 4,228	$ 5,233
Gross loss from product sales	$ (4,548)	$ (7,619)	$ (4,227)	$ (6,084)
Net loss attributable to common stockholders (for basic loss per share)[1]	$ (52,240)	$ (47,130)	$ (76,664)	$ (48,352)
Net loss attributable to common stockholders (for diluted loss per share)	$ (52,240)	$ (54,527)	$ (76,664)	$ (68,316)
Net loss per share:				
Basic[1]	$ (0.66)	$ (0.59)	$ (0.55)	$ (0.23)
Diluted	$ (0.66)	$ (0.62)	$ (0.55)	$ (0.30)
Shares used in calculation:				
Basic	79,222,051	80,041,152	140,374,297	206,661,506
Diluted	79,222,051	87,421,439	140,374,297	231,014,248

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[1] Basic loss per share for the fourth quarter of 2015 is calculated by excluding from net income (loss) attributable to common stockholders a gain of $6,424 (thousand) related to a change in the fair value of a liability classified common stock warrant included in the Company's consolidated statement of operations. The warrant has a nominal exercise price and shares issuable upon exercise of the warrant are considered equivalent to the Company's common shares for the purpose of computation of basic earnings per share and consequently losses are adjusted to exclude the gain.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

Not applicable.

ITEM 9A. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer (CEO) and Chief Financial Officer (CFO), evaluated the effectiveness of our disclosure controls and procedures pursuant to Rule 13a-15 under the Securities Exchange Act of 1934 (Exchange Act), as of the end of the period covered by this Annual Report on Form 10-K. Based on this evaluation, our CEO and CFO concluded that, as of December 31, 2016, our disclosure controls and procedures are designed and are effective to provide reasonable assurance that information we are required to disclose in reports that we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our CEO and CFO, as appropriate, to allow timely decisions regarding required disclosure.

Our management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

Management's Annual Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is a process designed by, or under the supervision of, our CEO and CFO, and effected by our Board of Directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles and includes those policies and procedures that:

- Pertain to the maintenance of records that accurately and fairly reflect in reasonable detail the transactions and dispositions of the assets of our company;
- Provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and
- Provide reasonable assurances regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material adverse effect on our financial statements.

Our management assessed our internal control over financial reporting as of December 31, 2016, the end of our fiscal year. Management based its assessment on criteria established in "Internal Control-Integrated Framework" (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission**.** Based on management's assessment of our internal control over financial reporting, management concluded that, as of December 31, 2016, our internal control over financial reporting was effective.

Internal control over financial reporting has inherent limitations. Internal control over financial reporting is a process that involves human diligence and compliance and is subject to lapses in judgment and breakdowns resulting from human failures. Internal control over financial reporting also can be circumvented by collusion or improper management override. Because of such limitations, there is a risk that material misstatements will not be prevented or detected on a timely basis by internal control over financial reporting. However, these inherent limitations are known features of the financial reporting process. Therefore, it is possible to design into the process safeguards to reduce, though not eliminate, this risk.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting identified in management’s evaluation pursuant to Rules 13a-15(d) or 15d-15(d) of the Exchange Act during our fourth fiscal quarter ended December 31, 2016 that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

Not applicable.

PART III

Certain information required by Part III is omitted from this Annual Report on Form 10-K and is incorporated herein by reference from our definitive proxy statement relating to our 2017 annual meeting of stockholders, pursuant to Regulation 14A of the Exchange Act, also referred to in this Form 10-K as our 2017 Proxy Statement, which we expect to file with the SEC no later than 120 days from the end of fiscal year 2016.

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information appearing in our 2017 Proxy Statement under the following headings is incorporated herein by reference:

- Proposal 1—Election of Directors
- Corporate Governance
- Section 16(a) Beneficial Ownership Reporting Compliance

The information under the heading "Executive Officers of the Registrant" in Item 1(a) of this Annual Report on Form 10-K is also incorporated by reference in this section.

We have adopted a Code of Business Conduct and Ethics that applies to all directors, officers and employees of Amyris as required by NASDAQ governance rules and as defined by applicable SEC rules. Our Code of Business Conduct and Ethics includes a section entitled "Code of Ethics for Chief Executive Officer and Senior Financial Officers," providing additional principles for ethical leadership and a requirement that such individuals foster a culture throughout Amyris that helps ensure the fair and timely reporting of our financial results and condition. Our Code of Business Conduct and Ethics is available on the corporate governance section of our website at "http://investors.amyris.com/corporate-governance.cfm." Stockholders may also obtain a print copy of our Code of Business Conduct and Ethics and our Corporate Governance Guidelines by writing to the Secretary of Amyris at 5885 Hollis Street, Suite 100, Emeryville, California 94608. If we make any substantive amendments to our Code of Business Conduct and Ethics or grant any waiver from a provision of the Internal Revenue Code to any executive officer or director, we will promptly disclose the nature of the amendment or waiver on the corporate governance section of our website at "http://investors.amyris.com/corporate-governance.cfm."

ITEM 11. EXECUTIVE COMPENSATION

The information appearing in our 2017 Proxy Statement under the following headings is incorporated herein by reference:

- Executive Compensation
- Director Compensation
- Compensation Committee Interlocks and Insider Participation

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information appearing in our 2017 Proxy Statement under the following heading is incorporated herein by reference:

- Security Ownership of Certain Beneficial Owners and Management

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information appearing in our 2017 Proxy Statement under the following headings is incorporated herein by reference:

- Transactions with Related Persons
- Proposal 1—Election of Directors—Independence of Directors
- Proposal 1—Election of Directors—Committees of the Board

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information appearing in our 2017 Proxy Statement under the proposal entitled “Ratification of Appointment of Independent Registered Public Accounting Firm” is incorporated herein by reference.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

(a) The following documents are filed as part of this Annual Report on Form 10-K:

(1) Financial Statements. Reference is made to the Index to the registrant's Financial Statements under Item 8 in Part II of this Annual Report on Form 10-K.

(2) Financial Statement Schedules. The following consolidated financial statement schedule of the registrant is filed as part of this Annual Report on Form 10-K and should be read in conjunction with the Consolidated Financial Statements of Amyris, Inc.

SCHEDULE II
VALUATION AND QUALIFYING ACCOUNTS
FOR THE YEARS ENDED DECEMBER 31, 2016, 2015 and 2014
(in thousands)

	Balance at Beginning of Period	Additions	Write-off Adjustments	Balance at End of Period
Deferred Tax Assets Valuation Allowance:				
Year ended December 31, 2016	$ 360,189	$ 26,678	$ —	$ 386,867
Year ended December 31, 2015	$ 312,323	$ 47,866	$ —	$ 360,189
Year ended December 31, 2014	$ 284,021	$ 28,302	$ —	$ 312,323

	Balance at Beginning of Period	Additions	Write-off Adjustments	Balance at End of Period
Allowance for Doubtful Accounts:				
Year ended December 31, 2016	$ 969	$ —	$ (468)	$ 501
Year ended December 31, 2015	$ 479	$ 490	$ —	$ 969
Year ended December 31, 2014	$ 479	$ —	$ —	$ 479

Schedules not listed above are omitted because they are not required, they are not applicable or the information is already included in the consolidated financial statements or notes thereto.

(3) Exhibits. The exhibits filed as a part of this report are listed in the exhibit index included herein at page 201.

(b) Exhibits.

Reference is made to Item 15(a) above.

(c) *Financial statements and schedules.*

Reference is made to Item 15(a) above.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized in the city of Emeryville, County of Alameda, State of California on April 17, 2017.

Dated: April 17, 2017

Amyris, Inc.

/s/ JOHN G. MELO

John G. Melo
President and Chief Executive Officer
(Principal Executive Officer)

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints John Melo and Kathleen Valiasek as his or her true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments to this Annual Report on Form 10-K, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ JOHN MELO **John Melo**	Director, President and Chief Executive Officer (Principal Executive Officer)	April 17, 2017
/s/ KATHLEEN VALIASEK **Kathleen Valiasek**	Chief Financial Officer (Principal Financial Officer)	April 17, 2017
/s/ KAREN WEAVER **Karen Weaver**	Vice President Finance (Principal Accounting Officer)	April 17, 2017
/s/ CHRISTOPHE VUILLEZ **Christophe Vuillez**	Director	April 17, 2017
/s/ JOHN DOERR **John Doerr**	Director	April 17, 2017
/s/ GEOFFREY DUYK **Geoffrey Duyk**	Director	April 17, 2017
/s/ ABRAHAM KLAEIJSEN **Abraham Klaeijsen**	Director	April 17, 2017
/s/ CAROLE PIWNICA **Carole Piwnica**	Director	April 17, 2017
/s/ FERNANDO REINACH **Fernando Reinach**	Director	April 17, 2017
/s/ HH SHEIKH ABDULLAH BIN KHALIFA AL THANI **HH Sheikh Abdullah bin Khalifa Al Thani**	Director	April 17, 2017
/s/ R. NEIL WILLIAMS **R. Neil Williams**	Director	April 17, 2017
/s/ PATRICK YANG **Patrick Yang**	Director	April 17, 2017

EXHIBIT INDEX

The following table lists the exhibits filed as part of this report on Form 10-K. In some cases, these exhibits are incorporated into this report by reference to exhibits to our other filings with the Securities and Exchange Commission. Where an exhibit is incorporated by reference, we have noted the type of form filed with the Securities and Exchange Commission, the file number of that form, the date of the filing, and the number of the exhibit referenced in that filing.

Exhibit		Previously Filed				Filed
No.	Description	Form	File No.	Filing Date	Exhibit	Herewith
3.01	Restated Certificate of Incorporation	10-Q	001-34885	November 10, 2010	3.01	
3.02	Certificate of Amendment, dated May 9, 2013, to Restated Certificate of Incorporation	S-8	333-188711	May 20, 2013	4.02	
3.03	Certificate of Amendment, dated May 12, 2014, to Restated Certificate of Incorporation	10-Q	001-34887	August 8, 2014	3.02	
3.04	Certificate of Amendment, dated September 18, 2015, to Restated Certificate of Incorporation	S-3/A	333-206331	November 4, 2015	3.03	
3.05	Certificate of Amendment, dated May 18, 2016, to Restated Certificate of Incorporation	10-Q	001-34885	August 9, 2016	3.05	
3.06	Restated Bylaws	10-Q	001-34885	November 10, 2010	3.02	
4.01	Specimen of Common Stock Certificate	S-1	333-166135	July 6, 2010	4.01	
4.02	Amended and Restated Investors' Rights Agreement, dated June 21, 2010, among registrant and its security holders listed therein	S-1	333-166135	June 23, 2010	4.02	
4.03	First Amendment to Amended and Restated Investors' Rights Agreement, dated February 23, 2012, among registrant and registrant's security holders listed therein	S-3	333-180005	March 9, 2012	4.06	
4.04	Amendment No. 2 to Amended and Restated Investors' Rights Agreement, dated December 24, 2012, among registrant and registrant's security holders listed therein	10-K	001-34885	March 28, 2013	4.04	
4.05	Amendment No. 3 to Amended and Restated Investors' Rights Agreement, dated March 27, 2013, among registrant and registrant's security holders listed therein	10-Q	001-34885	May 9, 2013	4.02	
4.06	Amendment No. 4 to Amended and Restated Investors' Rights Agreement, dated October 16, 2013, among registrant and registrant's security holders listed therein	10-K	001-34885	April 2, 2014	4.06	
4.07	Amendment No. 5 to Amended and Restated Investors' Rights Agreement, dated December 24, 2013, among registrant and registrant's security holders listed therein	10-K	001-34885	April 2, 2014	4.07	
4.08	Amendment No. 6 to Amended and Restated Investors' Rights Agreement dated July 29, 2015 among registrant and registrant's security holders listed therein	S-3	333-206331	August 12, 2015	4.17	
4.09 [a]	Amended and Restated Letter Agreement re: Certain Registration Rights dated May 8, 2014 between registrant and the purchasers listed therein	10-Q	001-34885	August 8, 2014	4.01	
4.10	Warrant to Purchase Stock, dated December 23, 2011, issued to ATEL Ventures, Inc.	10-K	001-34885	February 28, 2012	4.07	
4.11	Side Letter, dated June 21, 2010, between registrant and Total Gas & Power USA, SAS	S-1	333-166135	June 23, 2010	4.19	
4.12	Agreement, dated February 23, 2012, among registrant, Maxwell (Mauritius) Pte Ltd, Naxyris SA, Biolding Investment SA and Sualk Capital Ltd.	10-Q	001-34885	May 9, 2012	4.02	
4.13	Securities Purchase Agreement, dated February 24, 2012, among registrant and certain investment funds affiliated with Fidelity Investments Institutional Services Company, Inc. listed therein (each, a Fidelity Purchaser)	S-3	333-180005	March 9, 2012	4.02	

4.14	Form of Unsecured Senior Convertible Promissory Note issued by registrant to the Fidelity Purchasers in the amounts set forth next to each Fidelity Purchaser's name on Schedule I of Exhibit 4.13 hereof		S-3		333-180005		March 9, 2012		4.03		
4.15	Registration Rights Agreement, dated February 27, 2012, among registrant and the Fidelity Purchasers		S-3		333-180005		March 9, 2012		4.04		
4.16	Exchange Agreement, dated December 28, 2016, among registrant and certain Fidelity Purchasers										X
4.17 c	Form of Common Stock Purchase Agreement among registrant and certain investors		10-Q		001-34885		August 8, 2012		4.01		
4.18	Securities Purchase Agreement, dated July 30, 2012, between registrant and Total Gas & Power USA, SAS		10-Q		001-34885		November 9, 2012		4.01		
4.19	Registration Rights Agreement, dated July 30, 2012, between registrant and Total Gas & Power USA, SAS		10-Q		001-34885		November 9, 2012		4.03		
4.20	1.5% Senior Secured Convertible Note dated July 29, 2015 (RS-9) issued by registrant to Total Energies Nouvelles Activités USA (RS-9)		10-Q		001-34885		November 9, 2015		4.21		
4.21	1.5% Senior Convertible Note, dated March 21, 2016 (RS-10) issued by registrant to Total Energies Nouvelles Activités USA		10-Q		001-34885		May 10, 2016		4.19		
4.22 [a]	Securities Purchase Agreement, dated December 24, 2012, between registrant and certain investors listed therein		10-K		001-34885		March 28, 2013		4.16		
4.23 [a]	Follow-On Investment Agreement, dated December 24, 2012, between registrant and Biolding Investment SA		10-K		001-34885		March 28, 2013		4.17		
4.24	Securities Purchase Agreement, dated March 27, 2013, between registrant and Biolding Investment SA		10-Q		001-34885		May 9, 2013		4.01		
4.25	Securities Purchase Agreement (including Form of Tranche I Senior Convertible Note and Form of Tranche II Senior Convertible Note) , dated August 8, 2013, between registrant, Maxwell (Mauritius) Pte Ltd and Total Energies Nouvelles Activités USA (f.k.a. Total Gas & Power USA, SAS)		10-Q		001-34885		November 5, 2013		4.01		
4.26 [a]	Amendment No. 1 dated October 16, 2013, to the Securities Purchase Agreement, dated August 8, 2013, between registrant and other parties named therein		10-K		001-34885		April 2, 2014		4.24		
4.27	Tranche I Note Amendment and Amendment No. 2 dated December 24, 2013, to the Securities Purchase Agreement, dated August 8, 2013, between registrant and other parties named therein		10-K		001-34885		April 2, 2014		4.25		
4.28 [ad]	5% Unsecured Convertible Note dated October 16, 2013 issued to Total Energies Nouvelles Activités USA		10-Q		001-34885		May 9, 2014		4.04		
4.29 [ae]	10% Unsecured Convertible Note dated January 15, 2014 issued to Total Energies Nouvelles Activités USA		10-Q		001-34885		May 9, 2014		4.06		
4.30	Securities Purchase Agreement, dated September 20, 2013, between registrant and Naxyris S.A.		10-Q		001-34885		November 5, 2013		4.03		
4.31	Securities Purchase Agreement, dated March 28, 2014 between registrant and Kuraray Co. Ltd.		10-Q		001-34885		May 9, 2014		4.01		
4.32	Loan and Security Agreement, dated March 29, 2014 between registrant and Hercules Technology Growth Capital, Inc.		10-Q		001-34885		May 9, 2014		4.02		
4.33	First Amendment, dated June 12, 2014, to Loan and Security Agreement dated March 29, 2014 between registrant and Hercules Technology Growth Capital, Inc.		10-Q		001-34885		August 8, 2014		4.06		
4.34	Second Amendment, dated March 31, 2015, to Loan and Security Agreement dated March 29, 2014 between registrant and Hercules Technology Growth Capital, Inc.		10-Q		001-34885		May 7, 2015		10.05		

4.35	Third Amendment, dated November 30, 2015, to Loan and Security Agreement dated March 29, 2014 between registrant and Hercules Technology Growth Capital, Inc.	10-K	001-34885	March 30, 2016	4.37	
4.36	Fourth Amendment, dated October 6, 2016, to Loan and Security Agreement dated March 29, 2014 between registrant and Stegodon Corporation, as assignee of Hercules Capital, Inc.					X
4.37	Indenture dated May 29, 2014 between registrant and Wells Fargo Bank, National Association, as Trustee	8-K	001-34885	May 29, 2014	4.01	
4.38	6.5% Convertible Senior Note due 2019 dated May 29, 2014 issued by registrant to Morgan Stanley & Co. LLC	10-Q	001-34885	August 8, 2014	4.02	
4.39 [f]	6.5% Convertible Senior Note due 2019 dated May 29, 2014 issued by registrant to Maxwell (Mauritius) Pte Ltd.	10-Q	001-34885	August 8, 2014	4.03	
4.40	Registration Rights Agreement dated February 24, 2015, between the registrant and Nomis Bay Ltd	8-K	001-34885	February 26, 2015	4.01	
4.41 [g]	Voting Agreement, dated July 24, 2015, between registrant and Foris Ventures, LLC	10-Q	001-34885	November 9, 2015	4.43	
4.42	Securities Purchase Agreement, dated July 24, 2015, between registrant and the Purchasers listed therein	10-Q	001-34885	November 9, 2015	4.44	
4.43 [h]	Warrant to Purchase Stock issued on July 24, 2015	S-3	333-206331	August 12, 2015	4.21	
4.44	Exchange Agreement, dated July 29, 2015, between registrant and the Investors therein	10-Q	001-34885	November 9, 2015	4.46	
4.45	Maturity Treatment Agreement dated July 29, 2015, between registrant and the Investors listed therein	10-Q	001-34885	November 9, 2015	4.47	
4.46	Letter Agreement dated as of July 29, 2015 among registrant and registrant's security holders listed therein	S-3	333-206331	August 12, 2015	4.20	
4.47	Warrant to Purchase Stock issued July 29, 2015 by the registrant to Total Energies Nouvelles Activités USA	S-3	333-206331	August 12, 2015	4.22	
4.48	Warrant to Purchase Stock issued July 29, 2015 by the registrant to Total Energies Nouvelles Activités USA	S-3	333-206331	August 12, 2015	4.23	
4.49	Warrant to Purchase Stock issued July 29, 2015 by the registrant to Maxwell (Mauritius) PTE Ltd	S-3	333-206331	August 12, 2015	4.24	
4.50	Warrant to Purchase Stock issued July 29, 2015 by the registrant to Maxwell (Mauritius) PTE Ltd	S-3	333-206331	August 12, 2015	4.25	
4.51	Warrant to Purchase Stock issued July 29, 2015 by the registrant to Maxwell (Mauritius) PTE Ltd	S-3	333-206331	August 12, 2015	4.26	
4.52	Indenture dated October 20, 2015 between registrant and Wells Fargo Bank, National Association, as Trustee	8-K	001-34885	October 20, 2015	4.01	
4.53	9.50% Convertible Senior Note due 2019 dated October 20, 2015 issued by registrant to Cede & Co.	10-K	001-34885	March 30, 2016	4.56	
4.54	Registration Rights Agreement dated October 20, 2015 between the registrant and the registrant's security holders listed therein	8-K	001-34885	October 20, 2015	4.02	
4.55	Note and Warrant Purchase Agreement, dated February 12, 2016, between registrant and the purchasers listed therein	10-Q	001-34885	May 10, 2016	4.50	
4.56 [i]	Unsecured Promissory Note, dated February 12, 2016, between registrant and Foris Ventures, LLC	10-Q	001-34885	May 10, 2016	4.51	
4.57 [j]	Warrant to Purchase Stock, dated February 12, 2016, between registrant and Foris Ventures, LLC	10-Q	001-34885	May 10, 2016	4.52[j]	
4.58	Form of Convertible Note	8-K	001-34885	May 10, 2016	4.1	
4.59	Note Purchase Agreement, dated June 24, 2016, between registrant and Foris Ventures, LLC	10-Q	001-34885	August 9, 2016	4.50	
4.60	Secured Promissory Note, dated June 24, 2016 issued by registrant to Foris Ventures, LLC	10-Q	001-34885	August 9, 2016	4.51	
4.61	Form of Additional Note	8-K	001-34885	September 9, 2016	4.1	

4.62	Warrant to Purchase Common Stock, dated August 6, 2016, between registrant and Ginkgo Bioworks, Inc.	10-Q	001-34885	November 9, 2016	4.58	
4.63	Note Purchase Agreement, dated October 21, 2016, between registant and Foris Ventures, LLC					X
4.64	Secured Promissory Note, dated October 21, 2016, issued by registrant to Foris Ventures, LLC					X
4.65 b	Credit Agreement, dated October 26, 2016, between registrant and Guanfu Holding Co., Ltd.					X
4.66	Note, dated December 31, 2016, issued by registrant to Wutian Supply Chain Corporation Limited					X
4.67	Note Purchase Agreement, dated October 27, 2016, between registrant and Ginkgo Bioworks, Inc.					X
4.68	Secured Promissory Note , dated October 27, 2016, issued by registrant to Ginkgo Bioworks, Inc.					X
4.69	Warrant to Purchase Stock, issued November 16, 2016, by the registrant to Nenter & Co., Inc.	S-3	333-215318	December 23, 2016	4.15	
4.70	Form of Convertible Note	8-K	001-34885	December 2, 2016	4.1	
4.71	Purchase Money Promissory Note, issued December 5, 2016, by registrant to Salisbury Partners, LLC					X
4.72	Purchase Money Promissory Note, issued December 19, 2016, by registrant to Nikko Chemicals Co. Ltd.					X
10.01 [a]	Technology Investment Agreement, dated September 22, 2015, between registrant and The Defense Advanced Research Projects Agency (DARPA)	10-Q	001-34885	November 9, 2015	10.03	
10.02 b	Modification No. 1, dated October 22, 2015, to the Technology Investment Agreement, dated September 22, 2015, between registrant and The Defense Advanced Research Projects Agency (DARPA)					X
10.03 b	Modification No. 2, dated February 29, 2016, to the Technology Investment Agreement, dated September 22, 2015, between registrant and The Defense Advanced Research Projects Agency (DARPA)					X
10.04 [ak]	Agreement for Credit Opening, dated November 16, 2011, between Amyris Brasil Ltda. and Banco Nacional de Desenvolvimento Econômico e Social - BNDES	10-K	001-34885	February 28, 2012	10.11	
10.05 [ak]	Amendment No. 1, dated June 28, 2013 to Agreement for Credit Opening, dated November 16, 2011, between Amyris Brasil Ltda. and Banco Nacional de Desenvolvimento Econômico e Social - BNDES	10-Q	001-34885	November 9, 2015	10.04	
10.06 [ak]	Amendment No. 2, dated September 16, 2015, to Agreement for Credit Opening, dated November 16, 2011, between Amyris Brasil Ltda. and Banco Nacional de Desenvolvimento Econômico e Social - BNDES	10-Q	001-34885	November 9, 2015	10.05	
10.07 [a]	Corporate Guarantee, dated November 28, 2011, issued by registrant to Banco Nacional de Desenvolvimento Econômico e Social - BNDES	10-K	001-34885	February 28, 2012	10.12	
10.08 k	Bank Credit Agreement, dated December 21, 2011, between Amyris Brasil Ltda. and Banco Pine S.A.	10-K	001-34885	February 28, 2012	10.13	
10.09 k	Addendum to the Banking Credit Form, dated February 17, 2012, between Amyris Brasil Ltda. and Banco Pine S.A.	10-Q	001-34885	May 9, 2012	10.02	
10.10 k	Addendum to the Banking Credit Form, dated May 17, 2012, between Amyris Brasil Ltda. and Banco Pine S.A.	10-Q	001-34885	August 8, 2012	10.02	
10.11 k	Note of Bank Credit, dated June 21, 2012, between Amyris Brasil Ltda. and Banco Pine S.A.	10-Q	001-34885	August 8, 2012	10.03	

10.12 [ak]	Global Derivatives Contract (swap agreement), dated June 15, 2012, between Amyris Brasil Ltda. and Banco Pine S.A.	10-Q	001-34885	August 8, 2012	10.04	
10.13 k	Global Derivatives Contract Annex, dated October 8, 2015, between Amyris Brasil Ltda. and Banco Pine S.A. (AB as purchaser)	10-K	001-34885	March 30, 2016	10.15	
10.14 k	Global Derivatives Contract Annex, dated October 8, 2015, between Amyris Brasil Ltda. and Banco Pine S.A. (Pine as purchaser)	10-K	001-34885	March 30, 2016	10.16	
10.15 [ak]	Note of Bank Credit, dated July 13, 2012, between Amyris Brasil Ltda. and Nossa Caixa Desenvolvimento	10-Q	001-34885	November 9, 2012	10.01	
10.16 [ak]	Note of Bank Credit, dated July 13, 2012, between Amyris Brasil Ltda. and Banco Pine S.A.	10-Q	001-34885	November 9, 2012	10.02	
10.17 k	Fiduciary Conveyance of Movable Goods Agreement, dated July 13, 2012, among Amyris Brasil Ltda., Nossa Caixa Desenvolvimento and Banco Pine S.A.	10-Q	001-34885	November 9, 2012	10.03	
10.18	Corporate Guarantee, dated July 13, 2012, issued by registrant to Nossa Caixa Desenvolvimento	10-Q	001-34885	November 9, 2012	10.04	
10.19	Corporate Guarantee, dated July 13, 2012, issued by registrant to Banco Pine S.A.	10-Q	001-34885	November 9, 2012	10.05	
10.20 [a]	Joint Venture Agreement dated April 14, 2010 among registrant, Amyris Brasil S.A. and Usina São Martinho S.A.	S-1	333-166135	August 31, 2010	10.14	
10.21 [a]	First Amendment dated January 27, 2014 to the Joint Venture Agreement dated April 14, 2010, among registrant, Amyris Brasil, Ltda, and Usina São Martinho S.A.	10-Q	001-34885	May 9, 2014	10.01	
10.22 [a]	Shareholders' Agreement dated April 14, 2010 among registrant, Amyris Brasil S.A. and Usina São Martinho S.A.	S-1	333-166135	May 25, 2010	10.17	
10.23	Termination Agreement, dated August 31, 2015, among registrant, Amyris Brasil, Ltda, and São Martinho S.A., and SMA Industria Quimica S.A.	10-K	001-34885	March 30, 2016	10.25	
10.24	Share Purchase and Sale Agreement, dated August 31, 2015, among registrant, Amyris Brasil, Ltda, and São Martinho S.A., and SMA Industria Quimica S.A.	10-K	001-34885	March 30, 2016	10.26	
10.25	First Addendum to the Share Purchase and Sale Agreement, dated September 1, 2016, between registrant and SMA Industria Quimica Ltda	10-Q	001-34885	November 9, 2016	10.01	
10.26 [a]	Amended and Restated Master Framework Agreement, dated December 2, 2013, between Amyris and Total Gas & Power USA, SAS	10-K	001-34885	April 2, 2014	10.29	
10.27	Amendment #1, dated April 1, 2015, to the Amended and Restated Master Framework Agreement between registrant and Total Energies Nouvelles Activités USA SAS	10-Q	001-34885	August 10, 2015	10.01	
10.28	Termination Agreement, dated March 21, 2016, regarding the Amended and Restated Master Framework Agreement, dated December 2, 2013, as amended					X
10.29 [ak]	Articles of Association of Total Amyris BioSolutions B.V.	10-K	001-34885	April 2, 2014	10.22	
10.30 k	Amendment, dated March 21, 2016, to Articles of Association of Total Amyris BioSolutions B.V.	10-Q	001-34885	May 10, 2016	10.03	
10.31 [a]	Shareholders Agreement dated December 2, 2013	10-K	001-34885	April 2, 2014	10.23	
10.32	Amended and Restated Shareholders' Agreement, dated March 21, 2016, between registrant, Total Energies Nouvelles Activités USA, and Total Amyris BioSolutions B.V.	10-Q	001-34885	May 10, 2016	10.02	
10.33 [a]	License Agreement dated December 2, 2013 between registrant and Total Amyris BioSolutions B.V.	10-K	001-34885	April 2, 2014	10.24	

10.34	Amended & Restated Jet Fuel License Agreement, dated March 21, 2016, between registrant and Total Amyris BioSolutions B.V.	10-Q	001-34885	May 10, 2016	10.04	
10.35	License Agreement regarding Diesel Fuel in the EU, dated March 21, 2016, between registrant and Total Energies Nouvelles Activités USA	10-Q	001-34885	May 10, 2016	10.05	
10.36 [a]	Pledge of Shares dated December 2, 2013 among registrant, Total Energies Nouvelles Activités USA and Total Amyris BioSolutions B.V.	10-K	001-34885	April 2, 2014	10.25	
10.37 [a]	Escrow Agreement dated December 2, 2013 among registrant, Total Energies Nouvelles Activités USA and Stichting Total Amyris BioSolutions	10-K	001-34885	April 2, 2014	10.26	
10.38	Letter Agreement re: Waiver of Debt Covenants dated December 24, 2013 between registrant and Total Energies Nouvelles Activités USA	10-K	001-34885	April 2, 2014	10.28	
10.39	Letter Agreement dated December 2, 2013 relating to the Senior Secured Convertible Notes and the 1.5% Senior Unsecured Convertible Notes due 2017 between the registrant and Total Energies Nouvelles Activités USA	10-K	001-34885	April 2, 2014	10.30	
10.40 [a]	Letter Agreement re Joint Venture Restructuring, dated July 24, 2015, between registrant and Total Energies Nouvelles Activités USA	10-Q	001-34885	November 9, 2015	10.01	
10.41	Amendment, dated February 12, 2016, to Letter Agreement re Joint Venture Restructuring, dated July 24, 2015, between registrant and Total Energies Nouvelles Activités USA	10-Q	001-34885	May 10, 2016	10.01	
10.42	Securities Purchase Agreement, dated as of March 30, 2015, by and between registrant and Naxyris, S.A.	10-Q	001-34885	May 7, 2015	10.04	
10.43	Technology License, Development, Research and Collaboration Agreement, dated June 21, 2010, between registrant and Total Gas & Power USA Biotech, Inc.	S-1	333-16135	September 20, 2010	10.46	
10.44	Letter agreement, dated January 11, 2011, between registrant and Total Gas & Power USA Biotech, Inc. regarding assignment of Collaboration Agreement	10-Q	001-34885	May 11, 2011	10.01	
10.45 [a]	First Amendment to Technology License, Development, Research and Collaboration Agreement, dated November 23, 2011, between Amyris and Total Gas & Power USA SAS	10-K/A	001-34885	May 2, 2012	10.19	
10.46 [a]	Second Amendment to the Technology License, Development, Research and Collaboration Agreement, dated July 30, 2012, between registrant and Total Gas & Power USA, SAS	10-Q	001-34885	November 9, 2012	10.07	
10.47	Amendment #1, dated April 1, 2015, to the Second Amendment to the Technology, License, Development, Research and Collaboration Agreement between registrant and Total Energies Nouvelles Activités USA SAS	10-Q	001-34885	August 10, 2015	10.02	
10.48 [ak]	Agreement for the Supply of Sugarcane Juice and Other Utilities, dated March 18, 2011, between Amyris Brasil Ltda. and Paraíso Bioenergia S.A.	10-Q	001-34885	May 9, 2012	10.06	
10.49 [ak]	First Amendment, dated as of May 3, 2013, to the Agreement for the Supply of Sugar Cane Juice and Other Utilities, by and between Amyris Brasil Ltda. and Tonon Bioenergia S.A.	10-K	001-34885	March 30, 2016	10.46	
10.50 [ak]	Second Amendment, dated as of November 7, 2013, to the Agreement for the Supply of Sugar Cane Juice and Other Utilities, by and between Amyris Brasil Ltda. and Tonon Bioenergia S.A.	10-K	001-34885	March 30, 2016	10.47	
10.51 [ak]	Third Amendment, dated as of January 27, 2015, to the Agreement for the Supply of Sugar Cane Juice and Other Utilities, by and between Amyris Brasil Ltda. and Tonon Bioenergia S.A.	10-Q	001-34885	May 7, 2015	10.06	
10.52 [ak]	Lease Agreement, dated March 18, 2011, between Amyris Brasil Ltda. and Paraíso Bioenergia S.A.	10-K	001-34885	March 28, 2013	10.37	

10.53 [ak]	Addendum to Lease Agreement, dated April 28, 2011, between Amyris Brasil Ltda. and Paraíso Bioenergia S.A.	10-K	001-34885	March 28, 2013	10.38	
10.54	Lease, dated August 22, 2007, between registrant and ES East Associates, LLC	S-1	333-166135	April 16, 2010	10.17	
10.55	First Amendment, dated March 10, 2008, to Lease between registrant and ES East Associates, LLC	S-1	333-166135	April 16, 2010	10.18	
10.56	Second Amendment, dated April 25, 2008, to Lease between registrant and ES East Associates, LLC	S-1	333-166135	April 16, 2010	10.19	
10.57	Third Amendment, dated July 31, 2008, to Lease between registrant and ES East Associates, LLC	S-1	333-166135	April 16, 2010	10.20	
10.58	Fourth Amendment, dated November 14, 2009, to Lease between registrant and ES East Associates, LLC	S-1	333-166135	April 16, 2010	10.21	
10.59	Fifth Amendment, dated October 15, 2010, to Lease between registrant and ES East, LLC	10-K	001-34885	March 14, 2011	10.17	
10.60	Sixth Amendment, dated April 30, 2013, to Lease between registrant and ES East, LLC (as successor-in-interest to ES East Associates, LLC)	10-Q	001-34885	August 9, 2013	10.02	
10.61	Lease dated April 25, 2008 between registrant and EmeryStation Triangle, LLC	S-1	333-166135	April 16, 2010	10.22	
10.62	Letter, dated April 25, 2008, amending Lease between registrant and EmeryStation Triangle, LLC	S-1	333-166135	April 16, 2010	10.23	
10.63	Second Amendment, dated February 5, 2010, to Lease between registrant and EmeryStation Triangle, LLC	S-1	333-166135	April 16, 2010	10.24	
10.64	Third Amendment, dated May 1, 2013, to Lease between registrant and EmeryStation Triangle, LLC	10-Q	001-34885	August 9, 2013	10.03	
10.65	Pilot Plant Expansion Right Letter dated December 22, 2008 between registrant and EmeryStation Triangle, LLC	S-1	333-166135	April 16, 2010	10.25	
10.66	Lease Agreement, dated August 10, 2011, between Amyris Brasil Ltda. and Techno Park Empreendimentos e Administração Imobiliária Ltda.	10-K	001-34885	February 28, 2012	10.32	
10.67	First Amendment to Lease Agreement, dated July 31, 2013, between Amyris Brasil Ltda. and Techno Park Empreendimentos e Administração Imobiliária Ltda.	10-Q	001-34885	November 5, 2013	10.01	
10.68	Second Amendment to Lease Agreement, dated October 31, 2015, between Amyris Brasil Ltda. and Techno Park Empreendimentos e Administração Imobiliária Ltda.	10-Q	001-34885	May 10, 2016	10.07	
10.69	Third Amendment to Lease Agreement, dated March 30, 2016, between Amyris Brasil Ltda. and Techno Park Empreendimentos e Administração Imobiliária Ltda.	10-Q	001-34885	May 10, 2016	10.08	
10.70	Private Instrument of Non-Residential Real Estate Lease Agreement, dated March 31, 2008, between Lucio Tomasiello and Amyris Brasil S.A. (including Amendment No. 1, dated July 5, 2008, and Amendment No. 2, dated October 30, 2008)	S-1	333-166135	April 16, 2010	10.26	
10.71 [ak]	Third Amendment, dated October 1, 2012, to the Private Instrument of Non Residential Real Estate Lease Agreement between Lucio Tomasiello and Amyris Brasil Ltda.	10-K	001-34885	March 28, 2013	10.51	
10.72 [ak]	Fourth Amendment, dated March 3, 2015, to the Private Instrument of Non-Residential Real Estate Lease Agreement, by and among Amyris Brasil Ltda., Lucius Tomasiello and Mauricio Tomasiello	10-Q	001-34885	May 7, 2015	10.07	
10.73 [k]	Fifth Amendment, dated September 22, 2015, to the Private Instrument of Non-Residential Real Estate Lease Agreement, by and among Amyris Brasil Ltda., Lucius Tomasiello and Mauricio Tomasiello					X
10.74 k	Sixth Amendment, dated October 17, 2016, to the Private Instrument of Non-Residential Real Estate Lease Agreement, by and among Amyris Brasil Ltda., Lucius Tomasiello and Mauricio Tomasiello					X

10.75	Master Collaboration Agreement, dated March 13, 2013, between registrant and Firmenich SA	10-Q	001-34885	May 8, 2013	10.02	
10.76 b	Amendment #1, dated July 1, 2015, to the Collaboration Agreement between registrant and Firmenich SA					X
10.77 b	Amendment #2, dated November, 28, 2016, to the Collaboration Agreement between registrant and Firmenich SA					X
10.78	Amended and Restated Operating Agreement, dated March 26, 2013, among registrant, Cosan US, Inc. and Novvi LLC	10-Q	001-34885	May 8, 2013	10.04	
10.79	Second Amended and Restated Operating Agreement, dated July 19, 2016, between registrant, Cosan US, Inc., American Refining Group, Inc. and Novvi LLC	10-Q	001-34885	November 9, 2016	10.02	
10.80	IP License Agreement, dated as of March 26, 2013, between registrant and Novvi LLC	10-Q	001-34885	May 8, 2013	10.06	
10.81	Amendment No.1, dated March 21, 2016, to IP License Agreement, dated March 26, 2013, between registrant and Novvi LLC	10-Q	001-34885	May 10, 2016	10.06	
10.82	Amended & Restated IP License Agreement, dated July 19, 2016, between registrant and Novvi LLC	10-Q	001-34885	November 9, 2016	10.03	
10.83 [a]	Pilot Plant Sublease, dated April 4, 2014, between registrant and Total New Energies USA, Inc.	10-Q	001-34885	August 8, 2014	10.03	
10.84 [a]	Pilot Plant Services Agreement, dated April 4, 2014, between registrant and Total New Energies USA, Inc.	10-Q	001-34885	August 8, 2014	10.04	
10.85	Amendment No. 1, dated July 26, 2015, to the Pilot Plant Services Agreement, dated April 4, 2014, between registrant and Total New Energies USA, Inc.	10-Q	001-34885	November 9, 2015	10.02	
10.86	Repurchase Agreement, dated October 19, 2015, between the registrant and registrant's security holders listed therein	10-K	001-34885	March 30, 2016	10.75	
10.87	Common Stock Purchase Agreement, dated as of February 24, 2015, by and between registrant and Nomis Bay Ltd.	8-K	001-34885	February 26, 2015	10.01	
10.88	Engagement Letter, dated as of February 24, 2015, by and between registrant and Financial West Group	8-K	001-34885	February 26, 2015	10.02	
10.89	At Market Issuance Sales Agreement, dated March 8, 2016, among Amyris, Inc., FBR Capital Markets & Co. and MLV & Co. LLC	8-K	001-34885	March 9, 2016	10.01	
10.90	Securities Purchase Agreement, dated April 8, 2016, between registrant and Bill & Melinda Gates Foundation	10-Q	001-34885	August 9, 2016	10.01	
10.91	Letter Agreement re Charitable Purposes and Use of Funds, dated April 8, 2016, between registrant and Bill & Melinda Gates Foundation	10-Q	001-34885	August 9, 2016	10.02	
10.92	Form of Securities Purchase Agreement	8-K	001-34885	May 10, 2016	10.01	
10.93 [a]	Initial Strategic Partnership Agreement, dated June 28, 2016, between registrant and Gingko Bioworks, Inc.	10-Q	001-34885	August 9, 2016	10.04	
10.94	Collaboration Agreement, dated September 30, 2016, between registrant and Ginkgo Bioworks, Inc.	10-Q	001-34885	November 9, 2016	10.04	
10.95 b	Purchase and Sale Agreement, dated November 10, 2016, between registrant, Glycotech, Inc., and Salisbury Partners, LLC					X
10.96 b	Cooperation Agreement, dated October 26, 2016, between registrant and Nenter & Co., Inc.					X
10.97	Form of Securities Purchase Agreement	8-K	001-34885	December 2, 2016	10.1	
10.98 b	Joint Venture Agreement, dated December 12, 2016, among registrant, Nikko Chemicals Co. Ltd., and Nippon Surfactant Industries Co., Ltd.					X

10.99 b	First Amended and Restated LLC Operating Agreement of Neossance, LLC dated December 6, 2016					X
10.100 m	Offer Letter dated September 27, 2006 between registrant and John Melo	S-1	333-16135	April 16, 2010	10.27	
10.101 m	Amendment, dated December 18, 2008, between registrant and John Melo	S-1	333-16135	April 16, 2010	10.28	
10.102 m	Consulting Agreement, dated September 2, 2015, between registrant and Paulo Diniz	10-K	001-34885	March 30, 2016	10.81	
10.103 m	Offer letter, dated September 30, 2008, between registrant and Joel Cherry	S-1	333-16135	April 16, 2010	10.29	
10.104 m	Offer letter, dated September 20, 2010, between registrant and Nicholas Khadder	10-Q	001-34885	August 10, 2015	10.04	
10.105 m	Revised employment letter, dated December 3, 2013, between registrant and Nicholas Khadder	10-Q	001-34885	August 10, 2015	10.05	
10.106 m	Offer letter, dated October 23, 2014, between registrant and Raffi Asadorian	10-K	001-34885	March 31, 3015	10.68	
10.107 m	Offer letter, dated November 23, 2016, between registrant and Kathleen Valiasek					X
10.108 m	2005 Stock Option/Stock Issuance Plan	10-Q	001-34885	November 9, 2011	10.02	
10.109 m	Form of Notice of Grant of Stock Option under registrant's 2005 Stock Option/Stock Issuance Plan	S-1	333-16135	April 16, 2010	10.38	
10.110 m	Form of Notice of Grant of Stock Option (non-Exempt) under registrant's 2005 Stock Option/Stock Issuance Plan	S-1	333-16135	April 16, 2010	10.39	
10.111 m	Form of Notice of Grant of Stock Option (non-US) under registrant's 2005 Stock Option/Stock Issuance Plan	S-1	333-16135	April 16, 2010	10.40	
10.112 m	Form of Stock Option Agreement under registrant's 2005 Stock Option/Stock Issuance Plan	S-1	333-16135	April 16, 2010	10.41	
10.113 m	Form of Stock Option Agreement (non-US) under registrant's 2005 Stock Option/Stock Issuance Plan	S-1	333-16135	April 16, 2010	10.42	
10.114 m	Form of Stock Purchase Agreement under registrant's 2005 Stock Option/Stock Issuance Plan	S-1	333-16135	April 16, 2010	10.43	
10.115 m	Form of Stock Purchase Agreement (non-US) under registrant's 2005 Stock Option/Stock Issuance Plan	S-1	333-16135	April 16, 2010	10.44	
10.116 m	2010 Equity Incentive Plan and forms of award agreements thereunder	S-1	333-16135	June 23, 2010	10.46	
10.117 m	2010 Employee Stock Purchase Plan and form of subscription agreements thereunder	S-1	333-16135	September 20, 2010	10.45	
10.118 m	Amyris, Inc. Executive Severance Plan, effective November 6, 2013	10-K	001-34885	April 2, 2014	10.94	
10.119 m	Compensation arrangements between registrant and its non-employee directors					X
10.120 m	Compensation arrangements between registrant and its executive officers					X
10.121 m	Form of Indemnity Agreement between registrant and its directors and officers	S-1	333-166135	June 23, 2010	10.01	
21.01	List of subsidiaries					X
23.01	Consent of PricewaterhouseCoopers LLP, independent registered public accounting firm					X
24.01	Power of Attorney (see signature page to this Form 10-K)					X
31.01	Certification of Chief Executive Officer pursuant to Securities Exchange Act Rules 13a-14(c) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002					X
31.02	Certification of Chief Financial Officer pursuant to Securities Exchange Act Rules 13a-14(c) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002					X

32.01 [n]	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002					X
32.02 [n]	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002					X
99.1	Novvi LLC Financial Statements December 31, 2014	10-K	001-34885	March 31, 2015	99.1	
99.2	Novvi LLC Financial Statements December 31, 2015 (Unaudited)	10-K	001-34885	March 30, 2016	99.2	
99.3	Novvi LLC Financial Statements December 31, 2016 (Unaudited)					X
99.4	Section 13(r) Disclosure					X
101 [p]	The following materials from registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2016, formatted in XBRL (Extensible Business Reporting Language): (i) the Consolidated Statements of Operations; (ii) the Consolidated Balance Sheets; (iii) the Consolidated Statements of Comprehensive Income; (iv) the Consolidated Statements of Convertible Preferred Stock, Redeemable Noncontrolling Interest and Equity (Deficit); (v) the Consolidated Statements of Cash Flows; and (vi) Notes to Consolidated Financial Statements					X

a Portions of this exhibit, which have been granted confidential treatment by the Securities and Exchange Commission, have been omitted.

b Portions of this exhibit have been omitted pending a determination by the Securities and Exchange Commission as to whether these portions should be granted confidential treatment.

c Substantially identical Common Stock Purchase Agreements, each dated May 18, 2012, were entered into with five separate investors. Registrant has filed the form of such Common Stock Purchase Agreements, which is substantially identical in all material respects to all of such Common Stock Purchase Agreements, except as to the parties thereto and the number of shares being purchased.

d Registrant issued substantially identical 5% Unsecured Convertible Notes (the "5% Notes") to Total Gas & Power USA, SAS ("Total'), FIAM Target Date Large Cap Stock Commingled Pool (formerly known as Fidelity Pyramis Lifecycle Large Cap Stock Commingled Pool. Fidelity Variable Insurance Products Fund Ill: Growth & Income Portfolio, Fidelity Hastings Street Trust: Fidelity Advisor Series Growth & Income Fund. Fidelity Securities Fund: Fidelity Growth & Income Portfolio Fidelity Hastings Street Trust: Fidelity Series Growth & Income Fund. Fidelity Commonwealth Trust: Fidelity Large Cap Stock Fund, and Maxwell (Mauritius) Pte Ltd on October 16. 2013. Registrant has filed the 5% Note issued to Total. and has included with Exhibit 4.04 a schedule (Schedule A to Exhibit 4.04 of registrant's Form 10-Q filed on May 9, 2014) identifying each of the 5% Notes and setting forth the material detail in which the other 5% Note(s) differ from the filed 5% Note (i.e. the Purchasers. the amounts of the 5% Notes. and the conversion price).

e Registrant issued substantially identical 10% Unsecured Convertible Notes (the" 10% Notes") to Total Wolverine Flagship Fund Trading Limited and Maxwell (Mauritius) Pte Ltd on January 15 2014. Registrant has filed the 10% Note issued to Total and has included with Exhibit 4.06. a schedule (Schedule A to Exhibit 4.06 of registrant's Form 10-Q filed on May 9, 2014) identifying each of the 10% Notes and setting forth the material details in which the other 10% Note(s) differ from the filed 10% Note (i.e. the purchasers and the amounts of the 10% Notes).

f Registrant issued substantially identical 6.5% Senior Convertible Notes due 2019 (the "6.5% Notes") to Maxwell (Mauritius) Pte Ltd. ("Temasek"), Total Energies Nouvelles Activités USA, and Foris Ventures, LLC on May 29, 2014. Registrant has filed the 6.5% Note issued to Temasek, and has included, with such exhibit, a schedule (Schedule A to Exhibit 4.03 of registrant's Form 10-Q filed August 8, 2014) identifying each of the 6.5% Notes and setting forth the material details in which the other 6.5% Notes differ from the filed 6.5% Note (i.e., the note number, the purchasers, and the amounts of the 6.5% Notes).

g Substantially identical Voting Agreements, each dated July 31, 2015, were entered into with five separate investors. Registrant has filed Voting Agreement entered into by registrant and Foris Ventures LLC, which is substantially identical in all material respects to all of such Voting Agreements, except as to the parties thereto.

h Registrant issued substantially identical warrants to the purchasers under that certain Securities Purchase Agreement entered into on July 24. 2015~ Registrant has filed the warrant issued to Total Energies Nouvelles Activites USA and has included with such Exhibit a schedule (Schedule A to Exhibit 4.03 of registrants Form 10-Q filed on August 8, 2015) identifying each of the warrants and setting forth the material details in which the other warrants differ from the filed form of warrant (i.e. the names of the purchasers. the certificate numbers and the respective amounts of shares underlying the warrants).

i Substantially identical Unsecured Promissory Notes, each dated February 15, 2016 (the "Notes"), were entered into with three separate investors. Registrant has filed the Note entered into by registrant and Foris Ventures LLC, which is substantially identical in all material respects to all of such Notes except as to the parties thereto and the value of the Notes.

j Substantially identical Warrants to Purchase Stock, each dated February 15, 2016 (the "Warrants"), were entered into with three separate investors. Registrant has filed the Warrant entered into by registrant and Foris Ventures LLC, which is substantially identical in all material respects to all of such Warrants, except as to the parties thereto and the amount of underlying shares.

k Translation to English from Portuguese or Dutch, as applicable, in accordance with Rule 12b-12(d) of the regulations promulgated by the Securities and Exchange Commission under the Securities Exchange Act of 1934, as amended (or the Exchange Act).

m Indicates management contract or compensatory plan or arrangement.

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

p Pursuant to applicable securities laws and regulations, registrant is deemed to have complied with the reporting obligation relating to the submission of interactive data files in such exhibits and is not subject to liability under any anti-fraud provisions of the federal securities laws as long as registrant has made a good faith attempt to comply with the submission requirements and promptly amends the interactive data files after becoming aware that the interactive data files fails to comply with the submission requirements. These interactive data files are deemed not filed or part of a registration statement or prospectus for purposes of sections 11 or 12 of the Securities Act, are deemed not filed for purposes of section 18 of the Exchange Act and otherwise are not subject to liability under these sections.

Exhibit 4.16

Exchange Agreement

December 28, 2016

Amyris, Inc.
5885 Hollis Street, Suite 100
Emeryville, California 94608
Attention: Raffi Asadorian

Re: Amyris, Inc. Exchange for 9.50% Convertible Senior Notes due 2019

Ladies and Gentlemen:

Amyris, Inc., a Delaware corporation (the "**Company**"), is offering the opportunity for existing beneficial owners (each, an "**Investor**" and collectively, the "**Investors**") of the Company's 3% Senior Unsecured Convertible Notes due 2017 (the "**Old Notes**") to exchange Old Notes (the "**Exchange Offer**") for the Company's 9.50% Convertible Senior Notes due 2019 (the "**New Notes**") pursuant and subject to the terms and conditions set forth in this Exchange Agreement.

Each Investor understands that the Exchange Offer is being made without registration under the Securities Act of 1933, as amended (the "**Securities Act**"), or any securities laws of any state of the United States or of any other jurisdiction, and that the Exchange Offer is only being made to Investors who are both "accredited investors" (as defined in Rule 501 of Regulation D under the Securities Act) and "qualified institutional buyers" (as defined in Rule 144A under the Securities Act) in reliance upon a private placement exemption from registration.

1. The Exchange Offer. Subject to the terms and conditions of this Exchange Agreement, each undersigned Investor hereby agrees to exchange the aggregate principal amount of Old Notes set forth on the signature page of such Investor hereto (such Old Notes, the "**Exchanged Old Notes**"), together with any accrued and unpaid interest on such Exchanged Old Notes to, but excluding, the Closing Date (as defined below), for New Notes having an aggregate principal amount equal to approximately 125% of the principal amount of the Exchanged Old Notes, as set forth on the signature page of such Investor hereto (the "**Exchanged New Notes**"), and the Company hereby agrees to issue such aggregate principal amount of Exchanged New Notes to such Investor in exchange for such Exchanged Old Notes (and accrued and unpaid interest thereon). The Company and each Investor further agree that interest on the Exchanged New Notes will accrue from, and including, October 15, 2016.

2. The Closing. The closing of the Exchange Offer (the "**Closing**") shall take place remotely via the exchange of documents and signatures at 10:00 a.m., Pacific Time, on the first business day on which the conditions to the Closing set forth in Section 6 below are satisfied or waived, or at such other time and place as mutually agreed by the Company and the undersigned Investors (the "**Closing Date**").

3. The Terms of the Exchange Offer; Closing Mechanics.

Subject to the terms and conditions of this Exchange Agreement, each undersigned Investor hereby sells, assigns and transfers to, or upon the order of, the Company, all right, title and interest in the Exchanged Old Notes as is indicated on the signature page of such Investor hereto, waives any and all other rights with respect to such Exchanged Old Notes, and releases and discharges the Company from any and all claims the undersigned may now have, or may have in the future, arising out of, or related to, such Exchanged Old Notes.

(a) The Depository Trust Company ("**DTC**") will act as securities depositary for the New Notes. At or prior to the times set forth in the Investor Exchange Procedures set forth in Annex A hereto, each Investor shall cause the Exchanged Old Notes to be delivered to the Company for cancellation as instructed in the Exchange Procedures; and

(b) On the Closing Date, subject to satisfaction of the conditions precedent specified in Section 6 hereof, the Company shall execute, and cause Wells Fargo Bank, National Association, as Trustee (the "**New Note Trustee**") under the Indenture, dated as of October 20, 2015, between the Company and the New Note Trustee relating to the New Notes (the "**Indenture**") to authenticate and deliver to the DTC account specified by each undersigned Investors on its signature page hereto, the Exchanged New Notes.

4. Representations and Warranties of the Company. The Company represents and warrants to each Investor that:

(a) *Organization and Good Standing*. The Company is duly organized and is validly existing and in good standing under the laws of its jurisdiction of organization.

(b) *Due Authorization*. This Exchange Agreement has been duly authorized, executed and delivered by the Company.

(c) *Authorization of Exchanged New Notes.* The Exchanged New Notes have been duly authorized by the Company and, when issued, authenticated and delivered in accordance with the Indenture and this Exchange Agreement and paid for by the Investors in accordance with the terms hereof, the New Notes will be validly issued and will constitute legal, valid and binding obligations of the Company, enforceable against the Company in accordance with their terms, except that the enforcement thereof may be subject to (1) bankruptcy, insolvency, reorganization, receivership, moratorium, fraudulent conveyance, fraudulent transfer or other similar laws now or hereafter in effect relating to creditors' rights generally; and (2) general principles of equity (whether applied by a court of law or equity) and the discretion of the court before which any proceeding therefor may be brought.

(d) *Authorization of Indenture.* The Indenture has been duly authorized, executed and delivered by the Company and constitutes a legal, valid and binding obligation of the Company, enforceable against the Company in accordance with its terms, except that the enforcement thereof may be subject to (1) bankruptcy, insolvency, reorganization, receivership, moratorium, fraudulent conveyance, fraudulent transfer or other similar laws now or hereafter in effect relating to creditors' rights generally; and (2) general principles of equity (whether applied by a court of law or equity) and the discretion of the court before which any proceeding therefor may be brought.

(e) *Authorization of Conversion Shares.* The shares of the Company's common stock, par value $0.0001 per share (the "**Common Stock**") issuable upon conversion of the Exchanged New Notes, upon the Company's election to pay interest on the Exchange New Notes in shares of Common Stock and as early conversion payment of future interest upon conversion of the Exchange New Notes, in each case in accordance with the terms of the Exchanged New Notes and the Indenture (collectively, the "**Conversion Shares**") have been duly authorized and reserved for issuance by all necessary corporate action, and the Conversion Shares, when and if issued in accordance with the terms of the Exchanged New Notes and the Indenture, will be validly issued, fully paid and non-assessable. The issuance of the Conversion Shares will not be subject to the preemptive or other similar rights of any securityholder of the Company.

(f) *Exemption from Registration.* Assuming the accuracy of the representations and warranties of the Investors herein, (1) the issuance of the Exchanged New Notes in exchange for the Exchanged Old Notes

pursuant to this Exchange Agreement is exempt from the registration requirements of the Securities Act; and (2) the Indenture is not required to be qualified under the Trust Indenture Act of 1939, as amended.

(g) *New Class.* The Exchanged New Notes, when issued, will not be of the same class as securities listed on a national securities exchange registered under Section 6 of the Securities Exchange Act of 1934 (the "**Exchange Act**"), or quoted in a U.S. automated inter-dealer quotation system, within the meaning of Rule 144A(d)(3)(i) under the Securities Act.

5. Representations and Warranties of the Investors. Each Investor hereby represents and warrants to and covenants with the Company that:

(a) *Organization and Good Standing*. The Investor is a corporation, limited partnership, limited liability company or other entity, as the case may be, duly formed, validly existing and in good standing under the laws of the jurisdiction of its formation.

(b) *Due Authorization*. The Investor has full power and authority to exchange, sell, assign and transfer the Exchanged Old Notes exchanged hereby and to enter into this Exchange Agreement and perform all obligations required to be performed by the Investor hereunder.

(d) *No Conflict*. Participation in the Exchange Offer will not contravene (1) any law, rule or regulation binding on the Investor or any investment guideline or restriction applicable to the Investor and (2) the charter or bylaw (or equivalent organizational documents) of the Investor.

(e) *Investor Identity*. The Investor is a resident of the state set forth on its signature page hereto and is not acquiring the Exchanged New Notes as a nominee or agent or otherwise for any other person.

(f) *Compliance with Laws*. The Investor will comply with all applicable laws and regulations in effect in any jurisdiction in which the undersigned acquires or sells Exchanged New Notes and will obtain any consent, approval or permission required for such purchases, acquisitions or sales under the laws and regulations of any jurisdiction to which the undersigned is subject or in which the undersigned makes such purchases, acquisitions or sales, and the Company shall have no responsibility therefor.

(g) *Information*. The Investor acknowledges that no person has been authorized to give any information or to make any representation concerning the Exchange Offer and the Company and its subsidiaries other than the Exchange Agent and the Company's duly authorized officers and employees in connection with the Investor's examination of the Company and its subsidiaries and the terms of the Exchange Offer and the Company and its subsidiaries do not take any responsibility for, and neither the Company nor its subsidiaries can provide any assurance as to the reliability of, any other information that may have been provided to the Investor. The Investor hereby acknowledges that the Exchange Agent (as defined below) does not take any responsibility for, and can provide no assurance as to the reliability of, any such information.

(h) *Risk of Investment*. The Investor understands and accepts that acquiring the New Notes in the Exchange Offer involve risks. The Investor has such knowledge, skill and experience in business, financial and investment matters that the Investor is capable of evaluating the merits and risks of the Exchange Offer and an investment in the New Notes. With the assistance of the Investor's own professional advisors, to the extent that the Investor has deemed appropriate, the Investor has made its own legal, tax, accounting and financial evaluation of the merits and risks of an investment in the New Notes and the consequences of the Exchange Offer and this Exchange Agreement. The Investor has considered the suitability of the New Notes as an investment in light of its own circumstances and

financial condition, and the Investor is able to bear the risks associated with an investment in the New Notes.

(i) *No Reliance*. The Investor confirms that it is not relying on any communication (written or oral) of the Company, Stifel, Nicolaus & Company, Incorporated (the "**Exchange Agent**") or any of their respective agents or affiliates as investment advice or as a recommendation to participate in the Exchange Offer and receive the Exchanged New Notes pursuant to the terms hereof. It is understood that information provided by the Company, the Exchange Agent or any of their respective agents or affiliates, shall not be considered investment advice or a recommendation with respect to the Exchange Offer, and that none of the Company, the Exchange Agent or any of their respective agents or affiliates is acting or has acted as an advisor to the Investor in deciding whether to participate in the Exchange Offer.

(j) *Advisors*. The Investor confirms that neither the Company nor the Exchange Agent has (1) given any guarantee or representation as to the potential success, return, effect or benefit (either legal, regulatory, tax, financial, accounting or otherwise) of an investment in the New Notes; or (2) made any representation to the Investor regarding the legality of an investment in the New Notes under applicable investment guidelines, laws or regulations. In deciding to participate in the Exchange Offer, the Investor is not relying on the advice or recommendations of the Company or the Exchange Agent, and the Investor has made its own independent decision that the investment in the New Notes is suitable and appropriate for the Investor.

(k) *Company Information*. The Investor is familiar with the business and financial condition and operations of the Company and has conducted its own investigation of the Company and the New Notes. The Investor has had access to the Company's filings with the Securities and Exchange Commission (the "**Commission**") and such other information concerning the Company and the New Notes as it deems necessary to enable it to make an informed investment decision concerning the Exchange Offer. The Investor has been offered the opportunity to ask questions of the Company and its representatives and has received answers thereto as the Investor deems necessary to enable it to make an informed investment decision concerning the Exchange Offer and the New Notes.

(l) *Governmental Approval*. The Investor understands that no federal, state, local or foreign agency has passed upon the merits or risks of an investment in the New Notes or made any finding or determination concerning the fairness or advisability of such investment.

(m) *Investor Qualification*. The Investor is an "accredited investor" as defined in Rule 501(a) under the Securities Act and a "qualified institutional buyer" as defined in Rule 144A under the Securities Act. The Investor agrees to furnish any additional information reasonably requested by the Company or any of its affiliates to assure compliance with applicable U.S. federal and state securities laws in connection with the Exchange Offer.

(n) *Affiliate Status*. The Investor is not directly, or indirectly through one or more intermediaries, controlling or controlled by, or under direct or indirect common control with, the Company and is not, and has not been for the immediately preceding three months, an "affiliate" (within the meaning of Rule 144 under the Securities Act) of the Company.

(o) *Purchase for Investment Only; No Registration*. The Investor is acquiring the Exchanged New Notes solely for the Investor's own beneficial account, or for an account with respect to which the Investor exercises sole investment discretion, for investment purposes, and not with a view to, or for resale in connection with, any distribution of the Exchanged New Notes. The Investor understands that the offer and sale of the Exchanged New Notes have not been registered under the Securities Act or any state securities laws by reason of specific exemptions under the provisions thereof that depend in part

upon the investment intent of the Investor and the accuracy of the other representations made by the Investor in this Exchange Agreement.

(p) *Company Reliance*. The Investor understands that the Company is relying upon the representations and agreements contained in this Exchange Agreement (and any supplemental information) for the purpose of determining whether the Investor's participation in the Exchange Offer meets the requirements for such exemptions. In addition, the Investor acknowledges and agrees that any hedging transactions engaged in by the Investor after the Exchange Offer is made public and prior to the Closing in connection with the issuance and sale of the Exchanged New Notes have been and will be conducted in compliance with the Securities Act and the rules and regulations promulgated thereunder.

(q) *Restricted Securities*. The Investor acknowledges that the Exchanged New Notes and the shares of Common Stock, if any, issuable upon conversion thereof have not been registered under the Securities Act. As a result, the Exchanged New Notes and the shares of Common Stock, if any, issuable upon conversion thereof may not be offered or sold within the United States or to, or for the account or benefit of, U.S. persons, except to the extent such securities are registered with the Commission and qualified by state authorities, or pursuant to an exemption from, or in a transaction not subject to, the registration requirements of the Securities Act and the Investor hereby agrees that it will not sell the Exchanged New Notes or the shares of Common Stock, if any, issuable upon conversion thereof other than in compliance with such transfer restrictions.

(r) *Mutual Negotiation*. The Investor acknowledges that the terms of the Exchange Offer and/or the New Notes Offering have been mutually negotiated between the Investor and the Company and that the Investor was given a meaningful opportunity to negotiate the terms of the Exchange Offer. The Investor acknowledges that it had a sufficient amount of time to consider whether to participate in the Exchange Offer and that neither the Company nor the Exchange Agent has placed any pressure on the Investor to respond to the opportunity to participate in the Exchange Offer.

(s) *Finder Fee*. The Investor acknowledges the Company intends to pay the Exchange Agent a fee in respect of the Exchange Offer.

(t) *Additional Documentation*. The Investor will, upon request, execute and deliver any additional documents reasonably requested by the Company or the New Notes Trustee to complete the Exchange Offer.

(u) *Representations and Warranties*. The Investor understands that, unless the Investor notifies the Company in writing to the contrary before the Closing, each of the Investor's representations and warranties contained in this Exchange Agreement will be deemed to have been reaffirmed and confirmed as of the Closing, taking into account all information received by the Investor.

(v) *No Minimum Investment*. The Investor's participation in the Exchange Offer was not conditioned by the Company on the Investor's exchange of a minimum principal amount of Exchanged Old Notes.

6. Conditions to Obligations of the Investors and the Company. The obligations of each Investor to deliver the Exchanged Old Notes of such Investor and of the Company to deliver the Exchanged New Notes to each Investor are subject to the satisfaction or waiver at or prior to the Closing of the conditions precedent that (a) the representations and warranties of the Company and such Investor contained in Sections 4 and 5 , respectively, shall be true and correct as of the Closing in all material respects with the same effect as though such representations and warranties had been made as of the Closing, (b) the Company shall have obtained any required consents, waivers and/or approvals under its existing agreements with its securityholders with respect to the issuance of the Exchanged New Notes in exchange

for the Exchanged Old Notes (and accrued and unpaid interest thereon) and the consummation of the transactions related thereto, and (c) the Conversion Shares shall be approved for listing on The NASDAQ Stock Market ("**NASDAQ**"), subject to official notice of issuance.

7. Covenant and Acknowledgment of the Company. At or prior to 9:00 a.m., New York City time, on the first business day after the date hereof, the Company shall file a press release or Current Report on Form 8-K announcing the Exchange Offer, which press release or Form 8-K the Company acknowledges and agrees will disclose all material non-public information, if any, with respect to the Exchange Offer or otherwise communicated by the Company to the Investors in connection with the Exchange Offer.

Notwithstanding the foregoing, the Company shall not publicly disclose the name of any Investor or Fidelity Management & Research Company ("**Fidelity**") or any of their respective affiliates, or include the name of any Investor or Fidelity or any of their respective affiliates in any press release or in any filing with the Commission or any regulatory agency or trading market, without the prior written consent of such Investor or Fidelity or such affiliate, as applicable, except (i) as required by the federal securities law, (ii) the filing of this Exchange Agreement with the Commission and in the related current report on Form 8-K or other applicable filing with the Commission required under the Securities Exchange Act of 1934, in each case in a manner acceptable to such Investor, (iii) in the press release issued by the Company in connection with the announcement of the Exchange Offer in a manner acceptable to the Investor, and (iv) to the extent such disclosure is required by law, at the request of the Staff of the Commission or regulatory agency or under the regulations of NASDAQ, in which case the Company shall provide the applicable Investor, Fidelity or the applicable subsidiary, as applicable, with prior written notice of such disclosure permitted under this subclause (iv).

8. Waiver, Amendment. Neither this Exchange Agreement nor any provisions hereof shall be modified, changed, discharged or terminated except by an instrument in writing, signed by the party against whom any waiver, change, discharge or termination is sought.

9. Assignability. Neither this Exchange Agreement nor any right, remedy, obligation or liability arising hereunder or by reason hereof shall be assignable by the Company without the prior written consent of each Investor nor by any Investor without the prior written consent of the Company, which consent shall not be unreasonably withheld.

10. Taxation. Each Investor acknowledges that, if such Investor is a United States person for U.S. federal income tax purposes, either (1) the Company and the New Notes Trustee must be provided with a correct taxpayer identification number ("**TIN**"), generally a person's social security or federal employer identification number, and certain other information on Internal Revenue Service ("**IRS**") Form W-9, which is provided as an attachment hereto, and a certification, under penalty of perjury, that such TIN is correct, that such Investor is not subject to backup withholding (at a rate of 28%) and that such Investor is a United States person, or (2) another basis for exemption from backup withholding must be established. Each Investor further acknowledges that, if such Investor is not a United States person for U.S. federal income tax purposes, (1) the Company and the New Notes Trustee must be provided the appropriate IRS Form W-8 signed under penalties of perjury, attesting to that non-U.S. Investor's foreign status, and (2) such Investor may be subject to 30% U.S. federal withholding or 28% U.S. federal backup withholding tax on certain payments made to such Investor unless such Investor properly establishes an exemption from, or a reduced rate of, withholding or backup withholding.

11. Waiver of Jury Trial. EACH OF THE COMPANY AND EACH INVESTOR IRREVOCABLY WAIVES ANY AND ALL RIGHT TO TRIAL BY JURY WITH RESPECT TO ANY LEGAL PROCEEDING ARISING OUT OF THE TRANSACTIONS CONTEMPLATED BY THIS EXCHANGE AGREEMENT.

12. Governing Law/Venue. THIS EXCHANGE AGREEMENT SHALL BE GOVERNED BY THE LAWS OF THE STATE OF NEW YORK WITHOUT REGARD TO CONFLICT OF LAW PRINCIPLES THAT WOULD RESULT IN THE APPLICATION OF ANY LAW OTHER THAN THE LAW OF THE STATE OF NEW YORK. Each of the Company and each Investor (a) agrees that any legal suit, action or proceeding arising out of or relating to this agreement or the transactions contemplated hereby shall be instituted exclusively in the courts of the State of New York located in the City and County of New York or in the United States District Court for the Southern District of New York; (b) waives any objection that it may now or hereafter have to the venue of any such suit, action or proceeding; and (c) irrevocably consents to the jurisdiction of the aforesaid courts in any such suit, action or proceeding.

13. Section and Other Headings. The section and other headings contained in this Exchange Agreement are for reference purposes only and shall not affect the meaning or interpretation of this Exchange Agreement.

14. Counterparts. This Exchange Agreement may be executed by one or more of the parties hereto in any number of separate counterparts (including by facsimile or other electronic means, including telecopy, email or otherwise), and all of said counterparts taken together shall be deemed to constitute one and the same instrument. Delivery of an executed signature page of this Exchange Agreement by facsimile or other transmission (*e.g.* , "pdf" or "tif" format) shall be effective as delivery of a manually executed counterpart hereof.

15. Notices. All notices and other communications provided for herein shall be in writing and shall be deemed to have been duly given if delivered personally or sent by prepaid overnight courier or registered or certified mail, return receipt requested, postage prepaid to, in the case of the Company, the following address and, in the case of any Investor, the address provided on the signature page of such Investor (or such other address as any party shall have specified by notice in writing to the other):

If to the Company:

Amyris, Inc.
5885 Hollis Street, Suite 100
Emeryville, California 94608
Fax: (510) 225-2645
Attention: General Counsel

16. Binding Effect. The provisions of this Exchange Agreement shall be binding upon and accrue to the benefit of the parties hereto and their respective heirs, legal representatives, successors and permitted assigns.

17. Notification of Changes. Each Investor hereby covenants and agrees to notify the Company upon the occurrence of any event prior to the Closing that would cause any representation, warranty, or covenant of such Investor contained in this Exchange Agreement to be false or incorrect in any material respect.

18. [Reserved.]

19. Severability. If any term or provision (in whole or in part) of this Exchange Agreement is determined to be invalid, illegal or unenforceable in any jurisdiction, such invalidity, illegality or unenforceability shall not affect any other term or provision of this Exchange Agreement or invalidate or render unenforceable such term or provision in any other jurisdiction.

20. Termination of Old Notes SPA. The Company and the Investors hereby agree and acknowledge that, upon the Closing, the Securities Purchase Agreement, dated as of February 24, 2012, between the

Company and the entities listed on Schedule I thereto, including the Investors, relating to the Old Notes (the "**Old Notes SPA**") shall terminate and be of no further force or effect, except for any provisions thereof that the Old Notes SPA expressly states shall survive such termination.

[SIGNATURE PAGES FOLLOW]

IN WITNESS WHEREOF, the undersigned has executed this Exchange Agreement as of the date first written above.

AMYRIS, INC.

By: /s/ Raffi Asadorian
Name: Raffi Asadorian
Title: Chief Financial Officer

IN WITNESS WHEREOF, the undersigned has executed this Exchange Agreement as of the date first written above.

INVESTOR:

Fidelity Advisor Series I:
Fidelity Advisor Equity Income Fund

By: /s/ Jeffrey Christian
Name: Jeffrey Christian
Title: Authorized Signatory

Address for Notices:

Old Exchange Notes Principal Amount: $516,000

Exchanged New Notes Principal Amount: $645,000

DTC Participant Number for Delivery of Exchanged New Notes:

DTC Participant Name: JP Morgan Chase

Participant Contact:

Name:

Telephone Number

IN WITNESS WHEREOF, the undersigned has executed this Exchange Agreement as of the date first written above.

INVESTOR:

Variable Insurance Products Fund:
Equity Income Portfolio

By: /s/ Jeffrey Christian
Name: Jeffrey Christian
Title: Authorized Signatory

Address for Notices:

Old Exchange Notes Principal Amount: $1,383,000

Exchanged New Notes Principal Amount: $1,729,000

DTC Participant Number for Delivery of Exchanged New Notes:

DTC Participant Name: Northern Trust

Participant Contact:

Name:

Telephone Number

IN WITNESS WHEREOF, the undersigned has executed this Exchange Agreement as of the date first written above.

INVESTOR:

Fidelity Devonshire Trust: Fidelity
Equity-Income Fund

By: /s/ Jeffrey Christian
Name: Jeffrey Christian
Title: Authorized Signatory

Address for Notices:

Old Exchange Notes Principal Amount: $2,101,000

Exchanged New Notes Principal Amount: $2,626,000

DTC Participant Number for Delivery of Exchanged New Notes:

DTC Participant Name: Northern Trust

Participant Contact:

Name:

Telephone Number

IN WITNESS WHEREOF, the undersigned has executed this Exchange Agreement as of the date first written above.

INVESTOR:

Fidelity Destiny Portfolios: Fidelity
Advisor Diversified Stock Fund

By: /s/ Jeffrey Christian
Name: Jeffrey Christian
Title: Authorized Signatory

Address for Notices:

Old Exchange Notes Principal Amount: $2,000,000

Exchanged New Notes Principal Amount: $2,500,000

DTC Participant Number for Delivery of Exchanged New Notes:

DTC Participant Name: State Street Bank

Participant Contact:

Name:

Telephone Number

IN WITNESS WHEREOF, the undersigned has executed this Exchange Agreement as of the date first written above.

INVESTOR:

Variable Insurance Products Fund III:
VIP Balanced Portfolio

By: /s/ Jeffrey Christian
Name: Jeffrey Christian
Title: Authorized Signatory

Address for Notices:

Old Exchange Notes Principal Amount: $1,162,000

Exchanged New Notes Principal Amount: $1,452,000

DTC Participant Number for Delivery of Exchanged New Notes:

DTC Participant Name: JP Morgan Chase

Participant Contact:

Name:

Telephone Number

IN WITNESS WHEREOF, the undersigned has executed this Exchange Agreement as of the date first written above.

INVESTOR:

Fidelity Advisor Series I: Fidelity
Advisor Dividend Growth Fund

By: /s/ Jeffrey Christian
Name: Jeffrey Christian
Title: Authorized Signatory

Address for Notices:

Old Exchange Notes Principal Amount: $791,000

Exchanged New Notes Principal Amount: $989,000

DTC Participant Number for Delivery of Exchanged New Notes:

DTC Participant Name: State Street Bank

Participant Contact:

Name:

Telephone Number

IN WITNESS WHEREOF, the undersigned has executed this Exchange Agreement as of the date first written above.

INVESTOR:

Fidelity Securities Fund: Fidelity
Divident Growth Fund

By: /s/ Jeffrey Christian
Name: Jeffrey Christian
Title: Authorized Signatory

Address for Notices:

Old Exchange Notes Principal Amount: $7,356,000

Exchanged New Notes Principal Amount: $9,195,000

DTC Participant Number for Delivery of Exchanged New Notes:

DTC Participant Name: Brown Brothers Harriman

Participant Contact:

Name:

Telephone Number

Annex A

INVESTOR EXCHANGE PROCEDURES

Delivery of New Notes

To receive your Exchanged New Notes, you must direct the eligible DTC participant through which you wish to hold a beneficial interest in the New Notes to set up, no later than 10:00 a.m., New York City time on the Closing Date, a Deposit/Withdrawal at Custodian (DWAC) instruction for the aggregate principal amount of New Notes (CUSIP/ISIN #03236M AG6/US03236MAG69) set forth next to the caption "Exchanged New Notes Principal Amount" in Annex A to your Exchange Agreement.

Delivery of Old Notes

You must send your Exchanged Old Notes to the Company at the address below no later than five (5) business days after receipt of your Exchanged New Notes:

Amyris, Inc.

5885 Hollis St., Suite 100

Emeryville, CA 94608

Attention:

Settlement

After the Company receives your delivery instructions as set forth above, and subject to the satisfaction of the conditions to closing as set forth in your Exchange Agreement, the Company will deliver your Exchanged New Notes in accordance with the delivery instructions set forth above.

Exhibit 4.36

Execution Version

October 6, 2016

Amyris, Inc.
5885 Hollis Street, Suite 100
Emeryville, CA 94608
Attention: John Melo, President and Chief Executive Officer

RE: Amendment to Loan and Security Agreement Relating to (i) Maturity Date, (ii) Payments and (iii) Cash Covenants

Dear Mr. Melo:

Reference is made to that certain Loan and Security Agreement dated as of March 29, 2014, as amended on June 12, 2014, March 31, 2015, and November 30, 2015 (as amended, the "***LSA***"), by and between Amyris, Inc., a Delaware corporation (the "***Parent***"), and each of its Subsidiaries that has delivered a Joinder Agreement (collectively, "***Borrower***"), the other financial institutions or entities from time to time parties to the LSA (collectively, referred to as "***Lender***") and Stegodon Corporation, a Delaware corporation, as assignee of Hercules Capital, Inc., a Maryland corporation, in its capacity as administrative agent for itself and Lender (in such capacity, the "***Agent***"). Capitalized terms used but not otherwise defined herein have the meaning set forth in the LSA.

Borrower has requested that the Lender amend certain provisions of the LSA by (i) extending the Term Loan Maturity Date and (ii) amending the definition of "Permitted Transfers" and Sections 2.2(d) ("Term Loan – Payment") and 7.14 ("Minimum Cash") of the LSA, in each case subject to certain conditions further described below.

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, based upon the mutual covenants contained herein, and subject to the effectiveness of the Collaboration Agreement dated on or about the date hereof, by and between Parent and Ginkgo Bioworks, Inc. (the "***Ginkgo Collaboration Agreement***"), Borrower, the Agent and Lender, in accordance with Section 11.3(b) of the LSA, hereby amend the LSA (this "***Amendment***") as follows:

I. Effective immediately upon the Agent's receipt of evidence reasonably satisfactory to it, in its sole discretion, that the maturity date(s) of the existing indebtedness of Borrower listed on Exhibit A hereto have been extended (the "***Extension Condition***"), the "Term Loan Maturity Date" as defined in the LSA shall be the Business Day immediately preceding the earliest maturity date of the existing indebtedness of Borrower listed on Exhibit B hereto, after giving effect to any extensions thereof (and subject to the Agent's receipt of evidence reasonably satisfactory to it, in its sole discretion, of such extensions thereof) as of the date of satisfaction of the Extension Condition; provided, that the Term Loan Maturity Date shall in no event be later than April 12, 2019.

II. The following sentence shall be added to the end of the definition of "Permitted Transfers" in Section 1 of the LSA:

"Notwithstanding anything herein to the contrary, the license or transfer of Borrower's Intellectual Property rights pursuant to and in connection with the Ginkgo Collaboration Agreement and all the transactions contemplated thereby shall be deemed, at all times, to be Permitted Transfers."

III. New definitions of "Ginkgo Collaboration Agreement" and "Net Profits" are hereby inserted into Section 1 of the LSA in appropriate alphabetical order:

"Ginkgo Collaboration Agreement" means that certain Collaboration Agreement, dated as of September 30, 2016, by and between Parent and Ginkgo Bioworks, Inc.

"Net Profits" has the meaning ascribed to such term in the Ginkgo Collaboration Agreement.

IV. Section 2.2(d) ("Term Loan – Payment") of the LSA is hereby deleted in its entirety and the following is substituted therefor:

"Payment. Borrower will pay interest on each Term Loan Advance on the first Business Day of each month, beginning the month after the (i) Closing Date with respect to the Closing Date Term Loan Advance, (ii) First Amendment Effective Date with respect to the Additional Term Loan Advance and (iii) the Third Amendment Effective Date for the Third Amendment Term Loan Advance. At its sole discretion, Lender will either (i) initiate debit entries to the Borrower's account as authorized on the ACH Authorization on each payment date of all periodic interest obligations payable to Lender under each Term Loan Advance and any costs and expenses reimbursable to Lender, (ii) submit a written invoice to Borrower for all amounts due by Borrower on each payment date of all periodic interest obligations payable to Lender under each Term Loan Advance and any costs and expenses reimbursable to Lender, which invoice must be paid by Borrower within five days of receipt or (iii) submit other written instructions to Borrower regarding the proper method for payment of such periodic interest obligations and costs and expenses. In addition, Borrower shall pay to Agent, for the benefit of Lender, promptly upon Borrower's receipt thereof, all Net Profits earned by and actually received by Parent under the Ginkgo Collaboration Agreement, up to a maximum of $1,000,000 in any calendar month, and any such payments shall be applied to the principal balance outstanding under the LSA on the first Business Day of the month following payment. For the sake of clarification, any such payments of Net Profits made to the Agent, for the benefit of Lender, in accordance with this paragraph shall not be subject to any Prepayment Charge under Section 2.5 hereof. The entire Term Loan Advance principal balance outstanding and all accrued but unpaid interest hereunder shall be due and payable on the Term Loan Maturity Date. Borrower shall make all payments due under this Agreement without setoff, recoupment or deduction and regardless of any counterclaim or defense."

V. Section 7.14 ("Minimum Cash") of the LSA is hereby deleted in its entirety and the following is substituted therefor:

"Section 7.14. Minimum Cash. So long as the Secured Obligations are outstanding, Borrower shall, as of any date, have at least the Threshold Amount of unrestricted, unencumbered Cash in one or more Deposit Accounts subject to an Account Control Agreement in favor of Agent. Notwithstanding anything herein to the contrary, through and until the Term Loan Maturity Date, the "Threshold Amount" as defined herein shall be $0."

Within five (5) days following receipt of an invoice, Borrower shall pay the Agent's reasonable out-of-pocket costs, including reasonable attorneys' fees, incurred in connection with the LSA.

Except to the extent of this Amendment, the LSA shall remain unaltered and in full force and effect. This Amendment shall not be a waiver of any existing default or breach of a covenant unless specified herein.

This Amendment shall be limited precisely as written and shall not be deemed (a) to be a waiver or modification of any other term or condition of the LSA or of any other instrument or agreement referred to therein or to prejudice any right or remedy which Lender may now have or may have in the future under or in connection with the LSA or any instrument or agreement referred to therein; or (b) to be a

consent to any future amendment or modification of any instrument or agreement the execution and delivery of which is consented to hereby, or to any waiver of any of the provisions thereof.

The Borrower acknowledges and agrees that it remains obligated to pay all principal, interest, reimbursement obligations, fees, and other amounts owing to the Agent and Lender under and in respect of the Loan Documents when due and payable in accordance with the terms thereof.

The Borrower hereby acknowledges and agrees that as of the date hereof, the Borrower has outstanding Secured Obligations to the Agent and the Lender which include indebtedness to the Agent and Lender in an aggregate outstanding principal amount equal to $28,565,748.86 plus accrued interest and fees. The Borrower hereby acknowledges and agrees that, to the best of its knowledge as of the date hereof, the liens and security interests granted in favor of the Agent and/or the Lender under the terms of the Loan Documents are perfected, effective, enforceable, and valid and such liens and security interests are, in each case, a first priority lien and security interest subject to Permitted Liens. Notwithstanding the foregoing, each of the Agent and the Lender acknowledges and agrees that Borrower is not responsible for perfecting or ensuring such liens are effective and enforceable.

The Borrower hereby acknowledges and agrees that as of the date hereof: (a) it does not have any claim or cause of action related to the LSA, the Loan Documents or any other agreement between or among Borrower, the Agent and/or the Lender against the Agent or the Lender (or any of their respective directors, officers, employees, agents, subsidiaries, affiliates, attorneys, attorneys' consultants, predecessors, successors or assigns); (b) it does not have any offset right, counterclaim, or defense of any kind against the Secured Obligations or any portion thereof; and (c) each of the Agent and the Lender has heretofore properly performed and satisfied in a timely manner all of its obligations and commitments to the Borrower. For and in consideration of the agreements contained in this Amendment and other good and valuable consideration, the Borrower unconditionally and irrevocably releases, waives, and forever discharges each of the Agent and the Lender, together with their respective predecessors, successors, assigns, subsidiaries, affiliates, agents, employees, directors, officers, attorneys and attorneys' consultants (collectively, the "***Released Parties***"), from the following, in each case only as related to the LSA, the Loan Documents and any other agreement between or among Borrower, the Agent and/or the Lender: (x) any and all liabilities, obligations, duties, promises, or indebtedness of any kind (if any) of the Released Parties to the Borrower or any of its affiliates, which existed, arose, or occurred at any time from the beginning of the world to the date of this Amendment, and (y) all claims, offsets, causes of action, suits, or defenses of any kind whatsoever (if any), which the Borrower or any of its affiliates might otherwise have against the Released Parties, or any of them, in either case (x) or (y) on account of any condition, act, omission, event, contract, liability, obligation, indebtedness, claim, cause of action, defense, circumstance, or matter of any kind, which existed, arose, or occurred at any time from the beginning of the world to the date of this Amendment. Notwithstanding anything to the contrary herein, the Borrower does not hereby release, waive, or forever discharge the Released Parties from any claims, offsets, causes of action, suits or defenses of any kind relating to any conduct or action by the Agent or Lender that is illegal under federal, state or local law.

Without limitation, each party hereto acknowledges that it has been advised by its attorneys concerning, and is familiar with, the California Civil Code Section 1542. Section 1542 of the California Civil Code provides as follows:

> A general release does not extend to claims which the creditor does not know or suspect to exist in his or her favor at the time of the executing of the release, which if known by him or her must have materially affected his or her settlement with the debtor.

Each party hereto expressly waives any and all rights under California Civil Code Section 1542 and under any other federal or state statute or law of similar effect as to all matters released pursuant to this Amendment.

Except as expressly set forth in this Amendment, this Amendment shall become effective upon the receipt of a fully executed Amendment.

This Amendment may be executed in two or more counterparts, each of which shall constitute an original, but all of which, when taken together, shall constitute but one instrument, and, except as expressly set forth herein, shall become effective when one or more counterparts have been signed by each party hereto and delivered to the other party. Facsimile signatures shall be deemed originals for all purposes hereunder. This Amendment shall be governed by, and construed and enforced in accordance with, the laws of the State of California, excluding conflict of laws principles that would cause the application of laws of any other jurisdiction.

[REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, Borrower, the Agent and the Lender have duly executed and delivered this Amendment as of the day and year first above written.

AGENT AND LENDER:

STEGODON CORPORATION, as Agent and as Lender

Signature: /s/ Austin Che

Print Name: Austin Che

Title: President

BORROWER:

AMYRIS, INC.

Signature: _____

Print Name: _____

Title: _____

AMYRIS FUELS, LLC

By: Amyris, Inc., its sole manager

Signature: _____

Print Name: _____

Title: _____

IN WITNESS WHEREOF, Borrower, the Agent and the Lender have duly executed and delivered this Amendment as of the day and year first above written.

AGENT AND LENDER:

STEGODON CORPORATION, as Agent and as Lender

Signature: _____

Print Name: _____

Title: _____

BORROWER:

AMYRIS, INC.

Signature: /s/ R. Asadorian

Print Name: R. Asadorian

Title: CFO

AMYRIS FUELS, LLC

By: Amyris, Inc., its sole manager

Signature: /s/ R. Asadorian

Print Name: R. Asadorian

Title: CFO

EXHIBIT A

Existing Holder(s)	Description	Current Amount Outstanding	Current Maturity Date
Entities affiliated with FMR LLC	3% Senior Unsecured Convertible Notes	$15,309,000	March 1, 2017

EXHIBIT B

Existing Holder(s)	Description	Current Amount Outstanding	Current Maturity Date
Entities affiliated with FMR LLC	3% Senior Unsecured Convertible Notes	$15,309,000	March 1, 2017
Entities affiliated with FMR LLC	Tranche I Senior Convertible Notes	$9,694,724	October 16, 2018
Entities not party to the Maturity Treatment Agreement, dated July 29, 2015	Tranche II Senior Convertible Notes	$3,639,172	January 15, 2019

Exhibit 4.63

NOTE PURCHASE AGREEMENT

This Note Purchase Agreement (this "Agreement") is made as of October 5, 2016 (the "Effective Date") by and among Amyris, Inc., a Delaware corporation (the "Company"), and the individuals or entities listed on Schedule I hereto (each, a "Purchaser," and collectively, the "Purchasers").

Preliminary Statement

Subject to the terms and conditions hereof, each Purchaser desires to purchase, and the Company desires to offer and sell to each Purchaser, that aggregate principal amount of Secured Promissory Notes with a principal amount set forth opposite each such Purchaser's name on Schedule I hereto (which aggregate principal amount for all Purchasers as of the Closing (as defined below) shall be $6,000,000) (each such Secured Promissory Note, a "Note" and collectively, the "Notes"). If and when issued, each of the Notes shall be evidenced by a promissory note in the form attached hereto as Exhibit A.

Agreement

The parties, intending to be legally bound, agree as follows:

1. **Sale of Notes.** Subject to the terms and conditions hereof, at the Closing (as defined in Section 2), the Company shall sell to each Purchaser, and, subject to satisfaction of the conditions set forth in this Agreement, each such Purchaser will purchase from the Company, (i) a Note in a principal amount as set forth next to such Purchaser's name on Schedule I hereto for a purchase price equal to the purchase price set forth next to such Purchaser's name on Schedule I hereto under the column "Note Purchase Price" (the "Purchase Price"). The sale and purchase of the Notes to each Purchaser shall constitute a separate sale and purchase hereunder.

2. **Closing**. The closing ("Closing") of the transactions contemplated hereby shall be held at the offices of Fenwick & West LLP, 801 California Street, Mountain View, California 94041 within one business day following the date on which the last of the conditions set forth in Sections 7 and 8 have been satisfied or waived in accordance with this Agreement but in no event later than October 31, 2016 (such date, the "Closing Date"), or at such other time and place as the Company and the Purchasers mutually agree upon.

3. **Delivery**.

(a) At the Closing, each Purchaser shall (i) pay the Company the applicable Purchase Price in immediately available funds, or (ii) (A) initiate irrevocable payment instructions to its paying bank to make the payment (an "Irrevocable Payment Instruction") to the Company of the applicable Purchase Price in immediately available funds and (B) deliver to the Company confirmation that such Purchaser has made an Irrevocable Payment Instruction, such confirmation to be in the form of a federal reference number or other similar written evidence that a wire has been initiated.

(b) At the Closing, or, if applicable, upon receipt of the applicable amount of the Purchase Price due in respect of the Closing from any Purchaser who makes an Irrevocable Payment Instruction at the Closing, the Company shall deliver to such Purchaser a Note with a principal amount as provided in Section 1 above, such Note to be registered in the name of such Purchaser, or in such nominee's or nominees' name(s) as provided by such Purchaser to the Company, against payment of the Purchase Price therefor as provided in Section 1 above by wire transfer of immediately available funds to such account or accounts as the Company shall designate in writing to such Purchaser at least two (2) days prior to the date of the Closing.

4. **Company Representations**. The Company represents and warrants to the Purchasers as follows:

(a) Organization and Standing. The Company is duly incorporated, validly existing, and in good standing under the laws of the State of Delaware. The Company has all requisite power and authority to own and operate its properties and assets and to carry on its business as presently conducted and as proposed to be conducted. The Company is qualified to do business as a foreign entity in every jurisdiction in which the failure to be so qualified would have, or would reasonably be expected to have, a material adverse effect, individually or in the aggregate, upon the business, properties, tangible and intangible assets, liabilities, operations, prospects, financial condition or results of operation of the Company or the ability of the Company to perform its obligations under this Agreement (a "Material Adverse Effect"). For the purposes of clarity, the implementation of any plan for the significant restructuring of the Company, which has been approved by the Board of Directors of the Company as of the date hereof, shall not constitute a Material Adverse Effect.

(b) Power. The Company has all requisite power to execute and deliver this Agreement, to sell and issue the Notes hereunder, and to carry out and perform its obligations under the terms of this Agreement and the Notes (collectively, the "Transaction Agreements").

(c) Authorization. Subject to any waivers of covenants limiting the Company's ability to incur further debt under outstanding debt instruments and loans, each of which would be obtained or waived as required prior to the Closing (the "Pre-Closing Consents"), the execution, delivery, and performance of the Transaction Agreements by the Company has been duly authorized by all requisite action on the part of the Company and its officers, directors and stockholders, and this Agreement and the Notes constitute the legal, valid, and binding obligation of the Company enforceable in accordance with its terms, except (a) as limited by applicable bankruptcy, insolvency, reorganization, moratorium, and other laws of general application affecting enforcement of creditors' rights generally, and (b) as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies (together, the "Enforceability Exceptions").

(d) Consents and Approvals. Except for any Current Report on Form 8-K or other document to be filed by the Company with the U.S. Securities and Exchange Commission (the "SEC") in connection with the transactions contemplated hereby, the Company is not required to give any notice to, make any filing with, or obtain any authorization, consent, or approval of any government or governmental agency in order to consummate the transactions contemplated hereby. Assuming the accuracy of the representations of the Purchasers in Section 5, no consent,

approval, authorization or other order of, or registration, qualification or filing with, any court, regulatory body, administrative agency, self-regulatory organization, stock exchange or market (including The NASDAQ Stock Market LLC ("The NASDAQ Stock Market"), or other governmental body is required for the execution and delivery of the Transaction Agreements, the valid issuance, sale and delivery of the Notes to be sold pursuant to this Agreement other than such as have been made or obtained, or for any securities filings required to be made under federal or state securities laws applicable to the offering of the Notes.

(e) Non-Contravention. The execution and delivery of this Agreement and, following satisfaction of the Closing conditions set forth in Sections 7 and 8 hereof as applicable to the Closing, the issuance, sale and delivery of the Notes to be sold by the Company under this Agreement and the performance by the Company of its obligations under the Transaction Agreements and/or the consummation of the transactions contemplated thereby, will not (a) conflict with, result in the breach or violation of, or constitute (with or without the giving of notice or the passage of time or both) a violation of, or default under, (i) subject to obtaining the Pre-Closing Consents, any bond, debenture, note or other evidence of indebtedness, or under any lease, license, franchise, permit, indenture, mortgage, deed of trust, loan agreement, joint venture or other agreement or instrument to which the Company or any subsidiary is a party or by which it or its properties may be bound or affected, (ii) the Company's Restated Certificate of Incorporation, as amended and as in effect on the date hereof, the Company's Bylaws, as amended and as in effect on the date hereof, or the equivalent document with respect to any subsidiary, as amended and as in effect on the date hereof, or (iii) any statute or law, judgment, decree, rule, regulation, ordinance or order of any court or governmental or regulatory body (including The NASDAQ Stock Market), governmental agency, arbitration panel or authority applicable to the Company, any of its subsidiaries or their respective properties, except in the case of clauses (i) and (iii) for such conflicts, breaches, violations or defaults that would not be likely to have, individually or in the aggregate, a Material Adverse Effect, or (b) except for any security interests granted pursuant to the Notes, result in the creation or imposition of any lien, encumbrance, claim, security interest or restriction whatsoever upon any of the material properties or assets of the Company or any of its subsidiaries or an acceleration of indebtedness pursuant to any obligation, agreement or condition contained in any material bond, debenture, note or any other evidence of indebtedness or any material indenture, mortgage, deed of trust or any other agreement or instrument to which the Company or any if its subsidiaries is a party or by which the Company or any of its subsidiaries is bound or to which any of the property or assets of the Company is subject. For purposes of this Section 4(e), the term "material" shall apply to agreements, understandings, instruments, contracts or proposed transactions to which the Company is a party or by which it is bound involving obligations (contingent or otherwise) of, or payments to, the Company in excess of $100,000 in a 12-month period.

(f) Notes. The Notes have been duly authorized by the Company and, when duly executed and delivered and paid for as provided herein, will be duly and validly issued and outstanding and will constitute valid and legally binding obligations of the Company enforceable against the Company in accordance with their terms, subject to the Enforceability Exceptions. The issuance and delivery of each of the Notes is not subject to preemptive, co-sale, right of first refusal or any other similar rights of the stockholders of the Company or any other person, or any liens or encumbrances or result in the triggering of any anti-dilution or other similar rights under any outstanding securities of the Company.

(g) No Registration. Assuming the accuracy of each of the representations and warranties of the Purchaser herein, the issuance by the Company of the Notes is exempt from registration under the Securities Act of 1933, as amended (the "Securities Act").

(h) Reporting Status. The Company is subject to the reporting requirements of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and, as of the Closing, will have filed all documents and reports that the Company was required to file pursuant to Section I.A.3.b of the General Instructions to Form S-3 promulgated under the Securities Act in order for the Company to be eligible to use Form S-3 (the foregoing materials, together with any materials filed by the Company under the Exchange Act, whether or not required, collectively, the "SEC Documents"). The SEC Documents complied as to form in all material respects with requirements of the Securities Act and Exchange Act and the rules and regulations of the SEC promulgated thereunder (collectively, the "SEC Rules"), and none of the SEC Documents and the information contained therein, as of their respective filing dates, contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading. As used in this Agreement, "Previously Disclosed" means information set forth in or incorporated by reference into the SEC Documents filed with the SEC on or after November 9, 2015 but prior to the date hereof (except for risks and forward-looking information set forth in the "Risk Factors" section of the applicable SEC Documents or in any forward-looking statement disclaimers or similar statements that are similarly non-specific and are predictive or forward-looking in nature).

(i) Legal Proceedings. Except as Previously Disclosed, there is no action, suit or proceeding before any court, governmental agency or body, domestic or foreign, now pending or, to the knowledge of the Company, threatened against the Company or its subsidiaries wherein an unfavorable decision, ruling or finding would reasonably be expected to, individually or in the aggregate, (i) materially adversely affect the validity or enforceability of, or the authority or ability of the Company to perform its obligations under, the Transaction Agreements or (ii) have a Material Adverse Effect. The Company is not a party to or subject to the provisions of any injunction, judgment, decree or order of any court, regulatory body, administrative agency or other governmental agency or body that might have, individually or in the aggregate, a Material Adverse Effect.

(j) No Violations. Neither the Company nor any of its subsidiaries is in violation of its respective certificate of incorporation, bylaws or other organizational documents, or to its knowledge, is in violation of any statute or law, judgment, decree, rule, regulation, ordinance or order of any court or governmental or regulatory body (including The NASDAQ Stock Market), governmental agency, arbitration panel or authority applicable to the Company or any of its subsidiaries, which violation, individually or in the aggregate, would be reasonably likely to have a Material Adverse Effect. Neither the Company nor any of its subsidiaries is in default (and there exists no condition which, with or without the passage of time or giving of notice or both, would constitute a default) in the performance of any bond, debenture, note or any other evidence of indebtedness in any indenture, mortgage, deed of trust or any other material agreement or instrument to which the Company or any of its subsidiaries is a party or by which the Company or any of its subsidiaries is bound or by which the properties of the Company are bound, which would be reasonably likely to have a Material Adverse Effect. There has not been, and to the knowledge of the Company, there is not pending or contemplated, any investigation by the SEC

involving the Company or any current or former director or officer of the Company and the Company is not an "ineligible issuer" pursuant to Rules 164, 405 and 433 under the Securities Act. The Company has not received any comment letter from the SEC relating to any SEC Documents which has not been resolved. The SEC has not issued any stop order or other order suspending the effectiveness of any registration statement filed by the Company under the Exchange Act or the Securities Act.

(k) Listing Compliance. Except as disclosed in its filings with the SEC, the Company is in compliance with the requirements of The NASDAQ Stock Market for continued listing of the Common Stock thereon and has no knowledge of any facts or circumstances that could reasonably lead to delisting of its Common Stock from The NASDAQ Stock Market. The Company has taken no action designed to, or likely to have the effect of, terminating the registration of the Common Stock under the Exchange Act or the listing of the Common Stock on The NASDAQ Stock Market, nor has the Company received any notification that the SEC or The NASDAQ Stock Market is contemplating terminating such registration or listing. The transactions contemplated by the Transaction Agreements will not contravene the rules and regulations of The NASDAQ Stock Market.

(l) Financial Statements. The consolidated financial statements of the Company and its subsidiaries and the related notes thereto included in the SEC Documents (the "Financial Statements") comply in all material respects with applicable accounting requirements and the rules and regulations of the SEC with respect thereto as in effect at the time of filing and present fairly, in all material respects, the financial position of the Company and its subsidiaries as of the dates indicated and the results of its operations and cash flows for the periods therein specified subject, in the case of unaudited statements, to normal year-end audit adjustments. Except as set forth in such Financial Statements (or the notes thereto), such Financial Statements (including the related notes) have been prepared in accordance with U.S. generally accepted accounting principles applied on a consistent basis throughout the periods therein specified ("GAAP"). Except as set forth in the Financial Statements, neither the Company nor its subsidiaries has any material liabilities other than liabilities and obligations that have arisen in the ordinary course of business and which would not be required to be reflected in financial statements prepared in accordance with GAAP.

(m) Disclosure. The Company understands and confirms that the Purchasers will rely on the foregoing representations in effecting transactions in the Notes. All disclosure furnished by or on behalf of the Company to the Purchasers in connection with this Agreement regarding the Company, its business and the transactions contemplated hereby is true and correct in all material respects and does not contain any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements made therein, in light of the circumstances under which they were made, not misleading. The Company acknowledges and agrees that the Purchasers have not made and do not make any representations or warranties with respect to the transactions contemplated hereby other than those set forth in Section 5 hereto.

5. **Investment Representations.** In connection with the receipt of the Notes, each Purchaser represents and warrants to the Company the following:

(a) Organization. Purchaser is duly organized, validly existing, and in good standing under the laws of the jurisdiction of its organization.

(b) Power. Purchaser has all requisite power to execute and deliver this Agreement and to carry out and perform its obligations under the terms of this Agreement.

(c) Authorization. The execution, delivery, and performance of this Agreement by Purchaser has been duly authorized by all requisite action, and this Agreement constitutes the legal, valid, and binding obligation of Purchaser enforceable in accordance with its terms (subject to the Enforceability Exceptions).

(d) Consents and Approvals. Purchaser need not give any notice to, make any filing with, or obtain any authorization, consent, or approval of any government or governmental agency in order to consummate the transactions contemplated by this Agreement.

(e) Non-Contravention. The execution, delivery and, subject to satisfaction by the Company of the conditions to Closing set forth in Sections 7 and 8 hereof on or prior to the issuance of the Notes, or performance, by Purchaser of this Agreement do not and will not contravene or constitute a default under, or violation of, or be subject to penalties under, (i) any agreement (or require the consent of any party under any such agreement that has not been made or obtained) to which Purchaser is a party, or (ii) any judgment, injunction, order, decree or other instrument binding upon Purchaser, except where such contravention, default, violation or failure to obtain a consent, individually or in the aggregate, would not reasonably be expected to impair Purchaser's ability to perform fully any obligation which Purchaser has or will have under this Agreement.

(f) Investor Qualification. Purchaser understands the definition of the term "accredited investor" within the meaning of Regulation D, Rule 501(a), promulgated by the SEC under the Securities Act, and qualifies as an accredited investor.

(g) Information; Purchase for Investment Only. Purchaser is aware of the Company's business affairs and financial condition and has acquired sufficient information about the Company to reach an informed and knowledgeable decision to acquire the Notes. Purchaser is acquiring the Notes for investment for its own account only and not with a view to, or for resale in connection with, any "distribution" thereof within the meaning of the Securities Act or under any applicable provision of state law. Purchaser does not have any present intention to transfer the Notes to any other person or entity in such a "distribution."

(h) No Registration. Purchaser understands that the Notes have not been registered under the Securities Act by reason of a specific exemption therefrom, which exemption depends upon, among other things, the bona fide nature of Purchaser's investment intent as expressed herein.

(i) Restricted Securities. Purchaser understands that the Notes are "restricted securities" under applicable U.S. federal and state securities laws and that, pursuant to these laws, Purchaser must hold the Notes indefinitely unless they are registered with the SEC and qualified by state authorities, or an exemption from such registration and qualification requirements is

available. Purchaser acknowledges that the Company has no obligation to register or qualify the Notes for resale.

(j) Risk of Investment. Purchaser realizes that the purchase of the Notes will be a highly speculative investment and Purchaser may suffer a complete loss of its investment. Purchaser understands all of the risks related to the purchase of the Notes. By reason of its business and financial experience, Purchaser has the ability to protect its own interests in connection with the purchase of the Notes.

(k) Advisors. Purchaser has reviewed with its own tax advisors the federal, state, and local tax consequences of this investment and the transactions contemplated by this Agreement. Purchaser acknowledges that it has had the opportunity to review this Agreement and the transactions contemplated hereby with Purchaser's own legal counsel.

(l) Finder. Purchaser is not obligated and will not be obligated to pay any broker commission, finders' fee, success fee, or commission in connection with the transactions contemplated by this Agreement.

6. **Restrictive Legends and Stop-Transfer Orders**. The Notes shall bear such legends as the Company deems to be required for the purpose of compliance with applicable federal or state securities laws or as otherwise required by law.

7. **Conditions to Company's Obligations at the Closing**. The Company's obligation to complete the sale and issuance of the Notes, and deliver the Notes to the Purchasers at the Closing shall be subject to the following conditions to the extent not waived by the Company:

(a) Receipt of Payment. The Company shall have received payment (or confirmation that an Irrevocable Payment Instruction has been made with respect to such payment), by wire transfer of immediately available funds or by cancellation of indebtedness of the Company to each applicable Purchaser, in the full amount of the Purchase Price for the Notes being purchased by such Purchaser at the Closing.

(b) Representations and Warranties. The representations and warranties made by the Purchasers in Section 5 hereof shall be true and correct in all material respects as of, and as if made on, the date of such Closing.

(c) Subordination Agreement. The Purchasers shall have executed and delivered to the Company the Subordination Agreement (as defined in Section 9(b)(ii) hereof).

8. **Conditions to Purchaser's Obligations at the Closing**. Each Purchaser's obligation to accept delivery of the Notes and to pay for such Purchaser's respective Notes at the Closing shall be subject to the following conditions to the extent not waived by such Purchaser:

(a) Representations and Warranties. The representations and warranties made by the Company in Section 4 hereof shall be true and correct in all material respects (except for any representations and warranties which are qualified as to materiality, which shall be true and correct in all respects) as of, and as if made on, the date of this Agreement and as of the date of the Closing as though such representations and warranties were made on and as of such date.

(b) Certificate. The Purchaser shall have received a certificate dated as of the Closing and signed by the Company's Chief Executive Officer and Chief Financial Officer to the effect that the representations and warranties of the Company in Section 4 hereof are true and correct in all material respects (except for any representations and warranties which are qualified as to materiality, which shall be true and correct in all respects) as of, and as if made on, the date of this Agreement and as of the Closing, and that the Company has satisfied all of the conditions set forth in this Agreement and required to be satisfied as of the Closing.

(c) Good Standing. The Company shall be validly existing as a corporation in good standing under the laws of Delaware as evidenced by a certificate of the Secretary of State of the State of Delaware, a copy of which shall be provided to the Purchaser at the Closing.

(d) Board Approval. The terms and conditions of the issuance of the Notes and the Transaction Agreements shall have been duly approved by the Board of Directors of the Company (including the Audit Committee and at least six directors who are disinterested with respect to the transactions contemplated hereby).

(e) Other Approvals. The Company shall have obtained all governmental, regulatory or third party consents and approvals required in connection with the transactions contemplated hereby, if any, including obtaining the Pre-Closing Consents and any waivers of any other negative covenants and pro rata or similar preemptive rights that may apply to the issuance of the Notes.

9. **Other Agreements**

(a) SEC Filings. Upon execution of this Agreement and the issuances of Notes, the Company will complete any SEC filings (such as a Current Report on Form 8-K) that are, in the judgment of the Company's legal counsel, required to be completed.

(b) Security Interest.

(i) As security for the prompt, complete and indefeasible payment when due (whether on the payment dates or otherwise) of all the Company's obligations under the Notes, including any obligation to pay any amount now owning or later arising under the Notes (collectively, the "Secured Obligations"), the Company grants to each Purchaser a second priority security interest in all of the Company's right, title, and interest in and to the Collateral (as defined in that certain Loan and Security Agreement dated as of March 29, 2014, as amended on June 12, 2014, March 31, 2015 and November 30, 2015 (as amended, the "LSA") by and between the Company, and each of its subsidiaries that has delivered a Joinder Agreement (as defined in the LSA), the other financial institutions or entities from time to time parties to the LSA (collectively, referred to as "Lender") and Stegodon Corporation, a Delaware corporation, as assignee of Hercules Capital, Inc., a Maryland corporation, in its capacity as administrative agent for itself and the Lender (in such capacity, the "Agent")), as limited by Section 3.2 of the LSA.

(ii) The Company hereby agrees to enter into any additional Security Documents (as defined below) with the Purchasers as may be reasonably required by the Purchasers in connection with the grant of the security interest contemplated by Section 9(b)(i) hereof, provided, however, that such security interest shall be subject to the Subordination

Agreement dated as of October 5, 2016, by and among the Purchasers, the Company and the Agent (the "Subordination Agreement"). As used herein, "Security Documents" means each security agreement, all other mortgages, deeds of trust, security agreements, pledge agreements, assignments, control agreements, financing statements and other documents as shall from time to time secure or relate to the Secured Obligations or any part thereof, in each case, executed by the Company or any subsidiary of the Company.

10. **Miscellaneous.**

(a) Governing Law. This Agreement and all acts and transactions pursuant hereto and the rights and obligations of the parties hereto shall be governed, construed and interpreted in accordance with the laws of the State of California, without giving effect to principles of conflicts of law.

(b) Assignment; Successors and Assigns. This Agreement may not be assigned by the Purchaser without the prior written consent of the Company; provided, that this Agreement may be assigned by a Purchaser to the valid transferee of any security purchased hereunder if such security remains a "restricted security" under the Securities Act. This Agreement and all provisions thereof shall be binding upon, inure to the benefit of, and are enforceable by the parties hereto and their respective successors and permitted assigns.

(c) Notices. All notices, requests, and other communications hereunder shall be in writing and will be deemed to have been duly given and received (i) when personally delivered, (ii) when sent by facsimile upon confirmation of receipt, (iii) one business day after the day on which the same has been delivered prepaid to a nationally recognized courier service, or (iv) five business days after the deposit in the United States mail, registered or certified, return receipt requested, postage prepaid, in each case addressed, as to the Company, to Amyris, Inc., 5885 Hollis Street, Suite 100, Emeryville, CA 94608, Attn: General Counsel, facsimile number: , with a copy to Fenwick & West LLP, 801 California Street, Mountain View, CA 94041, Attn: , facsimile number: , and as to each Purchaser at the address and facsimile number set forth opposite such Purchaser's name on the Schedule of Purchasers on Schedule I. Any party hereto from time to time may change its address, facsimile number, or other information for the purpose of notices to that party by giving notice specifying such change to the other parties hereto. The Purchasers and the Company may each agree in writing to accept notices and other communications to it hereunder by electronic communications pursuant to procedures reasonably approved by it; provided that approval of such procedures may be limited to particular notices or communications.

(d) Severability. In the event that any provision of this Agreement or the application of any provision hereof is declared to be illegal, invalid, or otherwise unenforceable by a court of competent jurisdiction, the remainder of this Agreement shall not be affected except to the extent necessary to delete such illegal, invalid, or unenforceable provision unless that provision held invalid shall substantially impair the benefits of the remaining portions of this Agreement.

(e) Headings. The headings in this Agreement are for convenience of reference only and shall not constitute a part of this Agreement, nor shall they affect its meaning, construction, or effect.

(f) Entire Agreement. This Agreement embodies the entire understanding and agreement between the parties hereto with respect to the subject matter hereof and supersedes all prior agreements and understandings relating to the subject matter hereof.

(g) Expenses. Each party will bear its own costs and expenses in connection with this Agreement.

(h) Further Assurances. The parties agree to execute and deliver all such further documents, agreements and instruments and take such other and further action as may be necessary or appropriate to carry out the purposes and intent of this Agreement.

(i) Counterparts. This Agreement may be executed in two or more counterparts, each of which shall constitute an original, but all of which, when taken together, shall constitute but one instrument, and shall become effective when one or more counterparts have been signed by each party hereto and delivered to the other party. Facsimile signatures shall be deemed originals for all purposes hereunder.

(j) Amendments and Waivers. This Agreement may not be amended, supplemented or otherwise modified except in a written instrument executed by the Company and the holders of a majority of the aggregate principal amount of the then outstanding Notes. No waiver by any of the parties of any default, misrepresentation, or breach of warranty or covenant hereunder, whether intentional or not, shall be deemed to extend to any prior or subsequent default, misrepresentation, or breach of warranty or covenant hereunder or affect in any way any rights arising by virtue of any prior or subsequent such occurrence. No waiver by any of the parties of any of the provisions hereof shall be effective unless explicitly set forth in writing and executed by the party sought to be charged with such waiver. No action taking pursuant to this Agreement, including any investigation by or on behalf of any party, shall be deemed to constitute a waiver by the party taking such action of compliance with any representation, warranty, covenant or agreement contained herein. No failure on the part of any party to exercise, and no delay in exercising, any right, power or remedy hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of such right, power or remedy by such party preclude any other or further exercise thereof or the exercise of any other right, power or remedy.

[Signature Pages Follow]

The undersigned has executed this Agreement as of the date first set forth above.

THE COMPANY:

AMYRIS, INC.

By: /s/ Raffi Asadorian
(Signature)

Name: Raffi Asadorian

Title: Chief Financial Officer

Address:
5885 Hollis Street, Suite 100
Emeryville, CA 94608
Attention: General Counsel
Facsimile:
Email:

The undersigned has executed this Agreement as of the date first set forth above.

PURCHASER:

FORIS VENTURES, LLC

By: /s/ B Hager
(Signature)

Name: Barbara Hager

Title: Manager

SCHEDULE I

Schedule of Purchasers

Closing: October 5, 2016

Name of Purchaser	**Notes Principal Amount**	**Note Purchase Price**	**Address and Facsimile**
Foris Ventures, LLC	$6,000,000	$6,000,000	Foris Ventures, LLC Attention: Barbara S. Hager JEMA Management LLC 751 Laurel St. #717 San Carlos, CA 94070 Fax:
TOTAL	**$6,000,000**	**$6,000,000**	

EXHIBIT A

FORM OF NOTE

Exhibit 4.64

SECURED PROMISSORY NOTE

U.S.$6,000,000.00 Issue Date: October 5, 2016

THE SECURITIES REPRESENTED BY THIS NOTE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"), OR APPLICABLE STATE SECURITIES LAWS, AND MAY NOT BE OFFERED, SOLD, ASSIGNED, PLEDGED, TRANSFERRED OR OTHERWISE DISPOSED OF IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT UNDER THE ACT AND APPLICABLE STATE SECURITIES LAWS OR PURSUANT TO AN AVAILABLE EXEMPTION FROM REGISTRATION UNDER THE ACT OR SUCH LAWS AND, IF REASONABLY REQUESTED BY THE COMPANY, UPON DELIVERY OF AN OPINION OF COUNSEL REASONABLY SATISFACTORY TO THE COMPANY THAT THE PROPOSED TRANSFER IS EXEMPT FROM THE ACT OR SUCH LAWS. THIS NOTE, AND THE COMPANY'S AND HOLDER'S RIGHTS AND OBLIGATIONS HEREUNDER, IS SUBJECT TO A SUBORDINATION AGREEMENT BETWEEN THE ORIGINAL HOLDER HEREOF, THE COMPANY, THE CREDITORS PARTY THERETO AND STEGODON CORPORATION, AS AGENT, DATED AS OF THE ISSUE DATE. IN THE EVENT OF ANY INCONSISTENCY BETWEEN THIS NOTE AND THE SUBORDINATION AGREEMENT, THE TERMS OF THE SUBORDINATION AGREEMENT WILL CONTROL.

Subject to the terms and conditions of this Note, for value received, AMYRIS, INC., a Delaware corporation (the "***Company***"), hereby promises to pay to the order of FORIS VENTURES LLC or registered assigns ("***Holder***"), the principal sum of Six Million Dollars ($6,000,000), or such lesser amount as shall then equal the outstanding principal amount hereunder, together with interest accrued on the unpaid principal amount at the Applicable Rate. Interest shall begin to accrue on the Issue Date set forth above, shall continue to accrue on the outstanding principal until the entire Balance is paid, and shall be computed based on the actual number of days elapsed and on a year of 365 days.

This Note was issued pursuant to the Note Purchase Agreement, dated as of October 5, 2016 (as amended from time to time, the "***Agreement***"), by and among the Company, the original holder of this Note and the other parties thereto and is subject to provisions of the Agreement. Capitalized terms used but not otherwise defined herein shall have the meaning given to such terms in the Agreement.

The following is a statement of the rights of Holder and the terms and conditions to which this Note is subject, and to which the Holder hereof, by the acceptance of this Note, agrees.

Notwithstanding anything to the contrary, this Note is subordinated to certain other indebtedness of the Company on the terms and restrictions set forth in the Subordination Agreement.

1. **DEFINITION**. The following definitions shall apply for purposes of this Note.

"***Affiliate***" has the meaning ascribed to it in Rule 144 promulgated under the Securities Act.

"***Applicable Rate***" means a rate equal to the lower of: (a) the Highest Lawful Rate; and (b) thirteen and one half percent (13.5%) per annum.

"***Balance***" means, at the applicable time, the sum of all then outstanding principal of this Note, all then accrued but unpaid interest and all other amounts then accrued but unpaid under this Note.

"***Board of Directors***" means the Company's Board of Directors.

*"**Business Day**"* means a weekday on which banks are open for general banking business in San Francisco, California.

"***Capital Lease Obligation***" means, at the time any determination thereof is to be made, the amount of the liability in respect of a capital lease that would at such time be required to be capitalized on a balance sheet in accordance with GAAP.

"***Change of Control***" shall mean the occurrence of any of the following: (i) the consolidation of the Company with, or the merger of the Company with or into, another "person" (as such term is used in Rule 13d-3 and Rule 13d-5 of the Exchange Act), or the sale, lease, transfer, conveyance or other disposition, in one or a series of related transactions, of all or substantially all of the assets of the Company and its Subsidiaries taken as a whole, or the consolidation of another "person" with, or the merger of another "person" into, the Company, other than in each case pursuant to a transaction in which the "persons" that "beneficially owned" (as such term is defined in Rule 13d-3 and Rule 13d-5 under the Exchange Act), directly or indirectly, the Voting Shares of the Company immediately prior to the transaction "beneficially own", directly or indirectly, Voting Shares representing at least a majority of the total voting power of all outstanding classes of voting stock of the surviving or transferee person; (ii) the adoption by the Company of a plan relating to the liquidation or dissolution of the Company; (iii) the consummation of any transaction (including, without limitation, any merger or consolidation) the result of which is that any "person" becomes the "beneficial owner" directly or indirectly, of more than 50% of the Voting Shares of the Company (measured by voting power rather than number of shares); or (iv) the first day on which a majority of the members of the Board of Directors does not consist of Continuing Directors.

"***Company***" shall include, in addition to the Company identified in the opening paragraph of this Note, any corporation or other entity which succeeds to the Company's obligations under this Note, whether by permitted assignment, by merger or consolidation, operation of law or otherwise.

"***Continuing Director***" shall mean, as of any date of determination, any member of the Board of Directors who (i) was a member of the Board of Directors on the Issue Date or (ii) was nominated for election or elected to the Board of Directors with the approval of a majority of the Continuing Directors who were members of the Board of Directors at the time of such nomination

or election and who voted with respect to such nomination or election; provided that a majority of the members of the Board of Directors voting with respect thereto shall at the time have been Continuing Directors.

"***Debt***" shall mean, with respect to any Person, any indebtedness of such Person, whether or not contingent, in respect of borrowed money or evidenced by bonds, notes, debentures or similar instruments or letters of credit (or reimbursement agreements in respect thereof) or banker's acceptances or representing Capital Lease Obligations or the balance deferred and unpaid of the purchase price of any property or representing any Hedging Obligations, except any such balance that constitutes an accrued expense or trade payable, if and to the extent any of the foregoing indebtedness (other than letters of credit and Hedging Obligations) would appear as a liability upon a balance sheet of such Person prepared in accordance with GAAP, as well as all Debt of others secured by a Lien on any asset of such Person (whether or not such Debt is assumed by such Person) and Lease Debt and, to the extent not otherwise included, the Guarantee by such Person of any Debt of any other Person. The amount of any Debt outstanding as of any date shall be (i) the accreted value thereof, in the case of any Debt that does not require current payments of interest or (ii) the principal amount thereof, together with any interest thereon that is more than 30 days past due, in the case of any other Debt.

"*Event of Default*" has the meaning set forth in Section 5.

"*Financing Document*" means each of this Note, the Notes, the Agreement and any other document entered into, executed or delivered under or in connection with, or for the purpose of amending, any of such documents.

"***GAAP***" means generally accepted accounting principles set forth in the opinions and pronouncements of the Accounting Principles Board of the American Institute of Certified Public Accountants and statements and pronouncements of the Financial Accounting Standards Board or in such other statements by such other entity as have been approved by a significant segment of the accounting profession in the United States, which are in effect from time to time.

"***Hedging Obligations***" means, with respect to any Person, the obligations of such Person under (i) currency exchange or interest rate swap agreements, interest rate cap agreements and interest rate collar agreements and (ii) other agreements or arrangements designed to protect such Person against fluctuations in interest rates or currency exchange rates.

"*Highest Lawful Rate*" means the maximum non-usurious rate of interest, as in effect from time to time, which may be charged, contracted for, reserved, received or collected by Holder in connection with this Note under applicable law.

"***Lease Debt***" means, with respect to any Person, (i) the amount of any accrued and unpaid obligations of such Person arising under any lease or related document (including a purchase agreement, conditional sale or other title retention agreement) in connection with the lease of real property or improvement thereon (or any personal property included as part of any such lease) which provides that such Person is contractually obligated to purchase or cause a third party to purchase the leased property or pay an agreed upon residual value of the leased property to the lessor (whether or not such lease transaction is characterized as an operating lease or a capitalized

lease in accordance with GAAP) and (ii) the guarantee, direct or indirect, in any manner (including, without limitation, letters of credit and reimbursement agreements in respect thereof), of any of the amounts set forth in (i) above.

"***Lien***" means, with respect to any asset, any mortgage, lien, pledge, charge, security interest or encumbrance of any kind in respect of such asset, whether or not filed, recorded or otherwise perfected under applicable law (including any conditional sale or other title retention agreement, any lease in the nature thereof, any option or other agreement to sell or give a security interest in and any filing of or agreement to give any financing statement under the Uniform Commercial Code (or equivalent statutes) of any jurisdiction).

"***Lost Note Documentation***" means documentation satisfactory to the Company with regard to a lost or stolen Note, including, if required by the Company, an affidavit of lost note and an indemnification agreement by Holder in favor of the Company with respect to such lost or stolen Note.

"***Maturity Date***" means May 15, 2017.

"***Note***" means this Secured Promissory Note.

"*Notes*" means a series of secured promissory notes aggregating up to no more than $6,000,000 in original principal amount issued under the Agreement, of which this Note is one, each such note containing substantially identical terms and conditions as this Note.

"***Person***" means an individual, corporation, limited liability company, partnership, association, joint-stock company, trust, unincorporated organization, joint venture or other entity or any governmental authority.

"***Principal Balance***" means, at the applicable time, all then outstanding principal of this Note.

"***Subordination Agreement***" means that certain Subordination Agreement dated as of October 5, 2016, by and among the Purchasers, the Company and the Agent.

"***Subsidiary***" means, with respect to any specified Person: (a) any corporation, association or other business entity of which more than 50% of the total voting power of shares of capital stock entitled (without regard to the occurrence of any contingency and after giving effect to any voting agreement or stockholders' agreement that effectively transfers voting power) to vote in the election of directors, managers or trustees of the corporation, association or other business entity is at the time owned or controlled, directly or indirectly, by that Person or one or more of the other Subsidiaries of that Person (or a combination thereof); and (b) any partnership (i) the sole general partner or the managing general partner of which is such Person or a Subsidiary of such Person or (ii) the only general partners of which are that Person or one or more Subsidiaries of that Person (or any combination thereof).

"***Voting Shares***" of any Person means capital shares or capital stock of such Person which ordinarily has voting power for the election of directors (or Persons performing similar functions) of such Person, whether at all times or only so long as no senior class of securities has such voting

power by reason of any contingency.

2. PAYMENT AT MATURITY DATE; INTEREST.

2.1 Payment at Maturity Date.

(a) If this Note has not been previously prepaid in full pursuant to Section 3.1 prior to the Maturity Date, then the entire Balance shall be due and payable in full in cash on the Maturity Date.

(b) All rights with respect to this Note shall terminate upon the repayment of the entire Balance of this Note as provided in Section 2.1(a). Notwithstanding the foregoing, Holder agrees to surrender this Note to the Company (or Lost Note Documentation where applicable) as soon as practicable after repayment pursuant to Section 2.1.

(c) Notwithstanding anything herein to the contrary, if during any period for which interest is computed hereunder, the amount of interest computed on the basis provided for in this Note, together with all fees, charges and other payments which are treated as interest under applicable law, as provided for herein or in any other document executed in connection herewith, would exceed the amount of such interest computed on the basis of the Highest Lawful Rate, then the Company shall not be obligated to pay, and Holder shall not be entitled to charge, collect, receive, reserve or take, interest in excess of the Highest Lawful Rate, and during any such period the interest payable hereunder shall be computed on the basis of the Highest Lawful Rate.

3. PREPAYMENT; CHANGE OF CONTROL.

3.1 Prepayment. The Company may at any time, without penalty, upon at least five (5) days' advance written notice to Holder, prepay all or any portion of the unpaid Balance of this Note. Any such prepayment shall be applied as provided in Section 4 below.

3.2 Change of Control Payment. If the Company completes a Change of Control before the payment of the entire Balance of this Note, then upon the closing of such Change of Control, Holder shall be entitled to be repaid the entire Balance of this Note.

4. NOTES PARI PASSU; APPLICATION OF PAYMENTS . Each of the Notes shall rank equally without preference or priority of any kind over one another, and all payments and recoveries under any other Financing Document payable on account of principal and interest on the Notes shall be paid and applied ratably and proportionately on the Balances of all outstanding Notes on the basis of their original principal amount. Subject to the foregoing provisions of this Section, all payments will be applied first to the repayment of accrued fees and expenses under this Note, then to accrued interest until all then outstanding accrued interest has been paid in full, and then to the repayment of principal until all principal has been paid in full. If after all applications of such payments have been made as provided in this Section, then the remaining amount of such payment that is in either case in excess of the aggregate Balance of all outstanding Notes, shall be returned to the Company.

5. EVENTS OF DEFAULT. Each of the following events shall constitute an "***Event of Default***" hereunder:

(a) The Company fails to make any payment when due under this Note on the applicable due date or within five (5) days after written notice of such failure has been given on behalf of Holder to the Company;

(b) A receiver is appointed for any material part of the Company's property, the Company makes a general assignment for the benefit of creditors, or the Company becomes a debtor or alleged debtor in a case under the U.S. Bankruptcy Code or becomes the subject of any other bankruptcy or similar proceeding for the general adjustment of its debts or for its liquidation;

(c) The Company breaches any material obligation to any Holder under this Note and does not cure such breach within twenty (20) days after written notice thereof has been given by or on behalf of such Holder to the Company;

(d) A default under any mortgage, indenture or instrument under which there may be issued or by which there may be secured or evidenced any Debt for money borrowed by the Company (or the payment of which is guaranteed by the Company, whether such Debt or guarantee now exists, or is created after the Issue Date of this Note, which default (a) is caused by a failure to pay principal of or premium, if any, or interest on such Debt prior to the expiration of the grace period provided in such Debt on the date of such default or (b) results in the acceleration of such Debt prior to its express maturity and, in each case in clause (a) or (b), the principal amount of any such Debt, together with the principal amount of any other such Debt that has not been paid when due, or the maturity of which has been so accelerated, aggregates $10,000,000 or more; or

(e) The Company's Board of Directors or stockholders adopt a resolution for the liquidation, dissolution or winding up of the Company.

Upon the occurrence of any Event of Default, all accrued but unpaid expenses, accrued but unpaid interest, all principal and any other amounts outstanding under this Note shall (i) in the case of any Event of Default under Section 5(b), become immediately due and payable in full without further notice or demand by Holder and (ii) in the case of any Event of Default other than under Section 5(b), become immediately due and payable upon written notice by or on behalf of all Holder(s) of then outstanding Notes. Notwithstanding any other provision of this Note, Holder agrees that Holder will exercise Holder's rights and remedies under this Note only in concert with all other holders of outstanding Notes and will not take any action, including commencement or prosecution of litigation or any other proceeding to collect this Note, except as agreed by the holders of a majority of the then outstanding principal amount of the Notes.

6. PROVISIONS RELATING TO STOCKHOLDER RIGHTS. This Note does not entitle Holder to any voting rights or other rights as a stockholder of the Company. No

provisions of this Note and no enumeration herein of the rights or privileges of Holder, shall cause Holder to be a stockholder of the Company for any purpose.

7. REPRESENTATIONS AND WARRANTIES OF HOLDER . In order to induce the Company to issue this Note to the original Holder, the original Holder has made representations and warranties to the Company as set forth in the Agreement.

8. GENERAL PROVISIONS.

8.1 Waivers. The Company and all endorsers of this Note hereby waive notice, presentment, protest and notice of dishonor.

8.2 Transfer. Neither this Note nor any rights hereunder may be assigned, conveyed or transferred, in whole or in part, without the Company's prior written consent, which the Company may withhold in its sole discretion; *provided, however*, that this Note may be assigned, conveyed or transferred without the prior written consent of the Company to any Affiliate of Holder who (a) executes and delivers an acknowledgement that such transferee agrees to be subject to, and bound by, all the terms and conditions of this Note, (b) makes the representations and warranties to the Company that are set forth in Section 5 of the Agreement, and (c) (if requested by the Company) delivers to the Company an opinion of legal counsel, reasonably satisfactory to the Company, that such transfer complies with state and federal securities laws. Subject to the foregoing, the rights and obligations of the Company and Holder under this Note shall be binding upon and benefit their respective permitted successors, assigns, heirs, administrators and transferees.

8.3 Governing Law. This Note shall be governed, construed and interpreted in accordance with the laws of the State of California, without giving effect to principles of conflicts of law.

8.4 Headings. The headings and captions used in this Note are used only for convenience and are not to be considered in construing or interpreting this Note. All references in this Note to sections and exhibits shall, unless otherwise provided, refer to sections hereof and exhibits attached hereto, all of which exhibits are incorporated herein by this reference.

8.5 Notices. All notices, requests, and other communications hereunder shall be in writing and will be deemed to have been duly given and received (a) when personally delivered, (b) when sent by facsimile upon confirmation of receipt, (c) one business day after the day on which the same has been delivered prepaid to a nationally recognized courier service, or (d) five business days after the deposit in the United States mail, registered or certified, return receipt requested, postage prepaid, in each case addressed, as to the Company, to Amyris, Inc., 5885 Hollis Street, Suite 100, Emeryville, CA 94608, Attn: General Counsel, facsimile number: , with a copy to Fenwick & West LLP, 801 California Street, Mountain View, CA 94041, Attn: , facsimile number: , and as to Holder at the address and facsimile number set forth opposite such Holder's name on Schedule I to the Agreement or as otherwise indicated by Holder by providing notice of a change in its address, facsimile number, or other information to the Company. Holder and the Company may each agree in writing to accept notices and other communications to it hereunder by electronic

communications pursuant to procedures reasonably approved by it; provided that approval of such procedures may be limited to particular notices or communications.

8.6 **Place of Payment**. Payments of the Principal and any interest and other payments hereunder shall be delivered to the Holder at the address specified in the Agreement or at such other address or the attention of such other Person as specified by prior written notice to the Company, including any transferee of this Note.

8.7 **Amendments and Waivers.** This Note and all other Notes issued under the Agreement may be amended and provisions may be waived by the Note holders holding at least a majority of the then outstanding principal amount of Notes and the Company as provided in Section 10(j) of the Agreement. Any amendment or waiver effected in accordance with Section 10(j) of the Agreement shall be binding upon each holder of any Notes at the time outstanding, each future holder of the Notes and the Company.

8.8 **Severability**. If one or more provisions of this Note are held to be unenforceable under applicable law, then such provision(s) shall be excluded from this Note to the extent they are held to be unenforceable and the remainder of the Note shall be interpreted as if such provision(s) were so excluded and shall be enforceable in accordance with its terms.

[Signature page follows]

IN WITNESS WHEREOF, the Company has caused this Secured Promissory Note to be signed in its name as of the date first written above.

THE COMPANY

AMYRIS, INC.

By: /s/ Raffi Asadorian

Name: Raffi Asadorian

Title: Chief Financial Officer

Exhibit 4.65

CONFIDENTIAL TREATMENT REQUESTED. CERTAIN PORTIONS OF THIS DOCUMENT HAVE BEEN OMITTED PURSUANT TO A REQUEST FOR CONFIDENTIAL TREATMENT AND, WHERE APPLICABLE, HAVE BEEN MARKED WITH AN ASTERISK TO DENOTE WHERE OMISSIONS HAVE BEEN MADE. THE CONFIDENTIAL MATERIAL HAS BEEN FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION.

CREDIT AGREEMENT

This **CREDIT AGREEMENT**, dated as of 26 October 2016 (as amended, modified or supplemented from time to time, this "*Agreement*"), is entered into by and between **AMYRIS, INC.**, a Delaware corporation, whose principal place of business is 5885 Hollis Street, Ste. 100, Emeryville, California 94608 (the "*Company*"), and **GUANFU HOLDING CO., LTD.**, a company duly established and validly existing under the laws of the People's Republic of China, whose registered address is Tuban Village, Xunzhong Town, Dehua, Quanzhou City, Fujian Province (the "*Lender*"). In order to fulfill this Credit Agreement, Lender is about to make its subsidiary be the entity to accomplish the obligations and as the Lender, so "Lender" hereinafter refers to "Guanfu or its subsidiary".

RECITALS

A. In connection with the business cooperation between the Company and the Lender, the Lender has agreed to purchase from the Company, and the Company has agreed to sell to the Lender, one or more unsecured notes having an aggregate principal amount of not greater than $25,000,000 (each, a "*Note*", and collectively, the "*Notes*").

B. Capitalized terms not defined in Section 7 hereof or otherwise defined herein shall have the meaning set forth in the form of Note (as defined below) attached hereto as *Exhibit A*.

C. The Company agrees to grant the Lender's subsidiary, Nenter & Co., Inc. ("Nenter") the global exclusive purchase right with regard to the Farnesene solely to produce vitamin E upon the Effective Date (defined below), and such global exclusive purchase right is permanent and remains effective after the expiration of this Agreement. The Company will not, directly or indirectly, sell Farnesene for the purposed manufacture of Vitamin E to any other vitamin E or vitamin E ingredients manufacturers other than Nenter, and will satisfy Nenter's purchase quantities.

AGREEMENT

NOW THEREFORE, in consideration of the foregoing, and the representations, warranties, and conditions set forth below, the parties hereto, intending to be legally bound, hereby agree as follows:

1. ***Purchase and Sale of The Notes.***

(a) The sale and purchase of each of the Notes shall take place at one or more but no more than three closings (each, a "Closing"), each to be held at such place and time as the Company and the Lender may determine in accordance with Section 1(b) (each, a "Closing Date"). At each Closing, the Company will deliver to the Lender the Notes to be purchased by the Lender at such Closing, against receipt by the Company of the principal amount of the Notes to be sold by the Company at such Closing. The Notes shall, in the aggregate, sum up to no more than $25,000,000. Each of the Notes will be registered in the Lender's name in the Company's records.

(b) The initial Closing shall be held on December 1, 2016, unless the Lender shall notify the Company in writing by not later than November 22, 2016 that the initial Closing shall be held on a later date, which date shall be no later than December 31, 2016. The Company shall notify the Lender of the principal amount of the Note to be purchased and sold at the initial Closing in writing by no later than five days before the initial Closing. In the event the principal amount of the Note purchased and sold at the initial Closing shall be less than $25,000,000, each subsequent Closing shall be held on not less than sixty (60) days prior written notice by the Company to the Lender, which notice shall specify the date of such subsequent Closing and the principal amount of the Note to be purchased and sold at such subsequent Closing.

2. ***Representations and Warranties of the Company.*** The Company represents and warrants to the Lender as of the date hereof and as of the date of each Closing that:

(a) *Due Incorporation, Qualification, etc.* Each of the Company and its Subsidiaries (i) is a corporation duly organized, validly existing and in good standing under the laws of its state of incorporation; (ii) has the power and authority to own, lease and operate its properties and carry on its business as now conducted; and (iii) is duly qualified, licensed to do business and in good standing as a foreign corporation in each jurisdiction where the failure to be so qualified or licensed could reasonably be expected to have a Material Adverse Effect.

(b) *Authority.* Upon the Company's Board approval, the execution, delivery and performance by the Company of this Agreement and each Note executed by the Company and the consummation by the Company of the transactions contemplated hereby and thereby (i) are within the power of the Company and (ii) have been duly authorized by all necessary corporate actions on the part of the Company.

(c) *Enforceability.* This Agreement and each Note executed by the Company has been duly executed and delivered by the Company and constitutes a legal, valid and binding obligation of the Company, enforceable against the Company in accordance with its respective terms, except in each case as may be limited by bankruptcy, insolvency or other laws of general application relating to or affecting the enforcement of creditors' rights generally and general principles of equity.

(d) *Non-Contravention.* The execution and delivery by the Company of this Agreement and each Note executed by the Company and the performance and consummation by the Company of the transactions contemplated hereby and thereby do not and will not (i) violate the certificate of incorporation or bylaws of the Company or any judgment, order, writ, decree, statute, rule or regulation applicable to the Company; (ii) violate any provision of, or result in the breach or the acceleration of, or entitle any other Person to accelerate (whether after the giving of notice or lapse of time or both), any mortgage, indenture, agreement, instrument or contract to which the Company is a party or by which it is bound except to the extent such violation, breach or acceleration could not reasonably be expected to result in a Material Adverse Effect; or (iii) result in the creation or imposition of any Lien upon any property, asset or revenue of the Company or the suspension, revocation, impairment, forfeiture, or nonrenewal of any permit, license, authorization or approval applicable to the Company, its business or operations, or any of its assets or properties except to the extent such suspension, revocation, impairment, forfeiture or nonrenewal could not reasonably be expected to have a Material Adverse Effect.

(e) *Approvals.* Except for approval of this Agreement from the Company's Board and the transactions contemplated thereby, no consent, approval, order or authorization of, or registration, declaration or filing with, any governmental authority or other Person is required in connection with the execution and delivery by the Company of this Agreement and each Note executed by the Company and the performance and consummation by the Company of the transactions contemplated hereby and thereby, except for those already obtained or those that will be obtained prior to the Effective Date or the execution of such Note, as applicable.

(f) *No Violation or Default.* None of the Company or any of its Subsidiaries is in violation of or in default with respect to (i) its certificate of incorporation or bylaws or any judgment, order, writ, decree, statute, rule or regulation applicable to such Person; or (ii) any mortgage, indenture, agreement, instrument or contract to which such Person is a party or by which it is bound (nor is there any waiver in effect which, if not in effect, would result in such a violation or default), where, in each case, such violation or default, individually, or together with all such violations or defaults, could reasonably be expected to have a Material Adverse Effect.

(g) *Litigation.* No actions (including, without limitation, derivative actions), suits, proceedings or investigations are pending or, to the actual knowledge of the Company, threatened against the Company or any of its Subsidiaries at law or in equity in any court or before any other governmental

authority which if adversely determined (i) would (alone or in the aggregate) have a Material Adverse Effect or (ii) seeks to enjoin, either directly or indirectly, the execution, delivery or performance by the Company of this Agreement and each Note or the transactions contemplated hereby and thereby.

(h) *Properties.* Each of the Company and its Subsidiaries owns or leases all such properties, including lands, buildings, machinery and production equipment, as are necessary to the conduct of its operations as presently conducted, and such properties are free of any Liens other than as disclosed in the Company's public filings. Neither the Company nor any of its Subsidiaries has received any notice of proceedings relating to its properties which, singly or in the aggregate, if the subject of an unfavorable decision, ruling or finding, would have a Material Adverse Effect.

(i) *Labor*. No labor problem or dispute with the employees, including management, of the Company or any of its Subsidiaries exists or is threatened or imminent, except as would not have a Material Adverse Effect.

(j) *Commission Filings*. The Company has timely filed (subject to 12b-25 filings with respect to certain periodic filings) all reports, schedules, forms, statements and other documents required to be filed by it with the U.S. Securities and Exchange Commission (the "*Commission")* pursuant to the reporting requirements of the U.S. Securities Exchange Act of 1934, as amended (the "*Exchange Act*") (all of the foregoing filed with the Commission prior to the date hereof and all financial statements and schedules thereto and documents incorporated by reference therein, being hereinafter referred to herein as the "*SEC Documents*"). As of their respective dates, the SEC Documents complied in all material respects with the requirements of the Exchange Act and the rules and regulations of the Commission promulgated thereunder applicable to the SEC Documents, and none of the SEC Documents, at the time they were filed with the Commission, contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading. In addition, as of each Closing, the SEC Documents, together with any additional documents filed with the Commission after the date hereof and through the date of such Closing, when taken in their entirety, shall not contain any untrue statements of a material fact or omit to state a material fact required to be stated therein or necessary in order to make the statements therein, in light of the date upon which they were made and the circumstances under which they were made, not misleading.

(k) *Intellectual Property*.

(i) All domestic and foreign patents, patent applications, copyrighted works, copyright applications, and registrations, trade names, trademarks and service marks, registered trademarks, and trademark applications, registered service marks and service mark applications which are or may be used by and owned or co-owned by the Company in connection with farnesene manufacturing (collectively, the "*Intellectual Property*") are listed in Schedule I, which Schedule indicates, with respect to each, the nature of the Company's interest therein.

(ii) The Intellectual Property owned exclusively by the Company is free and clear of any Liens that would prohibit the Company from granting the license for the Intellectual Property described in this Agreement.

(iii) Except for the pending opposition proceedings concerning the Company's European patent no. EP2021486 (AM-700 EP) and European patent no. EP2217711 (AM-1400 EP) further described in the Cooperation Agreement, to the actual knowledge of the Company, none of the Intellectual Property is the subject of any lawsuit or arbitration proceeding. The Company has no actual knowledge of any infringement by the Company of valid third party patent or other intellectual property relating to the production of farnesene for the manufacture of Vitamin E.

(l) *Other Regulations.* None of the Company or its Subsidiaries is subject to regulation under the U.S. Investment Company Act of 1940 or to any federal or state statute or regulation limiting its ability to incur indebtedness.

(m) *GMO-free verification*. The Company will apply for a GMO-free verification regarding its farnesene for vitamin E.

(n) *No Note registration*. The Company is under no obligation to effect any registration of the Notes under the U.S. Securities Act of 1933, as amended (the "*Securities Act*"), or any state securities laws with respect to the Notes or to file for or comply with any exemption from registration.

3. ***Representations and Warranties of the Lender.*** The Lender represents and warrants to the Company as of the date hereof and as of the date of each Closing that:

(a) *Binding Obligation.* Except for that the approval from the shareholder's meeting and governmental authority to be obtained by the Lender, the Lender has full legal capacity, power and authority to execute and deliver this Agreement and to perform its obligations hereunder. This Agreement and each Note issued to the Lender is a valid and binding obligation of the Lender, enforceable in accordance with its terms, except as limited by bankruptcy, insolvency or other laws of general application relating to or affecting the enforcement of creditors' rights generally and general principles of equity.

(b) *Securities Law Compliance.* The Lender is purchasing the Notes to be acquired by the Lender hereunder for its own account for investment, not as a nominee or agent, and not with a view to, or for resale in connection with, the distribution thereof. Lender has received or has had full access to all of the information necessary and appropriate to make an informed investment decision. The Lender is an accredited investor as such term is defined in Rule 501 of Regulation D under the Securities Act. The Lender acknowledges that it can bear the economic risk of the investment the Notes.

(c) *Approvals.* Except for that the approval from the shareholder's meeting and governmental authority to be obtained by Lender, no consent, approval, order or authorization of, or registration, declaration or filing with, any governmental authority or other Person is required in connection with the execution and delivery by the Lender of this Agreement and the performance and consummation by the Lender of the transactions contemplated hereby and thereby, except for those already obtained.

(d) *Source of Funds.* The funds provided by the Lender to the Company in connection with this Agreement and the Notes are in full compliance with the money laundering statutes of all jurisdictions to which the Lender is subject, the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any governmental agency having jurisdiction over the Lender.

(e) *No Note registration*. The Lender is under no obligation to effect any registration of the Notes under the *Securities Act*, or any state securities laws with respect to the Notes or to file for or comply with any exemption from registration.

4. ***Conditions to Obligations of the Lender.*** The Lender's obligations at each Closing are subject to the fulfillment, on or prior to each Closing Date, of all of the following conditions, any of which may be waived in whole or in part by the Lender:

(a) *Representations and Warranties.* The representations and warranties made by the Company in Section 2 hereof shall have been true and correct when made, and shall be true and correct on such Closing Date.

(b) *Governmental Approvals and Filings.* Except for any notices required or permitted to be filed after such Closing Date with certain federal and state securities commissions, the Company shall have obtained all governmental approvals required in connection with the lawful sale and issuance of the Note being purchased and sold at such Closing.

(c) *Legal Requirements.* At such Closing, the sale and issuance by the Company, and the purchase by the Lender, of the applicable Note shall be legally permitted by all laws and regulations to which the Lender or the Company is subject.

(d) *Transaction Documents.* The Company shall have duly executed and delivered to the Lender this Agreement and the Note being purchased and sold at such Closing.

5. ***Conditions to Obligations of the Company.*** The Company's obligations at each Closing are subject to the fulfillment, on or prior to each Closing Date, of the following conditions, any of which may be waived in whole or in part by the Company:

(a) *Representations and Warranties.* The representations and warranties made by the Lender in Section 3 hereof shall be true and correct when made, and shall be true and correct on such Closing Date.

(b) *Governmental Approvals and Filings.* Except for any notices required or permitted to be filed after such Closing Date with certain federal and state securities commissions, the Lender shall have obtained all governmental approvals required in connection with the lawful sale and issuance of the Note being purchased and sold at such Closing.

(c) *Legal Requirements.* At such Closing, the sale and issuance by the Company, and the purchase by the Lender, of the applicable Note shall be legally permitted by all laws and regulations to which the Lender or the Company are subject.

(d) *Purchase Price.* The Lender shall have delivered to the Company the principal amount of the Note being purchased by the Lender at such Closing.

(e) The Company shall have obtained all approvals required in connection with this this Agreement and the transaction contemplated hereby

6. ***Covenant of the Lender.*** So long as the Lender holds any Note, the Lender agrees that it will not engage in any short selling of the Company's Common Stock. Nothing in this Section 6 will restrict the ability of the Lender to sell or purchase shares of the Company's Common Stock in open market transactions.

7. ***Definitions.*** As used in this Agreement, the following capitalized terms have the following meanings:

"Effective Date" means the latter of (i) the date of the shareholders' meeting whereby Guanfu Holding Co., Ltd., the sole shareholder of Nenter, approves this Agreement; (ii) the date on which government approval is obtained by Guanfu; or (iii) the date of approval of this Agreement from the Company's Board.

"Lien" means, with respect to any property, any security interest, mortgage, pledge, lien, claim, charge or other encumbrance in, of, or on such property or the income therefrom, including, without limitation, the interest of a vendor or lessor under a conditional sale agreement, capital lease or other title retention agreement, or any agreement to provide any of the foregoing, and the filing of any financing statement or similar instrument under the Uniform Commercial Code or comparable law of any jurisdiction.

"*Material Adverse Effect*" means a material adverse effect on the ability of the Company to pay or perform the Obligations in accordance with the terms of the Notes and to avoid an Event of Default, or an event which, with the giving of notice or the passage of time or both, would constitute an Event of Default.

"*Obligations*" means all loans, advances, debts, liabilities and obligations, howsoever arising, owed by the Company to the Lender under the Notes of every kind and description (whether or not

evidenced by any note or instrument and whether or not for the payment of money), now existing or hereafter arising under or pursuant to the terms of the Notes, including all principal, interest, fees, charges, expenses, attorneys' fees and costs and accountants' fees and costs chargeable to and payable by the Company thereunder, in each case, whether direct or indirect, absolute or contingent, due or to become due, and whether or not arising after the commencement of a proceeding under Title 11 of the United States Code (11 U.S.C. Section 101 *et seq*.), as amended from time to time (including post-petition interest) and whether or not allowed or allowable as a claim in any such proceeding.

8. ***Miscellaneous.***

(a) *Waivers and Amendments.* Any provision of this Agreement may be amended, waived or modified only upon the written consent of the Company and the Lender.

(b) *Governing Law.* This Agreement and all actions arising out of or in connection with this Agreement shall be governed by and construed in accordance with the laws of the State of Delaware, without regard to the conflicts of law provisions of the State of Delaware or of any other jurisdiction.

(c) *Arbitration*. Any dispute, controversy or claim arising out of or relating to this Agreement or the Notes or the subject matter hereof or thereof, including, but not limited to, any contractual, pre-contractual or non-contractual rights, obligations or liabilities and any question or dispute regarding the existence, validity, formation, effect, interpretation, performance, breach, termination or invalidity hereof or thereof (a "*Dispute*"), shall be finally settled by arbitration. The place of arbitration shall be the Hong Kong International Arbitration Centre ("HKIAC"), and the arbitration shall be conducted and administered in accordance with the arbitration rules of HKIAC in effect at the time of applying for arbitration ("*HKIAC Arbitration Rules*"), which HKIAC Rules are deemed to be incorporated by reference in this Section 8(c). The arbitration tribunal shall consist of three (3) arbitrators, one (1) to be appointed by the claimant, one (1) to be appointed by the respondent and the two (2) arbitrators so appointed shall jointly appoint the third arbitrator. The language for the arbitration (including but not limited to the arbitral proceedings, all submissions and written evidence, and any arbitral award rendered) shall be English and the place for arbitration shall be Hong Kong. The tribunal shall decide any dispute submitted by the parties strictly in accordance with the substantive law of the State of Delaware and shall not apply any other substantive law. Subject to the agreement of the tribunal, any Dispute(s) which arise subsequent to the commencement of arbitration of any existing Dispute(s) shall be resolved by the tribunal already appointed to hear the existing Dispute(s). The arbitration award shall be final, conclusive and binding on each party as from the date rendered. Judgment upon any arbitration award may be entered and enforced in any court having jurisdiction over a party or any of its assets.

(d) *Survival.* The representations, warranties, covenants and agreements made herein shall survive the execution and delivery of this Agreement.

(e) *Successors and Assigns.* Subject to the restrictions on transfer described in Sections 8(f) and 8(g) below, the rights and obligations of the Company and the Lender hereunder and under the Notes shall be binding upon and inure to the benefit of the successors, assigns, heirs, administrators and transferees of the parties.

(f) *Registration, Transfer and Replacement of the Notes.* The Notes issuable under this Agreement shall be issued in registered form. The Company will keep, at its principal executive office, books for the registration and registration of transfer of the Notes. Prior to presentation of any Note for registration of transfer, the Company shall treat the Person in whose name such Note is registered as the owner and holder of such Note for all purposes whatsoever, whether or not such Note shall be overdue, and the Company shall not be affected by notice to the contrary. Subject to any restrictions on or conditions to transfer set forth in any Note, the holder of any Note, at its option, may in person or by duly authorized attorney surrender the same for exchange at the Company's chief executive office, and promptly thereafter and at the Company's expense, except as provided below, receive in exchange therefor one

or more new Note(s), each in the principal requested by such holder, dated the date to which interest shall have been paid on the Note so surrendered or, if no interest shall have yet been so paid, dated the date of the Note so surrendered and registered in the name of such Person or Persons as shall have been designated in writing by such holder or its attorney for the same principal amount as the then unpaid principal amount of the Note so surrendered. Upon receipt by the Company of evidence reasonably satisfactory to it of the ownership of and the loss, theft, destruction or mutilation of any Note and (a) in the case of loss, theft or destruction, of indemnity reasonably satisfactory to it; or (b) in the case of mutilation, upon surrender thereof, the Company, at its expense, will execute and deliver in lieu thereof a new Note executed in the same manner as the Note being replaced, in the same principal amount as the unpaid principal amount of such Note and dated the date to which interest shall have been paid on such Note or, if no interest shall have yet been so paid, dated the date of such Note.

(g) *Assignment by the Company; Assignment by the Lender.* Neither this Agreement nor the Notes nor any of the rights, interests or obligations hereunder or thereunder may be assigned, by operation of law or otherwise, in whole or in part, by the Company without the prior written consent of the Lender. The Lender will not assign, by operation of law or otherwise, this Agreement or the Notes or any of its rights, interests or obligations hereunder or thereunder without the prior written consent of the Company, except to its Subsidiaries.

(h) *Entire Agreement.* This Agreement, Schedule I hereto, together with the Notes constitute the full and entire understanding and agreement and supersedes any previous written or verbal agreements between the parties with regard to the subject matter hereof and thereof.

(i) *Notices.* Any notice, request or other communication required or permitted hereunder shall be in writing and shall be deemed to have been duly given if delivered personally or by commercial delivery service, or sent via telecopy (receipt confirmed) to the parties at the following addresses or telecopy numbers (or at such other address or telecopy numbers for a party as shall be specified by like notice):

If to the Company, to:

Amyris, Inc.
5885 Hollis St., Ste. 100
Emeryville, CA 94608
Attention: General Counsel
Telecopy No.:

with a copy to:

Shearman & Sterling LLP
535 Mission St., 25th Floor
San Francisco, CA 94105
Attention:
Telecopy No.:

If to the Lender, to:

Guanfu Holding Co., Ltd.
Tuban Village, Xunzhong Town,
Dehua, Quanzhou City, Fujian Province
Attention: Secretary of the Board of Directors
Telecopy No.:

with a copy to:

Nenter & Co., Inc
197 Oriental Road, High Tech Development Zone

Jingzhou, Hubei Province, 434000
Attention:General Manager
Telecopy No.:

(j) *Severability of this Agreement.* If any provision of this Agreement shall be judicially determined to be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

(k) *Counterparts.* This Agreement may be executed in any number of counterparts, each of which shall be an original, but all of which together shall be deemed to constitute one instrument.

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IN WITNESS WHEREOF, the parties have caused this Agreement to be duly executed and delivered by their proper and duly authorized officers as of the date and year first written above.

COMPANY:

AMYRIS, INC.

By: /s/ Raffi Asadorian
Name: Raffi Asadorian
Title: Chief Financial Officer

LENDER:

GUANFU HOLDING CO., LTD.

By: /s/ Lin Wen Zhi
Name: Lin Wen Zhi
Title: GENERAL MANAGER

EXHIBIT A

FORM OF NOTE

SCHEDULE I

[List of Intellectual Property]

Intellectual Property Portfolio
as of: September 29, 2016

Amyris Ref	Title	Application No.	File Date	Pub Number	Pub Date	Patent Number	Issue Date
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Exhibit 4.66

THIS NOTE (THE "NOTE") HAS NOT BEEN REGISTERED UNDER THE U.S. SECURITIES ACT OF 1933, AS AMENDED (THE "*SECURITIES ACT*"), AND MAY NOT BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED EXCEPT PURSUANT TO AN AVAILABLE EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT AND IN ACCORDANCE WITH ALL APPLICABLE SECURITIES LAWS OF THE STATES OF THE UNITED STATES AND OTHER JURISDICTIONS.

AMYRIS, INC.

NOTE

No. A-1 $25,000,000

Amyris, Inc., a Delaware corporation (the "*Company*"), for value received, hereby promises to pay to WUTIAN SUPPLY CHAIN CORPORATION LIMITED, or registered assigns ("*Holder*"), the principal sum of hereof, which shall be no more than Twenty-Five Million Dollars ($25,000,000), no later than December 31, 20121 and to pay interest thereon, from the date of each Note, or from the most recent interest payment date to which interest has been paid on such Note, quarterly on March 31, June 30, September 30 and December 31 in each year, commencing March 31, 2017, at the rate of 2.5% per quarter (calculated on a simple interest basis) until the principal hereof is due and in the manner set forth below.

Payment of the principal of this Note shall be made upon the surrender of this Note to the Company, at its chief executive office (or such other office within the United States as shall be designated by the Company to the holder hereof) (the "*Designated Office*"), in such coin or currency of the United States of America as at the time of payment shall be legal tender for the payment of public and private debts. Payment of interest in cash and all other amounts payable in cash with respect to this Note shall be made by wire transfer to the holder, *provided that* if the holder shall not have furnished wire instructions in writing to the Company no later than the business day immediately prior to the date on which the Company makes such payment, such payment may be made by U.S. dollar check mailed to the address of the Person entitled thereto as such address shall appear in the Company security register.

Capitalized terms used and not otherwise defined herein shall have the respective meanings given to those terms in Section 4 hereof.

1. Redemption. This Note is subject to redemption, as a whole or from time to time in part (in any amount that is an integral multiple of $1,000), upon not less than five (5) days' prior written notice in the manner provided in Section 5(b) hereof , at the election of the Company, at a redemption price of 100% of the principal amount hereof, together with accrued interest to the redemption date, but interest installments whose stated maturity is on or prior to such redemption date will be payable to the holder of this Note, or one or more predecessor Securities, of record at the close of business on the relevant record dates referred to on the face hereof.

2. Certain Covenants. Until the Obligations hereunder are paid in full:

(a) The Company will maintain or cause to be maintained its and each of its Subsidiaries' corporate or other organizational existence and good standing in its jurisdiction of incorporation and maintain its qualification in each jurisdiction where the failure to so qualify would reasonably be expected to have a Material Adverse Effect.

(b) The Company will, and will cause each of its Subsidiaries to, comply with all applicable statutes, regulation and orders of, and all applicable restrictions imposed by, all governmental bodies, domestic or foreign, in respect of the conduct of its business and the ownership of its property, other than those the noncompliance with which would not have, and which would not reasonably be expected to have, a Material Adverse Effect.

The Company will pay and discharge, and will cause each of its Subsidiaries to pay and discharge, all taxes, assessments and governmental charges or levies imposed upon it or upon its income or profits, or upon any properties belonging to it and all lawful claims which, if unpaid, might become a Lien upon any properties of the Company or any of its Subsidiaries; provided that, neither the Company nor any of its Subsidiaries shall be required to pay any such tax, assessment, charge, levy or claim which is being contested in good faith and by proper proceedings if it has maintained adequate reserves with respect thereto in accordance with GAAP.

(c) The Company will, and will cause each of its Subsidiaries to, (A) maintain insurance coverage by such insurers and in such forms and amounts and against such risks as are customarily carried by persons conducting businesses similar to those of the Company and its Subsidiaries and (B) promptly upon the holder's request, furnish to the holder such information about such insurance as the holder may from time to time reasonably request, which information shall be prepared in form and detail satisfactory to the holder.

(d) Neither the Company nor any of its Subsidiaries shall (i) pay any dividends or make any distributions on its Equity Securities other than dividends paid on the Common Stock paid solely in Common Stock; (ii) purchase redeem, retire, defease or otherwise acquire for value any of its Equity Securities; (iii) return any capital to any holder of its Equity Securities; (iv) make any distribution of assets, Equity Securities, obligations or securities to any holder of its Equity Securities; or (v) set apart any sum for any such purpose; provided that any Subsidiary may pay cash dividends to the Company.

(e) Neither the Company nor any of its Subsidiaries shall make any payment or distribution in cash to any stockholder or Affiliate of the Company other than payments or distributions made in the ordinary course of business.

3. Events of Default.

(a) "*Event of Default*", wherever used herein, means any one of the following events (whatever the reason for such Event of Default and whether it shall be voluntary or involuntary or be effected by operation of law or pursuant to any judgment, decree or order of any court or any order, rule or regulation of any administrative or governmental body):

(i) default in the payment of any principal upon this Note when it becomes due and payable, following a 10 day cure period; or

(ii) default in the payment of any interest upon this Note when it becomes due and payable for a cure period of ten (10) days after notice; or

(iii) the Company and/or the Company's business partner, directly or indirectly, sells farnesene for purpose of Vitamin E production to any other vitamin E, or vitamin E ingredients, manufacturer other than Nenter & Co., Inc. ("Nenter"); or

(iv) the Company and/or its subsidiary(ies) and/or the Company's qualified third-party contract manufacturer fail more than two times in any calendar year to satisfy the quantity demand (exceeding a 5% order quantity variance) of Farnesene from Nenter as required by Section 2.3 of the Renewable Farnesene Supply Agreement between the Company and Nenter dated April 26, 2016, including but not limited to the suspension or discontinue of such supply, and subject to Force Majeure, Section 8.9; provided such supply quantity is communicated to Amyris by Nenter 90 days before issuing the purchase order, the delivery date is reasonable for the amount of Farnesene, and that Nenter is not in default under the Supply Agreement.

(b) default in the performance, or breach, of any covenant of the Company herein (other than a default in the performance or breach of which is specifically dealt with elsewhere in this Section 3(a)) and continuance of such default or breach for a period of 45 days after there has been given, in the manner set forth in Section 5(b), to the Company by the holder of this Note a written notice specifying such default or breach and requiring it to be remedied and stating that such notice is a "Notice of Default" hereunder;

(c) the entry by a court having jurisdiction in the premises of (x) a decree or order for relief in respect of the Company or any Significant Subsidiary (as defined below) in an involuntary case or proceeding under any applicable Federal or state bankruptcy, insolvency, reorganization or other similar law or (y) a decree or order approving as properly filed a petition seeking reorganization, arrangement, adjustment or composition of or in respect of the Company or any Subsidiary under any applicable Federal or state law, or appointing a custodian, receiver, liquidator, assignee, trustee, sequestrator or other similar official of the Company or any Significant Subsidiary or of any substantial part of its or their respective property, or ordering the winding up or liquidation of its affairs, and the continuance of any such decree or order for relief or any such other decree or order unstayed and in effect for a period of 60 consecutive days;

(d) the commencement by the Company or any Significant Subsidiary of a voluntary case or proceeding under any applicable Federal or state bankruptcy, insolvency, reorganization or other similar law or of any other case or proceeding to be adjudicated a bankrupt or insolvent, or the consent by the Company or any Significant Subsidiary to the entry of a decree or order for relief in respect of the Company or any Significant Subsidiary in an involuntary case or proceeding under any applicable Federal or state bankruptcy, insolvency, reorganization or other similar law or to the commencement of any bankruptcy or insolvency case or proceeding against either the Company or a Significant Subsidiary, or the filing by either the Company or a Significant Subsidiary of a petition or answer or consent seeking reorganization or similar relief under any applicable Federal or state law, or the consent by it to the filing of such petition or to the appointment of or taking possession by a custodian, receiver, liquidator, assignee, trustee, sequestrator or other similar official of the Company or any Significant Subsidiary or of any substantial part of the property of either the Company or any Significant Subsidiary, or the making by either the Company or any Significant Subsidiary of an assignment for the benefit of creditors, or the admission by either the Company or any Significant Subsidiary in writing of its inability to pay its debts generally as they become due, or the taking of corporate action by the Company or any Significant Subsidiary in furtherance of any such action; or

(e) The Company will give the holder of this Note notice, within two Trading Days of the occurrence thereof, of any Event of Default or any event that, with the giving of notice or passage of time or both, would become an Event of Default. Such notice shall be given in the manner provided in Section 5(b).

(f) At any time when the holder of this Note may exercise its rights under this Section 3 with respect to an Event of Default, the Company shall provide the holder within three (3) business days such information as the holder may reasonably request to establish any assertion by the Company under this Section 3(h).

(g) Remedy for Specified Defaults. If an Event of Default specified in Section 3(a)(i) or 3(a)(ii) or 3(a) (iii) or 3(a)(iv) occurs, the Company shall grant to Nenter the global exclusive license for the Intellectual Property specified in Schedule I of the Credit Agreement for the production of Vitamin E with no charges or royalties, including the latest necessary fermentation, strain related technical indices, processes, drawings, technical information, specifications and free technical service to ensure Nenter will be capable of manufacturing farnesene independently by itself through the use of such Intellectual Property.

For the avoidance of doubt, failure or delay to give Notice of Default by the Lender to the Company does not construed as any waive for remedies for the Lender, and does not make the Company exempt from its default responsibilities.

(h) Additionally Remedy for Non-Payment Defaults. Subject to applicable law, upon the occurrence of a Payment Default (as defined below), the Company shall be required to repay the entire unpaid principal amount of this Note and all accrued and unpaid interest hereon in the form of such number of fully paid and nonassessable shares of Common Stock (as defined below) (calculated to the nearest 1/100 of a share) as may be determined by dividing such unpaid principal amount and accrued and unpaid interest by the Share Repayment Price (as defined below). For the avoidance of doubt, the Company shall not be required to register such Common Stock under the Securities Act.

(i) The Company shall not issue any shares of Common Stock pursuant to the terms of this Note if the issuance of such shares of Common Stock (taken together with the issuance of all other shares of Common Stock pursuant to the terms of the Notes) would exceed the aggregate number of shares of Common Stock which the Company may issue pursuant to the terms of the Notes without breaching the Company's obligations under the rules or regulations of the Nasdaq National Market, except that such limitation shall not apply in the event that the Company obtains the approval of its stockholders as required by the applicable rules of the Nasdaq National Market for issuances of shares of Common Stock in excess of such amount.

4. Definitions. Capitalized terms used in this Note and not otherwise defined have the meanings given to them in the Credit Agreement. Unless otherwise defined in this Note, the following capitalized terms shall have the following respective meanings when used herein:

"*Affiliate*" of any specified Person means any other Person directly or indirectly controlling or controlled by or under direct or indirect common control with such specified Person. For the purposes of this definition, "control", when used with respect to any specified Person, means the power to direct the management and policies of such Person, directly or indirectly, whether through the ownership of voting securities, by contract or otherwise; and the terms "controlling" and "controlled" have meanings correlative to the foregoing.

"*Common Stock*" means the Common Stock, par value $0.0001 per share, of the Company authorized at the date of this instrument as originally executed. Subject to the provisions of Section 3, shares issuable on repayment of the Notes or repurchase of this Note shall include only Common Stock or shares of any class or classes of common stock resulting from any reclassification or reclassifications thereof; *provided*, *however*, that if at any time there shall be more than one such resulting class, the shares so issuable on repayment of this Note shall include shares of all such classes, and the shares of each such class then so issuable shall be substantially in the proportion which the total number of shares of such class resulting from all such reclassifications bears to the total number of shares of all such classes resulting from all such reclassifications.

"*Company Average Trading Price*" shall mean the volume weighted average closing sale price of one share of Common Stock for the ninety (90) consecutive Trading Days ending on (and including) the Trading Day that is two (2) Trading Days immediately preceding the Payment Default (as adjusted as appropriate to reflect any stock splits, stock dividends, combinations, reorganizations, reclassifications or similar events).

"*Credit Agreement*" means the Credit Agreement, dated as of October 26, 2016, entered into by and between the Company and Guanfu.

"*Equity Securities*" of any Person means (a) all common stock, preferred stock, participations, shares, partnership interests or other equity interests in and of such Person (regardless of how designated and whether or not voting or non-voting) and (b) all warrants, options and other rights to acquire any of the foregoing.

"*GAAP*" means generally accepted accounting principles as in effect in the United States of America from time to time.

"*Guanfu*" means Guanfu Holding Co., Ltd., a company duly established and validly existing under the laws of the People's Republic of China. In order to fulfill this Note and Credit Agreement, Guanfu is about to make its subsidiary be the entity to accomplish the obligations and as the Holder, so "Guanfu" refers to "Guanfu or its subsidiary".

"*Payment Default*" means an Event of Default specified in Section 3(a)(i) or 3(a)(ii).

"*Person*" shall mean and include an individual, a partnership, a corporation (including a business trust), a joint stock company, a limited liability company, an unincorporated association, a joint venture or other entity or a governmental authority.

"*Share Repayment Price*" on any day shall equal ninety percent (90%) of the Company Average Trading Price.

"*Significant Subsidiary*" means, with respect to any Person, a Subsidiary of such Person that would constitute a significant subsidiary" as such term is defined under Rule 1-02 of Regulation S-X of the Commission.

"*Subsidiary*" shall mean (a) any corporation of which more than 50% of the issued and outstanding equity securities having ordinary voting power to elect a majority of the board of directors of such corporation is at the time directly or indirectly owned or controlled by the Company, (b) any partnership, joint venture, limited liability company or other association of which more than 50% of the equity interests having the power to vote, direct or control the management of such partnership, joint venture, limited liability company or other association is at the time directly or indirectly owned and controlled by the Company, and (c) any other entity included in the financial statements of the Company on a consolidated basis.

"*Trading Day*" means (i) if the Common Stock is admitted to trading on the Nasdaq National Market or any other system of automated dissemination of quotations of securities prices, a day on which trades may be effected through such system; (ii) if the Common Stock is listed or admitted for trading on the New York Stock Exchange or any other national securities exchange, a day on which such exchange is open for business; or (iii) if the Common Stock is not admitted to trading on the Nasdaq National Market or listed or admitted for trading on any national securities exchange or any other system of automated dissemination of quotation of securities prices, a day on which the Common Stock is traded regular way in the over-the-counter market and for which a closing bid and a closing asked price for the Common Stock are available.

5. Other.

(a) No provision of this Note shall alter or impair the obligation of the Company, which is absolute and unconditional, to pay the principal of and interest, if any, on this Note at the times, places and rate, and in the coin or currency, herein prescribed or to repay this Note as herein provided.

(b) The Company will give prompt written notice to the holder of this Note of any change in the location of the Designated Office. Any notice to the Company or to the holder of this Note shall be given in the manner set forth in the Credit Agreement.

(c) The transfer of this Note is registrable on the register maintained by the Company upon surrender of this Note for registration of transfer at the Designated Office, duly endorsed by, or accompanied by a written instrument of transfer in form satisfactory to the Company duly executed by, the holder hereof or such holder's attorney duly authorized in writing, and thereupon one or more new Securities, of authorized denominations and for the same aggregate principal amount, will be issued to the designated transferee or transferees. Such Securities are issuable only in registered form without coupons in denominations of $1,000 and any integral multiple thereof. No service

charge shall be made for any such registration of transfer, but the Company may require payment of a sum sufficient to recover any tax or other governmental charge payable in connection therewith. Prior to due presentation of this Note for registration of transfer, the Company and any agent of the Company may treat the Person in whose name this Note is registered as the owner thereof for all purposes, whether or not this Note be overdue, and neither the Company nor any such agent shall be affected by notice to the contrary.

(d) This Note shall be governed by and construed in accordance with the internal laws of the State of Delaware, United States of America, without regard to principles of conflicts of laws.

[The remainder of this page is intentionally left blank]

IN WITNESS WHEREOF, the Company has caused this Note to be duly executed.

Dated: December 31, 2016

Amyris, Inc.

By: /s/ John Melo

Name: John Melo
Title: President and Chief Executive Officer

Exhibit 4.67

NOTE PURCHASE AGREEMENT

This Note Purchase Agreement (this "Agreement") is made as of October 27, 2016 (the "Effective Date") by and among Amyris, Inc., a Delaware corporation (the "Company"), and the individuals or entities listed on Schedule I hereto (each, a "Purchaser," and collectively, the "Purchasers").

Preliminary Statement

Subject to the terms and conditions hereof, each Purchaser desires to purchase, and the Company desires to offer and sell to each Purchaser, that aggregate principal amount of Secured Promissory Notes with a principal amount set forth opposite each such Purchaser's name on Schedule I hereto (which aggregate principal amount for all Purchasers as of the Closing (as defined below) shall be $8,500,000) (each such Secured Promissory Note, a "Note" and collectively, the "Notes"). If and when issued, each of the Notes shall be evidenced by a promissory note in the form attached hereto as Exhibit A.

Agreement

The parties, intending to be legally bound, agree as follows:

1. **Sale of Notes.** Subject to the terms and conditions hereof, at the Closing (as defined in Section 2), the Company shall sell to each Purchaser, and, subject to satisfaction of the conditions set forth in this Agreement, each such Purchaser will purchase from the Company, (i) a Note in a principal amount as set forth next to such Purchaser's name on Schedule I hereto for a purchase price equal to the purchase price set forth next to such Purchaser's name on Schedule I hereto under the column "Note Purchase Price" (the "Purchase Price"). The sale and purchase of the Notes to each Purchaser shall constitute a separate sale and purchase hereunder.

2. **Closing**. The closing ("Closing") of the transactions contemplated hereby shall be held at the offices of Fenwick & West LLP, 801 California Street, Mountain View, California 94041 within one business day following the date on which the last of the conditions set forth in Sections 7 and 8 have been satisfied or waived in accordance with this Agreement but in no event later than October 31, 2016 (such date, the "Closing Date"), or at such other time and place as the Company and the Purchasers mutually agree upon.

3. **Delivery**.

(a) At the Closing, each Purchaser shall (i) pay the Company the applicable Purchase Price in immediately available funds, or (ii) (A) initiate irrevocable payment instructions to its paying bank to make the payment (an "Irrevocable Payment Instruction") to the Company of the applicable Purchase Price in immediately available funds and (B) deliver to the Company confirmation that such Purchaser has made an Irrevocable Payment Instruction, such confirmation to be in the form of a federal reference number or other similar written evidence that a wire has been initiated.

(b) At the Closing, or, if applicable, upon receipt of the applicable amount of the Purchase Price due in respect of the Closing from any Purchaser who makes an Irrevocable Payment Instruction at the Closing, the Company shall deliver to such Purchaser a Note with a principal amount as provided in Section 1 above, such Note to be registered in the name of such Purchaser, or in such nominee's or nominees' name(s) as provided by such Purchaser to the Company, against payment of the Purchase Price therefor as provided in Section 1 above by wire transfer of immediately available funds to such account or accounts as the Company shall designate in writing to such Purchaser at least two (2) days prior to the date of the Closing.

4. **Company Representations**. The Company represents and warrants to the Purchasers as follows:

(a) Organization and Standing. The Company is duly incorporated, validly existing, and in good standing under the laws of the State of Delaware. The Company has all requisite power and authority to own and operate its properties and assets and to carry on its business as presently conducted and as proposed to be conducted. The Company is qualified to do business as a foreign entity in every jurisdiction in which the failure to be so qualified would have, or would reasonably be expected to have, a material adverse effect, individually or in the aggregate, upon the business, properties, tangible and intangible assets, liabilities, operations, prospects, financial condition or results of operation of the Company or the ability of the Company to perform its obligations under this Agreement (a "Material Adverse Effect"). For the purposes of clarity, the implementation of any plan for the significant restructuring of the Company, which has been approved by the Board of Directors of the Company as of the date hereof, shall not constitute a Material Adverse Effect.

(b) Power. The Company has all requisite power to execute and deliver this Agreement, to sell and issue the Notes hereunder, and to carry out and perform its obligations under the terms of this Agreement and the Notes (collectively, the "Transaction Agreements").

(c) Authorization. Subject to any waivers of covenants limiting the Company's ability to incur further debt under outstanding debt instruments and loans, each of which would be obtained or waived as required prior to the Closing (the "Pre-Closing Consents"), the execution, delivery, and performance of the Transaction Agreements by the Company has been duly authorized by all requisite action on the part of the Company and its officers, directors and stockholders, and this Agreement and the Notes constitute the legal, valid, and binding obligation of the Company enforceable in accordance with its terms, except (a) as limited by applicable bankruptcy, insolvency, reorganization, moratorium, and other laws of general application affecting enforcement of creditors' rights generally, and (b) as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies (together, the "Enforceability Exceptions").

(d) Consents and Approvals. Except for any Current Report on Form 8-K or other document to be filed by the Company with the U.S. Securities and Exchange Commission (the "SEC") in connection with the transactions contemplated hereby, the Company is not required to give any notice to, make any filing with, or obtain any authorization, consent, or approval of any government or governmental agency in order to consummate the transactions contemplated hereby. Assuming the accuracy of the representations of the Purchasers in Section 5, no consent,

approval, authorization or other order of, or registration, qualification or filing with, any court, regulatory body, administrative agency, self-regulatory organization, stock exchange or market (including The NASDAQ Stock Market LLC ("The NASDAQ Stock Market"), or other governmental body is required for the execution and delivery of the Transaction Agreements, the valid issuance, sale and delivery of the Notes to be sold pursuant to this Agreement other than such as have been made or obtained, or for any securities filings required to be made under federal or state securities laws applicable to the offering of the Notes.

(e) Non-Contravention. The execution and delivery of this Agreement and, following satisfaction of the Closing conditions set forth in Sections 7 and 8 hereof as applicable to the Closing, the issuance, sale and delivery of the Notes to be sold by the Company under this Agreement and the performance by the Company of its obligations under the Transaction Agreements and/or the consummation of the transactions contemplated thereby, will not (a) conflict with, result in the breach or violation of, or constitute (with or without the giving of notice or the passage of time or both) a violation of, or default under, (i) subject to obtaining the Pre-Closing Consents, any bond, debenture, note or other evidence of indebtedness, or under any lease, license, franchise, permit, indenture, mortgage, deed of trust, loan agreement, joint venture or other agreement or instrument to which the Company or any subsidiary is a party or by which it or its properties may be bound or affected, (ii) the Company's Restated Certificate of Incorporation, as amended and as in effect on the date hereof, the Company's Bylaws, as amended and as in effect on the date hereof, or the equivalent document with respect to any subsidiary, as amended and as in effect on the date hereof, or (iii) any statute or law, judgment, decree, rule, regulation, ordinance or order of any court or governmental or regulatory body (including The NASDAQ Stock Market), governmental agency, arbitration panel or authority applicable to the Company, any of its subsidiaries or their respective properties, except in the case of clauses (i) and (iii) for such conflicts, breaches, violations or defaults that would not be likely to have, individually or in the aggregate, a Material Adverse Effect, or (b) except for any security interests granted pursuant to the Notes, result in the creation or imposition of any lien, encumbrance, claim, security interest or restriction whatsoever upon any of the material properties or assets of the Company or any of its subsidiaries or an acceleration of indebtedness pursuant to any obligation, agreement or condition contained in any material bond, debenture, note or any other evidence of indebtedness or any material indenture, mortgage, deed of trust or any other agreement or instrument to which the Company or any if its subsidiaries is a party or by which the Company or any of its subsidiaries is bound or to which any of the property or assets of the Company is subject. For purposes of this Section 4(e), the term "material" shall apply to agreements, understandings, instruments, contracts or proposed transactions to which the Company is a party or by which it is bound involving obligations (contingent or otherwise) of, or payments to, the Company in excess of $100,000 in a 12-month period.

(f) Notes. The Notes have been duly authorized by the Company and, when duly executed and delivered and paid for as provided herein, will be duly and validly issued and outstanding and will constitute valid and legally binding obligations of the Company enforceable against the Company in accordance with their terms, subject to the Enforceability Exceptions. The issuance and delivery of each of the Notes is not subject to preemptive, co-sale, right of first refusal or any other similar rights of the stockholders of the Company or any other person, or any liens or encumbrances or result in the triggering of any anti-dilution or other similar rights under any outstanding securities of the Company.

(g) No Registration. Assuming the accuracy of each of the representations and warranties of the Purchaser herein, the issuance by the Company of the Notes is exempt from registration under the Securities Act of 1933, as amended (the "Securities Act").

(h) Reporting Status. The Company is subject to the reporting requirements of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and, as of the Closing, will have filed all documents and reports that the Company was required to file pursuant to Section I.A.3.b of the General Instructions to Form S-3 promulgated under the Securities Act in order for the Company to be eligible to use Form S-3 (the foregoing materials, together with any materials filed by the Company under the Exchange Act, whether or not required, collectively, the "SEC Documents"). The SEC Documents complied as to form in all material respects with requirements of the Securities Act and Exchange Act and the rules and regulations of the SEC promulgated thereunder (collectively, the "SEC Rules"), and none of the SEC Documents and the information contained therein, as of their respective filing dates, contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading. As used in this Agreement, "Previously Disclosed" means information set forth in or incorporated by reference into the SEC Documents filed with the SEC on or after November 9, 2015 but prior to the date hereof (except for risks and forward-looking information set forth in the "Risk Factors" section of the applicable SEC Documents or in any forward-looking statement disclaimers or similar statements that are similarly non-specific and are predictive or forward-looking in nature).

(i) Legal Proceedings. Except as Previously Disclosed, there is no action, suit or proceeding before any court, governmental agency or body, domestic or foreign, now pending or, to the knowledge of the Company, threatened against the Company or its subsidiaries wherein an unfavorable decision, ruling or finding would reasonably be expected to, individually or in the aggregate, (i) materially adversely affect the validity or enforceability of, or the authority or ability of the Company to perform its obligations under, the Transaction Agreements or (ii) have a Material Adverse Effect. The Company is not a party to or subject to the provisions of any injunction, judgment, decree or order of any court, regulatory body, administrative agency or other governmental agency or body that might have, individually or in the aggregate, a Material Adverse Effect.

(j) No Violations. Neither the Company nor any of its subsidiaries is in violation of its respective certificate of incorporation, bylaws or other organizational documents, or to its knowledge, is in violation of any statute or law, judgment, decree, rule, regulation, ordinance or order of any court or governmental or regulatory body (including The NASDAQ Stock Market), governmental agency, arbitration panel or authority applicable to the Company or any of its subsidiaries, which violation, individually or in the aggregate, would be reasonably likely to have a Material Adverse Effect. Neither the Company nor any of its subsidiaries is in default (and there exists no condition which, with or without the passage of time or giving of notice or both, would constitute a default) in the performance of any bond, debenture, note or any other evidence of indebtedness in any indenture, mortgage, deed of trust or any other material agreement or instrument to which the Company or any of its subsidiaries is a party or by which the Company or any of its subsidiaries is bound or by which the properties of the Company are bound, which would be reasonably likely to have a Material Adverse Effect. There has not been, and to the knowledge of the Company, there is not pending or contemplated, any investigation by the SEC

involving the Company or any current or former director or officer of the Company and the Company is not an "ineligible issuer" pursuant to Rules 164, 405 and 433 under the Securities Act. The Company has not received any comment letter from the SEC relating to any SEC Documents which has not been resolved. The SEC has not issued any stop order or other order suspending the effectiveness of any registration statement filed by the Company under the Exchange Act or the Securities Act.

(k) Listing Compliance. Except as disclosed in its filings with the SEC, the Company is in compliance with the requirements of The NASDAQ Stock Market for continued listing of the Common Stock thereon and has no knowledge of any facts or circumstances that could reasonably lead to delisting of its Common Stock from The NASDAQ Stock Market. The Company has taken no action designed to, or likely to have the effect of, terminating the registration of the Common Stock under the Exchange Act or the listing of the Common Stock on The NASDAQ Stock Market, nor has the Company received any notification that the SEC or The NASDAQ Stock Market is contemplating terminating such registration or listing. The transactions contemplated by the Transaction Agreements will not contravene the rules and regulations of The NASDAQ Stock Market.

(l) Financial Statements. The consolidated financial statements of the Company and its subsidiaries and the related notes thereto included in the SEC Documents (the "Financial Statements") comply in all material respects with applicable accounting requirements and the rules and regulations of the SEC with respect thereto as in effect at the time of filing and present fairly, in all material respects, the financial position of the Company and its subsidiaries as of the dates indicated and the results of its operations and cash flows for the periods therein specified subject, in the case of unaudited statements, to normal year-end audit adjustments. Except as set forth in such Financial Statements (or the notes thereto), such Financial Statements (including the related notes) have been prepared in accordance with U.S. generally accepted accounting principles applied on a consistent basis throughout the periods therein specified ("GAAP"). Except as set forth in the Financial Statements, neither the Company nor its subsidiaries has any material liabilities other than liabilities and obligations that have arisen in the ordinary course of business and which would not be required to be reflected in financial statements prepared in accordance with GAAP.

(m) Disclosure. The Company understands and confirms that the Purchasers will rely on the foregoing representations in effecting transactions in the Notes. All disclosure furnished by or on behalf of the Company to the Purchasers in connection with this Agreement regarding the Company, its business and the transactions contemplated hereby is true and correct in all material respects and does not contain any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements made therein, in light of the circumstances under which they were made, not misleading. The Company acknowledges and agrees that the Purchasers have not made and do not make any representations or warranties with respect to the transactions contemplated hereby other than those set forth in Section 5 hereto.

5. **Investment Representations.** In connection with the receipt of the Notes, each Purchaser represents and warrants to the Company the following:

(a) Organization. Purchaser is duly organized, validly existing, and in good standing under the laws of the jurisdiction of its organization.

(b) Power. Purchaser has all requisite power to execute and deliver this Agreement and to carry out and perform its obligations under the terms of this Agreement.

(c) Authorization. The execution, delivery, and performance of this Agreement by Purchaser has been duly authorized by all requisite action, and this Agreement constitutes the legal, valid, and binding obligation of Purchaser enforceable in accordance with its terms (subject to the Enforceability Exceptions).

(d) Consents and Approvals. Purchaser need not give any notice to, make any filing with, or obtain any authorization, consent, or approval of any government or governmental agency in order to consummate the transactions contemplated by this Agreement.

(e) Non-Contravention. The execution, delivery and, subject to satisfaction by the Company of the conditions to Closing set forth in Sections 7 and 8 hereof on or prior to the issuance of the Notes, or performance, by Purchaser of this Agreement do not and will not contravene or constitute a default under, or violation of, or be subject to penalties under, (i) any agreement (or require the consent of any party under any such agreement that has not been made or obtained) to which Purchaser is a party, or (ii) any judgment, injunction, order, decree or other instrument binding upon Purchaser, except where such contravention, default, violation or failure to obtain a consent, individually or in the aggregate, would not reasonably be expected to impair Purchaser's ability to perform fully any obligation which Purchaser has or will have under this Agreement.

(f) Investor Qualification. Purchaser understands the definition of the term "accredited investor" within the meaning of Regulation D, Rule 501(a), promulgated by the SEC under the Securities Act, and qualifies as an accredited investor.

(g) Information; Purchase for Investment Only. Purchaser is aware of the Company's business affairs and financial condition and has acquired sufficient information about the Company to reach an informed and knowledgeable decision to acquire the Notes. Purchaser is acquiring the Notes for investment for its own account only and not with a view to, or for resale in connection with, any "distribution" thereof within the meaning of the Securities Act or under any applicable provision of state law. Purchaser does not have any present intention to transfer the Notes to any other person or entity in such a "distribution."

(h) No Registration. Purchaser understands that the Notes have not been registered under the Securities Act by reason of a specific exemption therefrom, which exemption depends upon, among other things, the bona fide nature of Purchaser's investment intent as expressed herein.

(i) Restricted Securities. Purchaser understands that the Notes are "restricted securities" under applicable U.S. federal and state securities laws and that, pursuant to these laws, Purchaser must hold the Notes indefinitely unless they are registered with the SEC and qualified by state authorities, or an exemption from such registration and qualification requirements is

available. Purchaser acknowledges that the Company has no obligation to register or qualify the Notes for resale.

(j) Risk of Investment. Purchaser realizes that the purchase of the Notes will be a highly speculative investment and Purchaser may suffer a complete loss of its investment. Purchaser understands all of the risks related to the purchase of the Notes. By reason of its business and financial experience, Purchaser has the ability to protect its own interests in connection with the purchase of the Notes.

(k) Advisors. Purchaser has reviewed with its own tax advisors the federal, state, and local tax consequences of this investment and the transactions contemplated by this Agreement. Purchaser acknowledges that it has had the opportunity to review this Agreement and the transactions contemplated hereby with Purchaser's own legal counsel.

(l) Finder. Purchaser is not obligated and will not be obligated to pay any broker commission, finders' fee, success fee, or commission in connection with the transactions contemplated by this Agreement.

6. **Restrictive Legends and Stop-Transfer Orders**. The Notes shall bear such legends as the Company deems to be required for the purpose of compliance with applicable federal or state securities laws or as otherwise required by law.

7. **Conditions to Company's Obligations at the Closing**. The Company's obligation to complete the sale and issuance of the Notes, and deliver the Notes to the Purchasers at the Closing shall be subject to the following conditions to the extent not waived by the Company:

(a) Receipt of Payment. The Company shall have received payment (or confirmation that an Irrevocable Payment Instruction has been made with respect to such payment), by wire transfer of immediately available funds or by cancellation of indebtedness of the Company to each applicable Purchaser, in the full amount of the Purchase Price for the Notes being purchased by such Purchaser at the Closing.

(b) Representations and Warranties. The representations and warranties made by the Purchasers in Section 5 hereof shall be true and correct in all material respects as of, and as if made on, the date of such Closing.

(c) Subordination Agreement. The Purchasers shall have executed and delivered to the Company the Subordination Agreement (as defined in Section 9(b)(ii) hereof).

8. **Conditions to Purchaser's Obligations at the Closing**. Each Purchaser's obligation to accept delivery of the Notes and to pay for such Purchaser's respective Notes at the Closing shall be subject to the following conditions to the extent not waived by such Purchaser:

(a) Representations and Warranties. The representations and warranties made by the Company in Section 4 hereof shall be true and correct in all material respects (except for any representations and warranties which are qualified as to materiality, which shall be true and correct in all respects) as of, and as if made on, the date of this Agreement and as of the date of the Closing as though such representations and warranties were made on and as of such date.

(b) Certificate. The Purchaser shall have received a certificate dated as of the Closing and signed by the Company's Chief Executive Officer and Chief Financial Officer to the effect that the representations and warranties of the Company in Section 4 hereof are true and correct in all material respects (except for any representations and warranties which are qualified as to materiality, which shall be true and correct in all respects) as of, and as if made on, the date of this Agreement and as of the Closing, and that the Company has satisfied all of the conditions set forth in this Agreement and required to be satisfied as of the Closing.

(c) Good Standing. The Company shall be validly existing as a corporation in good standing under the laws of Delaware as evidenced by a certificate of the Secretary of State of the State of Delaware, a copy of which shall be provided to the Purchaser at the Closing.

(d) Board Approval. The terms and conditions of the issuance of the Notes and the Transaction Agreements shall have been duly approved by the Board of Directors of the Company (including the Audit Committee and at least six directors who are disinterested with respect to the transactions contemplated hereby).

(e) Other Approvals. The Company shall have obtained all governmental, regulatory or third party consents and approvals required in connection with the transactions contemplated hereby, if any, including obtaining the Pre-Closing Consents and any waivers of any other negative covenants and pro rata or similar preemptive rights that may apply to the issuance of the Notes.

(f) Foris Ventures Investment. The Company and Foris Ventures, LLC shall have executed a Note Purchase Agreement by and among the Company and Foris Ventures, LLC dated as of October 21, 2016 in substantially the form of this Agreement, and Foris Ventures, LLC shall have purchased secured convertible promissory notes in substantially the form of Note attached as Exhibit A hereto in the principal amount of $6,000,000. In addition, Foris Ventures, LLC shall have provided to the Company its written acknowledgment and agreement that the Notes shall be pari passu with all notes issued to Foris Ventures, LLC and outstanding as of the date hereof (including the note referenced in the prior sentence).

9. **Other Agreements**

(a) SEC Filings. Upon execution of this Agreement and the issuances of Notes, the Company will complete any SEC filings (such as a Current Report on Form 8-K) that are, in the judgment of the Company's legal counsel, required to be completed.

(b) Security Interest.

(i) As security for the prompt, complete and indefeasible payment when due (whether on the payment dates or otherwise) of all the Company's obligations under the Notes, including any obligation to pay any amount now owning or later arising under the Notes (collectively, the "Secured Obligations"), the Company grants to each Purchaser a second priority security interest in all of the Company's right, title, and interest in and to the Collateral (as defined in that certain Loan and Security Agreement dated as of March 29, 2014, as amended on June 12, 2014, March 31, 2015, November 30, 2015 and October 6, 2016 (as amended, the "LSA") by and between the Company, and each of its subsidiaries that has delivered a Joinder Agreement (as

defined in the LSA), the other financial institutions or entities from time to time parties to the LSA (collectively, referred to as "Lender") and Stegodon Corporation, a Delaware corporation, as assignee of Hercules Capital, Inc., a Maryland corporation, in its capacity as administrative agent for itself and the Lender (in such capacity, the "Agent")), as limited by Section 3.2 of the LSA.

(ii) The Company hereby agrees to enter into any additional Security Documents (as defined below) with the Purchasers as may be reasonably required by the Purchasers in connection with the grant of the security interest contemplated by Section 9(b)(i) hereof, provided, however, that such security interest shall be subject to the Subordination Agreement dated as of October 27, 2016, by and among the Purchasers, the Company and the Agent (the "Subordination Agreement"). As used herein, "Security Documents" means each security agreement, all other mortgages, deeds of trust, security agreements, pledge agreements, assignments, control agreements, financing statements and other documents as shall from time to time secure or relate to the Secured Obligations or any part thereof, in each case, executed by the Company or any subsidiary of the Company.

10. **Miscellaneous.**

(a) Governing Law. This Agreement and all acts and transactions pursuant hereto and the rights and obligations of the parties hereto shall be governed, construed and interpreted in accordance with the laws of the State of California, without giving effect to principles of conflicts of law.

(b) Assignment; Successors and Assigns. This Agreement may not be assigned by the Purchaser without the prior written consent of the Company; provided, that this Agreement may be assigned by a Purchaser to the valid transferee of any security purchased hereunder if such security remains a "restricted security" under the Securities Act. This Agreement and all provisions thereof shall be binding upon, inure to the benefit of, and are enforceable by the parties hereto and their respective successors and permitted assigns.

(c) Notices. All notices, requests, and other communications hereunder shall be in writing and will be deemed to have been duly given and received (i) when personally delivered, (ii) when sent by facsimile upon confirmation of receipt, (iii) one business day after the day on which the same has been delivered prepaid to a nationally recognized courier service, or (iv) five business days after the deposit in the United States mail, registered or certified, return receipt requested, postage prepaid, in each case addressed, as to the Company, to Amyris, Inc., 5885 Hollis Street, Suite 100, Emeryville, CA 94608, Attn: General Counsel, facsimile number: , with a copy to Fenwick & West LLP, 801 California Street, Mountain View, CA 94041, Attn: , facsimile number: , and as to each Purchaser at the address set forth opposite such Purchaser's name on the Schedule of Purchasers on Schedule I. Any party hereto from time to time may change its address, facsimile number, or other information for the purpose of notices to that party by giving notice specifying such change to the other parties hereto. The Purchasers and the Company may each agree in writing to accept notices and other communications to it hereunder by electronic communications pursuant to procedures reasonably approved by it; provided that approval of such procedures may be limited to particular notices or communications.

(d) Severability. In the event that any provision of this Agreement or the application of any provision hereof is declared to be illegal, invalid, or otherwise unenforceable by a court of competent jurisdiction, the remainder of this Agreement shall not be affected except to the extent necessary to delete such illegal, invalid, or unenforceable provision unless that provision held invalid shall substantially impair the benefits of the remaining portions of this Agreement.

(e) Headings. The headings in this Agreement are for convenience of reference only and shall not constitute a part of this Agreement, nor shall they affect its meaning, construction, or effect.

(f) Entire Agreement. This Agreement embodies the entire understanding and agreement between the parties hereto with respect to the subject matter hereof and supersedes all prior agreements and understandings relating to the subject matter hereof.

(g) Expenses. Each party will bear its own costs and expenses in connection with this Agreement.

(h) Further Assurances. The parties agree to execute and deliver all such further documents, agreements and instruments and take such other and further action as may be necessary or appropriate to carry out the purposes and intent of this Agreement.

(i) Counterparts. This Agreement may be executed in two or more counterparts, each of which shall constitute an original, but all of which, when taken together, shall constitute but one instrument, and shall become effective when one or more counterparts have been signed by each party hereto and delivered to the other party. Facsimile signatures shall be deemed originals for all purposes hereunder.

(j) Amendments and Waivers. This Agreement may not be amended, supplemented or otherwise modified except in a written instrument executed by the Company and the holders of a majority of the aggregate principal amount of the then outstanding Notes. No waiver by any of the parties of any default, misrepresentation, or breach of warranty or covenant hereunder, whether intentional or not, shall be deemed to extend to any prior or subsequent default, misrepresentation, or breach of warranty or covenant hereunder or affect in any way any rights arising by virtue of any prior or subsequent such occurrence. No waiver by any of the parties of any of the provisions hereof shall be effective unless explicitly set forth in writing and executed by the party sought to be charged with such waiver. No action taking pursuant to this Agreement, including any investigation by or on behalf of any party, shall be deemed to constitute a waiver by the party taking such action of compliance with any representation, warranty, covenant or agreement contained herein. No failure on the part of any party to exercise, and no delay in exercising, any right, power or remedy hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of such right, power or remedy by such party preclude any other or further exercise thereof or the exercise of any other right, power or remedy.

[Signature Pages Follow]

The undersigned has executed this Agreement as of the date first set forth above.

THE COMPANY:

AMYRIS, INC.

By: /s/ Raffi Asadorian
(Signature)

Name: Raffi Asadorian

Title: Chief Financial Officer

Address:
5885 Hollis Street, Suite 100
Emeryville, CA 94608
Attention: General Counsel
Facsimile:
Email:

The undersigned has executed this Agreement as of the date first set forth above.

PURCHASER:

GINKGO BIOWORKS, INC.

By: /s/ Jason Kelly
(Signature)

Name: Jason Kelly

Title: CEO

SCHEDULE I

Schedule of Purchasers

Closing: October 27, 2016

Name of Purchaser	**Notes Principal Amount**	**Note Purchase Price**	**Address**
Ginkgo Bioworks, Inc.	$8,500,000	$8,500,000	Ginkgo Bioworks, Inc. 27 Drydock Ave., Floor B Boston, MA 02127 Attention: Jason Kelly
TOTAL	**$8,500,000**	**$8,500,000**	

EXHIBIT A

FORM OF NOTE

Exhibit 4.68

SECURED PROMISSORY NOTE

U.S. $8,500,000.00 Issue Date: October 27, 2016

THE SECURITIES REPRESENTED BY THIS NOTE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"), OR APPLICABLE STATE SECURITIES LAWS, AND MAY NOT BE OFFERED, SOLD, ASSIGNED, PLEDGED, TRANSFERRED OR OTHERWISE DISPOSED OF IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT UNDER THE ACT AND APPLICABLE STATE SECURITIES LAWS OR PURSUANT TO AN AVAILABLE EXEMPTION FROM REGISTRATION UNDER THE ACT OR SUCH LAWS AND, IF REASONABLY REQUESTED BY THE COMPANY, UPON DELIVERY OF AN OPINION OF COUNSEL REASONABLY SATISFACTORY TO THE COMPANY THAT THE PROPOSED TRANSFER IS EXEMPT FROM THE ACT OR SUCH LAWS. THIS NOTE, AND THE COMPANY'S AND HOLDER'S RIGHTS AND OBLIGATIONS HEREUNDER, IS SUBJECT TO A SUBORDINATION AGREEMENT BETWEEN THE ORIGINAL HOLDER HEREOF, THE COMPANY, THE CREDITORS PARTY THERETO AND STEGODON CORPORATION, AS AGENT, DATED AS OF THE ISSUE DATE. IN THE EVENT OF ANY INCONSISTENCY BETWEEN THIS NOTE AND THE SUBORDINATION AGREEMENT, THE TERMS OF THE SUBORDINATION AGREEMENT WILL CONTROL.

Subject to the terms and conditions of this Note, for value received, AMYRIS, INC., a Delaware corporation (the "***Company***"), hereby promises to pay to the order of GINKGO BIOWORKS, INC. or registered assigns ("***Holder***"), the principal sum of Eight Million Five Hundred Thousand Dollars ($8,500,000), or such lesser amount as shall then equal the outstanding principal amount hereunder, together with interest accrued on the unpaid principal amount at the Applicable Rate. Interest shall begin to accrue on the Issue Date set forth above, shall continue to accrue on the outstanding principal until the entire Balance is paid, and shall be computed based on the actual number of days elapsed and on a year of 365 days.

This Note was issued pursuant to the Note Purchase Agreement, dated as of October __, 2016 (as amended from time to time, the "***Agreement***"), by and among the Company, the original holder of this Note and the other parties thereto and is subject to provisions of the Agreement. Capitalized terms used but not otherwise defined herein shall have the meaning given to such terms in the Agreement.

The following is a statement of the rights of Holder and the terms and conditions to which this Note is subject, and to which the Holder hereof, by the acceptance of this Note, agrees.

Notwithstanding anything to the contrary, this Note is subordinated to certain other indebtedness of the Company on the terms and restrictions set forth in the Subordination Agreement.

1. **DEFINITION**. The following definitions shall apply for purposes of this Note.

"***Affiliate***" has the meaning ascribed to it in Rule 144 promulgated under the Securities Act.

"***Applicable Rate***" means a rate equal to the lower of: (a) the Highest Lawful Rate; and (b) thirteen and one half percent (13.5%) per annum.

"***Balance***" means, at the applicable time, the sum of all then outstanding principal of this Note, all then accrued but unpaid interest and all other amounts then accrued but unpaid under this Note.

"***Board of Directors***" means the Company's Board of Directors.

*"**Business Day**"* means a weekday on which banks are open for general banking business in San Francisco, California.

"***Capital Lease Obligation***" means, at the time any determination thereof is to be made, the amount of the liability in respect of a capital lease that would at such time be required to be capitalized on a balance sheet in accordance with GAAP.

"***Change of Control***" shall mean the occurrence of any of the following: (i) the consolidation of the Company with, or the merger of the Company with or into, another "person" (as such term is used in Rule 13d-3 and Rule 13d-5 of the Exchange Act), or the sale, lease, transfer, conveyance or other disposition, in one or a series of related transactions, of all or substantially all of the assets of the Company and its Subsidiaries taken as a whole, or the consolidation of another "person" with, or the merger of another "person" into, the Company, other than in each case pursuant to a transaction in which the "persons" that "beneficially owned" (as such term is defined in Rule 13d-3 and Rule 13d-5 under the Exchange Act), directly or indirectly, the Voting Shares of the Company immediately prior to the transaction "beneficially own", directly or indirectly, Voting Shares representing at least a majority of the total voting power of all outstanding classes of voting stock of the surviving or transferee person; (ii) the adoption by the Company of a plan relating to the liquidation or dissolution of the Company; (iii) the consummation of any transaction (including, without limitation, any merger or consolidation) the result of which is that any "person" becomes the "beneficial owner" directly or indirectly, of more than 50% of the Voting Shares of the Company (measured by voting power rather than number of shares); or (iv) the first day on which a majority of the members of the Board of Directors does not consist of Continuing Directors.

"***Company***" shall include, in addition to the Company identified in the opening paragraph of this Note, any corporation or other entity which succeeds to the Company's obligations under this Note, whether by permitted assignment, by merger or consolidation, operation of law or otherwise.

"***Continuing Director***" shall mean, as of any date of determination, any member of the Board of Directors who (i) was a member of the Board of Directors on the Issue Date or (ii) was nominated for election or elected to the Board of Directors with the approval of a majority of the Continuing Directors who were members of the Board of Directors at the time of such nomination

or election and who voted with respect to such nomination or election; provided that a majority of the members of the Board of Directors voting with respect thereto shall at the time have been Continuing Directors.

"***Debt***" shall mean, with respect to any Person, any indebtedness of such Person, whether or not contingent, in respect of borrowed money or evidenced by bonds, notes, debentures or similar instruments or letters of credit (or reimbursement agreements in respect thereof) or banker's acceptances or representing Capital Lease Obligations or the balance deferred and unpaid of the purchase price of any property or representing any Hedging Obligations, except any such balance that constitutes an accrued expense or trade payable, if and to the extent any of the foregoing indebtedness (other than letters of credit and Hedging Obligations) would appear as a liability upon a balance sheet of such Person prepared in accordance with GAAP, as well as all Debt of others secured by a Lien on any asset of such Person (whether or not such Debt is assumed by such Person) and Lease Debt and, to the extent not otherwise included, the Guarantee by such Person of any Debt of any other Person. The amount of any Debt outstanding as of any date shall be (i) the accreted value thereof, in the case of any Debt that does not require current payments of interest or (ii) the principal amount thereof, together with any interest thereon that is more than 30 days past due, in the case of any other Debt.

"*Event of Default*" has the meaning set forth in Section 5.

"*Financing Document*" means each of this Note, the Notes, the Agreement and any other document entered into, executed or delivered under or in connection with, or for the purpose of amending, any of such documents.

"***GAAP***" means generally accepted accounting principles set forth in the opinions and pronouncements of the Accounting Principles Board of the American Institute of Certified Public Accountants and statements and pronouncements of the Financial Accounting Standards Board or in such other statements by such other entity as have been approved by a significant segment of the accounting profession in the United States, which are in effect from time to time.

"***Hedging Obligations***" means, with respect to any Person, the obligations of such Person under (i) currency exchange or interest rate swap agreements, interest rate cap agreements and interest rate collar agreements and (ii) other agreements or arrangements designed to protect such Person against fluctuations in interest rates or currency exchange rates.

"*Highest Lawful Rate*" means the maximum non-usurious rate of interest, as in effect from time to time, which may be charged, contracted for, reserved, received or collected by Holder in connection with this Note under applicable law.

"***Lease Debt***" means, with respect to any Person, (i) the amount of any accrued and unpaid obligations of such Person arising under any lease or related document (including a purchase agreement, conditional sale or other title retention agreement) in connection with the lease of real property or improvement thereon (or any personal property included as part of any such lease) which provides that such Person is contractually obligated to purchase or cause a third party to purchase the leased property or pay an agreed upon residual value of the leased property to the lessor (whether or not such lease transaction is characterized as an operating lease or a capitalized

lease in accordance with GAAP) and (ii) the guarantee, direct or indirect, in any manner (including, without limitation, letters of credit and reimbursement agreements in respect thereof), of any of the amounts set forth in (i) above.

"***Lien***" means, with respect to any asset, any mortgage, lien, pledge, charge, security interest or encumbrance of any kind in respect of such asset, whether or not filed, recorded or otherwise perfected under applicable law (including any conditional sale or other title retention agreement, any lease in the nature thereof, any option or other agreement to sell or give a security interest in and any filing of or agreement to give any financing statement under the Uniform Commercial Code (or equivalent statutes) of any jurisdiction).

"***Lost Note Documentation***" means documentation satisfactory to the Company with regard to a lost or stolen Note, including, if required by the Company, an affidavit of lost note and an indemnification agreement by Holder in favor of the Company with respect to such lost or stolen Note.

"***Maturity Date***" means May 15, 2017.

"***Note***" means this Secured Promissory Note.

"*Notes*" means a series of secured promissory notes aggregating up to no more than $8,500,000 in original principal amount issued under the Agreement, of which this Note is one, each such note containing substantially identical terms and conditions as this Note.

"***Person***" means an individual, corporation, limited liability company, partnership, association, joint-stock company, trust, unincorporated organization, joint venture or other entity or any governmental authority.

"***Principal Balance***" means, at the applicable time, all then outstanding principal of this Note.

"***Subordination Agreement***" means that certain Subordination Agreement dated as of October 27, 2016, by and among the Purchasers, the Company and the Agent.

"***Subsidiary***" means, with respect to any specified Person: (a) any corporation, association or other business entity of which more than 50% of the total voting power of shares of capital stock entitled (without regard to the occurrence of any contingency and after giving effect to any voting agreement or stockholders' agreement that effectively transfers voting power) to vote in the election of directors, managers or trustees of the corporation, association or other business entity is at the time owned or controlled, directly or indirectly, by that Person or one or more of the other Subsidiaries of that Person (or a combination thereof); and (b) any partnership (i) the sole general partner or the managing general partner of which is such Person or a Subsidiary of such Person or (ii) the only general partners of which are that Person or one or more Subsidiaries of that Person (or any combination thereof).

"***Voting Shares***" of any Person means capital shares or capital stock of such Person which ordinarily has voting power for the election of directors (or Persons performing similar functions) of such Person, whether at all times or only so long as no senior class of securities has such voting

power by reason of any contingency.

2. PAYMENT AT MATURITY DATE; INTEREST.

2.1 Payment at Maturity Date.

(a) If this Note has not been previously prepaid in full pursuant to Section 3.1 prior to the Maturity Date, then the entire Balance shall be due and payable in full in cash on the Maturity Date.

(b) All rights with respect to this Note shall terminate upon the repayment of the entire Balance of this Note as provided in Section 2.1(a). Notwithstanding the foregoing, Holder agrees to surrender this Note to the Company (or Lost Note Documentation where applicable) as soon as practicable after repayment pursuant to Section 2.1.

(c) Notwithstanding anything herein to the contrary, if during any period for which interest is computed hereunder, the amount of interest computed on the basis provided for in this Note, together with all fees, charges and other payments which are treated as interest under applicable law, as provided for herein or in any other document executed in connection herewith, would exceed the amount of such interest computed on the basis of the Highest Lawful Rate, then the Company shall not be obligated to pay, and Holder shall not be entitled to charge, collect, receive, reserve or take, interest in excess of the Highest Lawful Rate, and during any such period the interest payable hereunder shall be computed on the basis of the Highest Lawful Rate.

3. PREPAYMENT; CHANGE OF CONTROL.

3.1 Prepayment. The Company may at any time, without penalty, upon at least five (5) days' advance written notice to Holder, prepay all or any portion of the unpaid Balance of this Note. Any such prepayment shall be applied as provided in Section 4 below.

3.2 Change of Control Payment. If the Company completes a Change of Control before the payment of the entire Balance of this Note, then upon the closing of such Change of Control, Holder shall be entitled to be repaid the entire Balance of this Note.

4. NOTES PARI PASSU; APPLICATION OF PAYMENTS . Each of the Notes shall rank equally without preference or priority of any kind over one another, and all payments and recoveries under any other Financing Document payable on account of principal and interest on the Notes shall be paid and applied ratably and proportionately on the Balances of all outstanding Notes on the basis of their original principal amount. Subject to the foregoing provisions of this Section, all payments will be applied first to the repayment of accrued fees and expenses under this Note, then to accrued interest until all then outstanding accrued interest has been paid in full, and then to the repayment of principal until all principal has been paid in full. If after all applications of such payments have been made as provided in this Section, then the remaining amount of such payment that is in either case in excess of the aggregate Balance of all outstanding Notes, shall be returned to the Company.

5. **EVENTS OF DEFAULT.** Each of the following events shall constitute an "***Event of Default***" hereunder:

(a) The Company fails to make any payment when due under this Note on the applicable due date or within five (5) days after written notice of such failure has been given on behalf of Holder to the Company;

(b) A receiver is appointed for any material part of the Company's property, the Company makes a general assignment for the benefit of creditors, or the Company becomes a debtor or alleged debtor in a case under the U.S. Bankruptcy Code or becomes the subject of any other bankruptcy or similar proceeding for the general adjustment of its debts or for its liquidation;

(c) The Company breaches any material obligation to any Holder under this Note and does not cure such breach within twenty (20) days after written notice thereof has been given by or on behalf of such Holder to the Company;

(d) A default under any mortgage, indenture or instrument under which there may be issued or by which there may be secured or evidenced any Debt for money borrowed by the Company (or the payment of which is guaranteed by the Company, whether such Debt or guarantee now exists, or is created after the Issue Date of this Note, which default (a) is caused by a failure to pay principal of or premium, if any, or interest on such Debt prior to the expiration of the grace period provided in such Debt on the date of such default or (b) results in the acceleration of such Debt prior to its express maturity and, in each case in clause (a) or (b), the principal amount of any such Debt, together with the principal amount of any other such Debt that has not been paid when due, or the maturity of which has been so accelerated, aggregates $10,000,000 or more; or

(e) The Company's Board of Directors or stockholders adopt a resolution for the liquidation, dissolution or winding up of the Company.

Upon the occurrence of any Event of Default, all accrued but unpaid expenses, accrued but unpaid interest, all principal and any other amounts outstanding under this Note shall (i) in the case of any Event of Default under Section 5(b), become immediately due and payable in full without further notice or demand by Holder and (ii) in the case of any Event of Default other than under Section 5(b), become immediately due and payable upon written notice by or on behalf of all Holder(s) of then outstanding Notes. Notwithstanding any other provision of this Note, Holder agrees that Holder will exercise Holder's rights and remedies under this Note only in concert with all other holders of outstanding Notes and will not take any action, including commencement or prosecution of litigation or any other proceeding to collect this Note, except as agreed by the holders of a majority of the then outstanding principal amount of the Notes.

6. **PROVISIONS RELATING TO STOCKHOLDER RIGHTS.** This Note does not entitle Holder to any voting rights or other rights as a stockholder of the Company. No

provisions of this Note and no enumeration herein of the rights or privileges of Holder, shall cause Holder to be a stockholder of the Company for any purpose.

7. ***REPRESENTATIONS AND WARRANTIES OF HOLDER*.** In order to induce the Company to issue this Note to the original Holder, the original Holder has made representations and warranties to the Company as set forth in the Agreement.

8. GENERAL PROVISIONS.

8.1 **Waivers**. The Company and all endorsers of this Note hereby waive notice, presentment, protest and notice of dishonor.

8.2 **Transfer**. Neither this Note nor any rights hereunder may be assigned, conveyed or transferred, in whole or in part, without the Company's prior written consent, which the Company may withhold in its sole discretion; *provided, however*, that this Note may be assigned, conveyed or transferred without the prior written consent of the Company to any Affiliate of Holder who (a) executes and delivers an acknowledgement that such transferee agrees to be subject to, and bound by, all the terms and conditions of this Note, (b) makes the representations and warranties to the Company that are set forth in Section 5 of the Agreement, and (c) (if requested by the Company) delivers to the Company an opinion of legal counsel, reasonably satisfactory to the Company, that such transfer complies with state and federal securities laws. Subject to the foregoing, the rights and obligations of the Company and Holder under this Note shall be binding upon and benefit their respective permitted successors, assigns, heirs, administrators and transferees.

8.3 **Governing Law**. This Note shall be governed, construed and interpreted in accordance with the laws of the State of California, without giving effect to principles of conflicts of law.

8.4 **Headings**. The headings and captions used in this Note are used only for convenience and are not to be considered in construing or interpreting this Note. All references in this Note to sections and exhibits shall, unless otherwise provided, refer to sections hereof and exhibits attached hereto, all of which exhibits are incorporated herein by this reference.

8.5 **Notices**. All notices, requests, and other communications hereunder shall be in writing and will be deemed to have been duly given and received (a) when personally delivered, (b) when sent by facsimile upon confirmation of receipt, (c) one business day after the day on which the same has been delivered prepaid to a nationally recognized courier service, or (d) five business days after the deposit in the United States mail, registered or certified, return receipt requested, postage prepaid, in each case addressed, as to the Company, to Amyris, Inc., 5885 Hollis Street, Suite 100, Emeryville, CA 94608, Attn: General Counsel, facsimile number: , with a copy to Fenwick & West LLP, 801 California Street, Mountain View, CA 94041, Attn: , facsimile number: , and as to Holder at the address and facsimile number set forth opposite such Holder's name on Schedule I to the Agreement or as otherwise indicated by Holder by providing notice of a change in its address, facsimile number, or other information to the Company. Holder and the Company may each agree in writing to accept notices and other communications to it hereunder by electronic

communications pursuant to procedures reasonably approved by it; provided that approval of such procedures may be limited to particular notices or communications.

8.6 **Place of Payment**. Payments of the Principal and any interest and other payments hereunder shall be delivered to the Holder at the address specified in the Agreement or at such other address or the attention of such other Person as specified by prior written notice to the Company, including any transferee of this Note.

8.7 **Amendments and Waivers.** This Note and all other Notes issued under the Agreement may be amended and provisions may be waived by the Note holders holding at least a majority of the then outstanding principal amount of Notes and the Company as provided in Section 10(j) of the Agreement. Any amendment or waiver effected in accordance with Section 10(j) of the Agreement shall be binding upon each holder of any Notes at the time outstanding, each future holder of the Notes and the Company.

8.8 **Severability**. If one or more provisions of this Note are held to be unenforceable under applicable law, then such provision(s) shall be excluded from this Note to the extent they are held to be unenforceable and the remainder of the Note shall be interpreted as if such provision(s) were so excluded and shall be enforceable in accordance with its terms.

[Signature page follows]

IN WITNESS WHEREOF, the Company has caused this Secured Promissory Note to be signed in its name as of the date first written above.

THE COMPANY

AMYRIS, INC.

By:/s/ Raffi Asadorian

Name: Raffi Asadorian

Title: Chief Financial Officer

Exhibit 4.71

SATISFACTION: The debt evidenced by this
Note has been satisfied in full this _____ day
of _____, 20_____

PURCHASE MONEY PROMISSORY NOTE

$3,500,000.00 December 1, 2016

FOR VALUE RECEIVED, AMYRIS, INC., a Delaware corporation, promises to pay to SALISBURY PARTNERS, LLC, a North Carolina limited liability company, the principal sum of THREE MILLION FIVE HUNDRED THOUSAND and 00/100 DOLLARS ($3,500,000.00), with interest at the fixed rate of five percent (5.0%) per annum on the unpaid balance until paid or until default, both principal and interest payable in lawful money of the United States of America, at the SALISBURY PARTNERS, LLC office of 24 West Salisbury Street, Wrightsville Beach, North Carolina 28480, or at such place as the legal holder hereof may designate in writing. The principal and interest shall be due and payable as follows:

Level monthly payments of principal and interest on the first day of each month, commencing January 1, 2017, and continuing on the first day of each successive month thereafter up to and including December 1, 2029, in the amount of $30,557.09 shall be due and payable on the first day of each month. All outstanding principal and accrued unpaid interest being due and payable on or before the date thirteen (13) years from the date hereof.

Each such installment shall, unless otherwise provided, be applied first to payment of interest then accrued and due on the unpaid principal balance, with the remainder applied to the unpaid principal.

Unless otherwise provided, this Note may be prepaid in full or in part at any time without penalty or premium. Partial prepayments shall be applied to installments due in reverse order of their maturity.

Any payment of principal and interest due hereunder which is not paid within five (5) days after the due date shall incur a late payment fee of five percent (5%) of the amount of the delinquent payment.

In the event of (a) default in payment of any installment of principal or interest hereof as the same becomes due and such default is not cured within fifteen (15) days from the due date, or (b) default under the terms of any instrument securing this Note, and such default is not cured within fifteen (15) days after written notice to maker, then in either such event the holder may without further notice, declare the remainder of the principal sum, together with all interest accrued thereon and, the prepayment premium, if any, at once due and payable. Failure to exercise this option shall not constitute a waiver of the right to exercise the same at any other time. The unpaid principal of this Note and any part thereof, accrued interest and all other sums due under this Note and the Deed of Trust, if any, shall bear interest at the rate of eight percent

(8%) per annum after default until paid.

All parties to this Note, including maker and any sureties, endorsers, or guarantors hereby waive protest, presentment, notice of dishonor, and notice of acceleration of maturity and agree to continue to remain bound for the payment of principal, interest and all other sums due under this Note and the Deed of Trust notwithstanding any change or changes by way of release, surrender, exchange, modification or substitution of any security for this Note or by way of any extension or extensions of time for the payment of principal and interest; and all such parties waive all and every kind of notice of such change or changes and agree that the same may be made without notice or consent of any of them.

Upon default the holder of this Note may employ an attorney to enforce the holder's rights and remedies and the maker, principal, surety, guarantor and endorsers of this Note hereby agree to pay to the holder reasonable attorneys' fees, plus all other reasonable expenses incurred by the holder in exercising any of the holder's rights and remedies upon default.

This Note is to be governed and construed in accordance with the laws of the State of North Carolina.

This Note is given in connection with the purchase of real and personal property located in Brunswick County, North Carolina, and is secured by a Purchase Money Deed of Trust dated of even date herewith.

IN TESTIMONY WHEREOF, the undersigned has caused this instrument to be executed in its company name by its duly authorized manager the day and year first above written.

AMYRIS, INC.

By:/s/ Raffi Asadorian

Name: Raffi Asadorian

Title: Chief Financial Officer

Amyris Purchase Money Note v3

Exhibit 4.72

SATISFACTION: The debt evidenced by this
Note has been satisfied in full this _____ day
of _____, 20_____

PURCHASE MONEY PROMISSORY NOTE

$3,900,000.00 December 19, 2016

FOR VALUE RECEIVED, AMYRIS, INC., a Delaware corporation ("Borrower"), promises to pay to NIKKO CHEMICALS CO., LTD., a Japanese company ("Lender"), the principal sum of THREE MILLION NINE HUNDRED THOUSAND and 00/100 DOLLARS ($3,900,000.00), with interest at the fixed rate of five percent (5.0%) per annum on the unpaid balance until paid or until default, both principal and interest payable in lawful money of the United States of America, at the office of Lender at 1-4-8, Nihonbashi-Bakurocho, Chuo-ku, Tokyo 103-0002, Japan, or at such place as the legal holder hereof may designate in writing. The principal and interest shall be due and payable as follows:

(A) $400,000 to be paid in equal monthly installments of $100,000 on January 1, 2017, February 1, 2017, March 1, 2017 and April 1, 2017.

(B) In addition, level monthly payments of principal and interest on the first day of each month, commencing January 1, 2017, and continuing on the first day of each successive month thereafter up to and including December 1, 2029, in the amount of $30,557.09 shall be due and payable on the first day of each month. All outstanding principal and accrued unpaid interest being due and payable on or before the date thirteen (13) years from the date hereof.

Each such installment shall, unless otherwise provided, be applied first to payment of interest then accrued and due on the unpaid principal balance, with the remainder applied to the unpaid principal.

Unless otherwise provided, this Note may be prepaid in full or in part at any time without penalty or premium. Partial prepayments shall be applied to installments due in reverse order of their maturity.

Any payment of principal and interest due hereunder which is not paid within five (5) days after the due date shall incur a late payment fee of five percent (5%) of the amount of the delinquent payment.

In the event of (a) default in payment of any installment of principal or interest hereof as the same becomes due and such default is not cured within fifteen (15) days from the due date, or (b) default under the terms of any instrument securing this Note, and such default is not cured within fifteen (15) days after written notice to maker, then in either such event the holder may without further notice, declare the remainder of the principal sum, together with all interest accrued thereon and, the prepayment premium, if any, at once due and payable. Failure to exercise this option shall not constitute a waiver of the right to exercise the same at any other

time. The unpaid principal of this Note and any part thereof, accrued interest and all other sums due under this Note, if any, shall bear interest at the rate of eight percent (8%) per annum after default until paid.

All parties to this Note, including maker and any sureties, endorsers, or guarantors hereby waive protest, presentment, notice of dishonor, and notice of acceleration of maturity and agree to continue to remain bound for the payment of principal, interest and all other sums due under this Note notwithstanding any change or changes by way of release, surrender, exchange, modification or substitution of any security for this Note or by way of any extension or extensions of time for the payment of principal and interest; and all such parties waive all and every kind of notice of such change or changes and agree that the same may be made without notice or consent of any of them.

Upon default the holder of this Note may employ an attorney to enforce the holder's rights and remedies and the maker, principal, surety, guarantor and endorsers of this Note hereby agree to pay to the holder reasonable attorneys' fees, plus all other reasonable expenses incurred by the holder in exercising any of the holder's rights and remedies upon default.

This Note is to be governed and construed in accordance with the laws of the State of Delaware.

This Note is given in connection with the purchase of real and personal property located in North Carolina.

IN TESTIMONY WHEREOF, the undersigned has caused this instrument to be executed in its company name by its duly authorized manager the day and year first above written.

AMYRIS, INC.

By: /s/ Raffi Asadorian

Name: Raffi Asadorian

Title: Chief Financial Officer

Exhibit 10.02

MODIFICATION P00001 TO THE TECHNOLOGY INVESTMENT AGREEMENT

Between

AMYRIS, INC.,
5885 Hollis Street Suite 100
Emeryville, CA 94608

And

The Defense Advanced Research Projects Agency
675 North Randolph Street
Arlington, VA 22203-2114

Concerning

Improving the Timeline for Scaling Up Molecules from Proof Of Concept to Market Reducing Time and Cost
(Mgs TO Kgs)

Agreement No.: HR0011-15-3-0001
DARPA Order No.: HR0011518718

Total Amount of the Agreement:	$	50,721,349
Total Estimated Government Funding of the Agreement:	$	35,160,011
Contractor Share Contribution	$	15,551,338
Funds Obligated:	$	6,035,686
Funds Obligated by this Modification	$	0.00

Recipient Identification Number/Codes: DUNS: 185930182
CAGE: 47QN9
TIN:

Authority: 10 U.S.C. § 2371

All provisions, terms, and conditions set forth in this Agreement are applicable and in full force and effect except as specified otherwise herein.

FOR AMYRIS, INC

/s/ Joel R. Cherry
Joel R. Cherry, President, R&D

10/15/2015
(Date)

FOR THE DEFENSE ADVANCED RESEARCH PROJECTS AGENCY

/s/ Michael S. Mutty
Michael S. Mutty
Agreements Officer
Contracts Management Office

10/22/2015
(Date)

In order to incorporate changes in Agreement Table of Contents, and Article I, subparagraph A. Background and to move task B5 from Technical Milestone to Technical Milestone 6 in Attachments (3) Total Agreement Funding Plan and Payable Milestones and Corresponding Payment Schedule, the following changes are made:

1. The Technology Investment Agreement, Table of Contents – Attachments is revised to read as follows:"

ATTACHMENTS

ATTACHMENT 1	Statement of Work
ATTACHMENT 2	Report Requirements
ATTACHMENT 3 – Revision 1	Total Agreement Funding Plan and Payable Milestones and Corresponding Payment Schedule
ATTACHMENT 4	Funding Schedule
ATTACHMENT 5	List of Intellectual Property Assertions by the Performer
ATTACHMENT 6	List of Property Greater than $5,000
ATTACHMENT 7	Certifications for Agreement No. HR0011-15-3-0001

2. The Technology Investment Agreement, Article I, Scope of the Agreement, subparagraph A. Background is revised to read as follows:

ARTICLE I: SCOPE OF THE AGREEMENT

A. Background

Performer is a leader in applying synthetic biology technologies to engineer living organisms into manufacturing platforms that are able to produce a wide variety of target molecules, many of which are impossible to produce through traditional manufacturing processes. While current technologies are highly advanced, they suffer from a lack of integration and automation. By focusing on the same principles that made the United States the leaders in traditional manufacturing, namely standardized engineering and efficiency gains through automation, the Performer seeks, through funding in this Agreement, to develop a state of the art open bio-fabrication facility that will shorten the scale-up time and cost by using biology to produce molecules. Many of these molecules are directly relevant to the DoD mission due to their unique chemical properties that enable their use as fuels, lubricants, anti-fouling agents, antibiotics, and adhesives while also providing building blocks for novel families of materials. DARPA's interest in synthetic biology rises from its potential application to manufacturing. Biological manufacturing is in its infancy and the work required to reduce the time, effort, and cost needed to develop a new microbe is risky and at odds with the work needed to bring a product to market which is the chief goal of any company seeking to capitalize on the technology. The Agreement supports research with a long-term perspective that will enable academic and commercial participants to perform cutting edge research with less effort and cost than ever before. In addition to producing molecules relevant to the DoD, the commercial opportunities are immense since virtually any molecule made through traditional manufacturing processes can be replicated using biology as a catalyst. Although engineering cellular factories has been intermittently successful, the cost and time required for success have been prohibitive. The Performer's new technological approach will develop new molecules and materials while at the same time improving efficacy and efficiency. As a result of these improvement, the United States will reduce production time to under three years and at less than $10M per molecule while simultaneously handling 100 molecules, a 20X improvement. To achieve these innovations, the Performer will focus on technology development addressing metabolic pathway and enzyme design, strain construction, phenotypic measurements, large-scale data analysis, and strain optimization. To ensure success, the Performer will complement its expertise in strain engineering by partnering with companies and academic laboratories that are leaders in their field. Upon the completion of this agreement, the capacity to perform biological engineering will far surpass current capabilities. The United States will possess state of the art facilities for design and biomanufacturing of existing and novel molecules and materials.

3. Attachment (3) Total Agreement Funding Plan and Payable Milestones and Corresponding Payment Schedule is deleted and replaced with Attachment (3) Total Agreement Funding Plan and Payable Milestones and Corresponding Payment Schedule – Revision 1 which moves task B5 from Technical Milestone 7 to Technical Milestone 6. As a result of this move Technical Milestone 6 payment value is [*] and Technical Milestone 7 payment value is [*].

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

TECHNOLOGY INVESTMENT AGREEMENT

BETWEEN

AMYRIS, INC.,
5885 HOLLIS STREET SUITE 100
EMERYVILLE, CALIFORNIA 94608

AND

THE DEFENSE ADVANCED RESEARCH PROJECTS AGENCY
675 NORTH RANDOLPH STREET
ARLINGTON, VA 22203-2114

CONCERNING

IMPROVING THE TIMELINE FOR SCALING UP MOLECULES FROM PROOF OF CONCEPT
TO MARKET REDUCING TIME AND COST
(MGS TO KGS)

Agreement No.: HR0011-15-3-0001
DARPA Order No.: HR0011518718
Total Amount of the Agreement: $50,721,349
Total Estimated Government Funding of the Agreement: $35,160,011
Funds Obligated: $6,035,686
Authority: 10 U.S.C. § 2371

Line of Appropriation – See Article V.C.

This Agreement is entered into between the United States of America, hereinafter called the Government, represented by The Defense Advanced Research Projects Agency (DARPA), and AMYRIS, INC., a corporation organized and existing under the laws of the State of Delaware with its principal place of business at 5885 Hollis Street, Suite 100, Emeryville, California 94608 pursuant to and under U.S. Federal law.

FOR AMYRIS, INC	FOR THE DEFENSE ADVANCED RESEARCH PROJECTS AGENCY
(Signature & Date)	(Signature & Date)
	Michael S. Mutty Agreements Officer
(Name, Title)	(Name, Title)

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ARTICLE I: SCOPE OF THE AGREEMENT

A. Background

Performer is a leader in applying synthetic biology technologies to engineer living organisms into manufacturing platforms that are able to produce a wide variety of target molecules, many of which are impossible to produce through traditional manufacturing processes. While current technologies are highly advanced, they suffer from a lack of integration and automation. By focusing on the same principles that made the United States the leaders in traditional manufacturing, namely standardized engineering and efficiency gains through automation, the Performer seeks, through funding in this Agreement, to develop a state of the art open bio-fabrication facility that will shorten the scale-up time and cost by using biology to produce molecules. Many of these molecules are directly relevant to the DoD mission due to their unique chemical properties that enable their use as fuels, lubricants, anti-fouling agents, antibiotics, and adhesives while also providing building blocks for novel families of materials. DARPA's interest in synthetic biology rises from its potential application to manufacturing. Biological manufacturing is in its infancy and the work required to reduce the time, effort, and cost needed to develop a new microbe is risky and at odds with the work needed to bring a product to market which is the chief goal of any company seeking to capitalize on the technology. The Agreement supports research with a long-term perspective that will enable academic and commercial participants to perform cutting edge research with less effort and cost than ever before. In addition to producing molecules relevant to the DoD, the commercial opportunities are immense since virtually any molecule made through traditional manufacturing processes can be replicated using biology as a catalyst. Although engineering cellular factories has been intermittently successful, the cost and time required for success have been prohibitive. The Performer's new technological approach will develop new molecules and materials while at the same time improving efficacy and efficiency. As a result of these improvement, the United States will reduce production time to under three years and at less than $10M per molecule while simultaneously handling 100 molecules, a 20X improvement. To achieve these innovations, the Performer will focus on technology development addressing metabolic pathway and enzyme design, strain construction, phenotypic measurements, large-scale data analysis, and strain optimization. To ensure success, the Performer will complement its expertise in strain engineering by partnering with companies and academic laboratories that are leaders in their field. Upon the completion of this agreement, the capacity to perform biological engineering will far surpass current capabilities. The United States will possess state of the art facilities for design and biomanufacturing of existing and novel molecules and materials.

B. Definitions

Affiliate: means, with respect to an entity, any person or entity that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with such first entity. For purposes of this definition, "control", "controlled by", and "under common control with" mean (i) the possession, directly or indirectly, of the power to direct the management or policies of an entity, whether through the ownership of voting securities, by contract relating to voting rights or corporate governance, or otherwise or (ii) the ownership, directly or indirectly, of more than fifty percent (50%) of the voting securities or other ownership interest of an entity.

Agreement: The body of this Agreement and Attachments 1 – 7, which are expressly incorporated in and made a part of the Agreement.

Collaborators: A third party in a contractual arrangement with the Performer or with a Subcontractor, whether executed before or after the Effective Date, under which arrangement the Performer or a Subcontractor has agreed to jointly research, develop and/or commercialize a technology or product with such third party and has an "active role" in such arrangement. For the avoidance of doubt, an "active role" by the Performer or a Subcontractor is a contractual relationship (1) that involves more than the mere transfer of intellectual property and (2) where the Performer or a Subcontractor has a significant participation in decision making and/or funding of the activities.

Data: Recorded information, regardless of form or method of recording, which includes but is not limited to, scientific or technical data, software, trade secrets, and mask works, in each case developed or generated by the Performer or its Subcontractors in performing the Program under this Agreement. The term "Data" does not include financial, administrative, cost, pricing or management information.

Effective Date: means November 1, 2015.

Foreign Firm or Institution: A firm or institution organized or existing under the laws of a country other than the United States, its territories, or possessions. The term includes, for purposes of this Agreement, any agency or instrumentality of a foreign government; and firms, institutions or business organizations which are owned or substantially controlled by foreign governments, firms, institutions, or individuals.

Government: The United States of America, as represented by DARPA.

Government Purpose Rights: The rights to use, duplicate, or disclose Data, in whole or in part and in any manner, for Government Purposes only, and to have or permit others to do so for Government Purposes only.

Government Purpose: Any activity in which the Government is a party, including cooperative agreements with international or multi-national defense organizations or sales or transfers by the Government to foreign governments or international organizations. Government Purposes include competitive procurement, but do not include the rights to use, modify, reproduce, release, perform, display, or disclose Data for commercial purposes or authorize others to do so.

Invention: Any invention or discovery which is or may be patentable or otherwise protectable under Title 35 of the United States Code.

Know-How: All information including, but not limited to discoveries, formulas, materials, Inventions, processes, ideas, approaches, concepts, techniques, methods, software, programs, documentation, procedures, firmware, hardware, technical data, specifications, devices, apparatus and machines.

Limited Rights: The rights to use, modify, reproduce, release, perform, display, or disclose Data, in whole or in part, within the Government. The Government may not, without the written permission of the Party asserting limited rights, release or disclose applicable Data outside the Government, use the applicable Data for manufacture, or authorize the applicable Data to be used by another party, except that the Government may reproduce, release, or disclose such Data or authorize the use or reproduction of the applicable Data by persons outside the Government if -

(i) The reproduction, release, disclosure , or use is:
  A. Necessary for emergency repair and overhaul; or
  B. A release or disclosure to
    1. A covered Government support contractor in performance of its covered Government support contract for use, modification, reproduction, performance, display or release or disclosure to a person authorized to receive Limited Rights Data; or
    2. A foreign government, of such Data other than detailed manufacturing or process Data, when use of such Data by the foreign government is in the interest of the Government and is required for evaluational or informational purposes;

(ii) The recipient of the applicable Data is subject to a prohibition on the further reproduction, release, disclosure, or use of the Data; and

(iii) The Performer, or its subcontractor asserting the restriction is notified of such reproduction, release, disclosure, or use.

Made: Relates to any Invention means the conception or first actual reduction to practice of such Invention.

Parties: The Government (represented by DARPA) and the Performer.

Payable Milestone: A Program-related task or tasks identified in Attachment 3 for which a corresponding payment (also identified in Attachment 3) will be made by the Government to the Performer upon the Government's verification, in accordance with this Agreement, that the Performer (or a Subcontractor) accomplished such task(s).

Performer: AMYRIS, INC. a corporation organized and existing under the laws of the State of Delaware with its principal place of business at 5885 Hollis Street, Suite 100, Emeryville, California 94608

Practical Application: To manufacture, in the case of a composition of product, to practice, in the case of a process or method, or to operate, in the case of a machine or system; and, in each case, under such conditions as to establish that the Subject Invention is capable of being utilized and that its benefits are, to the extent permitted by law or Government regulations, available to the public on reasonable terms. For the avoidance of doubt, the Parties acknowledge that "Practical Application" under this Agreement may not include actual commercialization of Subject Invention(s) hereunder because such Subject Invention(s) are likely to be Tools (e.g., it is envisioned that the Tools resulting from the research carried out under this Agreement will later – outside of this Agreement - be used by the Performer and its Subcontractors to develop commercial products).

Program: Research and development being conducted by the Performer and its Subcontractors under this Agreement, as set forth in Article I, paragraph C and in Attachment 1, Statement of Work.

Property: Any tangible personal property other than property actually consumed during the execution of work under this Agreement.

Subcontractor: Those persons or entities that, per a written agreement with the Performer, will perform certain of the Payable Milestones. As of the date of this Agreement, the Subcontractors consist of Agilent Technologies, Inc., Arzeda Corporation, m2p-labs GmbH, Ruprecht-Karls-Universität Heidelberg, and Bruker Corporation.

Subject Invention: Any Invention conceived or first actually reduced to practice in the performance of the Program under this Agreement that is capable of use as a Tool for making or altering a genetically modified organism; provided however, any Inventions, regardless when conceived or reduced to practice, covering a genetically modified organism, a strain, or any compound or product made by or from an organism or strain shall not be considered "Subject Inventions" hereunder. For the avoidance of doubt, no Inventions conceived or reduced to practice prior to the Effective Date, excluding subject inventions conceived or first actually reduced to practice under the Amyris Living Foundries TIA HR0011-12-3-0006, shall be considered performed "under this Agreement."

Technology: Discoveries, innovations, Know-How and Inventions, whether patentable or not, including computer software, recognized under U.S. law as intellectual creations to which rights of ownership accrue, including, but not limited to, patents, trade secrets, maskworks, and copyrights, developed under this Agreement.

Term: has the meaning set forth in Article II, paragraph A.

Tools: Software, analytical methods, standard operating procedures, and workflow processes.

Unlimited Rights: Rights to use, duplicate, release, or disclose Data, in whole or in part, in any manner and for any purposes whatsoever, and to have or permit others to do so.

C. Scope

1. The Performer shall perform the Program, which is intended to build an open BioFab that shortens the timeline for scaling up molecules from proof of concept to market to two to three years, reduces the cost of such development to less than $10 million per molecule, and simultaneously handles a hundred molecules. Success will be demonstrated by delivering 1 kg of material for 10 molecules generated by an integrated pipeline that enables the biological production of metric tons of any subsequent molecule in two to three years. The Program shall be carried out in accordance with the Statement of Work incorporated in this Agreement as Attachment 1. The Performer shall submit or otherwise provide all documentation required by Attachment 2, Report Requirements.

2. The Performer shall be paid for each Payable Milestone accomplished in accordance with the Schedule of Payments and Payable Milestones set forth in Attachment 3 and the procedures of Article V. The Schedule of Payments and Payable Milestones set forth in Attachment 3 may be revised or updated in accordance with Article III, subject to mutual agreement of the Parties.

3. The Government and the Performer estimate that the Statement of Work for this Agreement can only be accomplished with the Performer's provision during the Term of the "Performer Contribution", as detailed in the Total Agreement Funding Plan set forth in Attachment 3 and the Funding Schedule set forth in Attachment 4. The Total Agreement Funding Plan and the Funding Schedule may be revised or updated in accordance with Article III, subject to mutual agreement of the Parties. The Performer intends and, by entering into this Agreement, undertakes to cause the Performer Contribution to be provided. However, if either the Government or the Performer is unable to provide its respective funding (in the case of the Government) or the Performer Contribution (in the case of the Performer) for the Program, the other Party may reduce its funding or Performer Contribution, whichever is applicable to it, for the Program by a proportional amount. Throughout the Term, the Parties, through the Performer's routine reports to the Government, will monitor the Performer's satisfaction of the Performer Contribution and will promptly address, in good faith, any divergence or shortfall in the final Performer Contribution amount anticipated by the Performer (e.g., the Performer purchases Property for the Program at a price significantly cheaper than what was anticipated when establishing the Performer Contribution) and its effect, if any, on the Government's funding obligation under this Agreement.

D. Goals / Objectives

1. The goal of this Agreement is for the Performer to investigate and build a BioFab that scales up molecules from proof of concept to market in less time and at less cost, as described under Scope above. The goal is to accomplish this by incorporating radical innovations into key modules at each stage of the Design-Build-Test-Learn cycle as described in detail Amyris Proposal "Mgs to Kgs" dated February 3, 2015. The modules will be interdependent and align within an integrated pipeline. The foundation is a set of measurement technologies with various levels of risk. In addition to new algorithms for pathway prediction, data analysis and hypothesis generation, the BioFab's testing and optimization of up to 450 molecules from a large metabolic space will require a paradigm shift from a high-throughput, single-molecule screening platform to a high throughput, molecule-agnostic screening platform that is predictive of performance to a large scale. To address the gaps in throughput, quality and scale, a testing platform that utilizes a tiered approach to promote strains will be developed. Although individual tiers exist in some form at various institutions and companies (including at the Performer), there is not a single platform that has managed to encompass all of them into a single pipeline at the proposed scale.

2. The Government will have continuous involvement with the Performer. The Government will also obtain access to research results and certain rights in Data and Subject Inventions pursuant to Articles VII and VIII. Government and the Performer are bound to each other by a duty of good faith and best research effort in achieving the goals of the Program.

3. This Agreement is an "other transaction" pursuant to 10 U.S.C. § 2371. The Parties agree that the principal purpose of this Agreement is for the Government to support and stimulate the Performer to provide its best effort in advanced research and technology development and not for the acquisition of property or services for the direct benefit or use of the Government. The Performer will be paid a fixed amount for each Payable Milestone accomplished in accordance with the Payable Milestones and Corresponding Payment Schedule set forth in Attachment 3 and the procedures of Article V. The Parties agree that the amount payable to Performer for an accomplished Payable Milestone will be unaffected by whether Performer ends up expending more or less effort to accomplish such Payable Milestone than the Parties assumed would be required to accomplish it. This Agreement is not intended to be, nor shall it be construed as, by implication or otherwise, a partnership, a corporation, or other business organization.

ARTICLE II: TERM

A. Term of this Agreement

The Program commences upon the Effective Date and continues for forty-eight (48) months, unless extended as described in paragraph C below, (the "Term") and is split into three development and operational phases described below and depicted in the table:

"Dev" – in the first twenty-four months, the initial set of strain designs and testing will be generated using existing infrastructure and processes, while simultaneously developing the new technology platforms simultaneously;

"DevOps" – newly developed technology platforms will be transferred to pipeline operations as part of the *beta-testing* transition process;

"Ops" – once the technology transfer is completed, the new technologies will be part of standard operations.

If all Government funds committed for the Program and the Performer Contribution are expended prior to the expiration of the Term, the Parties have no obligation to continue performance of the Program and may elect to cease development at that point.

Provisions of this Agreement, which, by their express terms or by necessary implication, apply for periods of time other than specified herein, shall be given effect, notwithstanding this Article.

[*]

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

B. Termination Provisions

Subject to a reasonable determination that the Program will not produce beneficial results commensurate with the expenditure of resources, either Party may terminate this Agreement by written notice to the other Party, provided that such written notice is preceded by consultation between the Parties. In the event of a termination of the Agreement under this paragraph B, it is agreed that disposition of Data shall be in accordance with the provisions set forth in Article VIII, Data Rights. The Government and the Performer will negotiate in good faith a reasonable and timely adjustment of all outstanding issues between the Parties as a result of termination under this paragraph B. Failure of the Parties to agree to a reasonable adjustment will be resolved pursuant to Article VI, Disputes. The Government has no obligation to pay the Performer beyond the last completed and paid Payable Milestone if the Performer decides to terminate under this paragraph B. For the avoidance of doubt, any termination under this paragraph B by either Party does not require repayment by the Performer of any Payable Milestone amounts already received by the Performer.

C. Extending the Term

The Parties may extend, by mutual written agreement, the Term if funding availability and research opportunities reasonably warrant. Any extension shall be formalized through modification of the Agreement by the DARPA Agreements Officer and the Performer's Administrator.

ARTICLE III: MANAGEMENT OF THE PROJECT

A. Management and Program Structure

The Performer shall be responsible for the overall technical and program management of the Program, and technical planning and execution shall remain with the Performer. The DARPA Agreements Officer's Representative, in consultation with the DARPA Program Manager or DARPA management, shall provide recommendations to Program developments and technical collaboration and be responsible for the review and verification of the Payable Milestones.

B. Program Management Planning Process

Program planning will consist of an Annual Program Plan with inputs and review from the Performer and DARPA management, containing the detailed schedule of research activities and Payable Milestones. The Annual Program Plan will consolidate quarterly adjustments in the Program's research schedule, including revisions/modification to Payable Milestones.

1. Initial Program Plan: The Performer will follow the initial program plan that is contained in the Statement of Work, Attachment 1, and in the Payable Milestones and Corresponding Payment Schedule, Attachment 3.

2. Overall Program Plan Annual Review

(a) The Performer, with DARPA Agreements Officer's Representative review, in consultation with the DARPA Program Manager or DARPA management, will prepare an overall Annual Program Plan in the last month of each Agreement year (*i.e.*, October). The Annual Program Plan will be presented and reviewed at an annual site review, to be held within the sixty (60) days of each subsequent Agreement year, which will be attended by the Performer's Key Personnel (as defined in Article XIV), the DARPA Agreements Officer's Representative, senior DARPA management (as appropriate), and other DARPA program managers and personnel (as appropriate). The Performer, with DARPA participation and review, will prepare a final Annual Program Plan following such annual site review as more fully described in Attachment 2, Report Requirements.

(b) The Annual Program Plan provides a detailed schedule of the Program's research activities, commits the Performer to use its best efforts to meet specific performance objectives, includes forecasted expenditures and describes the Payable Milestones. The Annual Program Plan will consolidate all prior adjustments in the Program's research schedule, including revisions/modifications to the Payable Milestones. Recommendations for changes, revisions or modifications to the Agreement which result from this annual review process shall be made in accordance with the provisions of Article III, paragraph C.

C. Modifications

1. As a result of the Parties' meetings (in person or videoconference) or annual reviews or at any other time during the Term, the Program's research progress or results or other changes in circumstances (e.g., availability of required materials or equipment from external vendors, legal freedom to operate, etc.) may indicate that a change in the Statement of Work and/or the Payable Milestones would be beneficial to Program's objectives. Recommendations for modifications, including justifications to support any changes to the Statement of Work and/or the Payable Milestones, will be documented in a letter and submitted by the Performer to the DARPA Agreements Officer's Representative with a copy to the DARPA Agreements Officer. This documentation letter will detail the technical, chronological, and financial impact of the proposed modification to the Program. The Performer shall approve any Agreement modification. The Government is not obligated to pay for additional or revised Payable Milestones until the Payable Milestones and Corresponding Payment Schedule, Attachment 3, is formally revised by the DARPA Agreements Officer and made part of this Agreement.

2. The DARPA Agreements Officer's Representative shall be responsible for the review and verification of any recommendations to revise or otherwise modify the Agreement, the Statement of Work, the Payable Milestones and Corresponding Payment Schedule, or any other proposed changes to the terms and conditions of this Agreement.

3. For minor or administrative Agreement modifications (e.g., changes in the paying office or appropriation data, changes to Government or the Performer's personnel identified in the Agreement, etc.), no signature is required by the Performer.

ARTICLE IV: AGREEMENT ADMINISTRATION

Unless otherwise provided in this Agreement, approvals permitted or required to be made by the Government may be made only by the DARPA Agreements Officer. Administrative and contractual matters under this Agreement shall be referred to the following representatives of the Parties:

A. Government Points of Contact:

DARPA Agreements Officer:

DARPA Program Manager:

DARPA Agreements Officer's Representative (AOR):

DARPA Administrative Agreements Officer (AAO):

DARPA Assistant Director, Program Management (ADPM)

B. Performer Points of Contact

Administrator:
, Program Manager, R&D,

Contracting:
, General Counsel,

Program Manager:
, PI,

BioAnalytics Group Leader:
, Co-PI,

Each Party may change its representatives named in this Article by written notification to the other Party. The Government will effect the change as stated in Article III, C.3 above.

ARTICLE V: OBLIGATION AND PAYMENT

A. Obligation

1. The Government's liability to make payments to the Performer is limited to only those funds obligated under the Agreement or by modification to the Agreement. The Government may obligate funds to the Agreement incrementally.

2. If modification of a Payable Milestone becomes necessary in performance of this Agreement, pursuant to Article III, paragraph C, the DARPA Agreements Officer and the Performer's Administrator shall execute a revised Payable Milestones and Corresponding Payment Schedule consistent with the then current Annual Program Plan.

B. Payments for Accomplished Payable Milestones

1. The Performer has, and agrees to maintain, an established accounting system, which complies with Generally Accepted Accounting Principles and the requirements of this Agreement and shall ensure that appropriate arrangements have been made for receiving, distributing and accounting for all funding. An acceptable established accounting system is one in which all cash receipts and disbursements are controlled and documented properly.

2. Once the Performer accomplishes a Payable Milestone, the Performer may seek payment from the Government of the corresponding payment amount in the Payable Milestones and Corresponding Payment Schedule in Attachment 3. The Performer shall document the accomplishment of such Payable Milestone by submitting or otherwise providing the Payable Milestones Report required by Attachment 2, Part F. After written verification of the accomplishment of such Payable Milestone by the DARPA Agreements Officer's Representative and approval by the DARPA Agreements Officer, the associated invoice will be submitted to the payment office via Wide Area Workflow ("WAWF"), as detailed in subparagraph B.6 of this Article. If a Payable Milestone is composed of more than one task (*e.g.*, Payable Milestones 2, 6, 7, *etc.*), all such tasks in such Payable Milestone must be fully accomplished before the Performer may seek payment for such Payable Milestone. However, if a task in a single task Payable Milestone (or all of the tasks in a multi-task Payable Milestone) cannot be completed by the applicable Milestone (MS) Month set forth in Attachment 3, the Performer will document such event in its Monthly Technical Status Report, and the Parties will execute a contract modification to incorporate required changes in Attachment 3, and in Attachments 1 and 4, as applicable. For clarity, the "MS Month" column set forth in Attachment 3 sets forth the Parties' good faith estimate of the date by which a Payable Milestone will be accomplished, but it is not a deadline for accomplishing the applicable Payable Milestone. In addition, missing the MS Month does not prevent the Performer from subsequently accomplishing the applicable Payable Milestone and has no effect on the corresponding payment amount in Attachment 3 once accomplished.

If deemed necessary by the DARPA Agreements Officer, payment approval for the final Payable Milestone will be made after reconciliation of actual Government funding for the Program with the actual Performer Contribution amount. While there will be this final Government reconciliation and accounting of the Performer Contribution amount, the Parties agree that the quarterly accounting of the Performer Contribution, as reported in the quarterly Business Status Report submitted in accordance with Attachment 2, will not, nor is it necessarily intended or required to, uniformly or proportionally track or match the estimated schedule of the Performer Contribution set forth in either Attachments 3 or 4.

3. Subject to change only through written Agreement modification, payment shall be made to the address of the Performer's Administrator set forth below.

AMYRIS, INC., 5885 Hollis Street, Suite 100, Emeryville, California 94608

4. Payments will be made by the cognizant Defense Agencies Financial Services office, as indicated below, within thirty (30) calendar days of an accepted invoice in WAWF. WAWF is a secure web-based system for electronic invoicing, receipt and acceptance. The WAWF application enables electronic form submission of invoices, government inspection, and acceptance documents in order to support DoD's goal of moving to a paperless acquisition process. Authorized DoD users are notified of pending actions by e-mail and are presented with a collection of documents required to process the contracting or financial action. It uses Public Key Infrastructure ("PKI") to electronically bind the digital signature to provide non-reputable proof that the user (electronically) signed the document with the contents. Benefits include online access and full spectrum view of document status, minimized re-keying and improving data accuracy, eliminating unmatched disbursements and making all documentation required for payment easily accessible.

The Performer is required to utilize the WAWF system when processing invoices and receiving reports under this Agreement. The Performer shall (i) ensure an Electronic Business Point of Contact is designated in Central Contractor Registration at http://www.ccr.gov and (ii) register to use WAWF–RA at the https://wawf.eb.mil site, within ten (10) calendar days after award of this Agreement. Step by step procedures to register are available at the https://wawf.eb.mil site. The Performer is directed to use the "2-in-1" format when processing invoices.

a. For the Issue By DoDAAC enter HR0011
b. For the Admin DoDAAC and Ship To fields, enter S0507A.
c. For the Service Acceptor field, enter HR0011, Extension 01.
d. Leave the Inspect by DoDAAC, Ship From Code DoDAAC and LPO DoDAAC fields blank unless otherwise directed by the DARPA Agreements Officer or DARPA Administrative Agreements Officer.

e. The following guidance is provided for invoicing processed under this Agreement through WAWF:

• The DARPA Agreements Officer's Representative identified at Article IV "Agreement Administration" shall continue to formally inspect and accept the deliverable Payable Milestone reports. To the maximum extent practicable, the DARPA Agreements Officer's Representative shall review the Payable Milestone report(s) and either: 1) provide a written notice of rejection to the Performer which includes feedback regarding deficiencies requiring correction or 2) written notice of acceptance to the DARPA Administrative Agreements Officer, DARPA Program Manager and DARPA Agreements Officer.

• Acceptance within the WAWF system shall be performed by the DARPA Agreements Officer upon receipt of a confirmation email, or other form of transmittal, from the DARPA Agreements Officer's Representative.

• The Performer shall send an email notice to the DARPA Agreements Officer's Representative and DARPA Agreements Officer upon submission of an invoice in WAWF (this can be done from within WAWF).

• Payments shall be made by DFAS-CO/WEST (HQ0339)

• The Performer agrees, when entering invoices entered in WAWF to utilize the CLINs associated with each Payable Milestone as delineated at Attachment 3. The description of the CLIN shall include reference to the associated milestone number along with other necessary descriptive information. The Performer agrees that the Government may reject invoices not submitted in accordance with this provision.

Note for DFAS: The Agreement shall be entered into the DFAS system by CLIN – Milestone association as delineated at Attachment 3. The Agreement is to be paid out by CLIN – Milestone association. Payments shall be made using the CLIN (MS)/ACRN association as delineated at Attachment 3.

5. Payee Information: As identified at Central Contractor Registration.

- Cage Code: 47QN9
- DUNS: 185930182
- TIN:

6. Financial Records and Reports: The Performer shall maintain adequate records to account for accomplishment of all Payable Milestones for which payment is received by the Performer under this Agreement and shall maintain adequate records to account for the Performer Contribution provided under this Agreement. Upon completion or termination of this Agreement, whichever occurs earlier, the Performer's Administrator shall furnish to the DARPA Agreements Officer a copy of the Final Report required by Attachment 2, Part E. The Performer's relevant financial records are subject to examination or audit on behalf of DARPA by the Government for a period not to exceed three (3) years after expiration or earlier termination of the Term. The DARPA Agreements Officer or designee shall have direct access to sufficient records and information of the Performer to ensure accomplishment of the Payable Milestones for which payment was received by the Performer under this Agreement and satisfaction of the Performer Contribution under this Agreement. Such audit, examination, or access shall be performed during business hours on business days upon reasonable, prior written notice and shall be subject to the security requirements of the audited party. For clarity, where the labor component of the Performer Contribution is based upon a fixed price hourly commercial rate(s) documented in a contract (e.g., GSA Schedule contract), the examination or audit of the labor component of such costs shall be limited to a review of hours worked and shall not include a review of the rates.

C. Accounting and Appropriation Data

CLIN/SLIN/ACRN: 0001/01/AA
LOA: 012199 097 0400 000 N 20152016 D 1320 BLTM66 2015.MBT-02.CORE.A DARPA 255
FUNDING AMOUNT: $6,035,686

ARTICLE VI: DISPUTES

A. General

The Parties shall communicate with one another in good faith and in a timely and cooperative manner when raising issues under this Article.

B. Dispute Resolution Procedures

1. Any dispute, disagreement, or misunderstanding between the Government and the Performer concerning questions of fact or law arising from or in connection with this Agreement, and, whether or not involving an alleged breach of this Agreement, may be raised only under this Article.

2. Whenever disputes, disagreements, or misunderstandings arise, the Party aggrieved by such dispute, disagreement, or misunderstanding shall provide written notice to the other Party involved identifying the matter in dispute and inviting the other Party involved in the dispute to attempt to resolve the issue(s) involved by discussion and mutual agreement as soon as practicable. If the aggrieved Party does not provide the notification made under subparagraph B.3 of this Article within three (3) months of becoming aware of the dispute, disagreement, or misunderstanding, then such dispute, disagreement, or misunderstanding will not constitute the basis for relief under this Article unless the Director of DARPA in the interests of justice waives this requirement.

3. Failing resolution by mutual agreement described above, the aggrieved Party shall document the dispute, disagreement, or misunderstanding by notifying the other Party (through the DARPA Agreements Officer or the Performer's Administrator, as the case may be) in writing of the relevant facts, identify unresolved issues, and specify the clarification or remedy sought. Within five (5) business days after providing such notice to the other Party, the aggrieved Party may, in writing, request a joint decision by the DARPA Senior Procurement Executive and a senior executive (no lower than Vice President, Legal) appointed by the Performer. The other Party shall submit a written position on the matter(s) in dispute within thirty (30) calendar days after being notified in writing that a joint decision has been requested regarding the dispute, disagreement, or misunderstanding. The DARPA Senior Procurement Executive and the Performer's senior executive shall conduct a review of the matter(s) in dispute and render a decision in writing within thirty (30) calendar days of receipt of such other Party's written position. Any such joint decision is final and binding.

4. In the absence of a joint decision, upon written request to the Director of DARPA, made within thirty (30) calendar days of the expiration of the time for a joint decision under subparagraph B.3 above, the dispute, disagreement, or misunderstanding shall be further reviewed. The Director of DARPA may elect to conduct this review personally or through a designee or jointly with a senior executive (no lower than Vice President, Legal) appointed by the Performer. Following the review, the Director of DARPA or designee will resolve the issue(s) and notify the Parties in writing. Such resolution is not subject to further administrative review and, to the extent permitted by law, shall be final and binding.

C. Limitation of Damages

Claims for damages of any nature whatsoever pursued under this Agreement shall be limited to direct damages only up to the aggregate amount of Government funding disbursed as of the time the dispute arises. In no event shall the Government be liable for claims for consequential, punitive, special and incidental damages, claims for lost profits, or other indirect damages.

ARTICLE VII: PATENT RIGHTS

A. Allocation of Principal Rights

Unless the Performer shall have notified DARPA (in accordance with subparagraph B.2 below) that the Performer does not intend to retain title, the Performer shall retain the entire right, title, and interest throughout the world to each Subject Invention consistent with the provisions of this Article and 35 U.S.C. § 202. With respect to any Subject Invention in which the Performer retains title, the Government shall have a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced on behalf of the Government the Subject Invention throughout the world.

With regard to Inventions made under this Agreement that are not Subject Inventions, i.e. Inventions relating to genetically modified organisms, strains, or any compounds or products made by or from such organisms or strains that are conceived or first actually reduced to practice in the performance of the Program, the Government retains a right to request from Performer a nonexclusive, nontransferable, irrevocable license, on fair and reasonable terms, to such Inventions to have such Inventions practiced on behalf of the Government throughout the world. The Government will provide Performer with written notice identifying the specific Invention to which it is requesting such license. Prior to granting such license, the Parties agree to negotiate in good faith fair and reasonable terms under which the Performer would be the exclusive supplier/manufacturer to the Government of the desired compound or product under the Government's license. Upon agreement of such fair and reasonable terms between the Performer and the Government, the Performer shall grant the Government the nonexclusive license described above to such identified Inventions. In the event that no agreement is reached between Performer and Government with regard to said fair and reasonable terms on Performer's supply/manufacturing rights, Performer shall nonetheless grant the Government a nonexclusive, nontransferable, irrevocable license, on fair and reasonable terms, to such Inventions to have such Inventions practiced on behalf of the Government throughout the world. Failure to reach agreement on fair and reasonable terms will be resolved in accordance with Article VI. Disputes.

B. Invention Disclosure, Election of Title, and Filing of Patent Application

1. The Performer shall disclose each Subject Invention to DARPA within four (4) months after the inventor discloses it in writing to Performer's personnel responsible for patent matters or, in the case of no internal writing from the inventor, within two (2) months after Performer files a provisional application for it; provided however, that in the event the Performer does not file a provisional application, Performer shall disclose the Subject Invention to the Government within two (2) months of determining that a particular set of experiments and or data qualify as a Subject Invention. The disclosure to the Government shall be in the form of a written report and shall identify the Agreement under which the Subject Invention was Made and the identity of the inventor(s). It shall be sufficiently complete in technical detail to convey a clear understanding to the extent known at the time of the disclosure, of the nature, purpose, operation, and the physical, chemical, biological, or electrical characteristics of the Subject Invention. The disclosure shall also identify any publication, sale, or public use of the Subject Invention and whether a manuscript describing the Subject Invention has been submitted for publication and, if so, whether it has been accepted for publication at the time of disclosure. The Performer shall also submit to the Government an annual listing of Subject Inventions.

2. If the Performer determines that it does not intend to retain title to any such Subject Invention, the Performer shall notify the Government, in writing, within eight (8) months of disclosure to DARPA. However, in any case where publication, sale, or public use has initiated the one (1)-year statutory period wherein valid patent protection can still be obtained in the United States, the period for such notice may be shortened by DARPA to a date that is no more than sixty (60) calendar days prior to the end of the statutory period.

3. The Performer shall file its initial patent application on a Subject Invention to which it elects to retain title within one (1) year after election of title or, if earlier, prior to the end of the statutory period wherein valid patent protection can be obtained in the United States after a publication, or sale, or public use. The Performer may elect to file patent applications in additional countries (including the European Patent Office and the Patent Cooperation Treaty) within either: (i) ten (10) months of the corresponding initial patent application; or (ii) six (6) months from the date permission is granted by the Commissioner of Patents and Trademarks to file foreign patent applications where such filing has been prohibited by a secrecy order.

4. Requests for extension of the time for disclosure, election, and filing under Article VII, paragraph B, may, at the discretion of DARPA, and after considering the position of the Performer, be granted.

C. Conditions When the Government May Obtain Title

Upon DARPA's written request, the Performer shall convey title to any Subject Invention to DARPA under any of the following conditions:

1. If the Performer fails to disclose or elects not to retain title to the Subject Invention within the times specified in paragraph B of this Article; provided, that DARPA may request title only within sixty (60) calendar days after learning of: (i) the failure of the Performer to disclose; or (ii) Performer's election not to retain title, in each case within the specified times.

2. In those countries in which the Performer fails to file patent applications within the times specified in paragraph B of this Article; provided, that if the Performer has filed a patent application in a country after the times specified in paragraph B of this Article, but prior to its receipt of the written request by DARPA, the Performer shall continue to retain title to the Subject Invention in that country; or

3. In any country in which the Performer decides not to continue the prosecution of, to pay the maintenance fees on, or defend a reexamination of or opposition proceedings on, a patent application or patent on a Subject Invention.

D. Minimum Rights to the Performer and Protection of the Performer's Right to File

1. The Performer shall retain a nonexclusive, royalty-free, paid-up license throughout the world in each Subject Invention to which the Government obtains title under paragraph C of this Article, except if the Performer fails to disclose the Subject Invention within the times specified in paragraph B of this Article. The Performer's license to such Subject Invention extends to the Performer's Affiliates and Collaborators, if any, and includes the right to grant sublicenses of the same scope to the extent that the Performer was legally obligated to do so at the time the Agreement was awarded. The license is transferable only with the approval of DARPA, except as noted above regarding Affiliates and Collaborators of Performer or when transferred to the successor of that part of the Performer's business to which the Subject Invention pertains. DARPA approval for a license transfer requiring DARPA approval shall not be unreasonably withheld or delayed.

2. The Performer's license in subparagraph D.1 of this Article may be revoked or modified by DARPA to the extent necessary to achieve expeditious Practical Application of the Subject Invention pursuant to an application for an exclusive license submitted consistent with appropriate provisions at 37 CFR Part 404. This license shall not be revoked in that field of use or the geographical areas in which the Performer continues to practice the general technology developed hereunder in pursuit of commercial goals, including the goal of making the products derived from such platforms reasonably accessible to the public.

3. Before revocation or modification of the Performer's license in subparagraph D.1 of this Article, DARPA shall furnish the Performer a written notice of its intention to revoke or modify the license, and the Performer shall be allowed thirty (30) calendar days (or such other time as may be authorized for good cause shown) after the notice to show cause why the license should not be revoked or modified.

E. Action to Protect the Government's Interest

1. The Performer agrees to execute or to have executed and promptly deliver to DARPA all instruments necessary to: (i) establish or confirm the rights the Government has throughout the world in those Subject Inventions to which the Performer elects to retain title; and (ii) convey title to DARPA when requested under paragraph D of this Article and to enable the Government to obtain patent protection throughout the world in that Subject Invention.

2. The Performer agrees to require, by written agreement, its employees, other than clerical and non-technical employees, to disclose promptly in writing to personnel identified as responsible for the administration of patent matters and in a format suggested by the Performer each Subject Invention Made under this Agreement in order that the Performer can comply with the disclosure provisions of paragraph B of this Article. The Performer shall instruct employees, through employee agreements or other suitable educational programs, on the importance of reporting Subject Inventions in sufficient time to permit the filing of patent applications prior to U.S. or foreign statutory bars.

3. The Performer shall notify DARPA of any decisions not to continue the prosecution of, pay maintenance fees for, or defend in a reexamination or opposition proceedings on a Subject Invention patent application or patent, in any country, not less than thirty (30) calendar days before the expiration of the response period required by the relevant patent office.

4. The Performer shall include, within the specification of any United States patent application and any patent issuing thereon covering a Subject Invention, the following statement: "This invention was made with Government support under Agreement HR0011-15-3-0001, awarded by DARPA. The Government has certain rights in the invention."

F. Lower Tier Agreements

The Performer shall include this Article VII, suitably modified to identify the Parties and, as applicable, Subcontractors, in all subcontracts or lower tier agreements, regardless of tier, for experimental, developmental, or research work under the Program.

G. Reporting on Utilization of Subject Inventions

1. Pursuant to Attachment 2, the Performer agrees to submit, during the Term, an annual report on the general subject matter research at Performer or its Collaborators, licensees or assignees in connection with utilization of a Subject Invention or on efforts at obtaining such utilization that is being made by the Performer or its Collaborators, licensees or assignees. Such reports shall include information regarding the general fields of potential products where such Subject Inventions may ultimately assist in commercial sales. The Performer also agrees to provide additional reports as may be requested by DARPA in connection with any march-in proceedings undertaken by DARPA in accordance with paragraph I of this Article. Consistent with 35 U.S.C. § 202(c) (5), DARPA agrees it shall not disclose such information to persons outside the Government without permission of the Performer.

2. All required reporting shall be accomplished, to the extent possible, using the iEdison reporting website: https://s-edison.info.nih.gov/iEdison/. To the extent any such reporting cannot be carried out by use of i-Edison, reports and communications shall be submitted to the DARPA Agreements Officer and DARPA Administrative Agreements Officer.

H. Preference for American Industry

Notwithstanding any other provision of this clause, the Performer agrees that it shall not grant to any person the exclusive right to use or sell any Subject Invention in the United States or Canada unless such person agrees that any product embodying the Subject Invention or produced through the use of the Subject Invention shall be manufactured substantially in the United States or Canada, except when such rights are in connection with a Collaborator. However, in individual cases, the requirements for such an agreement beyond what is contemplated herein may be waived by DARPA upon a showing by the Performer: (1) that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States; or (2) that, under the circumstances, domestic manufacture is not commercially feasible.

I. March-in Rights

The Performer agrees that, with respect to any Subject Invention in which it has retained title, DARPA has the right to require the Performer, an assignee, or exclusive licensee of a Subject Invention to grant a non-exclusive license to a responsible applicant or applicants, upon terms that are reasonable under the circumstances, and if the Performer, assignee, or exclusive licensee refuses such a request, DARPA has the right to grant such a license itself if DARPA determines that:

1. Such action is necessary because the Performer, assignee, or exclusive licensee has not taken effective steps, consistent with the intent of this Agreement, to achieve Practical Application of the Subject Invention;

2. Such action is necessary to alleviate health or safety needs which are not reasonably satisfied by the Performer, assignee, or exclusive licensee;

3. Such action is necessary to meet requirements for public use and such requirements are not reasonably satisfied by the Performer, assignee, or exclusive licensee; or

4. Such action is necessary because the agreement required by paragraph I of this Article has not been obtained or waived or because a licensee of the exclusive right to use or sell any Subject Invention in the United States is in breach of such agreement.

ARTICLE VIII: DATA RIGHTS

A. Allocation of Principal Rights

1. This Agreement shall be performed with mixed Government and Performer funding. The Parties agree that in consideration for Government funding, the Performer intends to reduce to Practical Application Subject Invention(s) developed under this Agreement.

2. The Performer agrees to retain and maintain in good condition, until two (2) years after completion or termination of this Agreement, all Data necessary to achieve Practical Application of Subject Invention(s).

3. In the event of exercise of the Government's "March-in Rights" as set forth under Article VII or in this subparagraph, the Performer agrees that, with respect to Data necessary to achieve Practical Application of the applicable Subject Invention(s), the Government has the right to require the Performer to deliver, within sixty (60) calendar days from the date of the written request and at no additional cost to the Government, all such Data to the Government in accordance with its reasonable directions if the Government determines that:

(a) Such action is necessary because the Performer, assignee, or exclusive licensee has not taken effective steps, consistent with the intent of this Agreement, to achieve Practical Application of the Subject Invention(s) developed during the performance of this Agreement;

(b) Such action is necessary to alleviate health or safety needs which are not reasonably satisfied by the Performer, assignee, or exclusive licensee; or

(c) Such action is necessary to meet requirements for public use and such requirements are not reasonably satisfied by the Performer, assignee, or exclusive licensee.

4. With respect to all Data delivered in the event of the Government's exercise of its right under this subparagraph A.3, the Government shall receive Unlimited Rights.

5. With respect to Data developed, generated or delivered under this Agreement, the Government shall receive Government Purpose Rights.

6. Any data or intellectual property developed or generated exclusively at private expense, either prior to, or outside the scope of, this Agreement, to be utilized or delivered under this Agreement by the Performer and/or its Subcontractors shall be delivered with restrictions as delineated in the List of Intellectual Property Assertions provided in Attachment 5. The Performer reserves the right to add to or modify the data or intellectual property identified in Attachment 5, but agrees that it will not use in the performance of this Agreement any private expense data or intellectual property until Attachment 5 is modified to reflect such additional data or intellectual property, in a contractual document executed by the Contracting Officer.

B. Marking of Data

Pursuant to paragraph A above, any Data delivered under this Agreement shall be marked with the following legend:

"Use, duplication, or disclosure is subject to the restrictions as stated in Agreement HR0011-15-3-0001 between DARPA and Amyris, Inc."

C. Lower Tier Agreements

The Performer shall include this Article, suitably modified to identify the Parties and, as applicable, Subcontractors, in all subcontracts or lower tier agreements, regardless of tier, for experimental, developmental, or research work under the Program.

ARTICLE IX: FOREIGN ACCESS TO TECHNOLOGY

This Article shall remain in effect during the Term and for two (2) years thereafter.

A. General

The Parties agree that research findings and technology developments arising under this Agreement may constitute a significant enhancement to the national defense and to the economic vitality of the United States. Accordingly, access to important technology developments under this Agreement by Foreign Firms or Institutions must be carefully controlled. The controls contemplated in this Article are in addition to, and are not intended to change or supersede, the provisions of the International Traffic in Arms Regulation (22 CFR pt. 121 et seq.), the DoD Industrial Security Regulation (DoD 5220.22-R) and the Department of Commerce Export Regulation (15 CFR pt. 770 et seq.)

B. Restrictions on Sale or Transfer of Technology to Foreign Firms or Institutions

1. In order to promote the national security interests of the United States and to effectuate the policies that underlie the regulations cited above, the procedures stated in subparagraphs B.2 and B.3 below shall apply to any proposed Transfer of Technology. For purposes of this Article IX, a "Transfer of Technology" means a sale of the Performer or of a Subcontractors, and sales or licensing of Technology, however, the term "Transfer of Technology" does not include:

(a) sales of products or components incorporating or produced via a Subject Invention(s), or licenses or sales of any genetically modified organism, strain, or compound made by or from such an organism, strain, excluding genetically modified organism, strain or compound made by or from an organism or strain developed under this Program.

(b) licenses of software or documentation related to sales of products or components described in clause (a), or

(c) a transfer of Technology to foreign subsidiaries of the Performer for purposes related to this Agreement or to Collaborators, or

(d) a transfer of Technology to a Foreign Firm or Institution, which is a Subcontractor or an approved source of supply or source for the conduct of research under this Agreement; provided that such transfer shall be limited to that necessary to allow the Foreign Firm or Institution to perform its approved role under this Agreement.

2. The Performer shall provide written notice to the DARPA Agreements Officer's Representative and DARPA Agreements Officer of any proposed Transfer of Technology to a Foreign Firm or Institution by Performer or a Subcontractor at least sixty (60) calendar days prior to the proposed date of transfer. Such notice shall cite this Article and shall state specifically what Technology is to be transferred and the general terms of the transfer. Within thirty (30) calendar days of receipt of the Performer's written notification, the DARPA Agreements Officer shall advise the Performer whether it consents to the proposed Transfer. If DARPA determines that the proposed Transfer of Technology may have adverse consequences to the national security interests of the United States, the Performer (or, if applicable, a Subcontractor) and DARPA shall jointly endeavor to find alternatives to the proposed Transfer of Technology which obviate or mitigate potential adverse consequences of the Transfer of Technology but which provide substantially equivalent benefits to the Performer (or, if applicable, a Subcontractor). In cases where DARPA does not concur or sixty (60) calendar days after receipt and DARPA provides no decision, the Performer (or, if applicable, Performer on behalf of a Subcontractor) may utilize the procedures under Article VI, Disputes. No such Transfer shall take place until a decision is rendered.

3. In the event a Transfer of Technology to a Foreign Firm or Institution which is NOT approved by DARPA takes place, the Performer shall: (a) refund to DARPA funds paid by DARPA for the development of such unapproved transferred Technology; and (b) the Government shall have a non-exclusive, nontransferable, irrevocable, paid-up license to practice or have practiced on behalf of the Government such Technology throughout the world for the Government and any and all other purposes, particularly to effectuate the intent of this Agreement. Upon request of the Government, the Performer shall provide written confirmation of such licenses.

C. Lower Tier Agreements

The Performer shall include this Article, suitably modified to identify the Parties and, as applicable, Subcontractors, in all subcontracts or lower tier agreements, regardless of tier, for experimental, developmental, or research work under the Program.

ARTICLE X: TITLE TO AND DISPOSITION OF PROPERTY

A. Title to Property

Title to any items of Property acquired under this Agreement with an acquisition value of $5,000 or less shall vest in the Performer (and/or its Subcontractors) upon acquisition with no further obligation of the Parties unless otherwise determined in advance by the DARPA Agreements Officer. The Performer (and/or its Subcontractors) will acquire Property with an acquisition value greater than $5,000 under this Agreement as set forth in Attachment 6 to this Agreement, which Property is necessary to further the research and development goals of this Program and is not for the direct benefit of the Government. Title to this Property shall vest in the Performer (and/or its Subcontractors) upon acquisition. Should any other item of Property with an acquisition value greater than $5,000 be required during the Program, the Performer shall obtain prior written approval of the DARPA Agreements Officer, which approval shall not to be unreasonably withheld or delayed. Title to this later acquired Property shall also vest in the Performer (and/or its Subcontractors) upon acquisition. The Performer (and/or its Subcontractors) shall be responsible for the maintenance, repair, protection, and preservation of all such Property at its own expense.

B. Disposition of Property with Value >$5,000

At the completion or termination of the Term, title to (i) items of Property set forth in Attachment 6 and (ii) any other items of Property acquired under the Program with an acquisition value greater than $5,000 shall remain vested with the Performer and, if applicable, its Subcontractors without further obligation to the Government.

ARTICLE XI: CIVIL RIGHTS ACT

This Agreement is subject to the compliance requirements of Title VI of the Civil Rights Act of 1964 as amended (42 U.S.C. 2000-d) relating to nondiscrimination in Federally assisted programs. The Performer has signed a Certifications for Agreement No. HR0011-15-3-0001, a copy of which is attached hereto as Attachment 7, which certifies, among other matters, the Performer's compliance with the nondiscriminatory provisions of the Act.

ARTICLE XII: SECURITY

The Government does not anticipate the need for the Performer (or its Subcontractors) to develop and/or handle classified information in the performance of this Agreement. No DD254 is currently required for this Agreement.

ARTICLE XIII: SUBCONTRACTORS

The Performer shall make every effort to satisfy the intent of competitive bidding of sub-agreements to the maximum extent practical. The Performer may use foreign entities or nationals as Subcontractors, subject to compliance with the requirements of this Agreement and to the extent otherwise permitted by law.

ARTICLE XIV: KEY PERSONNEL

A. The Performer shall notify the DARPA Agreements Officer in writing prior to making any change in Key Personnel for the Program. The following individuals are designated as "Key Personnel" for the purposes of this Agreement:

Name	Role/Title	% Time
	Principal Investigator (PI)	100%
	Co-PI	100%

B. When replacing any of the Key Personnel identified above, the Performer must demonstrate that the qualifications of the prospective Key Personnel are acceptable to the Government as reasonably determined by the Program Manager. Substitution of Key Personnel shall be documented by modification to the Agreement made in accordance with the procedures outlined in Article III, paragraph C.

ARTICLE XV: ORDER OF PRECEDENCE

In the event of any inconsistency between the terms of this Agreement and language set forth in the Attachments, the inconsistency shall be resolved by giving precedence in the following order: (1) the Agreement; and (2) all Attachments to the Agreement.

ARTICLE XVI: EXECUTION

This Agreement constitutes the entire agreement of the Parties with respect to the subject matter hereof and supersedes all prior and contemporaneous agreements, understandings, negotiations and discussions among the Parties, whether oral or written, with respect to the subject matter hereof. This Agreement may be revised only by written consent of the Performer and the DARPA Agreements Officer. This Agreement, or modifications thereto, may be executed in counterparts each of which shall be deemed as original, but all of which taken together shall constitute one and the same instrument.

ARTICLE XVII: APPLICABLE LAW

United States federal law will apply to the construction, interpretation, and resolution of any disputes arising out of or in connection with this Agreement.

ARTICLE XIII: SEVERABILITY

In the event that any one or more of the provisions contained herein shall, for any reason, be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provisions of this Agreement, but this Agreement shall be construed as if such invalid, illegal or unenforceable provisions had never been contained herein, unless the deletion of such provision or provisions would result in such a material change so as to cause completion of the transactions contemplated herein to be unreasonable.

ARTICLE XIX: DATA SHARING PLAN AND STATUS REPORTING

It is the goal of the Government that its investment in the tools and capabilities developed under the Program to be multiplied many-fold by adoption and improvement by researchers across the United States. In order to achieve this vision, the Living Foundries program aims to facilitate interoperability and open the field to new entrants.

The Performer shall make available the Tools developed under the Program to the broader synthetic biology community by presenting its Program research Data at public meetings, conferences, and workshops and publishing results in peer-reviewed journal articles. At a minimum, the types of information that will be made available to the broader synthetic biology community are as discussed below:

(i) Data and analysis necessary to evaluate the utility of the Tools developed under the Program, including standard operating procedures and design specifications enabling others to reconstitute the equipment, set up, and approaches developed.

(ii) Details required for technical evaluation of the Tools developed under the Program: full protocols, technical drawings of equipment built and specifications met, Data on accuracy and precision of these systems, and results of procedures performed against large number of samples to investigate the robustness and readiness of the approaches for broader distribution – providing a trained reader with the information needed to recapitulate the methods and results described.

(iii) The Key Personnel shall be reasonably available to consult with third parties seeking to replicate the results.

The Performer shall include as part of required monthly Technical Status Reports in Attachment 2 an on-going status of efforts to develop and/or carry out this Intellectual Property and Data Sharing plan. Reporting shall include a summary of Data sharing activities that have taken place during the reporting period, and any Data sharing activities planned to take place within three months of the reporting period.

The Performer shall also include as part of required monthly Technical Status Reports in Attachment 2 a listing of the Performer's Subject Invention disclosures, Subject Invention patent applications and a brief discussion summarizing plans, if any, to license the resulting Subject Inventions (e.g., intent and rationale regarding whether the Performer intends to seek non-exclusive licensing, exclusive licensing for a particular field of use, or exclusive licensing across the board, etc.).

Attachment 3

Total Agreement Funding Plan and Payable Milestones and Corresponding Payment Schedule
Revision 1

Total Agreement Funding Plan
(for informational purposes only)

	DARPA Payment Total	Performer Contribution $	Agreement Funding Grand Total	DARPA Share %	Performer Contribution %
Module A Total	**$11,267,168**	**$1,238,563**	$12,505,727	90.10%	9.90%
Module B Total	**$4,517,217**	**$767,829**	$5,285,046	85.47%	14.53%
Module C Total	**$1,065,228**	**$565,813**	$1,631,041	65.31%	34.69%
Module D Total	**$2,532,939**	**$1,003,490**	$3,536,429	71.62%	28.38%
Module E Total	**$1,183,490**	**$1,939,053**	$3,122,543	37.90%	62.10%
Module F Total	**$1,054,407**	**$767,829**	$1,822,236	57.86%	42.14%
Module G Total	DELETED				
Module H Total	**$5,895,752**	**$3,831,230**	$9,726,982	60.61%	39.39%
Module I Total	**$1,462,441**	**$1,775,450**	$3,237,891	45.17%	54.83%
Module J Total	**$3,000,887**	**$2,517,831**	$5,518,718	54.38%	45.62%
Module K Total	**$3,180,481**	**$1,154,251**	$4,334,731	73.37%	26.63%
	$35,160,011	**$15,561,338**	**$50,721,349**	**69.32%**	**30.68%**

Payable Milestones and Corresponding Payment Schedule

Payable Milestones	Task	Metric	Government Payment due the Performer upon Completion	MS Month	CLIN/SLIN/ACRN
1	[*]	[*]	[*]	1/31/16	0001/01/AA
2	[*]	[*]	[*]		0001/01/AA
	[*]	[*]			
	[*]	[*]			
3	[*]	[*]	[*]		0001/01/AA
4	[*]	[*]	[*]		0001/01/AA
5	[*]	[*]	[*]		0001/01/AA
6	[*]	[*]	[*]	4/30/16	0001/01/AA
	[*]	[*]			

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

		[*]			
	[*]	[*]			
	[*]	[*]	[*]		
	[*]	[*]			
	[*]	[*]			
8	[*]	[*]	[*]		0001/01/AA

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

9	[*]	[*]	[*]		0001/01/AA
10	[*]	[*]	[*]		0001/01/AA
	[*]	[*]			
11	[*]	[*]	[*]		0001/01/AA
12	[*]	[*]	[*]		0001/01/AA
13	[*]	[*]	[*]		0001/01/AA

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

		[*]			
14	[*]	[*]	[*]	7/31/16	0001/01/AA
	[*]	[*]			
15	[*]	[*]	[*]		0001/01/AA
	[*]	[*]			
	[*]	[*]			
16	[*]	[*]	[*]		0001/01/AA
17	[*]	[*]	[*]		0001/01/AA

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

	[*]	[*]		10/31/16	
18	[*]	[*]	[*]		0001/01/AA
19	[*]	[*]	[*]		0001/01/AA
20	[*]	[*]	[*]		0001/01/AA
	[*]	[*]			
	[*]	[*]			
	[*]	[*]			
21	[*]	[*]	[*]		0001/01/AA

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

	[*]	[*]			
	[*]	[*]			
	[*]	[*]			
22	[*]	[*]	[*]		0001/01/AA
23	[*]	[*]	[*]		0001/01/AA
24	[*]	[*]	[*]		0001/01/AA

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

	[*]	[*]	[*]		
25	[*]	[*]	[*]		0001/01/AA
	[*]	[*]			
	[*]	[*]			
26	[*]	[*]	[*]		0001/01/AA
27	[*]	[*]	[*]		0001/01/AA
	[*]	[*]			

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

28	[*]	[*]	[*]		0001/01/AA
29	[*]	[*]	[*]	1/31/17	0001/01/AA
30	[*]	[*]	[*]	4/30/17	0001/01/AA
31	[*]	[*]	[*]		0001/01/AA
	[*]	[*]			
32	[*]	[*]	[*]		0001/01/AA
33	[*]	[*]	[*]		0001/01/AA

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

		[*]			
	[*]	[*]			
	[*]	[*]			
34	[*]	[*]	[*]		0001/01/AA
	[*]	[*]			
	[*]	[*]			

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

35	[*]	[*]	[*]		0001/01/AA
36	[*]	[*]	[*]		0001/01/AA
37	[*]	[*]	[*]		0001/01/AA
38	[*]	[*]	[*]		0001/01/AA
	[*]	[*]			
39	[*]	[*]	[*]		0001/01/AA (Partially funded @ $315,985 at time of TIA Award)
40	[*]	[*]	[*]	7/31/17	
	[*]	[*]			

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

	[*]	[*]			
	[*]	[*]			
41	[*]	[*]	[*]		
42	[*]	[*]	[*]		
43	[*]	[*]	[*]	4/30/18	
44	[*]	[*]	[*]		
	[*]	[*]			
	[*]	[*]			
	[*]	[*]			
45	[*]	[*]	[*]		

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

	[*]	[*]			
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46	[*]	[*]	[*]		
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47	[*]	[*]	[*]		
	[*]	[*]			

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

		[*]			
48	[*]	[*]	[*]		
49	[*]	[*]	[*]		
50	[*]	[*]	[*]		
51	[*]	[*]	[*]		
	[*]	[*]			
	[*]	[*]			
52	[*]	[*]	[*]		
	[*]	[*]			

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

		[*]			
53	[*]	[*]	[*]		
54	[*]	[*]	[*]		
	[*]	[*]			
55	[*]	[*]	[*]		
56	[*]	[*]	[*]	7/31/18	
57	[*]	[*]	[*]	10/31/18	
58	[*]	[*]	[*]		
	[*]	[*]			
59	[*]	[*]	[*]		

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

		[*]			
60	[*]	[*]	[*]		
61	[*]	[*]	[*]	4/30/19	
62	[*]	[*]	[*]		
OPTION 63	[*]	[*]	[*]		
64	[*]	[*]	[*]	7/31/19	
OPTION 65	[*]	[*]	[*]	10/31/19	
66	[*]	[*]	[*]		

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

		[*]			
		Baseline Costs	**$34,167,843**		
		Option Costs	**$992,168**		
		TOTAL	**$35,160,011**		

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

CONFIDENTIAL TREATMENT REQUESTED. CERTAIN PORTIONS OF THIS DOCUMENT HAVE BEEN OMITTED PURSUANT TO A REQUEST FOR CONFIDENTIAL TREATMENT AND, WHERE APPLICABLE, HAVE BEEN MARKED WITH AN ASTERISK TO DENOTE WHERE OMISSIONS HAVE BEEN MADE. THE CONFIDENTIAL MATERIAL HAS BEEN FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION.

Exhibit 10.03

MODIFICATION P00002 TO THE TECHNOLOGY INVESTMENT AGREEMENT

Between

AMYRIS, INC.,
5885 Hollis Street Suite 100
Emeryville, CA 94608

And

The Defense Advanced Research Projects Agency
675 North Randolph Street
Arlington, VA 22203-2114

Concerning

Improving the Timeline for Scaling Up Molecules from Proof Of Concept to Market Reducing Time and Cost (Mgs TO Kgs)

Agreement No.: HR0011-15-3-0001
DARPA Order No.: HR0011621265

Total Amount of the Agreement:	$	50,721,349
Total Estimated Government Funding of the Agreement:	$	35,160,011
Contractor Share Contribution	$	15,551,338
Total Funds Obligated:	$	16,675,381
Funds Obligated by this Modification	$	10,639,695

Recipient Identification Number/Codes:

DUNS: 185930182
CAGE: 47QN9
TIN:

Accounting and Appropriation Data

CLIN: 0001
SLIN: 02
ACRN: AB

LOA: 012199 097 0400 000 N 20162017 D 1320 BLTM66 2016.MBT-02.CORE.A DARPA 255

FUNDING AMOUNT: $10,639,695

Authority: 10 U.S.C. § 2371

In order to provide incremental funding and amend documents to reflect the funding increase, and incorporate changes in Attachment (I) Statement of Work and Attachment (3) to align milestone dates, the following administrative changes are made:

1. In accordance with Article V, Obligation and Payment, subparagraph A. Obligation and Attachment (4) Funding Schedule, incremental funding is [*].

2. The Technology Investment Agreement HR0011-15-3-0001 M2K Revision 2, is issued to show increased funding on the cover page, incorporate Attachment (3) Revision 2 in the Table of Contents as shown below, and incorporate the accounting and appropriation data shown on page 1 into Article V, Obligation and Payment, subparagraph C. Accounting and Appropriation Data.

ATTACHMENTS

ATTACHMENT 1 – Revision 1	Statement of Work
ATTACHMENT 2	Report Requirements
ATTACHMENT 3 – Revision 2	Total Agreement Funding Plan and Payable Milestones and Corresponding Payment Schedule
ATTACHMENT 4	Funding Schedule
ATTACHMENT 5	List of Intellectual Property Assertions by the Performer
ATTACHMENT 6	List of Property Greater than $5,000
ATTACHMENT 7	Certifications for Agreement No. HR0011-15-3-0001

3. Attachment (1) Statement of Work is issued to align Technical Tasks D:4 dates to Attacinnent 3 Revision 2, Total Agreement Funding Plan and Payable Milestones and Corresponding Payment Schedule.

4. Attachment (3) Total Agreement Funding Plan and Payable Milestones and Corresponding Payment Schedule - Revision (2) is issued to incorporate changes in milestones to align to the Attacinnent (I) Statement of Work and to incorporate the incremental funding line of accounting designation in the CLIN/SLIN/ACRN column. Both changes are shown in bold in the Attachment.

5. All provisions, terms, and conditions set forth in this Agreement are applicable and in full force and effect except as specified otherwise herein.

FOR THE UNITED STATES OF AMERICA, THE DEFENSE ADVANCED RESEARCH PROJECTS AGENCY

/s/ Michael S. Mutty
Michael S. Mutty
Agreements Officer
Contracts Management Office

2/29/2016
(Date)

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

TECHNOLOGY INVESTMENT AGREEMENT

BETWEEN

AMYRIS, INC.,
5885 HOLLIS STREET SUITE 100
EMERYVILLE, CALIFORNIA 94608

AND

THE DEFENSE ADVANCED RESEARCH PROJECTS AGENCY
675 NORTH RANDOLPH STREET ARLINGTON, VA 22203-2114

CONCERNING

IMPROVING THE TIMELINE FOR SCALING UP MOLECULES FROM PROOF OF CONCEPT
TO MARKET REDUCING TIME AND COST
(MGS TO KGS)

Agreement No.: HR0011-15-3-0001 – **Revision 2**
DARPA Order No.: HR0011518718
Total Amount of the Agreement: $50,721,349
Total Estimated Government Funding of the Agreement: $35,160,011
Funds Obligated: $**16,675,381**
Authority: 10 U.S.C. § 2371

Line of Appropriation – See Article V.C.

This Agreement is entered into between the United States of America, hereinafter called the Government, represented by The Defense Advanced Research Projects Agency (DARPA), and AMYRIS, INC., a corporation organized and existing under the laws of the State of Delaware with its principal place of business at 5885 Hollis Street, Suite 100, Emeryville, California 94608 pursuant to and under U.S. Federal law.

FOR AMYRIS, INC	FOR THE DEFENSE ADVANCED RESEARCH PROJECTS AGENCY
(Signature & Date)	(Signature & Date)
	Michael S. Mutty Agreements Officer
(Name, Title)	(Name, Title)

TABLE OF CONTENTS

ARTICLE I: SCOPE OF THE AGREEMENT

A. Background

Performer is a leader in applying synthetic biology technologies to engineer living organisms into manufacturing platforms that are able to produce a wide variety of target molecules, many of which are impossible to produce through traditional manufacturing processes. While current technologies are highly advanced, they suffer from a lack of integration and automation. By focusing on the same principles that made the United States the leaders in traditional manufacturing, namely standardized engineering and efficiency gains through automation, the Performer seeks, through funding in this Agreement, to develop a state of the art open bio-fabrication facility that will shorten the scale-up time and cost by using biology to produce molecules. Many of these molecules are directly relevant to the DoD mission due to their unique chemical properties that enable their use as fuels, lubricants, anti-fouling agents, antibiotics, and adhesives while also providing building blocks for novel families of materials. DARPA's interest in synthetic biology rises from its potential application to manufacturing. Biological manufacturing is in its infancy and the work required to reduce the time, effort, and cost needed to develop a new microbe is risky and at odds with the work needed to bring a product to market which is the chief goal of any company seeking to capitalize on the technology. The Agreement supports research with a long-term perspective that will enable academic and commercial participants to perform cutting edge research with less effort and cost than ever before. In addition to producing molecules relevant to the DoD, the commercial opportunities are immense since virtually any molecule made through traditional manufacturing processes can be replicated using biology as a catalyst. Although engineering cellular factories has been intermittently successful, the cost and time required for success have been prohibitive. The Performer's new technological approach will develop new molecules and materials while at the same time improving efficacy and efficiency. As a result of these improvement, the United States will reduce production time to under three years and at less than $10M per molecule while simultaneously handling 100 molecules, a 20X improvement. To achieve these innovations, the Performer will focus on technology development addressing metabolic pathway and enzyme design, strain construction, phenotypic measurements, large-scale data analysis, and strain optimization. To ensure success, the Performer will complement its expertise in strain engineering by partnering with companies and academic laboratories that are leaders in their field. Upon the completion of this agreement, the capacity to perform biological engineering will far surpass current capabilities. The United States will possess state of the art facilities for design and biomanufacturing of existing and novel molecules and materials.

B. Definitions

Affiliate: means, with respect to an entity, any person or entity that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with such first entity. For purposes of this definition, "control", "controlled by", and "under common control with" mean (i) the possession, directly or indirectly, of the power to direct the management or policies of an entity, whether through the ownership of voting securities, by contract relating to voting rights or corporate governance, or otherwise or (ii) the ownership, directly or indirectly, of more than fifty percent (50%) of the voting securities or other ownership interest of an entity.

Agreement: The body of this Agreement and Attachments 1 – 7, which are expressly incorporated in and made a part of the Agreement.

Collaborators: A third party in a contractual arrangement with the Performer or with a Subcontractor, whether executed before or after the Effective Date, under which arrangement the Performer or a Subcontractor has agreed to jointly research, develop and/or commercialize a technology or product with such third party and has an "active role" in such arrangement. For the avoidance of doubt, an "active role" by the Performer or a Subcontractor is a contractual relationship (1) that involves more than the mere transfer of intellectual property and (2) where the Performer or a Subcontractor has a significant participation in decision making and/or funding of the activities.

Data: Recorded information, regardless of form or method of recording, which includes but is not limited to, scientific or technical data, software, trade secrets, and mask works, in each case developed or generated by the Performer or its Subcontractors in performing the Program under this Agreement. The term "Data" does not include financial, administrative, cost, pricing or management information.

Effective Date: means November 1, 2015.

Foreign Firm or Institution: A firm or institution organized or existing under the laws of a country other than the United States, its territories, or possessions. The term includes, for purposes of this Agreement, any agency or instrumentality of a foreign government; and firms, institutions or business organizations which are owned or substantially controlled by foreign governments, firms, institutions, or individuals.

Government: The United States of America, as represented by DARPA.

Government Purpose Rights: The rights to use, duplicate, or disclose Data, in whole or in part and in any manner, for Government Purposes only, and to have or permit others to do so for Government Purposes only.

Government Purpose: Any activity in which the Government is a party, including cooperative agreements with international or multi-national defense organizations or sales or transfers by the Government to foreign governments or international organizations. Government Purposes include competitive procurement, but do not include the rights to use, modify, reproduce, release, perform, display, or disclose Data for commercial purposes or authorize others to do so.

Invention: Any invention or discovery which is or may be patentable or otherwise protectable under Title 35 of the United States Code.

Know-How: All information including, but not limited to discoveries, formulas, materials, Inventions, processes, ideas, approaches, concepts, techniques, methods, software, programs, documentation, procedures, firmware, hardware, technical data, specifications, devices, apparatus and machines.

Limited Rights: The rights to use, modify, reproduce, release, perform, display, or disclose Data, in whole or in part, within the Government. The Government may not, without the written permission of the Party asserting limited rights, release or disclose applicable Data outside the Government, use the applicable Data for manufacture, or authorize the applicable Data to be used by another party, except that the Government may reproduce, release, or disclose such Data or authorize the use or reproduction of the applicable Data by persons outside the Government if -

(i) The reproduction, release, disclosure , or use is:
  A. Necessary for emergency repair and overhaul; or
  B. A release or disclosure to
    1. A covered Government support contractor in performance of its covered Government support contract for use, modification, reproduction, performance, display or release or disclosure to a person authorized to receive Limited Rights Data; or
    2. A foreign government, of such Data other than detailed manufacturing or process Data, when use of such Data by the foreign government is in the interest of the Government and is required for evaluational or informational purposes;

(ii) The recipient of the applicable Data is subject to a prohibition on the further reproduction, release, disclosure, or use of the Data; and

(iii) The Performer, or its subcontractor asserting the restriction is notified of such reproduction, release, disclosure, or use.

Made: Relates to any Invention means the conception or first actual reduction to practice of such Invention.

Parties: The Government (represented by DARPA) and the Performer.

Payable Milestone: A Program-related task or tasks identified in Attachment 3 for which a corresponding payment (also identified in Attachment 3) will be made by the Government to the Performer upon the Government's verification, in accordance with this Agreement, that the Performer (or a Subcontractor) accomplished such task(s).

Performer: AMYRIS, INC. a corporation organized and existing under the laws of the State of Delaware with its principal place of business at 5885 Hollis Street, Suite 100, Emeryville, California 94608

Practical Application: To manufacture, in the case of a composition of product, to practice, in the case of a process or method, or to operate, in the case of a machine or system; and, in each case, under such conditions as to establish that the Subject Invention is capable of being utilized and that its benefits are, to the extent permitted by law or Government regulations, available to the public on reasonable terms. For the avoidance of doubt, the Parties acknowledge that "Practical Application" under this Agreement may not include actual commercialization of Subject Invention(s) hereunder because such Subject Invention(s) are likely to be Tools (e.g., it is envisioned that the Tools resulting from the research carried out under this Agreement will later – outside of this Agreement - be used by the Performer and its Subcontractors to develop commercial products).

Program: Research and development being conducted by the Performer and its Subcontractors under this Agreement, as set forth in Article I, paragraph C and in Attachment 1, Statement of Work.

Property: Any tangible personal property other than property actually consumed during the execution of work under this Agreement.

Subcontractor: Those persons or entities that, per a written agreement with the Performer, will perform certain of the Payable Milestones. As of the date of this Agreement, the Subcontractors consist of Agilent Technologies, Inc., Arzeda Corporation, m2p-labs GmbH, Ruprecht-Karls-Universität Heidelberg, and Bruker Corporation.

Subject Invention: Any Invention conceived or first actually reduced to practice in the performance of the Program under this Agreement that is capable of use as a Tool for making or altering a genetically modified organism; provided however, any Inventions, regardless when conceived or reduced to practice, covering a genetically modified organism, a strain, or any compound or product made by or from an organism or strain shall not be considered "Subject Inventions" hereunder. For the avoidance of doubt, no Inventions conceived or reduced to practice prior to the Effective Date, excluding subject inventions conceived or first actually reduced to practice under the Amyris Living Foundries TIA HR0011-12-3-0006, shall be considered performed "under this Agreement."

Technology: Discoveries, innovations, Know-How and Inventions, whether patentable or not, including computer software, recognized under U.S. law as intellectual creations to which rights of ownership accrue, including, but not limited to, patents, trade secrets, maskworks, and copyrights, developed under this Agreement.

Term: has the meaning set forth in Article II, paragraph A.

Tools: Software, analytical methods, standard operating procedures, and workflow processes.

Unlimited Rights: Rights to use, duplicate, release, or disclose Data, in whole or in part, in any manner and for any purposes whatsoever, and to have or permit others to do so.

C. Scope

1. The Performer shall perform the Program, which is intended to build an open BioFab that shortens the timeline for scaling up molecules from proof of concept to market to two to three years, reduces the cost of such development to less than $10 million per molecule, and simultaneously handles a hundred molecules. Success will be demonstrated by delivering 1 kg of material for 10 molecules generated by an integrated pipeline that enables the biological production of metric tons of any subsequent molecule in two to three years. The Program shall be carried out in accordance with the Statement of Work incorporated in this Agreement as Attachment 1. The Performer shall submit or otherwise provide all documentation required by Attachment 2, Report Requirements.

2. The Performer shall be paid for each Payable Milestone accomplished in accordance with the Schedule of Payments and Payable Milestones set forth in Attachment 3 and the procedures of Article V. The Schedule of Payments and Payable Milestones set forth in Attachment 3 may be revised or updated in accordance with Article III, subject to mutual agreement of the Parties.

3. The Government and the Performer estimate that the Statement of Work for this Agreement can only be accomplished with the Performer's provision during the Term of the "Performer Contribution", as detailed in the Total Agreement Funding Plan set forth in Attachment 3 and the Funding Schedule set forth in Attachment 4. The Total Agreement Funding Plan and the Funding Schedule may be revised or updated in accordance with Article III, subject to mutual agreement of the Parties. The Performer intends and, by entering into this Agreement, undertakes to cause the Performer Contribution to be provided. However, if either the Government or the Performer is unable to provide its respective funding (in the case of the Government) or the Performer Contribution (in the case of the Performer) for the Program, the other Party may reduce its funding or Performer Contribution, whichever is applicable to it, for the Program by a proportional amount. Throughout the Term, the Parties, through the Performer's routine reports to the Government, will monitor the Performer's satisfaction of the Performer Contribution and will promptly address, in good faith, any divergence or shortfall in the final Performer Contribution amount anticipated by the Performer (e.g., the Performer purchases Property for the Program at a price significantly cheaper than what was anticipated when establishing the Performer Contribution) and its effect, if any, on the Government's funding obligation under this Agreement.

D. Goals / Objectives

1. The goal of this Agreement is for the Performer to investigate and build a BioFab that scales up molecules from proof of concept to market in less time and at less cost, as described under Scope above. The goal is to accomplish this by incorporating radical innovations into key modules at each stage of the Design-Build-Test-Learn cycle as described in detail Amyris Proposal "Mgs to Kgs" dated February 3, 2015. The modules will be interdependent and align within an integrated pipeline. The foundation is a set of measurement technologies with various levels of risk. In addition to new algorithms for pathway prediction, data analysis and hypothesis generation, the BioFab's testing and optimization of up to 450 molecules from a large metabolic space will require a paradigm shift from a high-throughput, single-molecule screening platform to a high throughput, molecule-agnostic screening platform that is predictive of performance to a large scale. To address the gaps in throughput, quality and scale, a testing platform that utilizes a tiered approach to promote strains will be developed. Although individual tiers exist in some form at various institutions and companies (including at the Performer), there is not a single platform that has managed to encompass all of them into a single pipeline at the proposed scale.

2. The Government will have continuous involvement with the Performer. The Government will also obtain access to research results and certain rights in Data and Subject Inventions pursuant to Articles VII and VIII. Government and the Performer are bound to each other by a duty of good faith and best research effort in achieving the goals of the Program.

3. This Agreement is an "other transaction" pursuant to 10 U.S.C. § 2371. The Parties agree that the principal purpose of this Agreement is for the Government to support and stimulate the Performer to provide its best effort in advanced research and technology development and not for the acquisition of property or services for the direct benefit or use of the Government. The Performer will be paid a fixed amount for each Payable Milestone accomplished in accordance with the Payable Milestones and Corresponding Payment Schedule set forth in Attachment 3 and the procedures of Article V. The Parties agree that the amount payable to Performer for an accomplished Payable Milestone will be unaffected by whether Performer ends up expending more or less effort to accomplish such Payable Milestone than the Parties assumed would be required to accomplish it. This Agreement is not intended to be, nor shall it be construed as, by implication or otherwise, a partnership, a corporation, or other business organization.

ARTICLE II: TERM

A. Term of this Agreement

The Program commences upon the Effective Date and continues for forty-eight (48) months, unless extended as described in paragraph C below, (the "Term") and is split into three development and operational phases described below and depicted in the table:

"Dev" – in the first twenty-four months, the initial set of strain designs and testing will be generated using existing infrastructure and processes, while simultaneously developing the new technology platforms simultaneously;

"DevOps" – newly developed technology platforms will be transferred to pipeline operations as part of the *beta-testing* transition process;

"Ops" – once the technology transfer is completed, the new technologies will be part of standard operations.

If all Government funds committed for the Program and the Performer Contribution are expended prior to the expiration of the Term, the Parties have no obligation to continue performance of the Program and may elect to cease development at that point.

Provisions of this Agreement, which, by their express terms or by necessary implication, apply for periods of time other than specified herein, shall be given effect, notwithstanding this Article.

[*]

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

B. Termination Provisions

Subject to a reasonable determination that the Program will not produce beneficial results commensurate with the expenditure of resources, either Party may terminate this Agreement by written notice to the other Party, provided that such written notice is preceded by consultation between the Parties. In the event of a termination of the Agreement under this paragraph B, it is agreed that disposition of Data shall be in accordance with the provisions set forth in Article VIII, Data Rights. The Government and the Performer will negotiate in good faith a reasonable and timely adjustment of all outstanding issues between the Parties as a result of termination under this paragraph B. Failure of the Parties to agree to a reasonable adjustment will be resolved pursuant to Article VI, Disputes. The Government has no obligation to pay the Performer beyond the last completed and paid Payable Milestone if the Performer decides to terminate under this paragraph B. For the avoidance of doubt, any termination under this paragraph B by either Party does not require repayment by the Performer of any Payable Milestone amounts already received by the Performer.

C. Extending the Term

The Parties may extend, by mutual written agreement, the Term if funding availability and research opportunities reasonably warrant. Any extension shall be formalized through modification of the Agreement by the DARPA Agreements Officer and the Performer's Administrator.

ARTICLE III: MANAGEMENT OF THE PROJECT

A. Management and Program Structure

The Performer shall be responsible for the overall technical and program management of the Program, and technical planning and execution shall remain with the Performer. The DARPA Agreements Officer's Representative, in consultation with the DARPA Program Manager or DARPA management, shall provide recommendations to Program developments and technical collaboration and be responsible for the review and verification of the Payable Milestones.

B. Program Management Planning Process

Program planning will consist of an Annual Program Plan with inputs and review from the Performer and DARPA management, containing the detailed schedule of research activities and Payable Milestones. The Annual Program Plan will consolidate quarterly adjustments in the Program's research schedule, including revisions/modification to Payable Milestones.

1. Initial Program Plan: The Performer will follow the initial program plan that is contained in the Statement of Work, Attachment 1, and in the Payable Milestones and Corresponding Payment Schedule, Attachment 3.

2. Overall Program Plan Annual Review

(a) The Performer, with DARPA Agreements Officer's Representative review, in consultation with the DARPA Program Manager or DARPA management, will prepare an overall Annual Program Plan in the last month of each Agreement year (*i.e.*, October). The Annual Program Plan will be presented and reviewed at an annual site review, to be held within the sixty (60) days of each subsequent Agreement year, which will be attended by the Performer's Key Personnel (as defined in Article XIV), the DARPA Agreements Officer's Representative, senior DARPA management (as appropriate), and other DARPA program managers and personnel (as appropriate). The Performer, with DARPA participation and review, will prepare a final Annual Program Plan following such annual site review as more fully described in Attachment 2, Report Requirements.

(b) The Annual Program Plan provides a detailed schedule of the Program's research activities, commits the Performer to use its best efforts to meet specific performance objectives, includes forecasted expenditures and describes the Payable Milestones. The Annual Program Plan will consolidate all prior adjustments in the Program's research schedule, including revisions/modifications to the Payable Milestones. Recommendations for changes, revisions or modifications to the Agreement which result from this annual review process shall be made in accordance with the provisions of Article III, paragraph C.

C. Modifications

1. As a result of the Parties' meetings (in person or videoconference) or annual reviews or at any other time during the Term, the Program's research progress or results or other changes in circumstances (e.g., availability of required materials or equipment from external vendors, legal freedom to operate, etc.) may indicate that a change in the Statement of Work and/or the Payable Milestones would be beneficial to Program's objectives. Recommendations for modifications, including justifications to support any changes to the Statement of Work and/or the Payable Milestones, will be documented in a letter and submitted by the Performer to the DARPA Agreements Officer's Representative with a copy to the DARPA Agreements Officer. This documentation letter will detail the technical, chronological, and financial impact of the proposed modification to the Program. The Performer shall approve any Agreement modification. The Government is not obligated to pay for additional or revised Payable Milestones until the Payable Milestones and Corresponding Payment Schedule, Attachment 3, is formally revised by the DARPA Agreements Officer and made part of this Agreement.

2. The DARPA Agreements Officer's Representative shall be responsible for the review and verification of any recommendations to revise or otherwise modify the Agreement, the Statement of Work, the Payable Milestones and Corresponding Payment Schedule, or any other proposed changes to the terms and conditions of this Agreement.

3. For minor or administrative Agreement modifications (e.g., changes in the paying office or appropriation data, changes to Government or the Performer's personnel identified in the Agreement, etc.), no signature is required by the Performer.

ARTICLE IV: AGREEMENT ADMINISTRATION

Unless otherwise provided in this Agreement, approvals permitted or required to be made by the Government may be made only by the DARPA Agreements Officer. Administrative and contractual matters under this Agreement shall be referred to the following representatives of the Parties:

A. Government Points of Contact:

DARPA Agreements Officer:

DARPA Program Manager:

DARPA Agreements Officer's Representative (AOR):

DARPA Administrative Agreements Officer (AAO):

DARPA Assistant Director, Program Management (ADPM)

B. Performer Points of Contact

Administrator:
, Program Manager, R&D,

Contracting:
, General Counsel,

Program Manager:
, PI,

BioAnalytics Group Leader:
, Co-PI,

Each Party may change its representatives named in this Article by written notification to the other Party. The Government will effect the change as stated in Article III, C.3 above.

ARTICLE V: OBLIGATION AND PAYMENT

A. Obligation

1. The Government's liability to make payments to the Performer is limited to only those funds obligated under the Agreement or by modification to the Agreement. The Government may obligate funds to the Agreement incrementally.

2. If modification of a Payable Milestone becomes necessary in performance of this Agreement, pursuant to Article III, paragraph C, the DARPA Agreements Officer and the Performer's Administrator shall execute a revised Payable Milestones and Corresponding Payment Schedule consistent with the then current Annual Program Plan.

B. Payments for Accomplished Payable Milestones

1. The Performer has, and agrees to maintain, an established accounting system, which complies with Generally Accepted Accounting Principles and the requirements of this Agreement and shall ensure that appropriate arrangements have been made for receiving, distributing and accounting for all funding. An acceptable established accounting system is one in which all cash receipts and disbursements are controlled and documented properly.

2. Once the Performer accomplishes a Payable Milestone, the Performer may seek payment from the Government of the corresponding payment amount in the Payable Milestones and Corresponding Payment Schedule in Attachment 3. The Performer shall document the accomplishment of such Payable Milestone by submitting or otherwise providing the Payable Milestones Report required by Attachment 2, Part F. After written verification of the accomplishment of such Payable Milestone by the DARPA Agreements Officer's Representative and approval by the DARPA Agreements Officer, the associated invoice will be submitted to the payment office via Wide Area Workflow ("WAWF"), as detailed in subparagraph B.6 of this Article. If a Payable Milestone is composed of more than one task (*e.g.*, Payable Milestones 2, 6, 7, *etc.*), all such tasks in such Payable Milestone must be fully accomplished before the Performer may seek payment for such Payable Milestone. However, if a task in a single task Payable Milestone (or all of the tasks in a multi-task Payable Milestone) cannot be completed by the applicable Milestone (MS) Month set forth in Attachment 3, the Performer will document such event in its Monthly Technical Status Report, and the Parties will execute a contract modification to incorporate required changes in Attachment 3, and in Attachments 1 and 4, as applicable. For clarity, the "MS Month" column set forth in Attachment 3 sets forth the Parties' good faith estimate of the date by which a Payable Milestone will be accomplished, but it is not a deadline for accomplishing the applicable Payable Milestone. In addition, missing the MS Month does not prevent the Performer from subsequently accomplishing the applicable Payable Milestone and has no effect on the corresponding payment amount in Attachment 3 once accomplished.

If deemed necessary by the DARPA Agreements Officer, payment approval for the final Payable Milestone will be made after reconciliation of actual Government funding for the Program with the actual Performer Contribution amount. While there will be this final Government reconciliation and accounting of the Performer Contribution amount, the Parties agree that the quarterly accounting of the Performer Contribution, as reported in the quarterly Business Status Report submitted in accordance with Attachment 2, will not, nor is it necessarily intended or required to, uniformly or proportionally track or match the estimated schedule of the Performer Contribution set forth in either Attachments 3 or 4.

3. Subject to change only through written Agreement modification, payment shall be made to the address of the Performer's Administrator set forth below.

AMYRIS, INC., 5885 Hollis Street, Suite 100, Emeryville, California 94608

4. Payments will be made by the cognizant Defense Agencies Financial Services office, as indicated below, within thirty (30) calendar days of an accepted invoice in WAWF. WAWF is a secure web-based system for electronic invoicing, receipt and acceptance. The WAWF application enables electronic form submission of invoices, government inspection, and acceptance documents in order to support DoD's goal of moving to a paperless acquisition process. Authorized DoD users are notified of pending actions by e-mail and are presented with a collection of documents required to process the contracting or financial action. It uses Public Key Infrastructure ("PKI") to electronically bind the digital signature to provide non-reputable proof that the user (electronically) signed the document with the contents. Benefits include online access and full spectrum view of document status, minimized re-keying and improving data accuracy, eliminating unmatched disbursements and making all documentation required for payment easily accessible.

The Performer is required to utilize the WAWF system when processing invoices and receiving reports under this Agreement. The Performer shall (i) ensure an Electronic Business Point of Contact is designated in Central Contractor Registration at http://www.ccr.gov and (ii) register to use WAWF–RA at the https://wawf.eb.mil site, within ten (10) calendar days after award of this Agreement. Step by step procedures to register are available at the https://wawf.eb.mil site. The Performer is directed to use the "2-in-1" format when processing invoices.

a. For the Issue By DoDAAC enter HR0011
b. For the Admin DoDAAC and Ship To fields, enter S0507A.
c. For the Service Acceptor field, enter HR0011, Extension 01.
d. Leave the Inspect by DoDAAC, Ship From Code DoDAAC and LPO DoDAAC fields blank unless otherwise directed by the DARPA Agreements Officer or DARPA Administrative Agreements Officer.

e. The following guidance is provided for invoicing processed under this Agreement through WAWF:

• The DARPA Agreements Officer's Representative identified at Article IV "Agreement Administration" shall continue to formally inspect and accept the deliverable Payable Milestone reports. To the maximum extent practicable, the DARPA Agreements Officer's Representative shall review the Payable Milestone report(s) and either: 1) provide a written notice of rejection to the Performer which includes feedback regarding deficiencies requiring correction or 2) written notice of acceptance to the DARPA Administrative Agreements Officer, DARPA Program Manager and DARPA Agreements Officer.

• Acceptance within the WAWF system shall be performed by the DARPA Agreements Officer upon receipt of a confirmation email, or other form of transmittal, from the DARPA Agreements Officer's Representative.

• The Performer shall send an email notice to the DARPA Agreements Officer's Representative and DARPA Agreements Officer upon submission of an invoice in WAWF (this can be done from within WAWF).

• Payments shall be made by DFAS-CO/WEST (HQ0339)

• The Performer agrees, when entering invoices entered in WAWF to utilize the CLINs associated with each Payable Milestone as delineated at Attachment 3. The description of the CLIN shall include reference to the associated milestone number along with other necessary descriptive information. The Performer agrees that the Government may reject invoices not submitted in accordance with this provision.

Note for DFAS: The Agreement shall be entered into the DFAS system by CLIN – Milestone association as delineated at Attachment 3. The Agreement is to be paid out by CLIN – Milestone association. Payments shall be made using the CLIN (MS)/ACRN association as delineated at Attachment 3.

5. Payee Information: As identified at Central Contractor Registration.

- Cage Code: 47QN9
- DUNS: 185930182
- TIN:

6. Financial Records and Reports: The Performer shall maintain adequate records to account for accomplishment of all Payable Milestones for which payment is received by the Performer under this Agreement and shall maintain adequate records to account for the Performer Contribution provided under this Agreement. Upon completion or termination of this Agreement, whichever occurs earlier, the Performer's Administrator shall furnish to the DARPA Agreements Officer a copy of the Final Report required by Attachment 2, Part E. The Performer's relevant financial records are subject to examination or audit on behalf of DARPA by the Government for a period not to exceed three (3) years after expiration or earlier termination of the Term. The DARPA Agreements Officer or designee shall have direct access to sufficient records and information of the Performer to ensure accomplishment of the Payable Milestones for which payment was received by the Performer under this Agreement and satisfaction of the Performer Contribution under this Agreement. Such audit, examination, or access shall be performed during business hours on business days upon reasonable, prior written notice and shall be subject to the security requirements of the audited party. For clarity, where the labor component of the Performer Contribution is based upon a fixed price hourly commercial rate(s) documented in a contract (e.g., GSA Schedule contract), the examination or audit of the labor component of such costs shall be limited to a review of hours worked and shall not include a review of the rates.

C. Accounting and Appropriation Data

CLIN/SLIN/ACRN: 0001/01/AA
LOA: 012199 097 0400 000 N 20152016 D 1320 BLTM66 2015.MBT-02.CORE.A DARPA 255
FUNDING AMOUNT: $6,035,686

P00002
CLIN/SLIN/ACRN: 0001/01/AB
LOA: 012199 097 0400 000 N 20162017 D 1320 BLTM66 2016.MBT-02.CORE.A DARPA 255
FUNDING AMOUNT: $10,639,695

ARTICLE VI: DISPUTES

A. General

The Parties shall communicate with one another in good faith and in a timely and cooperative manner when raising issues under this Article.

B. Dispute Resolution Procedures

1. Any dispute, disagreement, or misunderstanding between the Government and the Performer concerning questions of fact or law arising from or in connection with this Agreement, and, whether or not involving an alleged breach of this Agreement, may be raised only under this Article.

2. Whenever disputes, disagreements, or misunderstandings arise, the Party aggrieved by such dispute, disagreement, or misunderstanding shall provide written notice to the other Party involved identifying the matter in dispute and inviting the other Party involved in the dispute to attempt to resolve the issue(s) involved by discussion and mutual agreement as soon as practicable. If the aggrieved Party does not provide the notification made under subparagraph B.3 of this Article within three (3) months of becoming aware of the dispute, disagreement, or misunderstanding, then such dispute, disagreement, or misunderstanding will not constitute the basis for relief under this Article unless the Director of DARPA in the interests of justice waives this requirement.

3. Failing resolution by mutual agreement described above, the aggrieved Party shall document the dispute, disagreement, or misunderstanding by notifying the other Party (through the DARPA Agreements Officer or the Performer's Administrator, as the case may be) in writing of the relevant facts, identify unresolved issues, and specify the clarification or remedy sought. Within five (5) business days after providing such notice to the other Party, the aggrieved Party may, in writing, request a joint decision by the DARPA Senior Procurement Executive and a senior executive (no lower than Vice President, Legal) appointed by the Performer. The other Party shall submit a written position on the matter(s) in dispute within thirty (30) calendar days after being notified in writing that a joint decision has been requested regarding the dispute, disagreement, or misunderstanding. The DARPA Senior Procurement Executive and the Performer's senior executive shall conduct a review of the matter(s) in dispute and render a decision in writing within thirty (30) calendar days of receipt of such other Party's written position. Any such joint decision is final and binding.

4. In the absence of a joint decision, upon written request to the Director of DARPA, made within thirty (30) calendar days of the expiration of the time for a joint decision under subparagraph B.3 above, the dispute, disagreement, or misunderstanding shall be further reviewed. The Director of DARPA may elect to conduct this review personally or through a designee or jointly with a senior executive (no lower than Vice President, Legal) appointed by the Performer. Following the review, the Director of DARPA or designee will resolve the issue(s) and notify the Parties in writing. Such resolution is not subject to further administrative review and, to the extent permitted by law, shall be final and binding.

C. Limitation of Damages

Claims for damages of any nature whatsoever pursued under this Agreement shall be limited to direct damages only up to the aggregate amount of Government funding disbursed as of the time the dispute arises. In no event shall the Government be liable for claims for consequential, punitive, special and incidental damages, claims for lost profits, or other indirect damages.

ARTICLE VII: PATENT RIGHTS

A. Allocation of Principal Rights

Unless the Performer shall have notified DARPA (in accordance with subparagraph B.2 below) that the Performer does not intend to retain title, the Performer shall retain the entire right, title, and interest throughout the world to each Subject Invention consistent with the provisions of this Article and 35 U.S.C. § 202. With respect to any Subject Invention in which the Performer retains title, the Government shall have a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced on behalf of the Government the Subject Invention throughout the world.

With regard to Inventions made under this Agreement that are not Subject Inventions, i.e. Inventions relating to genetically modified organisms, strains, or any compounds or products made by or from such organisms or strains that are conceived or first actually reduced to practice in the performance of the Program, the Government retains a right to request from Performer a nonexclusive, nontransferable, irrevocable license, on fair and reasonable terms, to such Inventions to have such Inventions practiced on behalf of the Government throughout the world. The Government will provide Performer with written notice identifying the specific Invention to which it is requesting such license. Prior to granting such license, the Parties agree to negotiate in good faith fair and reasonable terms under which the Performer would be the exclusive supplier/manufacturer to the Government of the desired compound or product under the Government's license. Upon agreement of such fair and reasonable terms between the Performer and the Government, the Performer shall grant the Government the nonexclusive license described above to such identified Inventions. In the event that no agreement is reached between Performer and Government with regard to said fair and reasonable terms on Performer's supply/manufacturing rights, Performer shall nonetheless grant the Government a nonexclusive, nontransferable, irrevocable license, on fair and reasonable terms, to such Inventions to have such Inventions practiced on behalf of the Government throughout the world. Failure to reach agreement on fair and reasonable terms will be resolved in accordance with Article VI. Disputes.

B. Invention Disclosure, Election of Title, and Filing of Patent Application

1. The Performer shall disclose each Subject Invention to DARPA within four (4) months after the inventor discloses it in writing to Performer's personnel responsible for patent matters or, in the case of no internal writing from the inventor, within two (2) months after Performer files a provisional application for it; provided however, that in the event the Performer does not file a provisional application, Performer shall disclose the Subject Invention to the Government within two (2) months of determining that a particular set of experiments and or data qualify as a Subject Invention. The disclosure to the Government shall be in the form of a written report and shall identify the Agreement under which the Subject Invention was Made and the identity of the inventor(s). It shall be sufficiently complete in technical detail to convey a clear understanding to the extent known at the time of the disclosure, of the nature, purpose, operation, and the physical, chemical, biological, or electrical characteristics of the Subject Invention. The disclosure shall also identify any publication, sale, or public use of the Subject Invention and whether a manuscript describing the Subject Invention has been submitted for publication and, if so, whether it has been accepted for publication at the time of disclosure. The Performer shall also submit to the Government an annual listing of Subject Inventions.

2. If the Performer determines that it does not intend to retain title to any such Subject Invention, the Performer shall notify the Government, in writing, within eight (8) months of disclosure to DARPA. However, in any case where publication, sale, or public use has initiated the one (1)-year statutory period wherein valid patent protection can still be obtained in the United States, the period for such notice may be shortened by DARPA to a date that is no more than sixty (60) calendar days prior to the end of the statutory period.

3. The Performer shall file its initial patent application on a Subject Invention to which it elects to retain title within one (1) year after election of title or, if earlier, prior to the end of the statutory period wherein valid patent protection can be obtained in the United States after a publication, or sale, or public use. The Performer may elect to file patent applications in additional countries (including the European Patent Office and the Patent Cooperation Treaty) within either: (i) ten (10) months of the corresponding initial patent application; or (ii) six (6) months from the date permission is granted by the Commissioner of Patents and Trademarks to file foreign patent applications where such filing has been prohibited by a secrecy order.

4. Requests for extension of the time for disclosure, election, and filing under Article VII, paragraph B, may, at the discretion of DARPA, and after considering the position of the Performer, be granted.

C. Conditions When the Government May Obtain Title

Upon DARPA's written request, the Performer shall convey title to any Subject Invention to DARPA under any of the following conditions:

1. If the Performer fails to disclose or elects not to retain title to the Subject Invention within the times specified in paragraph B of this Article; provided, that DARPA may request title only within sixty (60) calendar days after learning of: (i) the failure of the Performer to disclose; or (ii) Performer's election not to retain title, in each case within the specified times.

2. In those countries in which the Performer fails to file patent applications within the times specified in paragraph B of this Article; provided, that if the Performer has filed a patent application in a country after the times specified in paragraph B of this Article, but prior to its receipt of the written request by DARPA, the Performer shall continue to retain title to the Subject Invention in that country; or

3. In any country in which the Performer decides not to continue the prosecution of, to pay the maintenance fees on, or defend a reexamination of or opposition proceedings on, a patent application or patent on a Subject Invention.

D. Minimum Rights to the Performer and Protection of the Performer's Right to File

1. The Performer shall retain a nonexclusive, royalty-free, paid-up license throughout the world in each Subject Invention to which the Government obtains title under paragraph C of this Article, except if the Performer fails to disclose the Subject Invention within the times specified in paragraph B of this Article. The Performer's license to such Subject Invention extends to the Performer's Affiliates and Collaborators, if any, and includes the right to grant sublicenses of the same scope to the extent that the Performer was legally obligated to do so at the time the Agreement was awarded. The license is transferable only with the approval of DARPA, except as noted above regarding Affiliates and Collaborators of Performer or when transferred to the successor of that part of the Performer's business to which the Subject Invention pertains. DARPA approval for a license transfer requiring DARPA approval shall not be unreasonably withheld or delayed.

2. The Performer's license in subparagraph D.1 of this Article may be revoked or modified by DARPA to the extent necessary to achieve expeditious Practical Application of the Subject Invention pursuant to an application for an exclusive license submitted consistent with appropriate provisions at 37 CFR Part 404. This license shall not be revoked in that field of use or the geographical areas in which the Performer continues to practice the general technology developed hereunder in pursuit of commercial goals, including the goal of making the products derived from such platforms reasonably accessible to the public.

3. Before revocation or modification of the Performer's license in subparagraph D.1 of this Article, DARPA shall furnish the Performer a written notice of its intention to revoke or modify the license, and the Performer shall be allowed thirty (30) calendar days (or such other time as may be authorized for good cause shown) after the notice to show cause why the license should not be revoked or modified.

E. Action to Protect the Government's Interest

1. The Performer agrees to execute or to have executed and promptly deliver to DARPA all instruments necessary to: (i) establish or confirm the rights the Government has throughout the world in those Subject Inventions to which the Performer elects to retain title; and (ii) convey title to DARPA when requested under paragraph D of this Article and to enable the Government to obtain patent protection throughout the world in that Subject Invention.

2. The Performer agrees to require, by written agreement, its employees, other than clerical and non-technical employees, to disclose promptly in writing to personnel identified as responsible for the administration of patent matters and in a format suggested by the Performer each Subject Invention Made under this Agreement in order that the Performer can comply with the disclosure provisions of paragraph B of this Article. The Performer shall instruct employees, through employee agreements or other suitable educational programs, on the importance of reporting Subject Inventions in sufficient time to permit the filing of patent applications prior to U.S. or foreign statutory bars.

3. The Performer shall notify DARPA of any decisions not to continue the prosecution of, pay maintenance fees for, or defend in a reexamination or opposition proceedings on a Subject Invention patent application or patent, in any country, not less than thirty (30) calendar days before the expiration of the response period required by the relevant patent office.

4. The Performer shall include, within the specification of any United States patent application and any patent issuing thereon covering a Subject Invention, the following statement: "This invention was made with Government support under Agreement HR0011-15-3-0001, awarded by DARPA. The Government has certain rights in the invention."

F. Lower Tier Agreements

The Performer shall include this Article VII, suitably modified to identify the Parties and, as applicable, Subcontractors, in all subcontracts or lower tier agreements, regardless of tier, for experimental, developmental, or research work under the Program.

G. Reporting on Utilization of Subject Inventions

1. Pursuant to Attachment 2, the Performer agrees to submit, during the Term, an annual report on the general subject matter research at Performer or its Collaborators, licensees or assignees in connection with utilization of a Subject Invention or on efforts at obtaining such utilization that is being made by the Performer or its Collaborators, licensees or assignees. Such reports shall include information regarding the general fields of potential products where such Subject Inventions may ultimately assist in commercial sales. The Performer also agrees to provide additional reports as may be requested by DARPA in connection with any march-in proceedings undertaken by DARPA in accordance with paragraph I of this Article. Consistent with 35 U.S.C. § 202(c) (5), DARPA agrees it shall not disclose such information to persons outside the Government without permission of the Performer.

2. All required reporting shall be accomplished, to the extent possible, using the iEdison reporting website: https://s-edison.info.nih.gov/iEdison/. To the extent any such reporting cannot be carried out by use of i-Edison, reports and communications shall be submitted to the DARPA Agreements Officer and DARPA Administrative Agreements Officer.

H. Preference for American Industry

Notwithstanding any other provision of this clause, the Performer agrees that it shall not grant to any person the exclusive right to use or sell any Subject Invention in the United States or Canada unless such person agrees that any product embodying the Subject Invention or produced through the use of the Subject Invention shall be manufactured substantially in the United States or Canada, except when such rights are in connection with a Collaborator. However, in individual cases, the requirements for such an agreement beyond what is contemplated herein may be waived by DARPA upon a showing by the Performer: (1) that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States; or (2) that, under the circumstances, domestic manufacture is not commercially feasible.

I. March-in Rights

The Performer agrees that, with respect to any Subject Invention in which it has retained title, DARPA has the right to require the Performer, an assignee, or exclusive licensee of a Subject Invention to grant a non-exclusive license to a responsible applicant or applicants, upon terms that are reasonable under the circumstances, and if the Performer, assignee, or exclusive licensee refuses such a request, DARPA has the right to grant such a license itself if DARPA determines that:

1. Such action is necessary because the Performer, assignee, or exclusive licensee has not taken effective steps, consistent with the intent of this Agreement, to achieve Practical Application of the Subject Invention;

2. Such action is necessary to alleviate health or safety needs which are not reasonably satisfied by the Performer, assignee, or exclusive licensee;

3. Such action is necessary to meet requirements for public use and such requirements are not reasonably satisfied by the Performer, assignee, or exclusive licensee; or

4. Such action is necessary because the agreement required by paragraph I of this Article has not been obtained or waived or because a licensee of the exclusive right to use or sell any Subject Invention in the United States is in breach of such agreement.

ARTICLE VIII: DATA RIGHTS

A. Allocation of Principal Rights

1. This Agreement shall be performed with mixed Government and Performer funding. The Parties agree that in consideration for Government funding, the Performer intends to reduce to Practical Application Subject Invention(s) developed under this Agreement.

2. The Performer agrees to retain and maintain in good condition, until two (2) years after completion or termination of this Agreement, all Data necessary to achieve Practical Application of Subject Invention(s).

3. In the event of exercise of the Government's "March-in Rights" as set forth under Article VII or in this subparagraph, the Performer agrees that, with respect to Data necessary to achieve Practical Application of the applicable Subject Invention(s), the Government has the right to require the Performer to deliver, within sixty (60) calendar days from the date of the written request and at no additional cost to the Government, all such Data to the Government in accordance with its reasonable directions if the Government determines that:

(a) Such action is necessary because the Performer, assignee, or exclusive licensee has not taken effective steps, consistent with the intent of this Agreement, to achieve Practical Application of the Subject Invention(s) developed during the performance of this Agreement;

(b) Such action is necessary to alleviate health or safety needs which are not reasonably satisfied by the Performer, assignee, or exclusive licensee; or

(c) Such action is necessary to meet requirements for public use and such requirements are not reasonably satisfied by the Performer, assignee, or exclusive licensee.

4. With respect to all Data delivered in the event of the Government's exercise of its right under this subparagraph A.3, the Government shall receive Unlimited Rights.

5. With respect to Data developed, generated or delivered under this Agreement, the Government shall receive Government Purpose Rights.

6. Any data or intellectual property developed or generated exclusively at private expense, either prior to, or outside the scope of, this Agreement, to be utilized or delivered under this Agreement by the Performer and/or its Subcontractors shall be delivered with restrictions as delineated in the List of Intellectual Property Assertions provided in Attachment 5. The Performer reserves the right to add to or modify the data or intellectual property identified in Attachment 5, but agrees that it will not use in the performance of this Agreement any private expense data or intellectual property until Attachment 5 is modified to reflect such additional data or intellectual property, in a contractual document executed by the Contracting Officer.

B. Marking of Data

Pursuant to paragraph A above, any Data delivered under this Agreement shall be marked with the following legend:

"Use, duplication, or disclosure is subject to the restrictions as stated in Agreement HR0011-15-3-0001 between DARPA and Amyris, Inc."

C. Lower Tier Agreements

The Performer shall include this Article, suitably modified to identify the Parties and, as applicable, Subcontractors, in all subcontracts or lower tier agreements, regardless of tier, for experimental, developmental, or research work under the Program.

ARTICLE IX: FOREIGN ACCESS TO TECHNOLOGY

This Article shall remain in effect during the Term and for two (2) years thereafter.

A. General

The Parties agree that research findings and technology developments arising under this Agreement may constitute a significant enhancement to the national defense and to the economic vitality of the United States. Accordingly, access to important technology developments under this Agreement by Foreign Firms or Institutions must be carefully controlled. The controls contemplated in this Article are in addition to, and are not intended to change or supersede, the provisions of the International Traffic in Arms Regulation (22 CFR pt. 121 et seq.), the DoD Industrial Security Regulation (DoD 5220.22-R) and the Department of Commerce Export Regulation (15 CFR pt. 770 et seq.)

B. Restrictions on Sale or Transfer of Technology to Foreign Firms or Institutions

1. In order to promote the national security interests of the United States and to effectuate the policies that underlie the regulations cited above, the procedures stated in subparagraphs B.2 and B.3 below shall apply to any proposed Transfer of Technology. For purposes of this Article IX, a "Transfer of Technology" means a sale of the Performer or of a Subcontractors, and sales or licensing of Technology, however, the term "Transfer of Technology" does not include:

(a) sales of products or components incorporating or produced via a Subject Invention(s), or licenses or sales of any genetically modified organism, strain, or compound made by or from such an organism, strain, excluding genetically modified organism, strain or compound made by or from an organism or strain developed under this Program.

(b) licenses of software or documentation related to sales of products or components described in clause (a), or

(c) a transfer of Technology to foreign subsidiaries of the Performer for purposes related to this Agreement or to Collaborators, or

(d) a transfer of Technology to a Foreign Firm or Institution, which is a Subcontractor or an approved source of supply or source for the conduct of research under this Agreement; provided that such transfer shall be limited to that necessary to allow the Foreign Firm or Institution to perform its approved role under this Agreement.

2. The Performer shall provide written notice to the DARPA Agreements Officer's Representative and DARPA Agreements Officer of any proposed Transfer of Technology to a Foreign Firm or Institution by Performer or a Subcontractor at least sixty (60) calendar days prior to the proposed date of transfer. Such notice shall cite this Article and shall state specifically what Technology is to be transferred and the general terms of the transfer. Within thirty (30) calendar days of receipt of the Performer's written notification, the DARPA Agreements Officer shall advise the Performer whether it consents to the proposed Transfer. If DARPA determines that the proposed Transfer of Technology may have adverse consequences to the national security interests of the United States, the Performer (or, if applicable, a Subcontractor) and DARPA shall jointly endeavor to find alternatives to the proposed Transfer of Technology which obviate or mitigate potential adverse consequences of the Transfer of Technology but which provide substantially equivalent benefits to the Performer (or, if applicable, a Subcontractor). In cases where DARPA does not concur or sixty (60) calendar days after receipt and DARPA provides no decision, the Performer (or, if applicable, Performer on behalf of a Subcontractor) may utilize the procedures under Article VI, Disputes. No such Transfer shall take place until a decision is rendered.

3. In the event a Transfer of Technology to a Foreign Firm or Institution which is NOT approved by DARPA takes place, the Performer shall: (a) refund to DARPA funds paid by DARPA for the development of such unapproved transferred Technology; and (b) the Government shall have a non-exclusive, nontransferable, irrevocable, paid-up license to practice or have practiced on behalf of the Government such Technology throughout the world for the Government and any and all other purposes, particularly to effectuate the intent of this Agreement. Upon request of the Government, the Performer shall provide written confirmation of such licenses.

C. Lower Tier Agreements

The Performer shall include this Article, suitably modified to identify the Parties and, as applicable, Subcontractors, in all subcontracts or lower tier agreements, regardless of tier, for experimental, developmental, or research work under the Program.

ARTICLE X: TITLE TO AND DISPOSITION OF PROPERTY

A. Title to Property

Title to any items of Property acquired under this Agreement with an acquisition value of $5,000 or less shall vest in the Performer (and/or its Subcontractors) upon acquisition with no further obligation of the Parties unless otherwise determined in advance by the DARPA Agreements Officer. The Performer (and/or its Subcontractors) will acquire Property with an acquisition value greater than $5,000 under this Agreement as set forth in Attachment 6 to this Agreement, which Property is necessary to further the research and development goals of this Program and is not for the direct benefit of the Government. Title to this Property shall vest in the Performer (and/or its Subcontractors) upon acquisition. Should any other item of Property with an acquisition value greater than $5,000 be required during the Program, the Performer shall obtain prior written approval of the DARPA Agreements Officer, which approval shall not to be unreasonably withheld or delayed. Title to this later acquired Property shall also vest in the Performer (and/or its Subcontractors) upon acquisition. The Performer (and/or its Subcontractors) shall be responsible for the maintenance, repair, protection, and preservation of all such Property at its own expense.

B. Disposition of Property with Value >$5,000

At the completion or termination of the Term, title to (i) items of Property set forth in Attachment 6 and (ii) any other items of Property acquired under the Program with an acquisition value greater than $5,000 shall remain vested with the Performer and, if applicable, its Subcontractors without further obligation to the Government.

ARTICLE XI: CIVIL RIGHTS ACT

This Agreement is subject to the compliance requirements of Title VI of the Civil Rights Act of 1964 as amended (42 U.S.C. 2000-d) relating to nondiscrimination in Federally assisted programs. The Performer has signed a Certifications for Agreement No. HR0011-15-3-0001, a copy of which is attached hereto as Attachment 7, which certifies, among other matters, the Performer's compliance with the nondiscriminatory provisions of the Act.

ARTICLE XII: SECURITY

The Government does not anticipate the need for the Performer (or its Subcontractors) to develop and/or handle classified information in the performance of this Agreement. No DD254 is currently required for this Agreement.

ARTICLE XIII: SUBCONTRACTORS

The Performer shall make every effort to satisfy the intent of competitive bidding of sub-agreements to the maximum extent practical. The Performer may use foreign entities or nationals as Subcontractors, subject to compliance with the requirements of this Agreement and to the extent otherwise permitted by law.

ARTICLE XIV: KEY PERSONNEL

A. The Performer shall notify the DARPA Agreements Officer in writing prior to making any change in Key Personnel for the Program. The following individuals are designated as "Key Personnel" for the purposes of this Agreement:

Name	Role/Title	% Time
	Principal Investigator (PI)	100%
	Co-PI	100%

B. When replacing any of the Key Personnel identified above, the Performer must demonstrate that the qualifications of the prospective Key Personnel are acceptable to the Government as reasonably determined by the Program Manager. Substitution of Key Personnel shall be documented by modification to the Agreement made in accordance with the procedures outlined in Article III, paragraph C.

ARTICLE XV: ORDER OF PRECEDENCE

In the event of any inconsistency between the terms of this Agreement and language set forth in the Attachments, the inconsistency shall be resolved by giving precedence in the following order: (1) the Agreement; and (2) all Attachments to the Agreement.

ARTICLE XVI: EXECUTION

This Agreement constitutes the entire agreement of the Parties with respect to the subject matter hereof and supersedes all prior and contemporaneous agreements, understandings, negotiations and discussions among the Parties, whether oral or written, with respect to the subject matter hereof. This Agreement may be revised only by written consent of the Performer and the DARPA Agreements Officer. This Agreement, or modifications thereto, may be executed in counterparts each of which shall be deemed as original, but all of which taken together shall constitute one and the same instrument.

ARTICLE XVII: APPLICABLE LAW

United States federal law will apply to the construction, interpretation, and resolution of any disputes arising out of or in connection with this Agreement.

ARTICLE XIII: SEVERABILITY

In the event that any one or more of the provisions contained herein shall, for any reason, be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provisions of this Agreement, but this Agreement shall be construed as if such invalid, illegal or unenforceable provisions had never been contained herein, unless the deletion of such provision or provisions would result in such a material change so as to cause completion of the transactions contemplated herein to be unreasonable.

ARTICLE XIX: DATA SHARING PLAN AND STATUS REPORTING

It is the goal of the Government that its investment in the tools and capabilities developed under the Program to be multiplied many-fold by adoption and improvement by researchers across the United States. In order to achieve this vision, the Living Foundries program aims to facilitate interoperability and open the field to new entrants.

The Performer shall make available the Tools developed under the Program to the broader synthetic biology community by presenting its Program research Data at public meetings, conferences, and workshops and publishing results in peer-reviewed journal articles. At a minimum, the types of information that will be made available to the broader synthetic biology community are as discussed below:

(i) Data and analysis necessary to evaluate the utility of the Tools developed under the Program, including standard operating procedures and design specifications enabling others to reconstitute the equipment, set up, and approaches developed.

(ii) Details required for technical evaluation of the Tools developed under the Program: full protocols, technical drawings of equipment built and specifications met, Data on accuracy and precision of these systems, and results of procedures performed against large number of samples to investigate the robustness and readiness of the approaches for broader distribution – providing a trained reader with the information needed to recapitulate the methods and results described.

(iii) The Key Personnel shall be reasonably available to consult with third parties seeking to replicate the results.

The Performer shall include as part of required monthly Technical Status Reports in Attachment 2 an on-going status of efforts to develop and/or carry out this Intellectual Property and Data Sharing plan. Reporting shall include a summary of Data sharing activities that have taken place during the reporting period, and any Data sharing activities planned to take place within three months of the reporting period.

The Performer shall also include as part of required monthly Technical Status Reports in Attachment 2 a listing of the Performer's Subject Invention disclosures, Subject Invention patent applications and a brief discussion summarizing plans, if any, to license the resulting Subject Inventions (e.g., intent and rationale regarding whether the Performer intends to seek non-exclusive licensing, exclusive licensing for a particular field of use, or exclusive licensing across the board, etc.).

Attachment 1
M2K Program
Statement of Work (SOW)

References:
(a) Amyris Proposal "Mgs to Kgs" (M2K) dated February 3, 2015

As detailed in reference (a), the Performer will complete the work set forth below to achieve the Program Goals / Objectives set forth in Technology Investment Agreement HR0011-15-3-0001.

MODULE A: [*]
Task A.1: Target molecule selection (, Amyris)
Task Objective: [*]

Milestone (Month 3): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Task A.2: Molecules pipeline operation (, Amyris)
Task Objective: [*]

Milestone (Month 12): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 18): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 24): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 30): [*]

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

[*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 36): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 42): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 48): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

MODULE B: [*]

Task B.1: [*] (, Amyris)
Task Objective: [*]

Milestone (Month 3): [*]
Deliverables: [*]

Milestone (Month 12): [*]
Deliverables: [*]

Task B.2: Genotype generation (, Amyris)
Task Objective: [*]

Milestone (Month 3): [*]

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 9): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Task B.3: [*] (, Amyris)
Task Objective: [*]

Milestone (Month 6): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 9): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 15): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 18*):* [*]
Deliverables: [*]

Milestone (Month 21): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 24): [*]
Metrics/Completion Criteria: [*]

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Deliverables: [*]

Milestone (Month 30*):* [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]
Milestone (Month 36*):* [*]
Metrics/Completion Criteria: [*]

Task B.4: [*] (, Amyris)
Task Objective: [*]

Milestone (Month 3): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 6): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 12): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 18): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 24): [*]`
Metrics/Completion Criteria: [*]
Deliverables: [*]

Task B.5: [*] (, Amyris)
Task Objective: [*]

Milestone (Month 6): [*]
Metrics/Completion Criteria: [*]

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Deliverables: [*]

Milestone (Month 12): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]
Milestone (Month 21): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 24): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 24): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 30): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 30): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 36): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 42): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

MODULE C: [*]

Task C.1: [*] **(, Arzeda).**
Task Objective: [*]

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Milestone (Month 3): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 6): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 9): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 9): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 12): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 24): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Task C.2: [*] **(, Arzeda).**
Task Objective: [*]

Milestone (Month 18): [*]

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

[*]
Metrics/Completion Criteria: [*]
Deliverables: [*]
Milestone (Month 24): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (month 30): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 42): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

MODULE D: [*]

Task D.1: [*] **(, Arzeda)**
Task Objective: [*]

Milestone (Month 12): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 24): [*]
Metrics/Completion Criteria: [*]

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Deliverables: [*]

Task D.2: [*] (, Arzeda)
Task Objective: [*]

Milestone (Month 6): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 9): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 12): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 15): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 18): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 21): [*]

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

[*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Task D.3: [*] (, Arzeda)
Task Objective: [*]

Milestone (Month 6): [*]
Metrics/Completion Criteria: [*]
Deliverable: [*]

Milestone (Month 12): [*]
Metrics/Completion Criteria: [*]
Deliverable: [*]

Milestone (Month 18): [*]
Metrics/Completion Criteria: [*]
Deliverable: [*]

Task D.4: [*] (, Arzeda)
Task Objective: [*]

Milestone (Month 22): [*]

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

[*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 22): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 24): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Task D.5: [*] (, Arzeda).
Task Objective: [*]

Milestone (Month 30): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 36): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 45): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 48): [*]
Metrics/Completion Criteria: [*]

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

[*]
Deliverable: [*]

MODULE E: [*]

Task E.1: [*] (, Amyris)
Task Objective: [*]

Milestone (Month 12): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 18): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 24): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Task E.2: [*] (, Amyris)
Task Objective: [*]

Milestone (Month 18): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 24): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Task E.3 (Month 24): [*] (, Amyris)
Task Objective: [*]

Milestone (Month 18): [*]

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

[*]
Metrics/Completion Criteria: [*]
Deliverables: [*]
Milestone (Month 24): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

MODULE F: [*]

Task F.1: [*] (, Amyris)
Task Objective: [*]

Milestone (Month 3): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Subtask F.1.1 (Month 3): [*]
Subtask F.1.2 (Month 3): [*]

Subtask F.1.3 (Month 1): [*]

Subtask F.1.4 (Month 3): [*]

Task F.2: [*] (, Amyris)
Task Objective: [*]

Milestone (Month 6): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Subtask F.2.1 (Month 3): [*]

Subtask F.2.2 (Month 3): [*]

Subtask F.2.2 (Month 4): [*]

Subtask F.2.4 (Month 5): [*]

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

[*]

Subtask F.2.5 (Month 6): [*]

Task F.3: [*] (, Amyris)
Task Objective: [*]

Milestone (Month 12): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Subtask F.3.1 (Month 3): [*]

Subtask F.3.2 (Month 3): [*]

Subtask F.3.2 (Month 4): [*]

Subtask F.3.4 (Month 10): [*]

Subtask F.3.5 (Month 12): [*]

MODULE G: DELETED

MODULE H: [*]

Task H.1: [*] (Apffel, Agilent)
Task Objective: [*]

Milestone (Month 6): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 12): [*]
Metrics/Completion Criteria: [*]

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Deliverables: [*]

Milestone (Month 18): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Subtask H.1.1 (Month 3): [*]

Subtask H.1.2 (Month 15): [*]

Task H.2: [*] (, Amyris).
Task Objective: [*]

Milestone (Month 6): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 12): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Task H.3: [*] (, Amyris)
Task Objective: [*]

Milestone (Month 6): [*]

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

[*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 12): 1) [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 18) [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 24): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Subtask H.3.1 (Month 1): [*]

Task H.4: [*] (Apffel, Agilent)
Task Objective: [*]

Milestone (Month 6): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 12): [*]
Metrics/Completion Criteria: [*]

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Deliverables: [*]

Milestone (Month 24): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Subtask H.4.1 (Month 18): [*]

Task H.5: [*] (, Agilent)
Task Objective: [*]

Milestone (Month 6): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 12): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Subtask H.5.1 (Month 2): [*]

Task H.6: [*] (, Amyris)
Task Objective: [*]

Milestone (Month 12): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 18): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Milestone (Month 30): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

MODULE I: [*]

Task I.1: [*] (, Univ. of Heidelberg)
Task Objective: [*]

Milestone (Month 9): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Subtask I.1.1 (Month 2): [*]

Subtask I.1.2 (Month 5): [*]

Subtask I.1.3 (month 8): [*]

Task I.2: [*] (, Univ. of Heidelberg)
Task Objective: [*]

Milestone (month 9): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Subtask I.2.1 (Month 1): [*]

Subtask I.2.2 (Month 5): [*]

Subtask I.2.3 (Month 8): [*]

Task I.3: [*] (, Amyris)

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Task Objective: [*]

Milestone (Month 12): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]
Subtask I.3.1 (Month 10): [*]

Task I.4: [*] (, Amyris)
Task Objective: [*]

Milestone (Month 18): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Subtask I.4.1 (Month 9): [*]

Subtask I.4.2 (Month 12): [*]

Subtask I.4.3 (month 15): [*]

Task I.5: [*] (, Univ. of Heidelberg)
Task Objective: [*]

Milestone (Month 12): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]
Subtask I.5.1 (Month 10): [*]

Task I.6: [*] (, Amyris)
Task Objective: [*]

Milestone (Month 18): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Subtask I.6.1 (Month 9): [*]

Subtask I.6.2 (Month 12): [*]

Subtask I.6.3 (month15): [*]

MODULE J: [*]

Task J.1: [*] (, Amyris)
Task Objective: [*]

Milestone (Month 3): [*]
Deliverables: [*]

Subtask J1.1 (Month 2): [*]

Subtask J1.2 (Month 3): [*]

Milestone (Month 12): [*]
Deliverables: [*]

Subtask J1.2 (Month 6): [*]

Subtask J1.3 (Month 9): [*]

Milestone (Month 18): [*]
Deliverables: [*]

Subtask J1.4 (Month 12): [*]

Subtask J1.5 (Month 15): [*]

Subtask J1.6 (Month 18): [*]

Task J.2: [*] (Dahl, Amyris).
Task Objective: [*]

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Milestone (Month 21): [*]
Deliverables: [*]

Subtask J2.1 (Month 20): [*]

Milestone (Month 24): [*]
Deliverables: [*]

Subtask J2.2 (Month 24): [*]
Subtask J2.3 (Month 24): [*]

Task J.3: [*] (, Amyris)
Task Objective: [*]
Milestone (Month 30): [*]
Deliverables: [*]

Subtask J3.1 (Month 27): [*]

Subtask J3.2 (Month 30): [*]

Subtask J3.3 (Month 30): [*]

Milestone (Month 30): [*]
Deliverables: [*]

Subtask J3.4 (Month 27): [*]

Subtask J3.5 (Month 30): [*]

Milestone (Month 33): [*]
Deliverables: [*]

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Subtask J3.6 (Month 30): [*]

Subtask J3.7 (Month 33): [*]

Milestone (Month 36): [*]
Deliverables: [*]
Subtask J3.8 (Month 33): [*]

Subtask J3.9 (Month 36): [*]

Task J.4 (Optional): [*] (, Amyris)
Task Objective: [*]

Milestone (12 months): [*]
Deliverables: [*]

Subtask J4.1 (Month 3): [*]

Subtask J4.2 (Month 6): [*]

Subtask J4.3 (Month 6): [*]

Subtask J4.4 (Month 12): [*]

Milestone (18 months): [*]
Deliverables: [*]

Subtask J4.5 (Month 6): [*]

Subtask J4.6 (Month 12): [*]

Subtask J4.7 (Month 18): [*]

Milestone (24 months): [*]

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

[*]
Deliverables: [*]

Subtask J4.8 (Month 21): [*]

Subtask J4.9 (Month 24): [*]

Subtask J4.10 (Month 24): [*]

MODULE K: [*]

Task K.1: [*] (, Amyris)
Task Objective: [*]

Milestone (Month 6): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Task K.2: [*] (, Amyris)
Task objective: [*]

Milestone (Month 12): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Task K.3: [*] (, Amyris)
Task objective: [*]

Milestone (Month 18): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Task K.4: [*] (, Amyris)
Task Objective: [*]

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Milestone (Month 24): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Milestone (Month 30): [*]
Metrics/Completion Criteria: [*]
Deliverables: [*]

Task L: Biosafety and Biosecurity Planning and Reporting

Task Objective: The research and engineering depicted in this Statement of Work seeks to make existing capabilities (e.g. genetic modification of microbes to produce commodity chemicals) more efficient with the intended purpose of speeding the development of Living Foundries. The goal of this research is to make better engineering tools, and not to produce microbes that may have dual-use potential. As noted in the Performer's technical proposal, a review of the research activities identified within this Statement of Work determined that this project will not enable technologies that are related to human, animal, or plant health. The Performer's choice of potential chassis or hosts will be made from amongst the list of microbes that, prior to genetic modification, are designated safely handled in a Biosafety Level 1 facility. Additionally, the resulting genetically modified organisms have no selective advantage in the environment. The Performer shall demonstrate throughout the program that all methods and demonstrations of capability comply with national guidance for manipulation of genes and organisms and follow all guidance for biological safety and biosecurity. Demonstrations and testbeds must meet any applicable regulations designed to protect human health and the environment promulgated by the Environmental Protection Agency, National Institutes of Health, or other relevant agencies of the Federal Government. The Performer shall use, store, and destroy biological material in accordance with all applicable regulations.

Deliverable: Include as part of the Monthly Technical Status Reports an on-going status of Performer efforts to develop and/or carry out Bio-Safety and Security requirements.

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

M2K project timelines and milestones

[*]

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Attachment 3

Total Agreement Funding Plan and Payable Milestones and Corresponding Payment Schedule
Revision 2

Total Agreement Funding Plan
(for informational purposes only)

	DARPA Payment Total	Performer Contribution $	Agreement Funding Grand Total	DARPA Share %	Performer Contribution %
Module A Total	**$11,267,168**	**$1,238,563**	$12,505,727	90.10%	9.90%
Module B Total	**$4,517,217**	**$767,829**	$5,285,046	85.47%	14.53%
Module C Total	**$1,065,228**	**$565,813**	$1,631,041	65.31%	34.69%
Module D Total	**$2,532,939**	**$1,003,490**	$3,536,429	71.62%	28.38%
Module E Total	**$1,183,490**	**$1,939,053**	$3,122,543	37.90%	62.10%
Module F Total	**$1,054,407**	**$767,829**	$1,822,236	57.86%	42.14%
Module G Total	DELETED				
Module H Total	**$5,895,752**	**$3,831,230**	$9,726,982	60.61%	39.39%
Module I Total	**$1,462,441**	**$1,775,450**	$3,237,891	45.17%	54.83%
Module J Total	**$3,000,887**	**$2,517,831**	$5,518,718	54.38%	45.62%
Module K Total	**$3,180,481**	**$1,154,251**	$4,334,731	73.37%	26.63%
	$35,160,011	**$15,561,338**	**$50,721,349**	**69.32%**	**30.68%**

Payable Milestones and Corresponding Payment Schedule
Revision 2

Payable Milestones	Task	Metric	Government Payment due the Performer upon Completion	MS Month	CLIN/SLIN/ACRN
1	[*]	[*]	[*]	1/31/16	0001/01/AA
2	[*]	[*]	[*]		0001/01/AA
	[*]	[*]			
	[*]	[*]			
3	[*]	[*]	[*]		0001/01/AA
4	[*]	[*]	[*]		0001/01/AA
5	[*]	[*]	[*]		0001/01/AA
6	[*]	[*]	[*]	4/30/16	0001/01/AA
	[*]	[*]			

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

		[*]			
	[*]	[*]			
	[*]	[*]	[*]		
	[*]	[*]			
	[*]	[*]			
8	[*]	[*]	[*]		0001/01/AA

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

9	[*]	[*]	[*]		0001/01/AA
10	[*]	[*]	[*]		0001/01/AA
	[*]	[*]			
11	[*]	[*]	[*]		0001/01/AA
12	[*]	[*]	[*]		0001/01/AA
13	[*]	[*]	[*]		0001/01/AA

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

		[*]			
14	[*]	[*]	[*]	7/31/16	0001/01/AA
	[*]	[*]			
15	[*]	[*]	[*]		0001/01/AA
	[*]	[*]			
	[*]	[*]			
16	[*]	[*]	[*]		0001/01/AA
17	[*]	[*]	[*]		0001/01/AA

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

	[*]	[*]			
18	[*]	[*]	[*]		0001/01/AA
19	[*]	[*]	[*]		0001/01/AA
20	[*]	[*]	[*]	10/31/16	0001/01/AA
	[*]	[*]			
	[*]	[*]			
	[*]	[*]			
21	[*]	[*]	[*]		0001/01/AA

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

	[*]	[*]			
	[*]	[*]			
	[*]	[*]			
22	[*]	[*]	[*]		0001/01/AA
23	[*]	[*]	[*]		0001/01/AA
24	[*]	[*]	[*]		0001/01/AA

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

	[*]	[*]	[*]		
25	[*]	[*]	[*]		0001/01/AA
	[*]	[*]			
	[*]	[*]			
26	[*]	[*]	[*]		0001/01/AA
27	[*]	[*]	[*]		0001/01/AA
	[*]	[*]			

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

28	[*]	[*]	[*]		0001/01/AA
29	[*]	[*]	[*]	1/31/17	0001/01/AA
30	[*]	[*]	[*]	4/30/17	0001/01/AA
31	[*]	[*]	[*]		0001/01/AA
	[*]	[*]			
32	[*]	[*]	[*]		0001/01/AA
33	[*]	[*]	[*]		0001/01/AA

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

		[*]			
	[*]	[*]			
	[*]	[*]			
34	[*]	[*]	[*]		0001/01/AA
	[*]	[*]			
	[*]	[*]			

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

35	[*]	[*]	[*]		0001/01/AA
36	[*]	[*]	[*]		0001/01/AA
37	[*]	[*]	[*]		0001/01/AA
38	[*]	[*]	[*]		0001/01/AA
	[*]	[*]			
39	[*]	[*]	[*]		0001/01/AA (Partially funded @ $315,985 at time of TIA Award)
40	[*]	[*]	[*]	7/31/17	
	[*]	[*]			

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

	[*]	[*]			
	[*]	[*]			
41	[*]	[*]	[*]		
42	[*]	[*]	[*]		
43	[*]	[*]	[*]		
44	[*]	[*]	[*]	4/30/18	
	[*]	[*]			
	[*]	[*]			
	[*]	[*]			
45	[*]	[*]	[*]		

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

	[*]	[*]			
	[*]	[*]			
	[*]	[*]			
46	[*]	[*]	[*]		
	[*]	[*]			
	[*]	[*]			
47	[*]	[*]	[*]		
	[*]	[*]			

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

		[*]			
48	[*]	[*]	[*]		
49	[*]	[*]	[*]		
50	[*]	[*]	[*]		
51	[*]	[*]	[*]		
	[*]	[*]			
	[*]	[*]			
52	[*]	[*]	[*]		
	[*]	[*]			

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

		[*]			
53	[*]	[*]	[*]		
54	[*]	[*]	[*]		
	[*]	[*]			
55	[*]	[*]	[*]		
56	[*]	[*]	[*]	7/31/18	
57	[*]	[*]	[*]	10/31/18	
58	[*]	[*]	[*]		
	[*]	[*]			
59	[*]	[*]	[*]		

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

		[*]			
60	[*]	[*]	[*]		
61	[*]	[*]	[*]	4/30/19	
62	[*]	[*]	[*]		
OPTION 63	[*]	[*]	[*]		
64	[*]	[*]	[*]	7/31/19	
OPTION 65	[*]	[*]	[*]	10/31/19	
66	[*]	[*]	[*]		

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

		[*]			
		Baseline Costs	**$34,167,843**		
		Option Costs	**$992,168**		
		TOTAL	**$35,160,011**		

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Exhibit 10.28

TERMINATION AGREEMENT REGARDING THE AMENDED AND RESTATED MASTER FRAMEWORK AGREEMENT

This Termination Agreement regarding the Amended and Restated Master Framework Agreement (this " Termination Agreement") is made and entered into as of March 21, 2016 ("Effective Date"), by and between Amyris, Inc., a Delaware corporation ("Amyris"), and Total Energies Nouvelles Activités USA, SAS (formerly known as Total Gas & Power USA, SAS), a *société par actions simplifiée* organized under the laws of the Republic of France ("Total") (Amyris and Total, each a "Party" and together the "Parties").

WHEREAS, the Parties entered into a Master Framework Agreement on July 30, 2012, which was amended on March 24, 2013 (as amended, the "Original Master Agreement");

WHEREAS, the Parties replaced and superseded the Original Master Agreement by entering into the Amended and Restated Master Framework Agreement, dated December 2, 2013, which was subsequently amended on April 1, 2015 (as amended, the "Master Agreement"); and

WHEREAS, due to mutually agreed upon changes in the Parties' relationship described in their letter agreement, dated July 26, 2015 and amended on February 11, 2016, regarding the restructuring of Total Amyris BioSolutions B.V (the "JVCO Letter Agreement"), the Master Agreement is no longer relevant, and the Parties, consistent with the JVCO Letter Agreement, now desire to terminate the Master Agreement in its entirety.

NOW, THEREFORE, in consideration of the foregoing and the mutual covenants contained in this Termination Agreement, the Parties agree as follows:

1. Termination. The Parties hereby, effective as of the Effective Date, terminate the Master Agreement in its entirety.

2. Counterparts. This Termination Agreement may be executed in any number of counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. This Termination Agreement may be executed by facsimile or other electronic signatures, and such signatures shall be deemed to bind each Party as if they were original signatures.

IN WITNESS WHEREOF, the Parties have caused this Termination Agreement to be executed as of the Effective Date by their respective duly authorized officers below.

AMYRIS, INC.

By: /s/ Nicholas Khadder
Name: Nicholas Khadder
Title: General Counsel

TOTAL ENERGIES NOUVELLES ACTIVITÉS USA, SAS

By: _____
Name:
Title:

TERMINATION AGREEMENT REGARDING THE AMENDED AND RESTATED MASTER FRAMEWORK AGREEMENT

This Termination Agreement regarding the Amended and Restated Master Framework Agreement (this " Termination Agreement") is made and entered into as of March 21, 2016 ("Effective Date"), by and between Amyris, Inc., a Delaware corporation ("Amyris"), and Total Energies Nouvelles Activités USA, SAS (formerly known as Total Gas & Power USA, SAS), a *société par actions simplifiée* organized under the laws of the Republic of France ("Total") (Amyris and Total, each a "Party" and together the "Parties").

WHEREAS, the Parties entered into a Master Framework Agreement on July 30, 2012, which was amended on March 24, 2013 (as amended, the "Original Master Agreement");

WHEREAS, the Parties replaced and superseded the Original Master Agreement by entering into the Amended and Restated Master Framework Agreement, dated December 2, 2013, which was subsequently amended on April 1, 2015 (as amended, the "Master Agreement"); and

WHEREAS, due to mutually agreed upon changes in the Parties' relationship described in their letter agreement, dated July 26, 2015 and amended on February 11, 2016, regarding the restructuring of Total Amyris BioSolutions B.V (the "JVCO Letter Agreement"), the Master Agreement is no longer relevant, and the Parties, consistent with the JVCO Letter Agreement, now desire to terminate the Master Agreement in its entirety.

NOW, THEREFORE, in consideration of the foregoing and the mutual covenants contained in this Termination Agreement, the Parties agree as follows:

3. Termination. The Parties hereby, effective as of the Effective Date, terminate the Master Agreement in its entirety.

4. Counterparts. This Termination Agreement may be executed in any number of counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. This Termination Agreement may be executed by facsimile or other electronic signatures, and such signatures shall be deemed to bind each Party as if they were original signatures.

IN WITNESS WHEREOF, the Parties have caused this Termination Agreement to be executed as of the Effective Date by their respective duly authorized officers below.

AMYRIS, INC.

By: _____
Name:
Title:

TOTAL ENERGIES NOUVELLES ACTIVITÉS USA, SAS

By: /s/ B. Clement
Name: B. Clement
Title: President

Exhibit 10.73

Fifth Addendum to the Private Lease Contract Instrument for Nonresidential Property

By and between:

I – LUCIO TOMASIELLO, Brazilian, unmarried, of legal age, businessman, holder of identity document RG No. SSP/SP, duly enrolled in the Individual Taxpayers Roll of the Ministry of the Treasury – CPF/MF under No. , resident and with address in the City of and **MAURÍCIO TOMASIELLO,** Brazilian, unmarried, of legal age, businessman, holder of identity document RG No. , issued by SSP/SP, duly enrolled in the Individual Taxpayers Roll of the Ministry of the Treasury – CPF/MF under No. , resident and with address in the City of , both hereinafter simply called **"LESSORS"**; and

II – AMYRIS BRASIL LTDA., corporation with headquarters in the City of Campinas, State of São Paulo, at Rua James Clerk Maxwell, No. 315, Techno Park, Postal Code: 13069-380, duly enrolled in the National Corporate Taxpayers Roll of the Ministry of the Treasury – CNPJ/MF under No. , represented in this act by its Articles of Incorporation, hereinafter simply called **"LESSEE"**; and

LESSORS and **LESSEE** are jointly called "Parties" and individually, "Party."

WHEREAS, the Parties entered into the Private Lease Contract Instrument for Nonresidential Property (the "Contract") March 31, 2008, referring to the location of the commercial warehouse that has a total built area of 1,368.09 m^2 (thirteen hundred sixty-eight square meters and 9 square centimeters), situated at Rua James Clerk Maxwell, No. 315, Postal Code: 13069-380, object of recorded entry 100068 filed in Notary Office No. 2, Property Records of Campinas, State of São Paulo and registered with the City of Campinas, State of São Paulo, under cartographic code No. 3162.44.26.0285.00000 (the "Property");

WHEREAS, the Parties entered into a Private Addendum Instrument to the Lease Contract for Nonresidential Property (the "First Addendum") that modified the conditions established in the Contract for the lease guarantee July 5, 2008;

WHEREAS, the Parties entered into the Second Addendum to the Private Lease Contract Instrument for Nonresidential Property (the "Second Addendum") October 30, 2008 that renewed and extended the lease period from 36 (thirty-six) months to 60 (sixty) months, that is, to May 31, 2013;

WHEREAS, the Parties entered into the Third Addendum to the Private Lease Contract Instrument for Nonresidential Property (the "Third Addendum") October 1, 2012 that renewed the lease period for another 36 (thirty-six) months, to October 1, 2015, and capped the monthly rent increase;

WHEREAS, the Parties entered into the Fourth Addendum to the Private Lease Contract Instrument for Nonresidential Property (the "Fourth Addendum") March 5, 2015 that renewed the lease period for an additional 43 (forty-three) months, to October 5, 2018, reset the monthly rent increase, and added clauses to the Contract; and

WHEREAS, the Parties have an unalloyed reciprocal interest in **(i)** establishing that the monthly rent will not be readjusted or corrected annually, including by variation in the General Market Prices Index-IGPM, measured by the Getúlio Vargas Foundation-FGV and **(ii)** keeping the updated monthly rent duly paid by the **LESSEE** the same until October 1, 2016,

The Parties therefore decide to sign the present Fifth Addendum to the Private Lease Contract Instrument for Nonresidential Property (the "Fifth Addendum") in mutual and complete agreement, in accordance with the clauses and conditions set out below.

CLAUSE ONE
MONTHLY RENT AND READJUSTMENT

1.1 As a result of the Parties' full accord, both state that no annual adjustment or correction of any kind will be made to the monthly rent, including variation in the General Market Prices Index-IGPM, measured by the Getúlio Vargas Foundation-FGV, and therefore, the monthly rent will remain fixed and unadjustable to October 1, 2016.

1.2 In accordance with the prescription in clause 1.1 above, the Parties agree, by

mutual consent, that the **LESSEE** will continue until October 1, 2016, to pay the **LESSORS** the amount of R$ 27.09 (twenty-seven reais and nine centavos) per m^2 (square meter), calculated on the total built area of the leased property, namely, 1,368.09 m^2 (thirteen hundred sixty-eight square meters and nine square centimeters), thus totaling the amount of R$ 37,059.66 (thirty-seven thousand fifty-nine reais and sixty-six centavos) monthly.

1.2.1 The Parties mutually agree that until October 1, 2016, the **LESSEE** will pay the **LESSORS** the monthly amount provided in this clause 1.2, all provisions of the Fourth Amendment referring to annual correction or adjustment of the monthly rent having no applicability and consequently, not producing any effects between the Parties.

1.2.2 Nevertheless, if the Parties should negotiate a readjustment or correction of the monthly price rent after October 1, 2016, this will only occur with the prior agreement of the Parties and approved by the **LESSEE**, upon entering into a written contractual addendum agreement.

1.3 In view of the amendments made by the Parties in this Fifth Addendum, in strict observance of the provisions in clauses 1.1 and 1.2, above, the Parties agree that Clause Five, lead paragraph, of the Contract will go into force with the following provision from the signing of this instrument:

5) *Until October 1, 2016, the* ***LESSEE*** *will pay the* ***LESSORS*** *the monthly rent of R$ 37,059.66 (thirty-seven thousand fifty-nine reais and sixty-six centavos) due the 5th (fifth) of each month via deposit to bank account ( ), the deposit slip serving as receipt and discharge. In addition, the Parties mutually agree that under this clause, until October 1, 2016, the monthly rent will not undergo any kind of adjustment or correction, including in response to the annual variation of the General Market Prices Index-IGPM, measured by the Getúlio Vargas Foundation-FGV.*

The Parties declare, in terms of this Clause One, that the conditions for payment not amended by this Fifth Addendum will be those established in the contract.

CLAUSE TWO

GENERAL PROVISIONS

2.1 The remaining clauses and conditions contained in the Contract, the First Addendum, the Second Addendum, the Third Addendum, and the Fourth Addendum are ratified by this Act in all their terms not expressly amended by this Fifth Addendum.

2.2 The Parties agree that the terms of this Fifth Addendum take precedence over the provisions of any other understanding that there may be between the Parties from the signing date of the Contract and the signing date of this Fifth Addendum.

2.3 The Contract and this Fifth Addendum can only be amended in any of their provisions by entering into a written contractual addendum.

And being thus within the law and in agreement, the Parties sign the present instrument in 3 (three) identical copies to the same effect, together with 2 (two) legally capable witnesses, who also sign.

Campinas, September 22, 2015

/s/ Lucio Tomasiello /s/ Mauricío Tomasiello

LESSORS: LUCIO TOMASIELLO/MAURÍCIO TOMASIELLO

/s/ Eduardo Loosli Silveira /s/ Giani Ming Valent

LESSEE: AMYRIS BRASIL LTDA.

Witnesses:

1.
Name:
RG:
CPF/MF:

2.
Name:
RG:
CPF/MF:

Exhibit 10.74

Sixth Addendum to the Private Lease Contract Instrument for Nonresidential Property

By and between:

I – LÚCIO TOMASIELLO, Brazilian, unmarried, of legal age, businessman, holder of identity document RG No. SSP/SP, duly enrolled in the Individual Taxpayers Roll of the Ministry of the Treasury – CPF/MF under No. , resident and with address in the City of and **MAURÍCIO TOMASIELLO,** Brazilian, unmarried, of legal age, businessman, holder of identity document RG No. , issued by SSP/SP, duly enrolled in the Individual Taxpayers Roll of the Ministry of the Treasury – CPF/MF under No. , resident and with address in the City of , both hereinafter simply called **"LESSORS"**; and

II – AMYRIS BRASIL LTDA., corporation with headquarters in the City of Campinas, State of São Paulo, at Rua James Clerk Maxwell, No. 315, Techno Park, Postal Code: 13069-380, duly enrolled in the National Corporate Taxpayers Roll of the Ministry of the Treasury – CNPJ/MF under No. 09.379.224/0001-20, represented in this act by its Articles of Incorporation, hereinafter simply called **"LESSEE"**; and

LESSORS and **LESSEE** are jointly called "Parties" and individually, "Party."

WHEREAS, the Parties entered into the Private Lease Contract Instrument for Nonresidential Property (the "Contract") March 31, 2008, referring to the location of the commercial warehouse that has a total built area of 1,368.09 m^2 (thirteen hundred sixty-eight square meters and 9 square centimeters), situated at Rua James Clerk Maxwell, No. 315, Postal Code: 13069-380, object of recorded entry 100068 filed in Notary Office No. 2, Property Records of Campinas, State of São Paulo and registered with the City of Campinas, State of São Paulo, under cartographic code No. 3162.44.26.0285.00000 (the "Property");

WHEREAS, the Parties entered into a Private Addendum Instrument to the Lease Contract for Nonresidential Property (the "First Addendum") that modified the conditions established in the Contract for the lease guarantee July 5, 2008;

WHEREAS, the Parties entered into the Second Addendum to the Private Lease Contract Instrument for Nonresidential Property (the "Second Addendum") October 30, 2008 that renewed and extended the lease period from 36 (thirty-six) months to 60 (sixty) months, that is, to May 31, 2013;

WHEREAS, the Parties entered into the Third Addendum to the Private Lease Contract Instrument for Nonresidential Property (the "Third Addendum") October 1, 2012 that renewed the lease period for another 36 (thirty-six) months, to October 1, 2015, and capped the monthly rent increase;

WHEREAS, the Parties entered into the Fourth Addendum to the Private Lease Contract Instrument for Nonresidential Property (the "Fourth Addendum") March 5, 2015 that renewed the lease period for an additional 43 (forty-three) months, to October 5, 2018, reset the monthly rent increase, and added clauses to the Contract;

WHEREAS, the Parties entered into the Fifth Addendum to the Private Lease Contract Instrument for Nonresidential Property ("Fifth Addendum") September 22, 2015 establishing that the monthly rent will not be readjusted or corrected annually by variation in the General Market Prices Index-IGPM, measured by the Getúlio Vargas Foundation-FGV and keeping the monthly rent duly paid by the **LESSEE** the same until October 1, 2016;

WHEREAS, the Parties have an unalloyed reciprocal interest in **(i)** extending the period of the lease to October 1, 2019, and **(ii)** establishing the increase in monthly rent by an adjustment agreed to between the Parties;

The Parties therefore decide to sign the present Sixth Addendum to the Private Lease Contract Instrument for Nonresidential Property (the "Sixth Addendum") in mutual and complete agreement, in accordance with the clauses and conditions set out below.

CLAUSE ONE
PERIOD OF THE LEASE

1.1 The Parties mutually agree to extend the period in force of the Contract such that the final period of the Contract in question will be October 1, 2019.

1.2 The period indicated in Clause 1.1 above may only be extended by means of the Parties' signing a new addendum agreement.

CLAUSE TWO
MONTHLY RENT AND READJUSTMENT

2.2 The Parties further agree by mutual consent that from October 1, 2016, the **LESSEE** will pay the **LESSORS** the amount of R$ 38,171.45 (thirty-eight thousand one hundred seventy-one reais and forty-five centavos) monthly until October 1, 2017, in consideration of a 3% (three percent) adjustment agreed between the Parties.

2.2.1 Nevertheless, after October 1, 2016, the Parties may negotiate an annual adjustment or correction to the monthly rent, provided that this occurs with previous accord of the Parties and approval of the **LESSEE**, by means of entering into a new contractual addendum agreement.

2.3 In view of the amendments made by the Parties to this Sixth Addendum, in strict observance of the provisions in clauses 2.1 and 2.2, above, the Parties agree that Clause Five, lead paragraph, of the Contract will go into force with the following provision from the signing of the present instrument:

> ***5)*** *From October 1, 2016, the* ***LESSEE*** *will pay the* ***LESSORS*** *the monthly rent of R$ 38,171.45 (thirty-eight thousand one hundred seventy-one reais and forty-five centavos) due the 5th (fifth) of each month via bank account deposit, the deposit slip serving as receipt and discharge. However, the Parties agree that until October 1, 2017, the* ***LESSEE*** *will pay the* ***LESSORS*** *the monthly rent provided in this clause.*

2.4 The Parties declare, in terms of this Clause One, that the conditions for payment not amended by this Sixth Addendum will be those established in the contract.

CLAUSE THREE

GENERAL PROVISIONS

3.1 The remaining clauses and conditions contained in the Contract, the First Addendum, the Second Addendum, the Third Addendum, the Fourth Addendum, and the Fifth Addendum are ratified by this Act in all their terms not expressly amended by this Sixth Addendum.

3.2 The Parties agree that the terms of this Fifth Addendum take precedence over the provisions of any other understanding that there may be between the Parties from the signing date of the Contract and the signing date of this Sixth Addendum.

3.3 The Contract and this Sixth Addendum can only be amended in any of their provisions by entering into a written contractual addendum.

And being thus within the law and in agreement, the Parties sign the present instrument in 3 (three) identical copies to the same effect, together with 2 (two) legally capable witnesses, who also sign.

Campinas, October 17, 2016

/s/ Lucio Tomasiello /s/ Mauricio Tomasiello
LESSORS: LÚCIO TOMASIELLO/MAURÍCIO TOMASIELLO

/s/ Erica Baumgarten /s/ Giani Ming Valent
LESSEE: AMYRIS BRASIL LTDA.

Witnesses:

1.
Name:
RG:
CPF/MF:

2.
Name:
RG:
CPF/MF:

Exhibit 10.76

CONFIDENTIAL

AMENDMENT #1
TO COLLABORATION AGREEMENT

THIS AMENDMENT #1 TO COLLABORATION AGREEMENT ("First Amendment") is made and entered into as of July 1, 2015 (the "First Amendment Effective Date") by and between **Amyris, Inc**., having its principal place of business located at 5885 Hollis St, Suite 100, Emeryville, CA 94608 USA ("Amyris"), and **Firmenich SA,** having its registered place of business at 1, route des Jeunes, 1208 Geneva Switzerland ("Firmenich").

WHEREAS, Amyris and Firmenich entered into that certain Collaboration Agreement on March 13, 2013 (the "Agreement") to collaborate on the development and worldwide use and commercialization of Ingredients in the F&F Market using Strain Generation Technology Controlled by Amyris and other contributions of the Parties.

WHEREAS, pursuant to the terms and conditions of this First Amendment, the Parties desire to amend the Agreement to update (i) funding milestones and associated payments related to those milestones, (ii) the sharing of Profits and (iii) the calculation of a commercialization bonus as set forth in Appendix F.

NOW THEREFORE, in consideration of the promises and the mutual covenants contained herein, the Parties agree as follows:

1. Section 3.10.2 of the Agreement is hereby amended by deleting such section in its entirety and replacing it with the following new section 3.10.2:

"3.10.2 In addition, Firmenich will make the following four milestone payments to Amyris on the following conditions:

- Milestone 1: [*] within thirty (30) days of achieving the Target Cost or less per kilogram of the Initial Ingredient meeting the Ingredient Specifications when the Initial Ingredient is produced by Amyris (or on its behalf) in a "Qualifying Run" (i.e., in a [*] fermenter or larger, at Amyris' option); provided, that in determining whether or not the Target Cost is achieved in such Qualifying Run, the Parties will use the agreed assumed costs of raw materials and fermentation as set forth in the Target Cost Model, not the actual costs for such raw materials and fermentation incurred by Amyris in such Qualifying Run.

- Milestone 2: [*] within thirty (30) days of Amyris's first delivery to Firmenich of at least [*] of the Intermediate, [*], which amount is measured on a pure basis. Payment for an achieved Milestone 2 will be made within thirty (30) days after agreement by the Steering Committee that this Milestone 2 has been achieved. Under this Milestone 2, the [*] shall be delivered with a chemical purity of [*] and have a mass conversion yield of [*] (on a pure basis) to [*] greater than [*].

- Milestone 3: [*] if Amyris delivers, prior to December 31, 2015, at least [*] of [*], which amount is measured on a pure basis, that meets the requirements in this paragraph. Payment for an achieved Milestone 3 will be made within thirty (30) days after agreement by the Steering Committee that this Milestone 3 has been achieved. To satisfy this Milestone 3, (i) the

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

- [*] shall have a chemical purity that meets the Ingredient Specifications, (ii) the [*] shall have a mass conversion yield of the [*] (on a pure basis) to [*], and (iii) the final [*] produced from such [*] must meet an olfactive standard set by Firmenich. In the event Amyris fails to deliver the [*] described herein prior to December 31, 2015, Amyris will still earn the Milestone 3 payment if it meets Milestone 3 no later than June 30, 2016, though the payment in that case will be [*].

- Milestone 4: [*] if Amyris achieves the Target Cost of [*] for the production of [*] in a Qualifying Run, which [*] meets the requirements in this paragraph. Payment for an achieved Milestone 4 will be made within thirty (30) days after agreement by Steering Committee that this Milestone 4 has been achieved. To satisfy this Milestone 4, (i) the [*] shall have a chemical purity that meets the Ingredient Specifications, (ii) the [*] shall have a mass conversion yield of the [*] (on a pure basis) to [*], and (iii) the final [*] produced from such [*] must meet an olfactive standard set by Firmenich. In determining whether or not the Target Cost was achieved in this Qualifying Run, the Parties will use the agreed assumed costs of raw materials and fermentation set forth in the Target Cost Model. Recognition and payment of this Milestone 4 will impose, commencing January 1, 2017, a cap on the Fully-Burdened Ingredient Manufacturing Costs of [*] supplied by Amyris to Firmenich at [*]. This cap may be renegotiated by the Parties in the event of extraordinary currency exchange rate fluctuations.

For purposes of Milestone 3 and Milestone 4, the Ingredient Specifications for [*] delivered under such milestones, and the timelines and the analytical methods for determining its compliance with the applicable milestone will be agreed by the Technical Committee in writing prior to the start of the pilot production campaign for [*] at Amyris's Brotas facility.

These milestones reflect achievement of certain technical parameters, such as yield and productivity of Strains, and/or delivery of a specified sample volume of the Intermediate or Ingredient such that it provides confidence to the Parties that Amyris has sufficiently progressed on the Project to allow the Parties to envision and plan for commercialization of the applicable Intermediate or Ingredient."

2. Section 21.2.1 of the Agreement is hereby amended by deleting such section in its entirety and replacing it with the following new section 21.2.1:

"21.2.1 (a) *General Principle*. The Parties agree to share Profits from Firmenich's sale of Intermediates and Ingredients on the basis of 70% of such Profits to Firmenich and 30% of such Profits to Amyris until such time as Firmenich receives fifteen million U.S. dollars (US$15,000,000) more than Amyris from its share of Profits. After such time, the sharing of Profits will become 50% of such Profits to each Party. Sharing of Profits will be based solely on the sale of the Intermediates and Ingredients themselves, and not any Fragrance or Flavor of which the Intermediates or Ingredients comprises. Profits will in all cases be paid within sixty (60) days after the end of each calendar quarter.

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

(b) *Exception for* [*]. Notwithstanding the foregoing in subsection (a), the Parties agree that:

(1) the Profits from Firmenich's sale of any (i) [*] that is purchased from Amyris during calendar year 2015 or calendar year 2016 or (ii) any Intermediate or Ingredient, including [*] or [*], produced from [*] that is purchased from Amyris during calendar year 2015 or calendar year 2016 shall be split [*];

(2) the Profits from Firmenich's sale of any [*] produced from [*] that is purchased from Amyris on or after January 1, 2017 shall be, and at all times remain, [*];

(3) the Profits from Firmenich's sale of any [*] produced from [*] that is purchased from Amyris on or after January 1, 2017 shall be, and at all times remain, [*];

(4) the Profit splits described in clauses (1), (2), and (3) of this subsection (b) are independent of subsection (a) and will not be amended, changed or otherwise affected by the shift under subsection (a) to [*];

(5) none of the Profits from Firmenich's sale of any [*] or of any Intermediate or Ingredient, including [*] or [*], produced from [*] will count toward triggering the [*] split in subsection (a); and

(6) For clarity, any Profits from Firmenich's sale of any (i) [*] that is purchased from Amyris on or after January 1, 2017 or (ii) Intermediate or Ingredient (excluding [*] and [*]) produced from [*] purchased from Amyris on or after January 1, 2017 shall be subject to the Profit split(s) set forth in subsection (a) above.

In addition, the Parties agree that, notwithstanding anything to the contrary in this Agreement (including section 3.11), any Firmenich Non-Project Intellectual Property that is or may be used to produce [*] or any Intermediate or Ingredient made from [*] (including [*]) will be considered Firmenich Non-Project Royalty-Bearing Intellectual Property, but no royalty payment or other compensation is or will be due or payable to Firmenich for such use."

3. Section 21.3 of the Agreement is hereby amended by deleting such section in its entirety and replacing it with the following new section 21.3:

"21.3 Success Bonus. Amyris shall pay to Firmenich a success bonus (the "Bonus") for commercializing the Intermediates or Ingredients, which shall be calculated as set forth in Appendix F. However, the Parties agree that, consistent with section 21.2.1(b)(5), none of the Profits from Firmenich's sale of any [*] or of any Intermediate or Ingredient, including [*], produced from [*] will be included in the calculation of the first criterion of the "Bonus Trigger" in such Appendix F."

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Appendix F of the Agreement (*i.e.*, Model for Calculation of Bonus) is hereby amended by deleting such appendix in its entirety and replacing it with the new Appendix F attached hereto as Attachment 1.

4. Capitalized terms used in this First Amendment shall have the same meaning as defined in the Agreement unless otherwise defined herein. Except as specifically provided in this First Amendment, the terms and conditions of the Agreement shall remain in full force and effect, and unchanged. Together, the Agreement and this First Amendment constitute the entire agreement between the Parties, and supersede any and all prior negotiations, representations, correspondence, understandings and agreements with respect to the subject matter of this First Amendment. To the extent of any conflict between the Agreement and this First Amendment, this First Amendment shall supersede and govern solely to the extent of such conflict. This First Amendment may be executed in counterparts, which together shall constitute one document and be binding on the Parties.

IN WITNESS WHEREOF, and intending to be bound by the provisions hereof, the Parties have caused this First Amendment to be executed personally or by their duly authorized representatives, to be effective as of the First Amendment Effective Date.

AMYRIS, INC.

Signature: /s/ Keri Zook
By: Keri Zook
Title: V.P., Assistant General Counsel

FIRMENICH SA

Signature: /s/ Genevieve Berger
By: Genevieve Berger
Title: CHIEF RESEARCH OFFICER

Signature: /s/ Boet Brinkgreve
By: Boet Brinkgreve
Title: PRESIDENT INGREDIENTS & PRESIDENT FIRMENICH CHINA

Attachment 1

APPENDIX F

MODEL FOR CALCULATION OF BONUS

Bonus Calculation

Bonus Intent: As Firmenich is solely responsible for the commercialization of Firmenich Product from the Collaboration, Amyris will pay a one-time bonus to Firmenich, conditional on achieving certain requirements set forth below, in order to incentivize those efforts.

Bonus Schedule:

Year in Which Bonus Trigger Achieved	One-Time Commercialization Bonus Payment
Years 1 - 5	[*]
Year 6	[*]
Years 7 onwards	[*]

Years 1-5: June 1, 2014 through May 31, 2019
Year 6: June 1, 2019 through May 31, 2020
Year 7 onwards: on or after June 1, 2020

Bonus Trigger: trigger for the one-time payment of a commercialization bonus from Amyris to Firmenich is defined as achieving all of the following:

- The Parties' [*] split is triggered under section 21.2.1(a).
- Firmenich is making all Reasonable Efforts to commercialize Firmenich Products from the Collaboration pursuant to Article 2.5, including but not limited to such activities as conducting customer sampling, marketing and promotion, and providing customer service to support product sales.
- Firmenich has provided a 5-year business plan to the Steering Committee, which will be updated on an annual basis and which demonstrates their intentions for the growth of Firmenich Product sales commensurate with the market conditions for that product or products.

One-Time Commercialization Bonus Payment

- The Bonus will be paid as a one-time payment from Amyris to Firmenich within 60 days of Firmenich achieving the Bonus Trigger.
- If Bonus Trigger is achieved within Year 6, payment will be [*] on a monthly basis (e.g., if Bonus Trigger is achieved 4 months into Year 6, payment will be [*]).

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Exhibit 10.77

CONFIDENTIAL TREATMENT REQUESTED. CERTAIN PORTIONS OF THIS DOCUMENT HAVE BEEN OMITTED PURSUANT TO A REQUEST FOR CONFIDENTIAL TREATMENT AND, WHERE APPLICABLE, HAVE BEEN MARKED WITH AN ASTERISK TO DENOTE WHERE OMISSIONS HAVE BEEN MADE. THE CONFIDENTIAL MATERIAL HAS BEEN FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION.

Confidential

AMENDMENT #2
TO THE COLLABORATION AGREEMENT

This **Amendment #2 to the Collaboration Agreement** (the "**Second Amendment**") is entered into on November 23, 2016 (the "**Second Amendment Effective Date**") between **Amyris, Inc.** and **Firmenich SA**.

Whereas, the Parties hereto entered into the Collaboration Agreement on March 13, 2013, which was subsequently amended by Amendment #1 to the Collaboration Agreement, dated July 1, 2015 (the Collaboration Agreement as amended is called the "**Agreement**");

Whereas, Amyris has entered into a collaboration agreement with [*] ("[*]") to develop certain compounds ("[*]Collaboration Agreement"); and

Whereas, the Parties wish to further amend the Agreement to 1) define how the Parties have agreed to collaborate in light of the [*]Collaboration Agreement, by extending the definition of Exclusions, the access, manufacture and supply rights as well as the conditions of sale; and, 2) transfer the ownership of the Escrowed Materials to Firmenich, and 3) clarify the definition of "repellent" falling within the F&F Market.

Now Therefore, the Parties hereto agree as follows:

1. The definition of Exclusions found in Section 1.16 of the Agreement is amended by adding the following to the Exclusions: "The following ingredients, including intermediates thereof which are collectively referred to as the "Excluded Ingredients", are also Exclusions: [*].

2. The definition of F&F Market found in Section 1.17 of the Agreement is clarified as follows and the following parenthetical after "repellant" is added: "(an ingredient that induces repulsion or attraction in any arthropod, pest or other animal and which acts via olfactory or taste receptors and/or the olfactory and taste systems)". This clarification of the term and the meaning of repellant will operate with effect from the Effective Date of the Agreement.

3. The following sentences are added to Section 2.1, General Scope, of the Agreement: "With regard to the Excluded Ingredients however, if the circumstances in Sections 2.8.6 and 2.8.7 occur with respect to any of the individual Excluded Ingredients, or if the [*]Collaboration Agreement expires or is terminated for any reason, or Amyris is no longer bound by the [*] Collaboration Agreement for any other reason, then the Excluded Ingredients will revert back to the Collaboration and consequently be deemed to be included within the F&F Market under this Agreement."

4. The following sections are added as a new Section 2.8:

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

"Section 2.8, Development of Excluded Ingredients in Collaboration with [*]. Amyris has the right to enter into an agreement with [*] relating to the research, development, manufacture, supply and commercialization of the Excluded Ingredients as a Flavor Ingredient subject to the following conditions:

2.8.1. Firmenich will purchase for its internal use only (and not for re-sale) the Excluded Ingredients from [*] and/or Amyris under Firmenich's standard purchasing terms and conditions.

2.8.2. If the net selling price [*] charges Firmenich for the sale of the Excluded Ingredient is more than Amyris' Fully-Burdened Cost for the Excluded Ingredient plus [*], then Amyris will compensate Firmenich for the difference within thirty (30) days after a request is made by Firmenich. "Fully-Burdened Cost for the Excluded Ingredient" is based upon the elements and principles used in the agreed cost model for [*] (as shared between the Parties after each production campaign).

2.8.3. The Steering Committee will determine according to the decision making process shown in Section 2.6, the Target Cost for the Excluded Ingredients (based on the Target Cost Model). The Steering Committee will also advise upon the scope of the development of the Excluded Ingredients, guided by the interest to support Amyris to achieve and maintain global standards of naturalness for flavors.

2.8.4. If [*] cannot produce the quantities of Excluded Ingredient(s) required by Firmenich, then Amyris will manufacture or have manufactured the Excluded Ingredient(s) and sell the requested amount of Excluded Ingredient(s) to Firmenich at Amyris' Fully-Burdened Cost for the Excluded Ingredient plus [*] regardless of Amyris' Target Cost for the Excluded Ingredient(s), but capped at [*].

2.8.5. The record keeping and auditing provisions in Section 4, Audit Rights, apply to the data and information provided on the Fully-Burdened Cost for the Excluded Ingredient(s). If Amyris cannot produce the Excluded Ingredient(s) at [*], the Parties will negotiate a new mark-up percentage in good faith as per the process established in the Collaboration Agreement.

2.8.6. If [*] or Amyris, as the case may be, cannot achieve a cost of an Excluded Ingredient of [*]. The occurrence of such an event will be formally confirmed by the Steering Committee.

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

2.8.8. If the Excluded Ingredients are not commercialized by [*] on or before June 28, 2019, being thirty six (36) months after the signature date of the [*] Collaboration Agreement ([*]), then the Excluded Ingredients will automatically [*]. The occurrence of such an event will be formally confirmed by the Steering Committee.

2.8.9. If Amyris or an Amyris Affiliate manufactures and sells an Excluded Ingredient product to [*], Amyris will pay to Firmenich a royalty of [*].

2.8.10. Within five (5) business days after the end of each calendar quarter, Firmenich will provide to Amyris the volumes and price paid by Firmenich for Excluded Ingredient(s) purchased during the same quarter, allowing Amyris to deduct the volumes sold to Firmenich from its total sales of the Excluded Ingredient and to provide for the calculation of the royalty amounts.

2.8.11. Within fifteen (15) business days following the notification by Firmenich of Excluded Ingredient volumes purchased during the quarter, and for each calendar quarter during which Excluded Ingredient have been sold, Amyris will provide Firmenich with reports of its Net Sales of Excluded Ingredients.

a. Each of the foregoing reports will include (for the relevant period) (i) quantities of Excluded Ingredient sold to Third Parties, (ii) the average selling Price for such sales; (iii) the associated cost (as per cost model described in Section 2.8.3); and (iv) the royalty amount to be paid to Firmenich.

b. The audit rights shown in Section 4, Audit Rights, apply to all Amyris records (including financial and supply records) to allow the verification of payments in accordance with this clause 2.

2.8.12. Amyris will pay to Firmenich such amounts within sixty (60) days after receipt of the invoice. Payments will be made in U.S. Dollars by wire transfer to an account designated by Firmenich.

2.8.13. The [*] Collaboration Agreement contains provisions regarding a change in control, insolvency, confidentiality and insurance as well as other provisions required to ensure the continued supply of the Excluded Ingredient to Firmenich. Amyris warrants and undertakes that the [*] Collaboration Agreement and all collaboration with [*] complies strictly and will comply at all times during the Agreement with the terms and conditions of the Agreement and does not in any way prejudice Firmenich's

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

2.8.15. rights and interests, in particular, but not limited to the specific provisions on assignment or access to Amyris' Strain Generation Technology and Amyris Collaboration Intellectual Property. As agreed in the Steering Committee, Amyris shall provide to Firmenich within 30 days of the Second Amendment Effective Date written confirmation of this non–infringement commitment by Amyris in a separate letter.

2.8.16. Amyris will ensure that [*] does not communicate externally or issue any press release or similar public communication about its collaboration with Amyris. Before issuing any press release or similar public communication relating to the collaboration on any Excluded Ingredient, Amyris will first obtain the prior written consent of Firmenich.

2.8.17. Amyris will inform Firmenich as soon as reasonably possible if the [*] Collaboration Agreement expires, is terminated or is amended or if either event described in Sections 2.8.6 and/or 2.8.7 occurs.

2.8.18. Amyris will provide to Firmenich a redacted copy of the [*] Agreement so that Firmenich can verify that the required provisions as stated in 2.8.12 are present. The redacted [*] Agreement will be treated as Confidential Information pursuant to Section 8, Confidentiality.

2.8.19. Any assignment, outsourcing or sub-contracting by Amyris of the manufacturing or other rights of the Excluded Ingredients to a third party is conditioned upon the royalty payment obligation (2.8.8), the pricing compensation (2.8.2) and the procurement obligation (2.8.4) to Firmenich."

5. As of the Second Amendment Effective Date, the ownership of all Escrowed Materials relating to [*] that are in escrow pursuant to the Escrow Agreement dated August 22nd, 2013, between the Parties and the Escrow Agent, (the "**Transferred Materials**") are hereby transferred from Amyris to Firmenich. Amyris shall within fifteen (15) business days following the Second Amendment Effective Date, take all measures and actions necessary to release the Transferred Materials from escrow and to deposit them in Firmenich's name in a deposit account with the Escrow Agent or such other Agent Firmenich choses. For the avoidance of doubt, Transferred Materials include all technical reports (including strain development history) describing the work to date under the Work Plan, copies of all supporting manufacturing SOPs and all other material development-related documentation for each Intermediate and Ingredient developed under its Work Plan.

5.1. The Parties will request an amendment of the Escrow Agreement's Release Conditions for the specific purpose shown above. Amyris will confirm the release instructions according to Exhibit A of the Escrow Agreement.

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

5.2. The Escrow Agreement will remain in place for the deposit of future Strains. For the sake of clarity, any future Strains developed after the Second Amendment Effective Date will be deposited in escrow in accordance with the terms of Section 3.4 of the Agreement, Development Strain Escrow.

5.3. For the sake of clarity, Firmenich will use the Transferred Materials within the limitations of the Collaboration Agreement including, but not limited to, Sections 6.3 (Firmenich's Representations and Warranties), 8 (Confidentiality), and 9 (Exclusivity).

6. Amyris promises to pay or transfer to Firmenich the following:

6.1. The transfer of the ownership of the Transferred Material represents a value of [*] to Firmenich;

6.2. Amyris hereby gives Firmenich a credit of [*] which is or will be applied to an order of [*] that has already been received by Amyris;

6.3. Amyris will sell to Firmenich an additional [*] pursuant to the Supply Agreement between the Parties (which represents a value of [*]). The sales schedule has been mutually agreed upon by the Parties ;

6.4. Amyris will provide training to Firmenich employees at Amyris' Brotas plant, representing a value of [*]. This corresponds to [*], to be allocated by Amyris for such training. The training plan will be established between the Parties after the Second Amendment Effective Date, no later than January 2017. Amyris will not reimburse Firmenich for travel, hotel or other accommodation expenses incurred by Firmenich employees in attending such training.

7. Without affecting any other right or remedy available, Firmenich may terminate this Second Amendment and the Agreement (Section 20.2/ 20.4.3 of the Agreement) with immediate effect by giving written notice to Amyris (or at such other date as specified in the notice) if Amyris commits a breach of any term or condition of this Second Amendment and such breach has not been remediated within 30 days after written notice of such breach by Firmenich.

8. Capitalized terms used in this Second Amendment have the meaning defined in the Agreement unless otherwise defined herein. Except as specifically provided in this Second Amendment, the terms and conditions of the Agreement shall remain in full force and effect, and unchanged. Together, the Collaboration Agreement, the First Amendment and this Second Amendment constitute the entire agreement between the Parties, and supersede any and all prior negotiations, representations, correspondence, understandings and agreements

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

with respect to the subject matter of the Agreement, the First Amendment and the Second Amendment. This Second Amendment may be executed in counterparts, which together shall constitute one document and be binding on the Parties. Unless otherwise explicitly noted, all of the amendments shown in this Second Amendment are effective as of the Second Amendment Effective Date.

In Witness Hereof, the Parties executed this Agreement as of the Second Amendment Effective Date.

Amyris, Inc.

Signature /s/ John Melo
By : John Melo
Title : CEO

Firmenich SA

Signature /s/ Boet Brinkgreve
By : Boet Brinkgreve
Title : President Ing & China

Signature /s/ C. Dean
By : C. Dean
Title : VP R&D 02 Dec 2016

Exhibit 10.95

PURCHASE AND SALE AGREEMENT

BY AND AMONG

SALISBURY PARTNERS, LLC,
GLYCOTECH, INC.

AND

AMYRIS, INC.

NOVEMBER 10, 2016

SCHEDULES

1(a)	Description of Real Property
1(b)	Manufacturing Equipment
1(c)	Fixtures, Machinery and Equipment
1(e)	Inventory and Raw Materials
3	Employees
5(e)	Contracts to be Assumed by Purchaser
5(m)	Off-site Hazardous Material treatment facilities
6(k)	Environmental Testing

PURCHASE AND SALE AGREEMENT

THIS PURCHASE AND SALE AGREEMENT (the "Agreement") is entered into as of November 10, 2016 (the "Effective Date"), by and among **SALISBURY PARTNERS, LLC**, a North Carolina limited liability company ("Salisbury"), **GLYCOTECH, INC.**, a North Carolina corporation, ("Glycotech"), and **AMYRIS, INC.**, a Delaware corporation qualified to transact business in North Carolina ("Purchaser").

W I T N E S S E T H:

WHEREAS, Salisbury owns a manufacturing facility ("Facility") located on approximately 23.5 acres at 2271 Andrew Jackson Highway, Leland, Brunswick County, North Carolina and more particularly described on Schedule 1(a) attached hereto ("Real Property") and owns certain personal property used in the operation of the Facility; and

WHEREAS, Glycotech occupies and operates the Facility under the terms of a lease agreement with Salisbury ("Glycotech Lease") and owns certain personal property used in the operation of the Facility; and

WHEREAS, Glycotech and Purchaser are parties to that certain Production Services Agreement dated as of February 1, 2011 ("PSA"), pursuant to which Glycotech provides services to Purchaser at the Facility; and

WHEREAS, Salisbury desires to transfer, sell and convey to Purchaser, and Purchaser desires to purchase from Salisbury, the Real Property and certain personal property used in the operation of the Facility; Glycotech desires to transfer, sell and convey to Purchaser, and Purchaser desires to purchase from Glycotech, certain personal property used in the operation of the Facility; and the parties desire to terminate the Glycotech Lease and the PSA, all upon the terms and conditions set forth herein.

NOW, THEREFORE, in consideration of the premises and the covenants and agreements contained herein, the parties hereto agree as follows:

1. **PURCHASE AND SALE OF ASSETS**. Subject to and in accordance with the terms and provisions hereof, each of Salisbury and Glycotech agrees to sell, transfer, assign, and convey to Purchaser, and Purchaser agrees to purchase all of Salisbury's and Glycotech's right, title, and interest in and to the Real Property, furniture, fixtures, equipment, and inventory, raw materials and supplies, and other tangible assets located at or used in connection with the Facility, including, without limitation, the following:

(a) The Real Property, the buildings and improvements located thereon, and all tenements, hereditaments, rights, privileges, interests, easements, and appurtenances pertaining thereto (provided however it is acknowledged that Glycotech is excluded from this Section 1(a));

(b) All manufacturing equipment, and all related equipment spare parts, tools, and appurtenances located on the Real Property, including the equipment listed on Schedule 1(b);

(c) All Facility fixtures, machinery, and equipment, including, but not limited to, shelving, counters, work stations, and other personal property used for running the business conducted at the Facility, including the equipment listed on Schedule 1(c);

(d) Facility operating supplies, including cleaning and janitorial supplies;

(e) Inventory and raw materials, including the inventory and raw materials listed on Schedule 1(e);

(f) Permits, licenses, and governmental approvals with respect to the operation of the Facility, to the extent transferable;

(g) The contracts listed on Schedule 5(e); and

(h) Records in Salisbury's or Glycotech's possession regarding the operation and maintenance of the Facility, including, without limitation, any applicable warranties, service manuals or other documents pertaining to the Assets, and records dealing with the employees at the Facility to be retained by Purchaser.

The property described in (a) through (h) is hereinafter referred to collectively as the "Assets." Each of Salisbury and Glycotech, as the case may be, shall sell, transfer, assign, and convey the Assets to Purchaser free and clear of any and all liens, pledges, mortgages, security interests, charges, encumbrances, assessments (pending or confirmed), covenants, claims, restrictions, rights, options, conditional sale or other title retention agreement or financing leases of any kind or nature (collectively, "Lien" or "Liens"). Notwithstanding anything in this Agreement to the contrary, the Assets shall not include any underground storage tanks, known to Salisbury, which Salisbury has not disclosed to the Purchaser in writing prior the Effective Date.

Purchaser shall not assume or have any responsibility or liability for, and Salisbury and Glycotech shall retain, be responsible and liable for, and perform and discharge any liability or obligation (i) arising out of or relating to the ownership or operation of the Real Property, the Assets or the Facility prior to the Closing, (ii) arising or existing prior to the Closing under any contract or agreement relating to the Real Property, the Assets or the operation of the Facility, including with respect to any breach or noncompliance thereof prior to the Closing, (iii) arising out of the failure of Salisbury or Glycotech and their affiliates to comply with any laws, rules and regulations, and (iv) based upon Salisbury's or Glycotech's acts or omissions prior to or after the Closing (collectively, "Excluded Liabilities"). For clarity, the parties acknowledge and agree that Purchaser owns all right, title and interest in and to the processes, procedures, instructions, formulations, techniques and similar matters related to the development, production or other activities under the PSA, and all intellectual property relating thereto, including all inventions, trade secrets, know-how and copyrights.

2 . PURCHASE PRICE. The consideration to be paid for the Assets (subject to adjustments as set forth herein) shall be Four Million Three Hundred Fifty Thousand Dollars ($4,350,000.00) ("Purchase Price"). The Purchase Price shall be payable as follows:

(a) Subject to Section 12.13, a deposit of $100,000 ("Deposit") shall be paid to Salisbury's counsel ("Escrow Agent") within three (3) business days after the date of this Agreement. The Deposit shall be applicable to the Purchase Price, but shall be non-refundable to Purchaser except in the event of (i) a breach of this Agreement by Salisbury or Glycotech or (ii) the failure of a closing condition to be satisfied in accordance with the terms of this Agreement unless such failure is caused by Purchaser's breach hereof.

(b) $350,000, as a credit for the remaining Deposit Balance (as such term is defined in the PSA) owed to Purchaser in accordance with Section 6.1(a) of the PSA.

(c) $500,000 to be paid in equal monthly installments of $100,000, with the first such payment to be made by transfer of the Deposit from Escrow Agent to Salisbury on the date the transactions contemplated hereby are consummated ("Closing"), and the four remaining payments to be made by Purchaser on the same day of the following four successive months. Any payment under this Section 2(c) shall be subject to a late fee of 5% if delinquent by more than five (5) days.

(d) $3,500,000 to be evidenced by a purchase money promissory note (the "Purchase Money Note") bearing interest at the rate of five percent (5%) per annum, with a term of thirteen (13) years, and payable in level monthly payments of principal and interest in an amount of $30,557.09, with the first such monthly payment to be due on the first day of the month following the month in which Closing occurs, and continuing on the first day of each successive month thereafter. The Purchase Money Note shall provide for a late fee of 5% for any payments delinquent more than five (5) days. The Purchase Money Note shall be secured by a purchase money deed of trust encumbering the Real Property, and by a security interest in the Assets comprising personal property.

3. EMPLOYEES. Glycotech's employees at the Facility are listed on Schedule 3, together with each employee's pay rate, date of hire, and job description. Glycotech agrees that Purchaser may conduct job interviews with, and make job offers to, Glycotech employees prior to the Closing as Purchaser may determine on an employee-by-employee basis; however, Purchaser has no obligation to interview, offer to hire, or hire any Glycotech employees. Prior to closing, Amyris will inform Glycotech reasonably in advance of closing of those employees Amyris intends to extend an offer of employment to, so that Glycotech may communicate with those employees Purchaser does not intend to extend an offer of employment to. Glycotech remains solely responsible for the compensation, benefits, paid time off and, if any, severance pay of its employees prior to closing and of employees not hired by Purchaser, and any severance benefits offered or provided by Glycotech to such employees will not be payable or reimbursable by Purchaser under the PSA or otherwise.

4 . **RIGHT OF FIRST REFUSAL AGREEMENT** . Salisbury and Purchaser agree to modify the existing right of first refusal agreement dated as of January 3, 2011, and amended as of February 11, 2014 (as previously amended, "ROFR Agreement") between Salisbury and Purchaser with respect to the parcels of real property owned by Salisbury adjacent to the Real Property comprising approximately 47.04 acres ("Adjacent Parcels") such that a right of first refusal with respect to the Adjacent Parcels shall be an appurtenant right running with the ownership of the Real Property.

5 . **REPRESENTATIONS AND WARRANTIES**. Each of Salisbury and Glycotech, as applicable, does hereby warrant, represent, and agree as follows:

(a) All information and documentation heretofore furnished and made available to Purchaser by Salisbury or Glycotech with reference to the Assets, the Real Property and the operation of the Facility are true, accurate, and complete;

(b) Each of Salisbury and Glycotech, as applicable, holds good and marketable title to the Assets, including the Real Property, free and clear of all Liens other than those approved by Purchaser in writing prior to or at Closing and the following (the "Permitted Exceptions"):

(i) Real estate and personal property taxes for the year of Closing not yet due and payable, which shall be prorated to the date of Closing; and

(i i) Unviolated easements and restrictions of record and zoning and other land use controls imposed by a public authority, provided none of the foregoing prohibits or interferes with Purchaser's intended use of the property as a manufacturing facility;

(c) The inventory and raw materials are in good and merchantable condition;

(d) There are no defects that would materially adversely affect the Real Property, the Assets, or the continued operation of the Facility;

(e) Except for the contracts listed on Schedule 5(e) which will be assigned to and assumed by the Purchaser, there are no service contracts, management agreements, or other agreements that are in force and will survive the Closing and that relate to the operation, management, or maintenance of the Assets, the Facility, or the Real Property;

(f) Each of Salisbury and Glycotech has no knowledge, nor has received any notice of, any actual or threatened action, litigation, or proceeding (including, but not limited to, condemnation) by any organization, person, individual, or governmental agency against either Salisbury, Glycotech, the Assets, the Facility, or the Real Property, or with respect thereto, including violations or alleged violations of any Environmental Laws (as hereinafter defined) nor does Salisbury or Glycotech know of any basis for any such action;

(g) To Salisbury or Glycotech's knowledge, there are no assessments that have been made against the Assets or the Real Property that are unpaid (except ad valorem taxes for the current year), whether or not they have become Liens, and if, at the time of Closing, the Assets or the Real Property or any part thereof shall be or shall have been affected by any assessment or assessments that are or may become payable in installments, of which the first installment is then a Lien, or has been paid, then for the purposes of this Agreement, all of the unpaid installments of any such assessment, including those which are to become due and payable after the Closing, shall be paid by Salisbury or Glycotech without any reimbursement obligation of Purchaser;

(h) To Salisbury's or Glycotech's knowledge, there are no violations of law, municipal or county ordinances, or other legal requirements with respect to the Assets, the Real Property, or the employees working at the Facility, including violations of Environmental Laws except as described in subsection (j) below, and the buildings, structures and improvements on the Real Property comply with all applicable legal requirements with respect to the use, occupancy, and construction thereof; and Salisbury or Glycotech has received no notice of violations, or alleged violations, of such legal requirements;

(i) To Salisbury's or Glycotech's knowledge, there are no actions by any adjacent landowner or any natural or known artificial conditions upon the Real Property that would prevent, limit, impede, or render more costly the operation of the Facility. Further, that there is no significant adverse factor or condition relating to the Real Property or the operation of the Facility that has not been specifically disclosed in writing by Salisbury or Glycotech to Purchaser, and Salisbury or Glycotech knows of no fact or condition of any kind or character whatsoever that would adversely affect the operation of the Facility. Salisbury or Glycotech does not know of any proposals to change the location, width, or grade of access roads to the Real Property or adjoining streets;

(j) Except as disclosed in the Access and Indemnity Agreement dated February 26, 2009 between Salisbury and Akzo Nobel SPG LLC (the "Akzo Nobel Agreement"), neither the Real Property nor the Assets, nor Salisbury or Glycotech (as to any part of the Real Property or the Assets) is in violation of or subject to any existing, pending, or threatened investigation or inquiry by any governmental authority or to any remedial obligations under any applicable laws pertaining to health or the environment (such laws as they now exist or are hereafter enacted and/or amended are herein sometimes collectively called "Environmental Laws"), including, without limitation, the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986 (as amended, hereinafter called "CERCLA"), the Resource Conservation and Recovery Act of 1976, as amended by the Used Oil Recycling Act of 1980, the Solid Waste Disposal Act Amendments of 1980, and the Hazardous and Solid Waste Amendments of 1984 (as amended, hereinafter called "RCRA"), all applicable federal, state, and local statutes and any and all regulations, rules, and ordinances promulgated pursuant thereto, as each of said laws and regulations may be amended from time to time. Salisbury has delivered to the Purchaser a true, correct and complete copy of the Akzo Nobel Agreement. There have been no releases of any Hazardous Materials at, on or under the Real Property during Salisbury's ownership and operation thereof or, to Salisbury's and Glycotech's knowledge, prior thereto except as described in the Akzo Nobel Agreement. "Hazardous Materials" shall mean any material or substance which is or will foreseeably be regulated by any governmental body including without limitation any material or substance which is defined as "hazardous material", "hazardous waste", "hazardous substance", "toxic substance", "contaminant" or similar term under any Environmental Laws;

(k) Section 6(d) sets forth each of the permits held by Salisbury and Glycotech for the ownership, lease, operation or use of the Facility and Assets. Salisbury and Glycotech are in compliance with each such permit, each such permit is in full force and effect, and neither Salisbury nor Glycotech has received any notice or written communication regarding any adverse change in the status or terms or conditions of any such permit. To Salisbury's and Glycotech's knowledge, there is no condition, event or circumstance that could reasonably be expected to prevent or impede the transferability of such permits;

(l) To Salisbury's and Glycotech's knowledge, there are no unregistered or unlicensed underground storage tanks at, on or under the Real Property;

(m) Schedule 5(m) contains a complete and accurate list of all off-site Hazardous Material treatment, storage or disposal facilities or locations currently or formerly used by the Salisbury or Glycotech, and, to Salisbury's and Glycotech's knowledge, none of these facilities or locations has been placed or proposed for placement on the National Priorities List, under CERCLA, or any similar state list, and neither Salisbury nor Glycotech has received any notice regarding potential liabilities with respect to any such off-site Hazardous Materials treatment, storage or disposal facilities or locations ever used by Salisbury or Glycotech;

(n) neither Salisbury or Glycotech, nor the Real Property or Assets, is, nor, to Salisbury's and Glycotech's knowledge, any former owner or operator of the Real Property, is subject to any outstanding consent decree, compliance order, settlement agreement or administrative order under any Environmental Laws, except as described in the Akzo Nobel Agreement; neither Salisbury nor Glycotech is a party to any contracts with third parties for the assessment and/or remediation of environmental conditions at the Real Property, except the Akzo Nobel Agreement;

(o) There are no parties in possession of all or any portion of the Real Property other than Glycotech under the Glycotech Lease;

(p) Salisbury is a limited liability company duly organized, validly existing, and in good standing under the laws of the State of North Carolina, has full power and authority to own and operate its properties and assets in connection with the business of the Facility, and has full power and authority to enter into this Agreement and to assume and perform all of its obligations hereunder. The execution and delivery of this Agreement and the closing documents required under Section 9, performance by Salisbury of its obligations hereunder and thereunder, and the consummation of the transactions contemplated hereby have been duly and validly authorized by all limited liability company and other action required under applicable law, Salisbury's operating agreement, or otherwise. This Agreement constitutes, and the closing documents to be executed and delivered by Salisbury will constitute at Closing, the legal, valid, and binding obligations of Salisbury enforceable against Salisbury in accordance with their respective terms;

(q) Glycotech is a corporation duly organized, validly existing, and in good standing under the laws of the State of North Carolina, has full power and authority to own and operate its properties and assets in connection with the business of the Facility, and has full power and authority to enter into this Agreement and to assume and perform all of its obligations hereunder. The execution and delivery of this Agreement and the closing documents required under Section 9, performance by Glycotech of its obligations hereunder and thereunder, and the consummation of the transactions contemplated hereby have been duly and validly authorized by all corporate and other action required under applicable law, Glycotech's articles of incorporation and bylaws, or otherwise. This Agreement constitutes, and the closing documents to be executed and delivered by Glycotech will constitute at Closing, the legal, valid, and binding obligations of Glycotech enforceable against Glycotech in accordance with their respective terms;

(r) Salisbury or Glycotech currently has in effect policies of fire, liability, worker's compensation, and other forms of insurance that provide adequate coverage for the Assets, the Real Property, and the business conducted at the Facility (collectively, the "Insurance Policies"). All Insurance Policies are and will remain in force and effect through the date of Closing; and

(s) No third party has any right of first refusal, right of first offer, option, or similar right to purchase the Facility, the Real Property, or the Assets, other than the Purchaser's right under the ROFR Agreement.

6 . CONDITIONS TO CLOSING. The obligation of Purchaser to purchase the Assets from Salisbury and Glycotech is subject to the satisfaction on or before Closing of the following conditions (any of which may be waived in whole or part in writing by Purchaser at or prior to Closing):

(a) The representations and warranties of Salisbury and Glycotech shall be true and correct on and as of the date of Closing;

(b) The Real Property shall be delivered to Purchaser free of tenancies, but subject to public and private easements of record, and in substantially the same condition as exists as of the date of this Agreement, ordinary wear and tear excepted;

(c) Salisbury and Glycotech shall have performed and complied in all material respects with all agreements, covenants, obligations, and conditions required by this Agreement to be performed and complied with by Salisbury and Glycotech at or before Closing;

(d) Purchaser shall have been approved for all governmental permits and licenses required for Purchaser's operation of the Facility, including but not limited to, NCDEQ Air Permit, U.S. Department of Transportation Hazardous Material Registration, NCDEQ RCRA Permit, Brunswick County Sewer Permit and NPDES Stormwater Permit. Salisbury and Glycotech agrees to provide reasonable assistance and cooperation to Purchaser in obtaining such licenses and permits. Purchaser agrees to apply for such licenses and permits promptly after execution of this Agreement and diligently pursue obtaining all such required licenses and permits;

(e) Purchaser shall have obtained a commitment for owner's title insurance coverage containing no exceptions or exclusions from coverage not reasonably satisfactory to Purchaser;

(f) Purchaser shall have obtained such approvals, waivers, and consents as are required under Purchaser's existing agreements with its security and debt holders.

(g) Salisbury shall have provided Purchaser with payoff information confirming the amounts required to satisfy any outstanding mortgages, deeds of trust, or security interests or monetary liens encumbering the Assets, and evidence that such amounts have been satisfied;

(h) Salisbury shall have provided Purchaser with documentation reasonably satisfactory to Purchaser confirming the unused water supply well located on the Real Property, previously used for spray irrigation and waste water treatment (not a well used for ongoing monitoring activities), has been closed in accordance with all applicable laws and regulations;

(i) Purchaser shall have obtained an assignment of all of Salisbury's rights under the Akzo Nobel Agreement, and Akzo Nobel's consent thereto, acceptable in form and substance to Purchaser in its discretion;

(j) No event shall have occurred, including damage to, or destruction of, the Facility or any of the Assets, which would have a material adverse effect on the operation of the Facility;

(k) Between the Effective Date and the Closing, Salisbury and Glycotech shall afford Purchaser and its representatives access to the Real Property and the Facility, such right of access to be exercised in a manner that does not reasonably interfere with the operations of Salisbury or Glycotech. Without limiting the foregoing, the Purchaser shall have the right to have its environmental consultant and other representatives inspect the condition of the Real Property by conducting the environmental testing described on Schedule 6(k); and

(l) If any contract on Schedule 5(e) requires the consent or approval of any party in order for such contract to be assigned to the Purchaser or in connection with the execution or performance of this Agreement and the transactions contemplated hereby, each such consent or approval shall have been obtained in writing, which consent or approval shall be acceptable in form and substance to Purchaser in its discretion, including without limitation with respect to the contract(s) with CSX Transportation, Inc.

In the event that one or more of the conditions to Purchaser's obligation to close has not been or cannot be satisfied in the manner and as provided for herein, unless such failure is caused by Purchaser's breach of this Agreement, Purchaser shall have the right to extend the date of Closing beyond the date specified in Section 9(a) for a period of up to 30 days in which to pursue satisfaction of all Closing conditions (the date at the end of such 30-day period but in no event later than December 1, 2016, being the "Outside Date"). In the event the conditions are not satisfied by the expiration of such additional period of time, Purchaser may either (i) terminate this Agreement by written notice to Salisbury, in which case this Agreement shall be of no further force and effect, and the Deposit returned to Purchaser, or (ii) close on the purchase and sale hereunder, waiving said unsatisfied conditions for the benefit of Purchaser. In the event Purchaser elects to terminate this Agreement, the parties agree that the "Extension Period," as such term is defined in the letter agreement dated July 28, 2016, and as further referenced in the letter of intent dated September 13, 2016, is and shall be extended 30 days after receipt of Purchaser's notice of termination in accordance with the terms hereinafter set forth.

7. INDEMNIFICATION. Each of Salisbury and Glycotech agrees to indemnify, defend, and hold harmless Purchaser from and against, and to reimburse Purchaser with respect to, any and all claims, demands, losses, damages, liabilities, causes of action, judgments, penalties, costs, and expenses (including attorneys' fees and expenses and court costs and cost of investigation and remediation) of any and every kind or character, known or unknown, fixed or contingent, imposed on, asserted against, or incurred by Purchaser at any time and from time to time by reason of, in connection with, or arising out of (a) the breach of or noncompliance with any representation, warranty or agreement of Salisbury or Glycotech as set forth herein, (b) the operation of the Facility or the Assets and any activities related thereto or to the Real Property prior to Closing, by or on behalf of Salisbury or Glycotech or any other party, including without limitation a failure to comply with or liabilities arising under Environmental Laws, (c) the existence of any Hazardous Materials at, on or under the Real Property, the Facility or the Assets prior to Closing, or (d) the Excluded Liabilities.

Purchaser agrees to indemnify, defend, and hold harmless Salisbury and Glycotech from and against, and to reimburse Salisbury and Glycotech with respect to, any and all claims, demands, losses, damages, liabilities, causes of action, judgments, penalties, costs, and expenses (including attorneys' fees and expenses and court costs and cost of investigation and remediation) of any and every kind or character, known or unknown, fixed or contingent, imposed on, asserted against, or incurred by Salisbury or Glycotech by reason of and arising out of Purchaser's operation of the Facility subsequent to Closing, but expressly excluding any claims related to Excluded Liabilities, and Salisbury's and Glycotech's indemnification obligations set forth in the preceding paragraph.

8. BROKERAGE COMMISSION. Purchaser and Salisbury represent and warrant to the other that neither is obligated to a real estate or business broker in connection with this transaction.

9. CLOSING.

(a) Unless extended in writing by agreement of the parties or as otherwise provided in this Agreement, Purchaser and Salisbury shall consummate and close the sale contemplated by this Agreement on or before the date 30 days following the Effective Date, at a time and place mutually acceptable to Purchaser and Salisbury.

(b) Salisbury shall pay all required transfer taxes or transfer fees as required by state or local law and its attorneys' fees. Purchaser and Salisbury agree to prorate as of the date of the Closing the ad valorem property taxes for the Real Property.

(c) Purchaser shall pay the cost of its attorney's fees.

(d) At close of business on the day immediately before the day of Closing, Salisbury shall (i) gather all known keys relating to the Facility operations; (ii) remove those items of personal property not being sold to Purchaser hereunder; and (iii) arrange for utilities to be read and the billing of such utilities on and after the day of Closing to be in the name of Purchaser. At Closing, Salisbury shall deliver all keys relating to the Facility operations to Purchaser.

(e) At Closing, Salisbury or Glycotech shall deliver to Purchaser the following documents:

(i) Special Warranty Deed conveying the Real Property to Purchaser together with any necessary sewer, utility and access easements;

(ii) Bill of Sale and Assignment (from each of Salisbury and Glycotech), conveying to Purchaser the personal property Assets;

(i i i) a certificate of existence, dated not later than twenty (20) days before the Closing, from the Secretary of State of North Carolina;

(i v) certified resolutions of the board of directors and members and managers, as applicable, authorizing the execution and delivery of this Agreement and the documents to be executed and delivered in connection herewith, the performance of Salisbury's or Glycotech's obligations hereunder and consummation by Salisbury or Glycotech of the transactions contemplated by this Agreement;

(v) a termination agreement with respect to the Glycotech Lease;

(v i) a signed counterpart of a termination agreement with respect to the PSA, containing a mutual release of all claims and obligations, except for the post-closing reconciliation of expenses to be conducted in accordance with Section 9(i) of this Agreement; and

(vii) a signed counterpart of an amendment to the ROFR Agreement in accordance with Section 4 of this Agreement (including a "memorandum" in recordable form regarding the ROFR Agreement as so amended).

(f) At Closing, Purchaser shall deliver or cause to be delivered to Salisbury:

(i) The $100,000 payment to be made in accordance with Section 2 of this Agreement, which payment shall be accomplished by payment of the Deposit from Escrow Agent to Salisbury;

(ii) The Purchase Money Note;

(iii) The Purchase Money Deed of Trust;

(iv) a UCC-1 financing statement suitable for filing with the Delaware Secretary of State perfecting the purchase money security interest in the personal property conveyed under this Agreement;

(v) a signed counterpart of a termination agreement with respect to the PSA, containing a mutual release of all claims and obligations, except for the post-closing reconciliation of expenses to be conducted in accordance with Section 9(i) of this Agreement; and

(vi) a signed counterpart of an amendment to the ROFR Agreement in accordance with Section 4 of this Agreement (including a "memorandum" in recordable form regarding the ROFR Agreement as so amended).

(g) At Closing, Salisbury and Glycotech shall also deliver copies of all books and records in such parties' possession pertaining to the business of the Facility.

(h) Salisbury, Glycotech and Purchaser shall each execute and deliver to the other such other certificates, documents, affidavits, closing statements, and instruments as may be reasonable and necessary in the opinion of counsel for the other to consummate and close the purchase and sale contemplated by this Agreement.

(i) Purchaser and Glycotech each agree to conduct a final reconciliation within ten (10) days after Closing with respect to the Monthly Operating Fees (as such term is defined in the PSA) paid by Purchaser and the actual operating costs incurred by Glycotech. Any amounts owing to either Purchaser or Glycotech as a result of such final reconciliation shall be paid within twenty (20) days after Closing.

(j) Reference is made to the letter agreement between the parties dated July 28, 2016. The parties hereby amend such letter agreement by replacing September 15, 2016 with the date which is 30 days after the Effective Date (or if applicable, the date which is the Outside Date) each time it appears in such letter agreement.

1 0 . **RISK OF LOSS**. Salisbury and Glycotech shall bear all risk of condemnation and of loss, damage or destruction to the Real Property and the Assets prior to the Closing.

11. DEFAULT. In the event either party defaults under this Agreement and such default (other than a default in the payment of the Deposit or execution and delivery of the documents required to be delivered at Closing) is not cured within five (5) business days after receipt of notice from the non-defaulting party describing the alleged default, the non-defaulting party shall have all rights and remedies available to it at law or in equity, including a suit for specific performance and/or an action for damages.

12. MISCELLANEOUS.

12.1 Notices

(a) All notices, requests, demands and other communications required or permitted under this Agreement shall be in writing and mailed or delivered:

(i) If to the Salisbury or Glycotech, to:

Salisbury Partners, LLC
Glycotech, Inc.
24 West Salisbury Street
Wrightsville Beach, NC 28480
Attention:

with a copy to:

Siegel & Rhodenhiser, PLLC1426 Commonwealth Drive
Suite B
Wilmington, NC 28403

(ii) If to Purchaser, to:

Amyris, Inc.
5885 Hollis Street, Suite 100
Emeryville, California 94608
Attention:

with copies to:

Amyris, Inc.
5885 Hollis Street, Suite 100
Emeryville, California 94608
Attention:

and to:

Smith, Anderson, Blount, Dorsett,
Mitchell & Jernigan, L.L.P.
Wells Fargo Capitol Center
150 Fayetteville Street, Suite 2300
Post Office Box 2611
Raleigh, North Carolina 27602-2611
Attention:

(b) All notices and other communications required or permitted under this Agreement that are addressed as provided above will be delivered by any courier or postal service that provides a publically-available database that shows the actual date of delivery (such as via tracking number). The parties hereto may from time to time change their respective addresses for the purpose of notices to that party by a similar notice specifying a new address, but no such change shall be deemed to have been given until it is actually received by the party sought to be charged with its contents.

12.2 **Law To Govern**. This Agreement shall be governed by and construed and interpreted under the laws of the State of North Carolina.

12.3 **No Waiver**. The failure of either party to exercise any power given any party hereunder or to insist upon strict compliance by either party of its obligations hereunder shall not constitute a waiver of either party's right to demand exact compliance with the terms hereof.

12.4 **Entire Agreement; Modification**. This Agreement and the closing documents described herein, and contain the entire agreement of the parties with respect to the subject matter hereof, and no representations, inducements, promises or agreements, oral or otherwise between the parties not embodied herein or therein shall be of any force and effect. No amendment to this Agreement shall be binding on any of the parties to this Agreement unless such amendment is in writing and executed by all of the parties to the Agreement. For clarity, this Agreement supersedes the Letter of Intent Agreement among the parties dated September 13, 2016.

12.5 **Binding Effect**. This Agreement shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors and permitted assigns.

12.6 **Counterparts**. This Agreement may be executed in several counterparts, each of which shall be deemed an original, and all such counterparts shall together constitute one instrument.

12.7 **Survival of Warranties**. Except as otherwise set forth herein, all representations and warranties contained in this Agreement shall survive Closing.

12.8 **Severability**. If any one or more of the provisions contained in this Agreement shall for any reason be held invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provision hereof, and this Agreement shall be construed as if such invalid, illegal or unenforceable provision had never been contained herein.

12.9 **Captions**. Captions and headings throughout this Agreement are for convenience and reference only, and they shall not define, limit, modify or add to the interpretation or meaning of any provisions of this Agreement or in any way affect the scope, intent or effect of this Agreement.

12.10 **Force Majeure**. Whenever a period of time is provided for in this Agreement for either party to do or perform any act or thing, said party shall not be responsible for any delay due to acts of God or other causes beyond the reasonable control of said party, and in such event the time period shall be extended for the amount of time said party is so delayed.

12.11 **Assignment**. Purchaser shall have the right to assign this Agreement and its rights hereunder, in whole or in part, at any time and from time to time, to any subsidiary or affiliate of Purchaser without any prior consent from Salisbury or Glycotech; provided, however, that notwithstanding such assignment, Purchaser shall remain liable for its obligations hereunder. Otherwise, neither party may assign this Agreement without the prior written consent of the other party.

12.12 **Additional Instruments**. The parties hereto shall execute and deliver any and all additional documents, certifications, or other instruments and to perform any and all additional actions as shall be necessary to give full effect and complete the purpose and intent of this Agreement.

12.13 **Escrow Provisions**. Upon its receipt thereof, Escrow Agent shall deposit the Deposit in a federally insured account. Except as otherwise provided in this Agreement, the Deposit shall be delivered by Escrow Agent to Salisbury at the Closing for application against the Purchase Price; provided, however, if Purchaser shall be entitled to a refund of the Deposit in accordance with the terms of this Agreement, Escrow Agent shall promptly refund the Deposit to Purchaser. Escrow Agent shall have no liability to any party hereto in acting or refraining from acting hereunder except for willful malfeasance and shall perform such function without compensation. In the event of any dispute between the parties hereto or between Escrow Agent and Salisbury or Purchaser, Escrow Agent may deposit the Deposit in a court of competent jurisdiction for the purpose of obtaining a determination of such controversy. Upon delivery of the Deposit to Escrow Agent, Escrow Agent will acknowledge to the parties in writing (which may be by email) that the Deposit is being held pursuant to the terms of this Agreement.

12.14 **Confidentiality**. This Agreement and the closing documents referred to herein, and the transactions contemplated thereby, shall constitute Confidential Information (as defined in Section 10 of the PSA) of each party hereto. Neither party shall publicly announce or disclose this Agreement or the transactions contemplated hereby. For clarity Section 10 of the PSA shall survive the termination of the PSA. Notwithstanding the foregoing and Section 10 of the PSA, a party may disclose Confidential Information as required by applicable laws, rules and regulations including those of the Securities and Exchange Commission or any stock exchange on which a party's securities are traded.

12.15 **Release.** Each of Salisbury and Glycotech and its affiliates, agents, owners, successors, and assigns, hereby fully release and waive against the Purchaser and its affiliates, agents, successors, and assigns, any and all rights, claims, actions, causes of action, damages, and liabilities whatsoever, including costs, expenses, and attorneys' fees, whether known or unknown, accrued or unaccrued, that arise out of or relate to the migration or similar movement of any Hazardous Materials (which existed at any time prior to the Closing at, on or under the Real Property or the Facility) from the Real Property or the Facility to any of the Adjacent Parcels or any portion thereof, or any other property, whether such migration occurred or occurs before or after the Closing. Salisbury agrees that it shall not convey or otherwise transfer any interest in the Adjacent Parcels to any party without first obtaining a release substantially identical to the release set forth in this Section 12.15 which is binding and enforceable against the transferee by and for the benefit of the Purchaser and its successor and assigns including any successor or assign to the Real Property.

[SIGNATURES APPEAR ON FOLLOWING PAGE]

[SIGNATURE PAGE TO PURCHASE AND SALE AGREEMENT]

IN TESTIMONY WHEREOF, Salisbury, Glycotech and Purchaser have each caused this Agreement to be executed by a duly authorized officer, member, or manager.

SALISBURY PARTNERS, LLC

By: /s/ Margaret Collins
Name: Margaret Collins
Title: Managing Member

GLYCOTECH, INC.

By: /s/ Margaret Collins
Name: Margaret Collins
Title: President

AMYRIS, INC.

By: /s/ John Melo
Name:
Title:

Schedule 1(a)

BEING all of Tract 1R, as shown on the plat prepared by Hanover Design Services, P.A. and recorded in Map Cabinet 92, Page 18, Brunswick County Registry.

Schedule 1(b)

Manufacturing Equipment

GLYCOTECH Equipment listing of reactors and tanks REVISED December 12, 2014

FV= full vacuum
SS= stainless steel
GL= glass lined steel
PP= Processing pad
BT= Bulk Tank farm
WWPT= Waste water treatment area
BL= Bleanding and drying room
FG= Fiberglass

PE= Polyethylene
CON= Concrete
WWB= Well water building
Bldg #1= Office, lab, locker room, & warehouse
MCC= Motor Control Center (electrical room)
HS= hydrogen storage area
MS= Maintenance shop area
PITO= Property in the Open

Reactors and Receivers						
Vessel ID	**size (gals)**	**jacket/coils**	**material of construction**	**open or closed top**	**MAWP pressure rating (PSIG)**	**heating medium**
HR-1	2,000	jacketed, internal coils	316 SS	closed	FV to 440	steam
HR-28	1,200	jacketed, internal coils	304SS	closed	FV to 585	hot oil or steam
R-45	1,000	jacketed, internal coils	304SS	closed	FV to 1,700	hot oil or steam
OR-6	500	jacketed, internal coils	Titanium Clad	closed	FV to 1,100	hot oil or steam
HT-3	3,000	jacketed	316 SS	closed	FV to 55	steam
NT-11	2,500	jacketed	304SS	closed	FV to 35	steam
NR-12	2,000	jacketed, internal coils	316SS	closed	FV to 60	steam
HT-29	2,000	jacketed	316SS	closed	FV to 75	steam
HT-30	1,500	jacketed	316SS	closed	FV to 75	steam
ER-9	1,500	jacketed	GL	closed	FV to 100	steam
ET-8	1,000	no jacket	GL	closed	FV to 100	none
GT-31	2,000	no jacket	GL	closed	FV to 35	none
NT-13	1,500	jacket	SS	closed	atmospheric	steam
HT-2	900	no jacket	SS	closed	atmospheric	none
HT-27	850	no jacket	SS	closed	FV to 75	none
Cent #1	24" X 48"		SS	closed	atmospheric	none
Cent #2	24" X 48"		SS	closed	atmospheric	none
Cent #3	24" X 48"		SS	closed	atmospheric	none
CT-4	600	no jacket	SS	closed	atmospheric	none
CT-10	600	no jacket	SS	closed	atmospheric	none
OT-5	500	jacketed	SS	closed	atmospheric	steam
T-32	350	jacketed	SS	closed	FV to 25	steam
30" Niagara filter						
18" Niagara filter A						
18" Niagara filter B						
18" Niagara filter C						
Flowmeters on PP						
Foxboro controller/recorders (16)						
Reactor load cells and displays (5)						
Batch Master controller (1)						
Structural Steel Platform with roof						
Stokes vacuum pump (150 cfm) (2)						
Stokes vacuum pump (300 cfm) (1)						
Stokes vacuum pump (150cfm) (1)						
100rton cryogenic chiller						

Reactors and Receivers						
Vessel ID	**size (gals)**	**jacket/coils**	**material of construction**	**open or closed top**	**MAWP pressure rating (PSIG)**	**heating medium**
Haskell hydrogen gas compressors (2 installed & 1 spare)						
Steam tray dryers and racks (3)						
Stokes 100 ft3 Rotary Vacuum dryer						
SS Ribbon Blender (2) 180 ft3 & 200 ft3 plus rotary sieves KASON						
SS packaging hopper						
150 Hp Steam Boiler						
Fulton Hot Oil Boiler 2.4 MM BTU/hr						
30 Hp Steam Boiler						
Scrubber tower						
Air compressor						
Maintenance shop equipment and tolls						
Motor Control Room (buckets, switchgear, VFDs, and transformer)						
Misc installed items: piping, valves, gauges, transducers, RTDs, transmitiers, thermocouples, displays, seals, etc…						
Spare parts: electric motors, pumps, seals, valves, gauges, etc…						
CT-14	350	no jacket	SS	closed	atmospheric	none
EC-1 (Liq/Liq extractor column)	1,200	pre-heater & post - cooler	SS	closed	FV to 15	steam
REC-400 receiver for HT-30	400	no jacket	SS	closed	FV to 15	none
REC-75 receiver for HR-28	75	no jacket	SS	closed	FV to 15	none
REC-70 receiver for HR-1	70	jacketed	SS	closed	FV to 17	steam
REC-60 receiver for R-45	60	no jacket	SS	closed	FV to 15	none

TOTAL SITE REACTOR CAPACITY= 27,655

Storage Tanks						
Vessel ID	**size (gals)**	**jacket/coils**	**material of construction**	**open or closed top**	**MAWP pressure rating**	**heating medium**
BS-21	10,000		304 SS	closed	0.5 " water	none
BS-22	10,000		304 SS	closed	0.5 " water	none
BS-23	10,000	heat/cool heat exchanger on recirc. loop, insulated	304 SS	closed	0.5 " water	steam
BS-24	12,500	belly band, insulated	304 SS	closed	0.5 " water	steam
BS-25	12,500	belly band, insulated	304 SS	closed	0.5 " water	steam
BS-26	10,000		304 SS	closed	0.5 " water	
GL-5000	5,000		GL	closed	atmospheric	
Daytank #1	10,000		FG	closed	atmospheric	none
Daytank #2	10,000		FG	closed	atmospheric	none
Daytank #3	18,000		FG	closed	atmospheric	none
Digester	12,000		FG	open	atmospheric	none
Polytank #1	2,500		PE	closed	atmospheric	none
Polytank #2	1,200		PE	closed	atmospheric	none
Scrubber reservoir	2,500		FG	closed	atmospheric	none
Total =	**126,200**					

Dedicated Storage Tanks/Basins						
Vessel ID	**size (gals)**	**jacket/coils**	**material of construction**	**open or closed top**	**MAWP pressure rating**	**heating medium**
Aeration Basin	150,000		CON	open	atmospheric	none
Equalization Basin	150,000		CON	open	atmospheric	none
Settling Tank	12,000		CON	open	atmospheric	none
well water tank	10,000		CS	closed	atmospheric	none
air compressor						
Hurricane filter separator						
aerators (2)						
Blowers (2)						
Pumps (6)						
oil grease separator						
waste water treatment system						
filter press						
No. 2 Fuel oil storage tank	10,000		CS	closed	atmospheric	none
TOTAL =	**332,000**					

Lab equipment and fixtures						
item ID	**size (gals)**	**jacket/coils**	**material of construction**	**open or closed top**	**MAWP pressure rating**	**heating medium**
HP Gas Chromatograph (2) with integrators						
UV/Vis Spectrophotmeter						
Karl Fisher Accumet titrator						
HACH Multimeter and accessories						
BUCHI Rotoevap R						
Brookfiled Viscometer (2)						
Refractometer						
UV LC Detector and column oven						
Flash point Koehler						
pH meters (3)						
Melting point						
Analytical balance (2)						
Lab refrigerator						
microscopes (2)						
Air ovens (3)						
Vacuum ovens (2)						
vacuum pumps (2)						
misc. glassware						
Exhaust Hoods (2)						
Autoclave (Parr Instruments, 1 gallon, rated for 6,000 psi, 650 degrees, 316 stainless steel, with controller						
TOTAL =	**0**					

TOTAL SITE STORAGE CAPACITY = **458,200**

Replacement value estimate for processing equipment on site:

Schedule 1(c)

Fixtures, Machinery and Equipment

Lab Equipment and Analytical Instruments
Three (3) Forklifts

Schedule 1(e)

Inventory and Raw Materials

Nitrogen
Lab gases
Filter bags and cartridges

Schedule 3

Employees

NON-EXEMPT STAFF

EE	Position	2016 Base Hourly Wage	Date of Hire

EXEMPT STAFF

EE	Position	2016 Base Salary	Date of Hire

Schedule 5(e)

Contracts to be Assumed by Purchaser

CONTRACT & RENTAL AGREEMENTS		7/27/2016
Airgas	Nitrogen	Amendment to Orig. Contract
Allines Leasing	Rental -Floor Scrubber	
Atlantic Coast Toyotalift	Forklifts	
Brunswick Co	Maintenance- Water/Sewer	Requested copy 7/27- No response
Cloudwyze	Service Agreement-Internet/Phones	
CSX	Annual Fee-Railroad crossing	
Duke Energy	Electric	No contract per Business Services 866-582-6345
Gulfstream Property	Insurance	
LBP Leland LLC	Rent- Storage Space (DAK WH)	
Piedmont	Natural Gas	No contract cover under NC-Uc tariff agreement per Robert McQuin 910-321-2918
Southeastern Labs	Water treatment Program	
Systel Business Equipment	Rental-Copiers	
Toledo Carolina	Maintenance-Scales	
Verizon	Cell Phone	
Waste Industries	Service Agreement - Dumpster	

Nitrogen & cylinder gas

Michael Molinini
Chief Executive Officer
Airgas, Inc.
259 N. Radnor-Chester Road
Suite 100
Radnor, PA 19087
www.airgas.com

November, 2015

T7 **AUTOMIXED AADC 296 PL1 R
2744849
Glycotech Inc
1010 2271 Andrew Jackson Hwy NE
Leland, NC 28451-9627

Dear Valued Customer,

I am pleased to inform you that Airgas recently announced that we have entered into an agreement with Air Liquide, under which Air Liquide will acquire Airgas. The transaction is subject to Airgas' shareholder approval, receipt of necessary antitrust and other regulatory approvals and other customary conditions and provisions. Please see our press release and additional details at www.airgas.com.

Air Liquide is a world leader in gases, technologies and services. Air Liquide is present in 80 countries, has more than 50,000 employees and serves more than two million customers and patients. Together, the two businesses will become the largest industrial gas company in the world.

We here at Airgas are thrilled to join forces with Air Liquide to provide you with enhanced service and offerings. We truly believe that our customers will find added value in Air Liquide's unrivaled global footprint and strength in engineering, technology and innovation, while still being able to rely on the Airgas commitment to service, safety, timely delivery, and supply reliability that has made us your supplier of choice.

There are many steps to complete for closing, so there will be no immediate change to the way we operate, and we do not expect significant change in our service model after the transaction is completed. Our ultimate goal is to ensure a seamless, positive transition for you. If you have any questions, please contact your local Airgas sales associate or region president. You may also visit www.airgas.com where we will post materials and updates on an ongoing basis.

Thank you for the opportunity to serve your needs. Together, Air Liquide and Airgas look forward to continuing to work with you in the future.

Sincerely,

Mike Molinini

Becky Green

From: Stacey Kirby [ ]
Sent: Friday, August 01, 2014 8:39 AM
To: Becky Green
Subject: RE: Vessel Purchase / New Pricing
Attachments: Chart VS-01 Vertical Bulk Vessels.pdf

Becky,
I have been given the following prices for a five year contract renewal:

Nitrogen - $.60/c
FF - $1,200
New 5 year Term

This would result in a annually savings of $43,506.05. Please let me know if you have any questions or how you would like to proceed?

On the 11,000 gallon the cost of installation would be $207,750.00. If this is something that Glycotech would like to pursue I can supply details.
Please let me know if you have any questions/
Thanks,
Stacey

Stacey Kirby

Cryogenic Sales Engineer

Airgas National Cryogenics

From: Becky Green [mailto:]
Sent: Thursday, July 24, 2014 2:19 PM
To: Stacey Kirby
Subject: RE: Vessel Purchase

Thank you sir☺

WH - Floor Scrubber

Simple Like financing should be
ALL-LINES LEASING
A division of First Western Bank & Trust
100 PRAIRIE CENTER DRIVE
EDEN PRAIRIE, MN 55344
Phone#: (800) 477-5855 Fax#: (800) 288-4959
Rev. 07/21/14

LEASE AGREEMENT #: 11893301FMV

Lessee: **GLYCOTECH, INC.**

2271 ANDREW JACKSON HWY. N.E.
LELAND, NC 28451

Attn: ACCOUNTS PAYABLE Phone: (910) 371-2234

Seller: CALIBER EQUIPMENT, INC.

EQUIPMENT DESCRIPTION: (1) NILFISK-ADVANCE SC800C SRUBBER W/ ACCESSORIES
EQUIPMENT LOCATION: 2271 ANDREW JACKSON HWY. N.E., LELAND, NC 28451

Lease Term:	36Months	**Base Payment Amount:**	$305.09	**First and Last 0 Payment:**	$325.68
Number of Payments:	36	**Applicable Sales /Use Taxes:**	$ 20.59	**Documentation Fee:**	$125.00
Payments to be Made:	Monthly	**Total Payment:**	$325.68	**Security Deposit:**	$.00
				Other Fees and Taxes	$.00
				Total Due in Advance:	$450.68

PURCHASE OPTION: **Fair Market Value**
ADDITIONAL PROVISIONS: See SELLER'S Invoice for Equipment Information.

Lease Agreement and Fees: You (the Lessee specified above) want to acquire the above Equipment from Seller. You want Us, **First Western Bank & Trust dba All-Lines Leasing** ("Lessor", "We", "Our") to buy the Equipment and then lease it to You. This Lease Agreement ("Lease") will begin on the date the Lease is accepted by Us. You and We are making this Lease at the Lessor's Headquarter Address. You will make all Payments to the Payment Address or other address that We may designate in writing. By signing this Lease, You have accepted the delivered Equipment, (or You have completed an alternate form provided by Us, certifying acceptance of the delivered Equipment). We may charge You a reasonable Documentation Fee to cover Our documentation and investigation costs. This Lease is **NON-CANCELABLE FOR THE ENTIRE LEASE TERM. YOU UNDERSTAND THAT WE ARE BUYING THE EQUIPMENT BASED ON YOUR UNCONDITIONAL ACCEPTANCE OF THE EQUIPMENT AND YOUR PROMISE TO PAY US UNDER THE TERMS OF THIS LEASE, WITHOUT SETOFFS, EVEN IF THE EQUIPMENT DOES NOT WORK PROPERLY OR IS DAMAGED FOR ANY REASON, INCLUDING REASONS THAT ARE NOT YOUR FAULT.** If any amount of a payment payable to Us is not paid when due, We may charge You a late fee equal to 15% of the payment due, plus any collection fee and expenses. You agree to pay Us a bad check charge of $30.00 per item. **No Warranty:** We are leasing the Equipment to You **"AS IS"**. We do not manufacture the Equipment and are not related to the Seller or manufacturer, nor do We have any agency, joint venture or partnership relationship with the Seller or the Manufacturer. You selected the Equipment and the Seller, based on Your own judgment. You may contact the Seller for a statement of the warranties, if any, that the Seller or manufacturer is providing. We hereby assign to You the warranties given to Us, if any. **WE MAKE NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, IN CONNECTION WITH THIS LEASE.** *You agree to settle any dispute You may have* regarding performance of the Equipment directly with the manufacturer or Seller. **Equipment Use and Repair: YOU AGREE THE EQUIPMENT WILL BE USED FOR BUSINESS . PURPOSES ONLY AND NOT FOR PERSONAL, FAMILY OR HOUSEHOLD PURPOSES.** You are responsible for keeping the Equipment in good working order. Except for normal wear and tear, You are responsible for any damage or losses to the Equipment. You agree to hold us harmless, indemnify (pay or reimburse) and defend Us against all claims , liabilities, losses, suits, proceedings, damages, costs (including reasonable legal fees) relating to this Lease or to the use or including but not limited to claims for death and injury to persons and claims for property damage. This duty to indemnify shall survive the termination of this Lease. The primary domicile of the equipment ("Equipment Location") is stated above. We may inspect the Equipment and/or receive a report from You as to the current location upon our request. **At End of Lease Term:** If You have not defaulted under this Lease, You will: a) purchase the Equipment from Us, **"AS IS, WHERE IS"**, for the Purchase Option or b) **Surrender** the Equipment to Us. This Lease will automatically renew at the Base Payment Amount until the Equipment is purchased from Us or is Surrendered to Us. **Equipment Surrender:** At the End of Lease Term, if You have not purchased the Equipment, or if demanded by Us in the event of Your Default, You will deliver the Equipment (at your expense) to a location designated by Us in Average Saleable Condition, which means the Equipment is immediately available for use by another lessee or user without the need of any repair. You also agree to reimburse Us on demand for repair costs to bring the Equipment into an Average Saleable Condition. **Non-Cancelable:** This is a non-cancelable agreement and may not be cancelled by You for any reason whatsoever. You may only prepay by remitting all remaining current and future payments due on the agreement (in addition to all other accrued and unpaid charges owing). **Ownership, Title and UCC'S:** Except for any software covered by this Lease We are the owner of the Equipment and have title to it. **WE MAY FILE ON YOUR BEHALF, AND AT YOUR COST, UNIFORM COMMERCIAL CODE (UCC) FINANCING STATEMENT(S) TO SHOW OUR INTEREST IN THE EQUIPMENT.** **Loss and Insurance:** You will, for as long as We own the Equipment, maintain property insurance on the Equipment fully insuring against all risks of loss and will maintain a general public liability insurance policy covering the Equipment and its use with coverages acceptable to Us. You will name Us as loss payee and an additional named insured and provide Us with evidence of this insurance. If You do not provide property insurance, We may, at our option, attempt to obtain property *insurance to protect our interests. You will pay us an increase in* the Base Payment Amount to recover our costs plus a one time Arrangement Fee of $ 95.00 plus a reasonable profit. **Taxes:** You agree that You will pay or reimburse us when due all taxes, including but not limited to Personal Property Taxes, relating to this Lease and the Equipment. **Default:** If You do not pay any sum by its due date, or You breach any other term of this Lease or any other agreement with Us, then You will be in default of this Lease. If You default, We may require that You pay 1) all past due amounts under this Lease, and 2) declare immediately due and payable the entire unpaid balance owed under this Lease, together with accrued interest thereon, the same thereupon be immediately due and payable without demand or notice of any kind, all of which are expressly waived by You . Upon a default, We may, without limiting Our other remedies hereunder or by law, also choose to repossess the Equipment. If We do not choose to repossess the Equipment, You will also pay to Us our booked residual value for the Equipment. We can also use any and all remedies available to Us under the UCC or any other law. You agree to pay all the costs and expenses, including, but not limited to, attorney's fees, Equipment repossession costs, Equipment storage costs, costs of refurbishing Equipment, insurance costs, We incur in any enforcement through legal proceedings or otherwise, and in any dispute related to this Lease or the Equipment. You also agree to pay interest on all past due amounts, from the due date until paid, at the lower of one and one-half percent (1.5%) per month or the highest lawful rate. **Assignment: YOU HAVE NO RIGHT TO SELL, TRANSFER, ASSIGN OR SUBLEASE THE EQUIPMENT OR THIS LEASE.** We may sell, assign or transfer this Lease or our rights in the Equipment and the new owner will have our rights, but it will not be subject to any claim, defense or set-off that You assert against Us or any other party. **Miscellaneous:** You agree that this Lease is the entire agreement between You and Us regarding the lease of the Equipment and supersedes any purchase order You issue. Any change must be in writing and signed by each party. Notice, if required, will be sent to you at the above address. We may accept a facsimile copy of this Lease as an original. **Venue: THIS LEASE AGREEMENT WILL BE DEEMED FULLY EXECUTED AND PERFORMED IN THE STATE OF NORTH DAKOTA UPON SIGNING BY THE LESSOR AND WILL BE GOVERNED AND CONSTRUED BY IN ACCORDANCE WITH NORTH DAKOTA LAW. YOU EXPRESSLY CONSENT TO JURISDICTION AND VENUE OF ANY STATE OR FEDERAL COURT IN THE STATE OF MINNESOTA AND WAIVE RIGHT TO TRIAL BY JURY FOR ANY CLAIM ARISING OUT OF OR RELATING TO THIS LEASE AGREEMENT OR THE EQUIPMENT. YOU WAIVE RIGHT OF DEFENSE OF INCONVENIENT FORUM. SERVICE OF PROCESS SHALL BE DEEMED SUFFICIENTLY MADE ON YOU BY CERTIFIED MAIL, RETURN RECEIPT REQUESTED, TO YOUR BILLING ADDRESS SET FORTH ABOVE. THIS LEASE IS NON-CANCELABLE FOR THE FULL LEASE TERM.**

The signer below covenants that he has the authority to sign this Lease Agreement on behalf of the Lessee.

Do not write in this space

Lessor:

Date

Lessee: **GLYCOTECH, INC.**

By/Title X

Signature

Plant Mgr.
Title

12/31/14

Lessor's Headquarter Address: 900 S. Broadway, Minot, ND 58701

Atlantic Coast Toyotalift Planned Maintenance Agreement

Forklifts

355 Business Pk. Dr. • Winston-Salem, NC • 27107
Tel: 336-885-0074 • Fax: 336-883-3899

3001 Boundary Street • Wilmington, NC • 28405
Tel: 910-254-3525 • Fax: 910-254-3520

165 Simmons Dr. • Cloverdale, VA • 24077
Tel: 540-966-4112 • Fax: 540-966-4778

11 Denver Denver St. • Bassett, VA • 24055
Tel: 276-629-1742 • Fax: 276-629-4691

Account: 145201

Equipment Location: Glycotech Inc
2271 Andrew Jackson Hwy
Leland NC 28451

Account: 145200

Billing Address: SAME

Contact Name: Norbert

Telephone Number:

Fax Number:

Date: 01/10/12

PO Required (Y/N):

Service Start Date: renew

Internal Combustion Powered Vehicle

1. Air Cleaner: Clean element, check hoses and connections.
2. Alternator: Check belt tension.
3. Battery: Check fluid level and clean terminals.
4. Brakes: Check for correct operation.
5. Carburetor: Check linkage and choke control.
6. Clutch: Check pedal adjustment and linkage for wear.
7. Engine: Change oil and filter as necessary.
8. Fuel Filter: Inspect and clean as necessary.
9. Gauges: Check charging rate and oil pressure.
10. Grease: Clean and lubricate all fittings.
11. Hydraulic Cylinders: Check rod ends.
12. Hydraulic System: Check filler cap and oil level. Add fluid as necessary.
13. Operational Check: Complete check of all units while running.
14. Radiator: Check coolant level, fan belt, and blow out core.
15. Steering: Check gear box and axle for wear. Add power steering fluid as necessary.
16. Tires: Check for uneven wear and proper inflation.
17. Trans/Differential: Check fluid levels. Lubricate and fill as necessary.
18. Upright/Carriage: Inspect channels, rollers, anchors, chains and lubricate as necessary.

Electric Powered Vehicle

1. Battery: Check water levels, cables, connectors, jars and sealant.
2. Brakes: Check pedal for excessive play.
3. Charger: Check for proper operation.
4. Contactor Panel: Check contactors, limit switches, and resistors.
5. Differential: Check fluid level. Fill as necessary.
6. Drive Motor: Blow out and check for arcing.
7. Grease: Clean and lubricate all fittings.
8. Hydraulic Cylinders: Check rod ends.
9. Hydraulic System: Check filler cap and oil level. Add fluid as necessary.
10. Operational Check: Complete check of all units while running.
11. Pump Motor: Blow out and check for arcing.
12. Steering: Check gear box and axle for wear. Add power steering fluid as necessary.
13. Tires: Check for uneven wear and proper inflation.
14. Upright/Carriage: Inspect channels, rollers, anchors, chains and lubricate as necessary.

The customer authorizes Atlantic Coast Toyotalift to perform the planned maintenance on the following vehicles at the specified intervals.

Make	Model Number	Serial Number	Unit number	DRI	Interval	N/R	Rate
Toyota	7fgu25	61947	145200-61947	90	90	r	$93.00
Toyota	6fgu25	64462	145200-64462	90	90	r	$93.00
Toyota	7fgu25	65480	145200-65480	90	90	r	$93.00

A. An inspection report and work order will be provided to the customer for each truck serviced that will include the make, model, serial number, hour meter reading and customers signature.
B. Charges are for labor only. All parts and material will be invoiced at current dealer list price.
C. Additional repairs will not be performed without customer approval and authorization. Parts, labor, and material will be invoiced at current dealer list price.
D. The technician must have prompt availability of the lift truck upon arrival to avoid additional charges. A safe work area must also be provided.
E. This agreement supersedes any other maintenance agreement between Atlantic Coast Toyotalift and the customer, whether expressed or implied.
F. The customer must provide a 30 day written notice prior to termination of this agreement.

ACT Signature: Ray Jones CSR
Fax 336-397-5118

Authorized Signature:

Title:

RENTAL AGREEMENT R 13227

☐ 355 Business Park Drive, Winston-Salem, NC 27107, Ph. 336-397-5000
☒ 3001 Boundary Street, Wilmington, NC 28405, Ph. 910-254-3525
☐ 11 Denver Drive, Bassett, VA 24055, Ph. 276-629-1741
☐ 165 Simmons Drive, Cloverdale, VA 24077, Ph. 540-966-4112

CREDIT (Cash/Chg.)	PHONE NO.	CONTACT	ORDERED BY	RENTAL TO BEGIN
	371-2234	Joe Allen	-131-	6-15-12

P.O. NUMBER	CUSTOMER NO.	SHIP VIA:	DATE
BC	999113	OUR TRUCK ☒ CUSTOMER PICKUP ☐	6-12-12
			TIME 9AM
RENTED TO:		SHIP TO: Glycotech	HOUR METER 1
-Sales Demo-		2271 Andrew Jackson Hwy	DATE
			TIME
		Roland NC 28151	HOUR METER

DESCRIPTION:

MAKE:	MODEL:	SERIAL #:	STOCK #:
Toy	8FBCU25	62773	AF12-62773
IBC	18-85-25	910T116	06-0118

DELIVERY/PICK-UP — EQUIPMENT CONDITION REPORT

	DEL.	P/U		DEL.	P/U		DEL.	P/U
Engine Oil			Forks	✓		A.M.P.		
Water			Backrest			Battery	✓	
Governor			OHG			Charger		
Hyd. Oil	✓		Tires			Fire Ext.		
Uprights	✓		Sheet Mtl.			Oil Leaks	✓	
Hyd. Cyl.	✓		S-Light			Lights	✓	
Attachm't	✓		Seat	✓		LP Tank		

Delivered By	Pick-Up By
6-15-12	
9CT DJ	

* CUSTOMER RESPONSIBLE FOR FLAT OR TIRE DAMAGE.
* CUSTOMER MUST CHECK WATER IN BATTERY OF ELEC. TRUCK DAILY.

RENTAL RATE		
____ 4 WKS. @ 160 HRS./4 WKS.	S	
____ 4 WKS. @ 40 HRS./4 WKS.	A	
____ 4 DAILY @ 8 HRS./DAY	I	
TOTAL RENTAL	E	
FUELS @	S	
EXTRA HOURS ____ @ ____		D
DELIVERY & PICK-UP		E
TAX ____ %		M
TOTAL CHARGES		O

NOTE TO DRIVER DELIVERING & PICKING UP RENTAL EQUIPMENT:

1. Instruct Customer on the operation of the equipment.
2. Upon pick-up, ask Customer for any missing parts or accessories. If they cannot be found, list them and report them immediately to your manager. Also point out any item that is broken or damaged in the space provided. This should be done with the customer at delivery and pickup.
3. Request liability insurance information.

THE ABOVE EQUIPMENT IS DELIVERED SUBJECT TO ABOVE INSPECTION — CUSTOMER SIGNATURE

THE ABOVE EQUIPMENT IS PICKED-UP SUBJECT TO ABOVE INSPECTION — CUSTOMER SIGNATURE

PHYSICAL DAMAGE WAIVER

You shall at your expense provide and maintain protection against loss, damage or destruction to the leased equipment, for its full replacement cost. Alternatively, this contract offers a Loss Damage Waiver to cover your responsibility for the loss, damage or destruction to the leased equipment. To the extent that such loss, damage or destruction from your gross negligence or willful misconduct, any limitation of your responsibility provided by the Loss Damage Waiver or otherwise shall be void. Before deciding whether to purchase the Loss Damage Waiver you may wish to determine whether your own insurance affords you comparable coverage for damage to the leased equipment and the deductible amount you would be responsible for under your insurance. The purchase of this Loss Damage Waiver is not mandatory and may be declined. The fee ($0.1/1 /) for this Loss Damage Waiver will be reflected on our invoice or other notice to you. Waiver hereunder do not constitute insurance.

Please initial below that you have read the paragraph above in its entirety, understand its terms and wish to purchase the Loss Damage Waiver described therein or provide your Liability Insurance information. Initials ____

Insurance Co: ____ Agent's Name: ____

Policy #: ____ Agent's Phone: ____

I HAVE READ THE TERMS AND CONDITIONS ON BOTH SIDES OF THIS RENTAL AGREEMENT AND AGREE THERETO.
LESSEE IS RESPONSIBLE FOR PREMIUM MAINTENANCE PAYROLL COSTS OUTSIDE OF HOURS 8 AM TO 4:30 PM MONDAY THRU FRIDAY.

SIGNATURE X ____ TITLE Inventory Mgr DATE 6/15/12

IMPORTANT: PLEASE ADVISE A.C.T. 800-849-5438 WHEN RENTAL TRUCK IS READY TO BE PICKED UP.

Internet

IT. Simplified.
CloudWyze
INTERNET | PHONE | CLOUD | IT MANAGEMENT

Master Service Agreement
Version 3.0 010115.01

MASTER SERVICE AGREEMENT

This agreement, including additional Terms and Conditions that are referenced herein ("Master Service Agreement"), dated 6/30/2015 ("Effective Date"), is between customer identified below ("Customer") and CloudWyze, Inc. (" CloudWyze").

CLOUDWYZE INFORMATION:

CloudWyze Headquarters
Street: 503 Olde Waterford Way, Ste. 205
City: Leland
State: NC
Zip Code: 28451

Contact:
Phone: 910.795.1000
Alt Phone: 877.878.3739
Fax: 910.338.5159

MASTER CUSTOMER INFORMATION:

Customer Name
Glycotech
Billing Address
22712 Andrew Jackson Hwy, Leland, NC 28451

Account Number
11-0701

Federal Tax ID

Customer Service Address(s)

Service Agreement

THIS CLOUDWYZE MASTER SERVICE AGREEMENT IS SUBJECT TO THE STANDARD CLOUDWYZE END USER TERMS AND CONDITIONS AVAILABLE AT WWW.CLOUDWYZE.COM/CWMSATC.pdf, AND THE SERVICE LEVEL AGREEMENT AVAILABLE AT WWW.CLOUDWYZE.COM/SLA.pdf, COPIES MAY BE PROVIDED TO CUSTOMER UPON REQUEST. SUCH TERMS AND CONDITIONS ARE INCORPORATED HEREIN BY THIS REFERENCE. BY EXECUTING THIS AGREEMENT WHERE INDICATED BELOW, CUSTOMER ACKNOWLEDGES THAT (1) CUSTOMER ACCEPTS AND AGREES TO BE BOUND BY ALL SUCH TERMS AND CONDITIONS, INCLUDING SECTION 21 THEREOF, WHICH PROVIDES THAT THE PARTIES DESIRE TO RESOLVE DISPUTES RELATING TO THE CLOUDWYZE SERVICES AGREEMENT THROUGH ARBITRATION; (2) BY AGREEING TO ARBITRATION, CUSTOMER IS GIVING UP VARIOUS RIGHTS, INCLUDING THE RIGHT TO TRIAL BY JURY; AND (3) CUSTOMER ACCEPTS ADDITIONAL TERMS AND CONDITIONS FOR THE FOLLOWING CLOUDWYZE SERVICE SPECIFIC AGREEMENTS LISTED BELOW:

- [X] INTERNET SERVICE AGREEMENT
- [ ] PHONE SERVICE AGREEMENT
- [ ] SHARED CLOUD SERVICE AGREEMENT
- [ ] PRIVATE CLOUD SERVICE AGREEMENT
- [ ] IT MANAGEMENT SERVICE AGREEMENT
- [ ] EQUIPMENT RENTAL AGREEMENT
- [ ] EQUIPMENT PURCHASE AGREEMENT

By signing and accepting below, you are acknowledging that you have read and agree to the terms and conditions outlined in this document, the Master Service Agreement Terms and Conditions, the respective Terms and Conditions for each service checked above, and any related Statement of Works. You are also acknowledging and accepting the terms outlined in each related service agreement.

Authorized Signature for CloudWyze	Authorized Signature
Printed Name and Title	Printed Name and Title: PLANT MANAGER
Date Signed	Date Signed: 7/2/15

CloudWyze
It. Simplified.

STATEMENT OF WORK

This Statement of Work (SOW) defines the scope of work to be accomplished by CloudWyze under the terms and conditions of this Service Agreement for the Client. The SOW defines the tasks specifically, included, but not limited to, to be performed by CloudWyze and the Client for the implementation of the following products:

INTERNET

This SOW is made up of the following sections by Service:

1. Key Assumptions
2. CloudWyze Responsibilities
3. Client Responsibilities
4. Responsibility Matrix

During the investigation and implementation of the lifecycle of this agreement, changes may affect the estimated schedule, charges, or other terms of this SOW.

INTERNET

Key Assumptions

1. Client is within CloudWyze coverage area and signal test meets minimum standards.
2. Easement for exterior mounted equipment is assumed.
3. CloudWyze has access to roof, telecom room, demarcation points in building, building common areas, and power at location of equipment.
4. Ethernet lines and jacks involved in the implementation are professionally installed and certified at the Client's location.
5. CloudWyze assumes the required network equipment (ex: router, switch, patch panel, etc.) is in working condition at the Client Location.
6. CloudWyze will install Internet Service based on the availability of the CloudWyze installation team.
7. CloudWyze assumes there will be sufficient power outlets available for all network equipment.
8. Client owned equipment is fully operational and meets modern industry standards.
9. Demarcation point determined by attached Responsibility Matrix.

CloudWyze Responsibilities

1. CloudWyze will make sure there is a live internet connection to the Demarcation Point at the Client's location.

Client Responsibilities

1. Coordinate times to allow CloudWyze to have access to necessary areas at Client location.
2. Client participation is critical during the deployment of CloudWyze services, including but not limited to site visits, phone and email communications. Failure to due so will not delay billing milestones.

CLIENT INTIALS WNA
7/2/15

7. This Agreement may be freely assigned by either Party, provided that the assignee agrees to be bound by all of the terms and conditions hereof. This Agreement shall be binding upon and inure to the benefit of the parties hereto, their successors, legal representatives and assigns.

8. OPERATOR MAKES NO REPRESENTATIONS OR WARRANTIES--EXPRESS OR IMPLIED-- REGARDING THE SYSTEM OR THE SERVICES, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, AND ALL SUCH WARRANTIES ARE HEREBY DISCLAIMED. NOTWITHSTANDING ANYTHING TO THE CONTRARY CONTAINED HEREIN, IN NO EVENT SHALL OPERATOR OR OWNER BE LIABLE FOR ANY INDIRECT, INCIDENTAL, CONSEQUENTIAL, SPECIAL, RELIANCE OR PUNITIVE DAMAGES, EVEN IF ADVISED OF THE POSSIBILITY THEREOF.

9. Owner reserves the right to grant other easements on or rights of access to the Property, but will not allow such other grants to interfere with the rights conveyed in this Agreement.

10. This Agreement may be executed in several counterparts, each of which shall be deemed an original and such counterpart together shall constitute one and the same instrument.

11. This Agreement shall be construed in accordance with the laws of the State where the Property is located.

IN WITNESS WHEREOF, Owner and Operator have executed this Agreement on the dates set forth below.

TIME WARNER CABLE SOUTHEAST LLC
D/B/A TIME WARNER CABLE

By:____
Name:
Title:
Tel/Fax
E-mail:
Date:

PROPERTY OWNER'S NAME

By:
Name:
Title:
Tel/Fax:
E-mail:
Date:

Primary On-Site Contact:

Print Name:

Phone Number:

Email Address:

RIGHT OF ENTRY AGREEMENT

THIS RIGHT OF ENTRY AGREEMENT (this "Agreement") is by and between **Glyncotech, LLC**, a/an owner (hereinafter the "Owner"), whose address is **2271 Andrew Jackson Hwy NE Leland NC 28451** and Time Warner Cable Southeast LLC, a Delaware limited liability company, d/b/a Time Warner Cable, by itself and on behalf of its affiliates (collectively, the "Operator"), whose address is Time Warner Cable Business Class, Attn: Market Development, 13840 Ballantyne Corporate Place, Suite 200, Charlotte, North Carolina 28277. Operator and Owner may individually be referred to as a "Party" or collectively as the "Parties." This Agreement commences on the later of the execution dates set forth below the signatures (the "Commencement Date").

1. Owner represents and warrants that Owner: (a) is the fee simple owner of the land, improvements, and building which constitute the Property (defined below) and has full power and authority to grant to Operator the rights set forth in this Agreement; or (b) through written agreement with the fee simple owner of the Property, has the full power and authority to grant to Operator the rights set forth in this Agreement.

2. In consideration of the mutual benefits and obligations set forth herein, Owner grants to Operator and Operator's employees, agents, and contractors a non-exclusive right of entry for ingress and egress to the property and building(s), (including building roof top(s)), located at **2271 Andrew Jackson Hwy NE Leland NC 28451** (the "Property") for the purpose of installing, attaching, operating, repairing, replacing, removing, and maintaining all necessary equipment, including, without limitation, lines, wires, poles, conduits, pipes, converters, amplifiers, splitters, lock boxes, antennas, wireless delivery system equipment and facilities (collectively, the "System") in order to sell, market, and provide Operator's cable television, data, Internet, telecommunication, Wi-Fi, and other entertainment services (collectively, "Services") to occupants of the Property (collectively, "Occupants"). The rights granted hereunder shall be deemed to include use of available power, along with a right for Operator to have access to those areas in addition to and a right to use, all risers in the building, house wiring, utility easements, underground conduit, ducts, building entrance facilities, building utility entrance facilities, utility closets in the building, whether in common areas or in an Occupant's premises (with Occupants' approval), rights-of-way, private roads and other areas on the Property as reasonably required for the purpose set forth above. Operator shall determine in its sole discretion the economic feasibility and appropriate date to begin construction and/or installation of the System on the Property. Upon request from the Owner, the Operator shall provide the Owner with a WiFi site survey for the Property and the attachment location for any wireless delivery system equipment that Operator will be attaching to the Property. Operator will have the right to advertise, market and otherwise promote the Property as a public WiFi hotspot in any and all forms of media, in Operator's sole discretion, and Owner grants Operator a license to use the names, trademarks and logos of Owner and the Property for such purposes.

3. The term of this Agreement commences on the Commencement Date and shall remain in full force and effect until the later of: (a) the date that is 5 years after the Commencement Date; or (b) the date that is 6 months after the date that Operator ceases to provide Services to Occupant(s) at the Property (the "Term").

4. Occupants, if they desire to receive Services, shall be charged and billed individually for such Services by Operator. Operator shall be responsible for any and all material damages directly caused to the Property by Operator's installation, operation, maintenance and removal of the System.

5. Ownership of all parts of the System shall be and remain the personal property of the Operator. No entity or person, other than Operator, may use any part of the System. Owner shall not, and Owner shall not authorize any third party to, tamper with, make alterations to, or remove any components of the System. The System is not, and shall not be deemed to be, affixed to or a fixture of the Property. Operator shall install, operate and maintain the System on the Property at its own expense and in accordance with all applicable laws. If Owner requests, Operator shall submit for advanced approval the drawings and/or plans for the installation of the System, and such approval shall not be unreasonably withheld, conditioned, or delayed by Owner.

6. Operator agrees to maintain Commercial General Liability Insurance, with limits of not less than Two Million Dollars ($2,000,000) combined single limit per occurrence for bodily injury, sickness or death, and property damage.

INTERNET SERVICE AGREEMENT

This Service Agreement, including all attached Work Orders, Statement of Works, and additional Terms and Conditions that are incorporated herein by this reference ("Internet Service Agreement"), dated 6/30/2015 ("Effective Date"), is between customer identified below ("Customer") and CloudWyze, Inc. ("CloudWyze").

CLOUDWYZE INFORMATION

CloudWyze Headquarters

Street:	503 Olde Waterford Way, Ste. 205	Contact:	
City:	Leland	Phone:	910.795.1000
State:	NC	Alt Phone:	877.678.3739
Zip Code:	28451	Fax:	910.338.6169

CUSTOMER INFORMATION

Full Legal Name				
Glycotech				
Address	City	State	Zip	Country
22712 Andrew Jackson Hwy	Leland	NC	28451	USA

[x] CLOUDWYZE SMART INTERNET:

36 MONTHLY PAYMENTS OF $3,219.95	CURRENT DUE $ 0.00
SERVICE LEVEL AGREEMENT: 99.95%	INSTALL DATE (estimated)

[ ] CLOUDWYZE MANAGED INTERNET:

[illegible] MONTHLY PAYMENTS OF $	CURRENT DUE $
SERVICE LEVEL AGREEMENT: n/a	

Service Agreement

THIS CLOUDWYZE INTERNET SERVICE AGREEMENT IS SUBJECT TO THE MASTER SERVICE AGREEMENT TERMS AND CONDITIONS AND THE INTERNET SERVICE AGREEMENT TERMS AND CONDITIONS AVAILABLE AT http://www.cloudwyze.com/ISA.pdf, AN ADDITIONAL COPY OF SUCH TERMS AND CONDITIONS MAY BE PROVIDED UPON REQUEST. SUCH TERMS AND CONDITIONS ARE INCORPORATED HEREIN BY THIS REFERENCE.

OK TO PAY

OCT 14 2015

Crossing fee

BS

[CSX] How tomorrow moves

CSX Federal ID No. : 54-6000720
CSX Canadian ID No. : 1022362868

INVOICE

Bill No.	8302866
Bill Date	10/06/2015
Due Date	12/30/2015

Payment may be made in one of the following ways:
Mail your check, along with the bottom portion of your bill to the address indicated on the bill.

To authorize payment by credit card or to have future payments automatically withdrawn from your checking account via (EFT) call 904-279-3829.

If you have any questions concerning this invoice or if you need to correct your name or address, please call 904-279-3829 or email Beverly_Corbitt@csx.com

SALISBURY PARTNERS LLC
P O BOX 1956
LELAND NC 28451

Description of Charges

Contract No	Contract Date	Location	Description	Billing Period	Rental
DOT918164F ANNUAL FEE FOR A CROSSING - PRIVATE ROADWAY	06/29/1978	LELAND NC	CROSSING - PRIVATE ROADWAY	12/30/2015 - 12/29/2016	$250.00
DOT918164F ANNUAL FEE FOR A CROSSING-REPLACEMENT COST LOCATED AT AC 253.98 ANNUAL MAINTENANCE CHARGE TO ROAD CROSSING LOCATED 100 FEET OF MILEPOST AC-254 CUSTOMER REFERENCE: SCL025529	06/29/1978	LELAND NC	CROSSING-REPLACEMENT COST	12/30/2015 - 12/29/2016	$1,200.00
DOT918164F ANNUAL FEE FOR A CROSSING-REPLACEMENT COST LOCATED AT AC 253.98 ANNUAL MAINTENANCE CHARGE TO ROAD CROSSING LOCATED 100 FEET OF MILEPOST AC 254 CONSUMER PRICE INDEX-URBAN WAGE EARNERS & CLERICAL WORKERS 1982-84=100 CWUR0000SA0 IS AS SHOWN BELOW Index same as prior period CUSTOMER REFERENCE: SCL025529	06/29/1978	LELAND NC	INDEX AMOUNT	12/30/2015 - 12/29/2016	$132.88
				Invoice Total	$1,642.88

Detach Here and Return with Payment

Remit To:
CSX Transportation
P. O. Box 116628
Atlanta, GA 30368-6628

Due Date	12/30/2015
Amount Due	$1,642.88
Bill Number	8302866

Past due bills are subject to a $25.00 administrative and handling fee plus interest at the rate allowable by law. In order to avoid these fees, payment must reach us by the due date. Please allow 7-10 days for postal delivery.

Gulfstream Premium Funding Inc.

WEBSITE: www.gulfstreampremium.com

HEREINAFTER REFERRED TO AS THE PREMIUM FINANCE CO. AND/OR THE PFC

ADMINISTRATIVE OFFICE: 955 Executive Pkwy. - Suite 216 - St. Louis, MO 63141 - (314) 576-0007

MAILING ADDRESS: P.O. Box 66501 - St. Louis, MO 63166-6501

NC Permit No. A-601

THIS PREMIUM FINANCE AGREEMENT HAS BEEN PLEDGED BY THE PFC TO FIRST CITIZENS BANK

PREMIUM FINANCE AGREEMENT

COMMERCIAL

BORROWER		AGENT	
Name	GLYCOTECH INC	SUB AGENT	HAROLD W WELLS & SON INC
Address	P O BOX 1956	Address	ONE NORTH THIRD ST
City	LELAND NC	City	WILMINGTON NC
Zip Code	28451 Phone (910) 371-2234	Zip Code	28401 Phone 8008491921

Itemization of Amount Financed: The AMOUNT FINANCED (Box C below) consists entirely of the amount of credit that will be paid on your behalf for the policies listed in the Schedule of Policies.

A. TOTAL PREMIUM	B. DOWN PAYMENT	C. AMOUNT FINANCED (A - B) The amount of credit provided to you or on your behalf.	D. FINANCE CHARGE The dollar amount the credit will cost you.	E. TOTAL OF PAYMENTS (C + D) The amount you will have paid after you have made all payments as scheduled.
263,757.72	77,005.94	186,751.78	5,285.08	192,036.86

ANNUAL PERCENTAGE RATE The cost of your credit as a yearly rate.	The first payment is due not more than one month from origination date.	PAYMENT SCHEDULE			
		First Payment Due	Payment Due Date	Amount of Each Payment	Number of Payments Payable Monthly
6.75		03/10/2016	10	21,337.43	9

THIS AREA FOR PFC USE ONLY **109**

320-000

00706415

Security Interest: You are giving a security interest in all unearned premiums, dividends, loss payments under the policies listed in the schedule of policies, and in any interest arising under a state guarantee fund relating to these items.
Prepayment: If you pay off early you may be entitled to a refund of part of the finance charge.
Late Charge: When a payment is delinquent five days or more after the payment due date shown above you will pay a late charge of up to 5% of the delinquent payment.
Contract Reference: See the agreement for more information about nonpayment, default, any required repayment in full before the scheduled date, prepayment refunds and security interest.

SCHEDULE OF POLICIES

POLICY NUMBER	TERM MOS.	NAME OF INSURANCE COMPANY AND ADDRESS OF ISSUING OFFICE OR OF POLICY ISSUING GENERAL AGENT	TYPE OF COVERAGE	INCEPTION DATE	PREMIUM
	12	F751 BEAZLEY INSURANCE COMPANY	37 PROP	02/10/16	77,500.00
		POLICY FEES			500.00
		TAXES			3,875.00
	12	F753 KINSALE INSURANCE COMPANY	37 PROP	02/10/16	31,500.00
		POLICY FEES			600.00

This Premium Finance Agreement includes additional policies that are listed on page 3 of this Agreement.

Notice: Each policy listed in this agreement may be cancelled if you do not make all payments in accordance with this agreement. All policies appearing in the Schedule of Policies of this agreement are a part of this agreement and subject to all of the terms and conditions of this agreement.

INSURANCE PREMIUM FINANCE AGREEMENT NOTICE: 1. DO NOT SIGN THIS AGREEMENT BEFORE YOU READ IT OR IF IT CONTAINS ANY BLANK SPACE. 2. YOU ARE ENTITLED TO A COMPLETELY FILLED-IN COPY OF THIS AGREEMENT. 3. UNDER LAW YOU HAVE THE RIGHT TO PAY OFF IN ADVANCE THE FULL AMOUNT DUE AND UNDER CERTAIN CONDITIONS TO OBTAIN A PARTIAL REFUND OF THE FINANCE CHARGE.

POWER OF ATTORNEY: Borrower irrevocably appoints the PFC as its Attorney-In-Fact with complete authority to cancel the policies, to demand, collect, sue for, receive and give receipt for all sums assigned above to the PFC, and to execute and deliver on Borrower's behalf all documents, forms, and notices relating to the policies in furtherance of this Agreement. Any money received as Attorney-In-Fact shall be subtracted from any amount owed to the PFC by Borrower, and if there is a surplus, it shall be paid to Borrower if it is greater than $1.00.

Signature On File — Signature of Borrower — 02/23/2016 Date

RISK PURCHASE GROUP, AGENT OR BROKER WARRANTY

The undersigned warrants that Borrower's signature is genuine. When the Borrower has not signed this Agreement, the undersigned warrants that he/she has been authorized to sign this Agreement on the Borrower's behalf. The undersigned warrants that Borrower has received a copy of this Agreement and has been fully informed of its terms and conditions.

Additionally, the undersigned warrants that: 1. the policies are in full force and effect and the premiums are correct, 2. the Borrower is not now in or being placed in, or is not instituting a proceeding in bankruptcy, receivership, or insolvency, and 3. the downpayment has been collected by the agent from the Borrower.

Signature of Agent/Sub Agent — 02/23/2016 Date

LSF-32 (07/2008) NC

WHITE-PFC CANARY-PFC PINK-GENERAL/SUB AGENT GOLDENROD-BORROWER

Gulfstream Premium Funding Inc.

WEBSITE: www.gulfstreampremium.com
HEREINAFTER REFERRED TO AS THE PREMIUM FINANCE CO. AND/OR THE PFC
ADMINISTRATIVE OFFICE: 655 Executive Pkwy. - Suite 216 - St. Louis, MO 63141 - (314) 576-0007
MAILING ADDRESS: P.O. Box 66501 - St. Louis, MO 63166-6501

NC Permit No. A-601

PREMIUM FINANCE AGREEMENT

The Insurance policies listed on this schedule are financed under loan (00706415) and are subject to all terms and conditions set forth on pages 1 and 2 of this loan agreement.

SCHEDULE OF POLICIES

POLICY NUMBER	TERM MOS.	NAME OF INSURANCE COMPANY AND ADDRESS OF ISSUING OFFICE OR OF POLICY ISSUING GENERAL AGENT	TYPE OF COVERAGE	INCEPTION DATE	PREMIUM
		TAXES			1,575.00
	12	F752 HARTFORD STEAM BOILER	26 B&M	02/10/16	3,395.37
	12	G647 AIG SPECIALTY INS CO	02 LIAB	02/10/16	39,850.00
		PREMIUM AMOUNT			500.00
		TAXES			1,992.50
	12	G647 AIG SPECIALTY INS CO	17 EXLIA	02/10/16	94,257.00
		POLICY FEES			500.00
		TAXES			4,712.85
	12	G017 COMMERCE & INDUSTRY INS CO	01 ATOPL	02/10/16	2,500.00
		POLICY FEES			500.00

Notice: Each policy listed in this agreement may be cancelled if you do not make all payments in accordance with this agreement. All policies appearing in the Schedule of Policies of this agreement are a part of this agreement and subject to all of the terms and conditions of this agreement.

LSF-32 (07/2008) NC

WATER TREATMENT PROGRAM

MONTHLY BILLING AGREEMENT

This Agreement is made by and between ***Southeastern Laboratories, Inc.*** (a North Carolina Corporation located in Goldsboro, NC), hereinafter referred to as "**Vendor**", and ***GlycoTech*, Inc.** (located in Leland, NC), hereinafter referred to as "**Customer**".

Whereas, Vendor is engaged in the manufacture and (or) sale of a variety of water treatment chemicals, related equipment and application services, as well as in providing technical consulting services for the same, and;

Whereas, Vendor has, with the cooperation of **Customer**, proposed a water treatment program for **Customer**'s designated systems and needs, and based upon the data gathered, listed and described within **Vendor's** Total Water Management Program proposed and dated February, 2012;

Whereas, **Customer** has considered **Vendor's** proposal, **Customer** and **Vendor** do hereby agree to the terms and conditions as set out:

1. This Agreement is to become effective on ***April 18th, 2012***. *Its* term is to be one year. It may be terminated at any time by either party giving 45 days written notice. The annual estimated cost is intended to cover costs of products, test reagents, and services identified in the aforementioned proposal offered by **Vendor**. Should, by **Vendor**'s or **Customer**'s election, this Agreement be terminated by a 45 day written notice, then **Vendor** reserves the right to, at its discretion, remove any excess unpaid-for chemical or product from **Customer**'s site at **Vendor**'s expense or to invoice customer with any unpaid-for chemical or product. Prior to this, **Vendor** will provide **Customer** with an accounting of the value of product provided by **Vendor** verses that amount paid for by the schedule of payments made. Only unused, non-opened chemical product can be returned to **Vendor** for credit.

2. This Agreement is intended to schedule and set conditions for **Customer**'s payment of the annual costs of chemical product and **Vendor**'s technical services for treating the systems hereinabove referenced. The annual costs of chemical treatment necessary for such are proposed by **Vendor** to be ***$6,960.00***. This INCLUDES FREIGHT and **Customer is TAX EXEMPT.**

3. **Customer** will issue blanket purchase orders to cover the twelve (12) monthly billings described herein below within this Agreement.

4. Beginning on ***April 18th, 2012***, **Vendor** will invoice **Customer** with the first of twelve (12) monthly billings of ***$580.00***. Each of the subsequent (remaining) eleven (11) monthly billings will be made on the next respective month for the annual cost of the

contracted water treatment program. ***Customer has the right to pay the remaining annual contract amount at any time if desired.***

Terms of payment shall be net 30 days of invoice date. Further standard terms and conditions found within **Vendor's** invoice and other documents are incorporated as if recited herein.

5. This Agreement shall be binding upon and inure to the benefit of the successor, assigns, executors and administrators of both parties.

In Witness whereof, the parties hereto have executed this Agreement in duplicate this 18th day of April, 2012.

SOUTHEASTERN LABORATORIES, INC.

By: _____ Printed Name:
Title: Sales and Service Account Manager

<Vendor>

By: _____ Printed Name:
Title: MAINTENANCE MANAGER

Copiers

New Rich – C2503 Series
Del. 3-8-16
IP Address: 10.0.0.133
admin

SYSTEL
BUSINESS EQUIPMENT

Visit www.systelco.com for a list of all Systel locations

EQUIPMENT DELIVERY AND PICKUP FORM

Order Number		Date Submitted	
Sales Rep.	Russ Hauptman	Rep. Number	30SA20

CUSTOMER LOCATION						CONTACT NAME (list all applicable)	Contact Number
Customer #:	304379			New Customer ☐		Sales	
Company Name:	Glycotech, Inc.					Delivery	
Address:	2271 Andrew Jackson Highway					Training	
City:	Leland	State:	NC	Zip:	28451	IT	
Phone:	910-371-2234		Fax:			Other	

DEL. STATUS		SITE SURVEY		ELECTRICAL		OTHER		COMMENTS/ SPECIAL INSTRUCTIONS:	Credit (and/or) Lease Approved ☐
DEMO	☐	Roll In	☐	110v -15amp	☐	Training Req'd	☐		Information and Pricing Approved ☐
SALE	☐	Elevator	☐	110v --20amp	☐	Systel Connect	☐		X:
LEASE	☐	Entry Steps	☐	220v --30amp	☐	Our Truck Del.	☐		Manager Signature above
RENTAL	☐	2nd Floor/Lift	☐	220v - 20amp	☐	Sales Rep Del.	☐		Requested Delivery Date: ASAP ☐
LOANER	☐	Stairs/Ramber	☐	OTHER	☐	OTHER	☐		Actual Delivery Date: ☐AM ☐PM
EXCHANGE	☐	Dock High	☐	If other is checked for any category, specify below:					Maintenance Agreement ☐YES ☐NO
OTHER	☐	Network Drop	☐						

Network Survey Sheet must be signed, and submitted prior to Systel performing Connectivity ☐ Meter Collection form signed and submitted ☐

SOFTWARE INFORMATION | Current License Key

EMAIL ADDRESS: (Required for Delivery) | CONTACT: (Required for Delivery)

COLOR METER: BLACK METER:

DELIVERY EQUIPMENT INFORMATION			EQUIP ID: EF537	Meter Readings	Copies ☑	Developments ☐
QUANTITY	PRODUCT #	EQUIP MAKE	EQUIP MODEL #	DESCRIPTION	SERIAL #	LOC
1	417254		MP-C2503	Digital color copier/printer/scanner	E215M160426	11
1	417268		PB-3220	Paper feed unit	E975Q560725	11
1	D5133NT			Surge protector	3789426	11

COLOR METER: BLACK METER:

PICK UP EQUIPMENT INFORMATION			PICK UP DATE:	Meter Reading: 148444 188952	Copies ☐	Developments ☐
QUANTITY	EQUIP ID	EQUIP MAKE / MODEL		DESCRIPTION		SERIAL NUMBER
1	DD415	C2551		Color copier		V9814900284

PICK UP STATUS: Cust. Owned ☐ Systel / Stoc Lease Return ☐ 3rd Party Leasing Co. Owned * ☐ Name of Leasing Company: *Must return to Lease Co.

Delivery Acceptance: I certify that I have received from Systel with no visible damage, all equipment listed herein for the purposes checked above. If this is a delivery for demonstration purposes only, I agree that I have no right to or interest in the equipment other than the use of it at the address shown above during the period indicated. I agree that unless purchased, leased, rented, and/or paid in full by me that all equipment and supplies may be removed by Systel at any time. I acknowledge financial responsibility for any damage, loss, or abuse while equipment is at my location.

X Customer Signature _____ Print Name and Title _____ Date 3-8-16

Equipment Pick-up Release: I certify that Systel removed all of the equipment indicated above, and that the information related to each (including make/model, serial number, and meter reading) is true and accurate as of the date of pick-up. I further certify that the pick-up of equipment by Systel was accomplished without any damage occurring to the equipment, or the business premises of Customer. In the event this pick-up involves the trade-in of Customer-owned equipment, I certify that said equipment is free and clear of any and all liens and encumbrances, and that title thereto shall pass to Systel upon execution hereof. In the event that this transaction is voided, I agree to accept the listed equipment back, if available, or to allow Systel to replace it with equipment of equal value.

X Customer Signature _____ Print Name and Title _____ Date 3-8-16

SYSTEL®
BUSINESS EQUIPMENT
COPY • PRINT • SCAN • SEND

Systel Business Equipment Co., Inc.
Post Office Box 35870
Fayetteville, NC 28303
Telephone (910) 321-7700 Fax (910) 483-2846

SALES ORDER FORM

ORDER / INVOICE NO.

ORDER DATE:	REQUIRED DATE:
2/25/2016	

NEW CUSTOMER ☐

SHIP TO	Customer #:	304379	
Glycotech, Inc.			
2271 Andrew Jackson Highway			
Leland		NC	28451
Shipping Contact:		Becky Green	
Phone #:	910-371-2234 Ext 34	Fax #:	

BILL TO	Customer #:	304379	
Glycotech, Inc.			
2271 Andrew Jackson Highway			
Leland		NC	28451
Billing Contact:		Becky Green	
Phone #:	910-371-2234 Ext 34	Fax #:	

Purchase Order:		Ship Via	
Account Type:	☐ Cash	☐ Credit Card	☑ Lease
Payment Terms:			
Delivery	☐	Pickup	☐

Order Delivered	☐	Order to be Filled	☐
COD	☐	Credit Memo	☐
Shipping Branch	30	Sales Rep Name	ss Hauptman/30SA
Selling Branch	30	Sales Rep #	30SA20

QTY	PRODUCT #	MAKE / MODEL	DESCRIPTION	SERIAL #	UNIT PRICE	TOTAL PRICE
1	417254	Ricoh C2503	Color MFP			
1	416952	Ricoh PB3210	Paper bank			
			48 Month Lease for $180.34 Per Month			
			Not Including Applicable Taxes			
			Service Included In Lease Term			
			SURGE PROTECTOR			

METER IN: METER OUT: B , C BUYOUT ☐
WARRANTY EXPIRATION DATE _____ Amount=

GUARANTEED MAINTENANCE AGREEMENT ☑ Yes ☐ No

TAX EXEMPT NO. AND CODE (attach copy) ☐

Subtotal	
Sales Tax	
Delivery/Installation	
Connectivity Charges	
TOTAL AMOUNT	
Less Payment (Check #____)	
AMOUNT DUE	

COMMENTS:

Our credit terms are Net 10 Days from date of invoice. Customer agrees to pay a late charge of 1.5% per month or 18% annually on payments after due date. If purchaser is in default of any of the above payment obligations, Systel Business Equipment Co., Inc

CUSTOMER ACCEPTANCE			SYSTEL REPRESENTATIVE	
	Becky Green Administrator	2/26/16		2/26/16
Authorized Signature	Print Name/Title	Date	Signature	Date

SYSTEL®
BUSINESS EQUIPMENT
COPY • PRINT • SCAN • SEND

Guaranteed Maintenance Agreement

REMIT TO:
Systel Business Equipment Co., Inc.
Post Office Box 35870
Fayetteville, NC 28303
Telephone (910) 321-7700 Fax (910) 483-2846

Date:	2/25/2016
Customer # :	304379
Program Type:	
Contract Start Date:	
Contract End Date:	

Make/Model	Serial Number	EQUIP ID #	B/W Start Meter	Color Start Meter
Ricoh C2503				

Addendum Attached: ☐ Single ☐ Group ☐ Combined ☐

LOCATION:	BILL TO
Glycotech, Inc.	Glycotech, Inc.
2271 Andrew Jackson Highway	2271 Andrew Jackson Highway
Leland NC 28451	Leland NC 28451

Key Operator/ Meter POC: Becky Green Technician Assigned:
Phone # : 910-371-2234 Ext 34
Meter Method:
Fax # :
Email address: b.green@glycotechinc.com
@Remote / RDS: ☐
Labrador: ☐

LEASE/RENTAL CUSTOMERS:
If this agreement is being provided at no charge in consideration for a lease/rental agreement on equipment with SYSTEL check h ☑

COVERAGE TYPE
Appropriate categories must be initiated by Customer in the box to the left of the option

- ☐ Type S - Includes all parts and labor; Excludes drums, supplies, and networking
- ☐ Type B - Includes all parts, labor, and drums; Excludes supplies and networking
- ☐ Type F - Includes all parts, labor, and supplies; Excludes paper, staples, color toner, and networking
- ☐ Type C - Includes all parts, labor, and supplies; Excludes paper, staples, and networking

INCLUDES: (Please check one)
COPIES ☑
DEVELOPMENTS ☐

Equipment Type	Base Rate*	Base Allowance*	Additional Rate over Base	
B/W UNIT	INC	3,000	$ 0.01200	
COLOR UNIT	INC	500	$ 0.07000	
B/W PRINTER	$ -		$ -	
COLOR PRINTER	$ -		$ -	

Payment Information	
Total Payment	INC
Sales Tax	
Payment Due	INC

If wide-format, billing is per Square foot / Linear Foot * The base rate and allowance are Monthly , payable in advance.

COMMENTS: Service Included in Lease Term (48)

☐ Check here if power equipment filter is provided. Customer acknowledges receipt herewith of power filter equipment. Serial Number

TERMS AND CONDITIONS

1. This Agreement is for one year beginning on effective date and will be automatically renewed and billed for one (1) year periods unless either party notifies the other in writing at least thirty (30) days before the annual expiration date of this Agreement.
2. This Agreement does not cover physical damage from misuse, abuse, natural disasters, fire, theft, water or spillage of any liquid or from damage of clips, staples or other foreign objects, drum scratches of any kind, malfunctions of associated peripheral equipment, transmission lines, modems, retraining of equipment operators or service calls which result from improper operation, service which should be performed by key operator, major rebuilding, overhauling or operating supplies which include toner, paper, developer, drums, filters or heat roller kits, except as noted. Freight on supplies shipped per the above coverage type is not included.
3. This Agreement may be canceled by Systel at any time, including but not limited to nonpayment by Customer. If this Agreement is terminated for any reason, including nonpayment, customer agrees to pay regular price for any supplies indicated above as provided at no charge in this Agreement and received within ninety (90) days prior to the effective date of termination. Any change in program type or plan must be made at renewal date and customer must provide Systel with a minimum of thirty (30) days written notice before renewal of any request to change to any other type service plan.
4. Customer agrees to pay all invoices when due and keep any open account with Systel current at all times. Service may be suspended or this Agreement may be terminated if customer's account becomes past due.
5. Should actual usage not be available to Systel, then usage will be estimated based upon previous usage. Further, Customer acknowledges that a certain service discount may have been provided in exchange for providing monthly meters via an @Remote or RDS device. If customer is unwilling or unable to provide monthly meters under such program, additional charges of $25 per unit may apply under this Agreement.
6. The power filter equipment listed above is provided to customer at no charge as long as this agreement is in effect. At termination of this agreement for any reason whatsoever customer agrees to return to Systel, freight or postage prepaid, the power filter equipment named herein. If not received within 10 days of the effective termination date of this agreement, customer agrees to pay to Systel the replacement value of $ 150.00 for this equipment and remit this amount within 10 days of receipt of invoice by Systel. Customer shall bear full responsibility for all loss or damage to the power filter equipment provided.
7. Coverage will be void under this Agreement if equipment is serviced by anyone other than Systel personnel or supplies are used which are purchased from any company other than Systel. All supplies must be replaced when needed to continue coverage under this Agreement. A special rate on service has been provided in consideration for supply purchases and use of supplies from any other source could result in higher service rates. Service calls resulting from the use of inferior quality supplies will not be covered under this Agreement and will be billed at standard hourly rates.
8. This Agreement is non-transferable and prices are subject to change annually. This Agreement is non-refundable during the contract period. Any training for operator after initial installation is not included in this Agreement and will be billed separately.
9. This Agreement will not be effective until approved by Systel Management and upon receipt of initial payment or approved purchase order. All service will be charged at standard hourly rates until approved contract is on file. Agreements may not be back dated to cover prior service. Units out of warranty may require inspection charge and purchase of any worn items that would be covered under any subsequent contract.
10. Systel normally provides service response time in four (4) hours or less from the time the call is placed with our Dispatch Department. Emergency service calls where the equipment is totally inoperable are guaranteed to our customers if they notify us at the time of placing the call that emergency service is required and the machine is totally inoperable (will not make a copy). If for any reason Systel fails to respond to emergency service calls within four (4) working hours, then the customer shall be entitled to a twenty-five dollar ($25.00) credit to their account to be used for the purchase of supplies or other services. The customer must notify the technician upon their arrival to receive credit under this program. No credits will be issued after the date of any call for which credit is claimed.
11. Systel provides to its customers a total satisfaction guarantee as long as your machine is continuously under a Systel Guaranteed Maintenance Agreement. At any time the customer is not totally satisfied with their equipment purchased, leased, or rented through Systel, it may be exchanged for similar equipment of equivalent age, condition, and volume. Type of equipment substituted will be at the sole discretion of Systel. The company's normal installation and removal charges shall apply to any substitutions or equipment requested by customer.
12. There are no warranties, agreements or representations of any kind, directly or indirectly, expressed or implied, except those specifically stated herein. The warranties provided herein for the equipment shall only be for the use of the equipment in the manner for which it was designed in accordance with all applicable manufacturer and vendor manuals.

By executing this agreement, I acknowledge that I have read and understand this agreement and I certify that I am authorized to execute this agreement on behalf of customer. Authorized signature acknowledges terms / conditions and expiration dates or meter.

CUSTOMER ACCEPTANCE			SYSTEL SALES REPRESENTATIVE	
Authorized Signature/Date	Print Name	Title		Date
		Administrator	300A30	2/26/16
			Manager Approval:	

SYSTEL®
BUSINESS EQUIPMENT
COPY • PRINT • SCAN • SEND

Post Office Box 35870
Fayetteville, NC 28303
Telephone (910) 321-7700 Fax (910) 483-2846

COPIER/PRINTER METER COLLECTION AGREEMENT

CUSTOMER # :	304379
Customer Name :	Glycotech, Inc.
Address:	2271 Andrew Jackson Highway
City:	Leland
State:	NC
Zip Code:	28451
Phone:	910-371-2234 Ext 34
Fax:	
Contact Name:	
Email Address:	
IP Address Ranges:	
Comments:	

☐ Customer has a Proxy Server

SOFTWARE AND SOFTWARE SERVICE COST IS $ 0 .

Customer acknowledges that this meter collection software is being provided at no charge and that a discount on service costs was provided by Systel in consideration for the installation of this copier/printer meter collection tool. Should customer terminate or remove the meter collection software during the term of any service contract with Systel, additional monthly service charges may apply.

As the undersigned, I represent and warrant that I have the authority to authorize and bind the above named customer in this agreement with Systel Business Equipment Co., Inc for electronic meter collection services. Customer consents and authorizes Systel to install the software and any necessary components without liability on customer's network. Customer must make available any necessary workstations, servers, or network drives are available at the predetermined time of installation.

I have read the above and understand that in the unlikely event there is any loss, corruption of data, or damage to the network from the installation and operation of the Labrador product, Systel, its agents, or subsidiaries will not be liable for any such loss or damage relating to such installation and operation.

[ ] DECLINE. I have been informed of all the benefits of the above meter collection tool offered exclusively and at no charge to Systel customers and decline to take advantage of such software. I understand that a discount was provided in order to install such software and additional charges of $25 per unit may apply.

Customer Representative (please print) _____
Title Office Administrator Inventory Mgr

Customer Signature: _____ Date: 2/26/16

SYSTEL **Systel Lease Agreement**

CUSTOMER				
Full Legal Name: Glycotech, Inc.				Phone Number: 910-371-2234
Billing Address: 2271 Andrew Jackson Highway	City: Leland		State: NC / Zip: 28451	Purchase Order Requisition Number
Equipment Location (if not same as above) City	State	Zip	County: Brunswick	

EQUIPMENT INFORMATION	Equipment Make	Model Number	Serial Number	Quantity	Description (Attach Separate Schedule If Necessary)
	Ricoh	C2503		1	Color MFP

PAYMENT INFORMATION	Number of Lease Payments	Lease Payment (PLUS)	Applicable Sales Tax (EQUALS)	Total Lease Payment	Term of Lease in Months	Payment Frequency: ☒ Monthly ☐ Quarterly ☐ Other
	48	$180.34 +	$12.17 =	$192.51	48	
		+	=		Security Deposit (PLUS)	First Period Payment (PLUS) Other (EQUALS) Total Payment Enclosed
		+	=		+	+ =

TERMS AND CONDITIONS

1. Systel Lease Agreement: You (the "Customer") agree to rent from us (the "Owner") the Equipment listed above and on any schedule attached to this Systel Lease Agreement. You authorize us to adjust the Lease Payments by up to 15% if the cost of the Equipment or taxes differs from the supplier's estimate. This Systel Lease Agreement is effective on the date that it is accepted and signed by us, and the term of this Systel Lease Agreement begins on that date or any later date that we designate (the "Commencement Date") and continues thereafter for the number of months indicated above. Lease Payments are due as invoiced by us. As you will have possession of the Equipment from the date of its delivery, if we accept and sign this Systel Lease Agreement you will pay us interim rent for each day from the date the Equipment is delivered to you until the Commencement Date, calculated on the Lease Payment amount, the number of days in that period, and a year of 360 days. Your Lease obligations are absolute, unconditional, and are not subject to cancellation, reduction, setoff or counterclaim. Security deposits are non-interest-bearing and may be applied to cure your default. If you are not in default, we will return the security deposit to you when this Systel Lease Agreement is terminated. When a Lease Payment is not made when due, you agree to pay us a late charge of 5% for each Payment or $10.00, whichever is greater. We may charge you a fee of $25.00 for any check that is returned. ONLY WE ARE AUTHORIZED TO WAIVE OR CHANGE ANY TERM, PROVISION OR CONDITION OF THE SYSTEL LEASE AGREEMENT.

2. Title: We have title to the Equipment. If this Systel Lease Agreement is deemed to be a security agreement, you grant us a security interest in the Equipment and the proceeds thereof. You authorize us to sign and file financing statements on your behalf.

3. Equipment Use, Maintenance and Warranties: We are renting the Equipment to you "AS-IS" AND WE MAKE NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. We transfer to you any manufacturer warranties provided to us. You are required at your cost to keep the Equipment in good working condition and to pay for all supplies and repairs. If the Lease Payments include the cost of maintenance and/or service provided by a third party, you agree that we are not responsible to provide the maintenance or service and you will make all claims related to maintenance and service to the third party. You agree that any claims related to maintenance or service will not impact your obligation to pay all Lease Payments when due.

4. Assignment: You agree not to transfer, sell, sublease, assign, pledge or encumber either the Equipment or any rights under this Systel Lease Agreement without our prior written consent. You agree that we may sell, assign, or transfer this Systel Lease Agreement and the new owner will have the same rights and benefits we now have and will not have to perform any of our obligations and the rights of the new owner will not be subject to any claims, defenses, or setoffs that you may have against us or any supplier.

5. Risk of Loss and Insurance: You are responsible for all risks of loss or damage to the Equipment and if any loss occurs you are required to satisfy all of your Systel Lease Agreement obligations. You will keep the Equipment insured against all risks of loss or damage for an amount equal to its replacement cost. You will list us as the sole loss payee of the insurance and give us written proof of the insurance. If you do not provide such insurance, you agree that we have the right, but not the obligation, to obtain such insurance, and add an insurance fee to the amount due from you, on which we may make a profit. We are not responsible for any losses or injuries caused by the Equipment and you will reimburse us and defend us against any such claims. This indemnity will continue after the termination of this Systel Lease Agreement. You will obtain and maintain comprehensive public liability insurance naming us as an additional insured with coverages and amounts acceptable to us.

6. Taxes: You agree to pay when due, either directly or as reimbursement to us, all sales, use and personal property taxes and charges in connection with ownership and use of the Equipment. We may charge you a processing fee for administering property tax filings. You will indemnify us on an after-tax basis against the loss of any tax benefits anticipated at the Commencement Date arising out of your acts or omissions.

7. End of Systel Lease Agreement: At the end of the Lease Term, you shall return the Equipment in good working condition at your cost to the selling vendor. If you fail to return the Equipment as provided herein, this Systel Lease Agreement will automatically renew at the same Lease Payment amount for consecutive 60-day periods with Lease Payments paid to the vendor.

8. Default and Remedies: You are in default on this Systel Lease Agreement if: a) you fail to pay a Lease Payment or any other amount when due; or b) you breach any other obligation under this Systel Lease Agreement or any other Systel Lease Agreement with us. If you are in default we may: a) declare the entire balance of unpaid Lease Payments for the full Systel Lease Agreement term immediately due and payable to us; b) sue you for and receive the total amount due on the Systel Lease Agreement plus the Equipment's anticipated end of Systel Lease Agreement fair market value (the "Residual") with future Lease Payments and the Residual discounted to the date of default at the lesser of (i) a per annum rate equivalent to that of U.S. Treasury constant maturity obligation (as reported by the U.S. Treasury Department) that would have a repayment term equal to the remaining Systel Lease Agreement term, all as reasonably determined by us, or (ii) 3%, plus reasonable collection and legal costs; c) charge you interest on all monies due at the rate of 18% per year or the highest rate permitted by law from the date of default; and d) require that you immediately return the Equipment to us or we may peaceably repossess it. Any return or repossession will not be considered a termination or cancellation of this Systel Lease Agreement. If the Equipment is returned or repossessed we will sell or re-rent the Equipment at terms we determine, at one or more public or private sales, with or without notice to you, and apply the net proceeds (after deducting any related expenses) to your obligations. You remain liable for any deficiency with any excess being retained by us.

9. Miscellaneous: You agree this Systel Lease Agreement is a "Finance Lease" as defined in Article 2A of the Uniform Commercial Code ("UCC"). You acknowledge we have given you the name of the Equipment supplier and agree that you may have rights under this contract with the supplier and may contact the supplier for a description of these rights. If requested, you will sign a separate Equipment acceptance certificate. This Systel Lease Agreement was made in Pennsylvania ("PA"), is to be performed in PA and shall be governed and construed in accordance with the laws of PA. You consent to the non-exclusive personal jurisdiction in any state or federal court in PA and waive a trial by jury. You agree to waive any and all rights and remedies granted to you under Sections 2A-508 through 2A-522 of the UCC. You agree that the Equipment will only be used for business purposes and not for personal, family or household use. We may inspect the Equipment during the Systel Lease Agreement term. You agree that a facsimile copy of this Systel Lease Agreement with facsimile signatures may be treated as an original and will be admissible as evidence of this Systel Lease Agreement.

CUSTOMER SIGNATURE

You agree that this is a non-cancelable Systel Lease Agreement. The Equipment is: ☐ NEW ☐ USED

Signature: Date: 3/26/16

Title: Off Admin, Inventory Mgr

Print Name:

Full Legal Name: Glycotech, Inc.

GUARANTY

I unconditionally guaranty prompt payment of all the Customer's obligations. The Owner is not required to proceed against the Customer or the Equipment or enforce other remedies before proceeding against me. I waive notice of acceptance and all other notices or demands of any kind to which I may be entitled. I consent to any extensions or modification granted to the Customer and the release and/or compromise of any obligations of the Customer or any other guarantors without releasing me from my obligations. This is a continuing guaranty and will remain in effect in the event of my death and may be enforced by or for the benefit of any assignee or successor of the Owner. This guaranty is governed by and constituted in accordance with the Laws of the Commonwealth of Pennsylvania and I consent to non-exclusive personal jurisdiction in any state or federal court in Pennsylvania and waive trial by jury.

Signature: Date:

Print Name:

OWNER

Systel Business Equipment Co., Inc.
Lease Processing Center, 1111 Old Eagle School Road, Wayne, PA 19087
PHONE: (800) 735-3273 • FAX: (800) 776-2329

Systel Lease Agreement Commencement Date | Systel Lease Agreement Number

Accepted By:

ACCEPTANCE

The Equipment has been received, put in use, is in good working order and is satisfactory and acceptable.

Signature: Date: 3/26/16

Print Name: Title: Off Admin

05SYSD09

LBP Leland

TEMPORARY INDUSTRIAL LEASE

This LEASE AGREEMENT is made and entered into as of November 18, 2015, between LBP Leland, LLC, a Delaware limited liability company, having an office at 6225 Smith Avenue, Suite B100, Baltimore, Maryland 21209, hereinafter referred to as "Landlord," and Glycotech, Inc., a North Carolina corporation, having an office at 24 West Salisbury Street, Wrightsville Beach, NC 28480 hereinafter referred to as "Tenant."

RECITALS:

A. Landlord is the owner of an industrial building, the address of which is 2975 Andrew Jackson Highway, Leland, North Carolina 28451 ("Building").

B. The land on which the Building is located is hereinafter referred to as the "Land."

C. Tenant desires to lease the Building or a portion thereof, from Landlord.

NOW, THEREFORE, in consideration of the mutual covenants contained herein, Landlord and Tenant agree as follows:

1. Lease. Landlord hereby leases to Tenant and Tenant hereby hires from Landlord a portion of the Building, hereinafter referred to as the "Demised Premises," the location of which is shown on the floor plan attached hereto as **Exhibit "A"** and by this reference made a part hereof. The Demised Premises are deemed to contain two thousand five hundred (2,500) rentable square feet. Landlord reserves from the Demised Premises space for pipes, ducts and wires leading to and from other parts of the Building. Tenant accepts the Demised Premises "As-Is."

2. Use. Tenant shall use and occupy the Demised Premises solely for the warehousing of container drums, totes, and jerry cans of a non-hazardous and bio friendly product, which product has a sugar cane base, and for no other purposes.

3. Term. The term of this Lease Agreement shall commence at 12:01 a.m. on November 18, 2015 ("Commencement Date") and shall automatically terminate at 11:59 p.m. on May 31, 2016 ("Termination Date"); *provided however that this Agreement shall continue on a month-to-month basis after May 31, 2016 under the same terms and conditions* (except as specifically set forth herein to the contrary) *if extended by either party on fifteen (15) days prior written notice*, and all subject to the Mutual Option to Terminate set forth in Paragraph 25.

If Landlord is unable to deliver possession of the Demised Premises to Tenant on the Commencement Date for any reason, Landlord shall have no liability to Tenant for damages but the Commencement Date shall be deferred until the date on which Landlord is able to deliver the Demised Premises to Tenant.

4. Rent. The base rent ("Base Rent") for the Demised Premises over the initial term hereof shall be Five Hundred and No/100 Dollars ($500.00) per month, and shall be payable without demand in advance on the first day of each calendar month. If this Lease Agreement continues after the initial term on a month to month basis the Monthly Base Rent payable during said month to month term shall be increased by three percent (3%) every twelve (12) months beginning on the first day following the initial term and Tenant shall continue to pay all additional Rent which Tenant is required to pay under this Lease Agreement. In the event that the Commencement Date occurs on a day other than the first day of a calendar month, then the Monthly Base Rent for the month during which the Commencement Date occurs shall be paid on said Commencement Date and shall be prorated on the basis of the actual number of days in said month. In the event that the term hereof expires on a day other than the last day of a calendar month, then the Monthly Base Rent for the month during which said expiration occurs shall be prorated on the basis of the actual number of days in said month. If any installment of rent or any other charge due to Landlord from Tenant herein is not paid when due, Landlord may charge Tenant interest of one and one-half percent (1-1/2%) per month or the maximum rate allowed by law from the date such charge was due and payable to the date such charge is paid. Such late charge shall be deemed additional Rent (hereinafter defined). All monetary obligations from Tenant to Landlord set forth herein shall be deemed additional rent ("Additional Rent").

5. Utilities.

(A) (i) Tenant shall pay directly or reimburse Landlord for the cost of all utility services furnished to or used by Tenant at the Demised Premises, including, but not limited to, gas, electricity, water and sewer, and for all demand, standby and connection charges which may be imposed with respect to such services. At Landlord's option, Landlord shall have the right, at Tenant's expense, to either: (a) install a meter(s) to enable the utility furnishing a service to bill Tenant directly for its consumption; (b) install an audit meter(s) to measure such consumption; or (c) determine such consumption on the basis of a survey and analysis performed by Landlord's staff or a professional engineer. If Landlord elects option (b) or (c), Tenant shall reimburse Landlord for such consumption as additional Rent, which shall be paid by Tenant within fifteen (15) days after receipt of each of Landlord's invoices therefor.

(ii) With respect to electricity use by Tenant within the Demised Premises, the parties acknowledge that the Demised Premises constitute only a portion of Compartment #3 in the Building. As of the date of this Agreement, there is an electric meter at the Building which meters the electric consumption of 305,818 square feet (inclusive of the Demised Premises) encompassing all of Compartments #3, #4, and #5 (the "Shared Electrical Meter"). Prior to the occupancy of Tenant in the Demised Premises, all three of these Compartments were vacant. Notwithstanding the fact that Compartments #3, #4, and #5 were vacant, Landlord incurred a small amount of electricity on a monthly basis in Compartments #3, #4, and #5 (for emergency lights etc.) as measured by the Shared Electrical Meter (the "Existing Electrical Usage"). Landlord and Tenant agree that for purposes of this Lease Agreement the Existing Electrical Usage shall be deemed to be Five Hundred Eighty-Seven Dollars ($587.00) per month. Therefore, when Landlord reads the Electrical Meter to determine Tenant's electrical consumption/charges in the Demised Premises, Landlord will deduct from such charges the Existing Electrical Usage in the amount of Five Hundred Eighty-Two Dollars ($582.00) per month (the "Deduction").

(iii) In the event (a) Landlord leases the remainder of Compartment #3 or any part of Compartments #4 and #5 to a third party tenant ("3rd party Tenant") or, (b) Tenant expands the Demised Premises, then Landlord, at Landlord's expense, shall have the right to separately meter the electrical usage of the Demised Premises (as expanded) or any 3rd party Tenant's demised premises, so that each party's electrical usage shall be independently metered. This separate metering shall immediately end the Deduction, and Tenant shall be solely responsible for all electrical charges related to the Demised Premises (as expanded) as measured by the appropriate meter.

(B) If, by reason of a strike, labor trouble, act of God or other cause beyond Landlord's reasonable control, including, but not limited to, governmental preemption in connection with a national emergency, any rule, order or regulation of any governmental agency or public utility, or conditions of supply and demand which are affected by war (whether or not declared by Congress) or other emergency, Landlord shall be unable to fulfill its obligations under this Lease Agreement or shall be unable to perform any service which Landlord is obligated to perform hereunder, or any utility shall be unable to furnish utility service to the Demised Premises, this Lease Agreement and Tenant's obligation to pay rent hereunder shall in no way be affected, impaired or excused.

6. Maintenance and Repair. Tenant shall, at its expense, maintain, repair and replace as necessary, and keep in good order and condition the Demised Premises and any loading dock utilized by Tenant on the Land. Landlord shall maintain the exterior structure of the Building and the Land (including the roof, walls and foundation but excluding any loading dock utilized by Tenant). Except for the foregoing, Landlord shall have no obligation whatsoever to make repairs, restorations or replacements. Tenant shall use the Demised Premises and the Building and the fixtures and appurtenances therein with care. All damage or injury to the Demised Premises, the Building, the Land, or to their fixtures, appurtenances and equipment, caused by or resulting from Tenant's use or occupation thereof or caused by or resulting from the negligence or improper conduct of Tenant, its officers, agents, employees or invitees, shall be promptly repaired, restored or replaced by Tenant at no cost to Landlord. All the aforesaid repairs, restorations and replacements shall be in quality and class equal to the original work or installations and to the reasonable satisfaction of Landlord.

7. Alterations and Removals.

(A) Tenant shall not make any removals, additions, improvements or other alterations in or to the Demised Premises without Landlord's prior written consent. Any such approved alterations shall be done at Tenant's sole expense, in accordance with the applicable laws, ordinances, orders, rules and regulations of any public authority having jurisdiction over the Building, by contractors or mechanics approved by Landlord in writing, and at such times and in such manner as Landlord may approve in writing. Tenant shall discharge and indemnify and defend Landlord from any

mechanic's lien caused by its alteration within five (5) days after same is filed or Landlord may do so at Tenant's expense and all expenses incurred by Landlord shall be deemed additional Rent.

(B) All articles of personal property and all business and trade fixtures, cabinetwork, furniture and movable partitions owned or installed by Tenant at its expense in the Demised Premises shall be and remain the property of Tenant and may be removed by Tenant at any time, provided that Tenant, at its expense, shall repair any damage to the Building caused by such removal. Tenant shall remove all of the aforedescribed property at the expiration or termination of this Lease Agreement, and Tenant shall, at its expense, repair any damage to the Building caused by such removal. If Tenant does not remove its property as required, not later than the date of expiration or termination of this Lease Agreement, such property shall be deemed abandoned and Landlord may, at its election, either retain such property as its own or remove and dispose of such property as it sees fit. If Landlord elects to remove and dispose of such property, Landlord may recover the costs of such removal and disposal from Tenant as additional Rent which shall be paid by Tenant within fifteen (15) days after receipt of Landlord's invoice therefor.

8. Damage to Tenant's Property. Unless the same shall be caused by the intentional misconduct or gross negligence of Landlord, its officers, agents or employees, neither Landlord nor its officers, agents or employees shall be liable to Tenant for any interruption or loss of Tenant's business or loss of or damage to Tenant's property resulting from any fire, accident, occurrence or condition in, on or about the Demised Premises or the Building, including, but not limited to: (a) any defect in or failure of plumbing, sprinkler systems, heating or ventilating equipment, electric fixtures, electric wiring or the installation thereof, stairs, railings or walks; (b) any equipment or appurtenances becoming out of repair; (c) the bursting, leaking or running of any water pipe, tubing, radiant panel, valve, fitting, tank, washstand, water closet, waste pipe, drain or any other pipe or tank; (d) the backing up of any sewer pipe or downspout; (e) the escape of steam or hot or cold water; (f) water, snow or ice being upon or coming through the roof of the Building; (g) the falling of any ceiling tile, fixture, plaster or stucco; (h) broken glass; (i) any act or omission of any other tenant or occupant of the Building; (j) the exercise of any rights by Landlord under this Lease Agreement; or (k) any act or omission of parties other than Landlord, its officers, agents or employees.

9. Fire Insurance.

(A) Tenant, at Tenant's expense, shall obtain and maintain in effect at all times during the term of this Lease Agreement a policy of standard fire and extended coverage insurance, with vandalism and malicious mischief endorsements, covering all of Tenant's personal property in, on or about the Demised Premises, and all of Tenant's additions, improvements or other alterations in or to the Demised Premises, to the extent of their full replacement value. Landlord will not carry insurance on Tenant's personal property.

(B) The insurance policy required to be obtained and maintained by Tenant under Paragraph (A) above: (a) must be written as primary policy coverage and not contributing with or in excess of any coverage which Landlord may carry; (b) must provide that the policy may not be cancelled unless Landlord shall have received at least fifteen (15) days' prior written notice of cancellation; and (c) must be issued by an insurance company approved in writing by Landlord, which approval shall not be unreasonably withheld. The issuance of any such insurance policy shall not be deemed to limit or restrict in any way Tenant's liability or obligations arising under or out of this Lease Agreement.

(C) Notwithstanding any other provision of this Lease Agreement, neither Landlord nor Tenant shall be liable to the other or to any insurance company (by way of subrogation or otherwise) insuring the other party for any loss or damage to any building, structure or other tangible property, or any resulting loss of income or additional expense, even though such loss or damage might have been occasioned by the negligence of such party, its agents or employees, if such loss or damage is covered by insurance benefiting the party suffering such loss or damage or was required to be covered by insurance pursuant to this Agreement. If required to make the foregoing waiver of subrogation binding upon their respective insurance carriers, Landlord and Tenant shall give notice to their respective insurance carriers that such mutual waiver of subrogation is contained in this Lease Agreement.

10. Liability Insurance.

(A) Tenant, at Tenant's expense, shall obtain and maintain in effect at all times during the term of this Lease Agreement a policy of commercial general liability insurance written on an occurrence basis with coverage for bodily injury, personal injury, death, property damage and contractual liability at least as broad as the current ISO Commercial General Liability policy, with a single combined liability limit of not less than Three Million Dollars ($3,000,000) in any one occurrence, insuring against all liability of Tenant, its agents and employees, arising out of and in connection with

Tenant's use, occupancy, alterations or maintenance of the Demised Premises, and the performance by Tenant of the indemnity provisions of this Lease Agreement. The policy shall name Landlord as additional insured and shall contain cross-liability endorsements. If Tenant's insurance is a "blanket" policy which covers more than one (1) location, Tenant's policy shall be endorsed to stipulate a "per location" limit of not less than the above amount which applies separately to the Demised Premises. Tenant's liability insurance may be provided by a combination of primary and umbrella coverage held by Tenant provided all such policies are at least as broad in scope as the primary commercial general liability policy required above. No insurance may provide for a deductible or self-insured retention exceeding Ten Thousand Dollars ($10,000) without the prior written approval of Landlord, which approval will not be unreasonably withheld.

(B) The insurance policy required to be obtained and maintained by Tenant under Paragraph 10(A) above: (a) must be written as primary policy coverage and not contributing with or in excess of any coverage which Landlord may carry; (b) must provide that the policy may not be cancelled unless Landlord shall have received at least fifteen (15) days' prior written notice of cancellation; and (c) must be issued by an insurance company approved in writing by Landlord, which approval shall not be unreasonably withheld. Neither the issuance of any such insurance policy nor the minimum limits specified shall be deemed to limit or restrict in any way Tenant's liability or obligations arising under or out of this Lease Agreement

11. Hold Harmless. Tenant shall hold harmless and defend Landlord, its officers, agents and employees, at Tenant's sole cost with counsel reasonably satisfactory to Landlord, from and against any and all claims, damages or causes of action for damages on account of any injury to or death of any person or any loss of or damage to property occurring (i) in the Demised Premises during the term of this Lease Agreement (provided such injury, death, loss or damage is not directly caused by the intentional misconduct or negligence of Landlord, its officers, agents or employees) (ii) outside of the Demised Premises during the term of this Lease Agreement to the extent caused by the negligent act or omission or intentional act or omission of Tenant, its officers, agents or employees; (iii) as a result of Tenant's breach of this Lease Agreement or (iv) as a result of Tenant's specific use of the Demised Premises.

12. Compliance with Laws. In connection with its use and occupancy of the Demised Premises and the Land, Tenant, at its expense, shall promptly comply with all applicable present and future federal, state and local laws, ordinances and regulations and with all orders and rules of governmental authorities having jurisdiction, including, without limitation, compliance with any law, ordinance or regulation that requires alterations to the Demised Premises or the Building because of Tenant's particular and specific use of the same. Tenant shall pay or reimburse and indemnify, defend and hold harmless Landlord for all costs, expenses, fines, penalties or damages which may be levied or imposed upon Landlord by reason of Tenant's failure to comply with the provisions of this Section.

13. Rules and Regulations. Tenant and Tenant's employees and agents shall faithfully observe and strictly comply with the Rules and Regulations set forth in **Exhibit "B"** attached hereto and by this reference made a part hereof, and such reasonable amendments thereto and such other and further reasonable Rules and Regulations as Landlord may from time to time adopt. Landlord shall give Tenant prior written notice of any such amendments or additional Rules or Regulations. If there is a conflict between the Rules and Regulations and any of the provisions of this Lease Agreement, the provisions of this Lease Agreement shall prevail. Nothing contained in this Lease Agreement shall be construed to impose upon Landlord any duty or obligation to enforce the Rules and Regulations against any other tenant of the Building, and Landlord shall not be liable to Tenant for violation of the same by any other tenant or its employees, agents or invitees. However, if and to the extent Landlord does attempt to enforce the Rules and Regulations, it shall do so uniformly with respect to all of the tenants of the Building.

14. Entry by Landlord. Landlord and its authorized representatives shall have the right to enter the Demised Premises at any time during emergencies and at all other reasonable times. If Tenant is not present to open and permit entry to Landlord, Landlord may use its master key to gain entry.

15. No Assignment.

(A) Tenant shall not assign, transfer, mortgage or encumber this Lease Agreement, or sublet the Demised Premises or any part thereof, or suffer or permit the Demised Premises or any part thereof to be used by others.

(B) Landlord and its successors may freely sell, assign or otherwise transfer all or any portion of its interest under this Lease Agreement or in the Demised Premises or the Building, and, in the event of any such sale, assignment or other transfer, the party originally executing this Lease Agreement as Landlord, and any successor of such party, shall,

without further agreement between Landlord and Tenant, or between Landlord and/or Tenant and the person who is the purchaser, assignee or other transferee of Landlord, be relieved of any and all of its obligations under this Lease Agreement, and Tenant shall thereafter be bound to such purchaser, assignee or other transferee, as the case may be, with the same effect as though the latter had been the original Landlord hereunder, provided that the purchaser, assignee or other transferee assumes and agrees to carry out all the obligations of Landlord hereunder. Tenant agrees to look solely to Landlord's interest in the Building for satisfaction of any claim against Landlord hereunder and not to any other property or assets of Landlord.

16. Default. The occurrence of any one of the following shall constitute a default by Tenant under this Lease Agreement: (a) Tenant shall fail to pay any installment of Monthly Base Rent or any other sum payable by Tenant hereunder when due, and such failure is not cured within five (5) days after Tenant receives written notice thereof from Landlord; or (b) Tenant shall fail to perform or comply with any of the other covenants or conditions of this Lease Agreement, including the Rules and Regulations set forth in Exhibit "B." In the event of a default by Tenant, Landlord shall be entitled to immediately terminate this Lease Agreement as well as all actual and equitable damages and all remedies allowed by law and Tenant hereby waives any and all rights of redemption granted by or under any present or future law. Landlord's damages, rights and remedies shall be deemed cumulative and in addition to any other rights or remedies contained herein or later allowed by law or in equity.

17. Waiver of Jury Trial. Landlord and Tenant do hereby waive trial by jury in any action, proceeding or counterclaim brought by either of the parties hereto against the other on any matters whatsoever arising out of or in any way connected with this Lease Agreement, the relationship of Landlord and Tenant, or Tenant's use or occupancy of the Demised Premises.

18. Litigation Expenses. In the event any action, suit or proceeding is commenced under or in connection with this Lease Agreement, or for recovery of possession of the Demised Premises, the losing party shall pay to the prevailing party, and the prevailing party shall be entitled to an award for, the reasonable amount of the attorneys' fees, court costs and other litigation expenses incurred by the prevailing party in connection with such action, suit or proceeding.

19. Surrender and Holdover.

(A) Tenant waives notice to quit possession of the Demised Premises at the expiration or termination of the term hereof. Upon the expiration or termination of the term hereof, Tenant shall: (a) quit and surrender the Demised Premises to Landlord, broom clean, in good order and condition, ordinary wear excepted.

(B) If Tenant, with Landlord's written consent, remains in possession of the Demised Premises after the expiration or termination of the term hereof, this Lease Agreement shall be deemed to have been renewed on a month-to-month basis, terminable on thirty (30) days, notice given at any time by either party, and Tenant shall continue to pay to Landlord for each month or portion (on a pro-rata basis) of a month that Tenant holds over, the Monthly Base Rent in effect for the month immediately preceding the expiration or other termination of the term hereof, plus all additional Rent which Tenant is required to pay under this Lease Agreement, and shall comply with all of the terms, covenants and conditions of this Lease Agreement throughout such renewal period.

(C) If Tenant, without Landlord's written consent, remains in possession of the Demised Premises after the expiration or termination of the term hereof, Tenant shall be in default, shall be deemed a tenant at sufferance and shall pay to Landlord, for each month or portion (on a pro-rata basis) of a month that Tenant holds over, two hundred percent (200%) of the Monthly Base Rent in effect for the month immediately preceding the expiration or other termination of the term hereof, plus all additional Rent which Tenant is required to pay under this Lease Agreement, and shall comply with all of the terms, covenants and conditions of this Lease Agreement throughout the time Tenant holds over. In addition, Tenant shall indemnify and hold harmless Landlord from and against all consequential damages resulting from Tenant's failure to quit and surrender the Demised Premises at the expiration or termination of the term hereof, including, without limitation, claims made by a succeeding tenant. Any sufferance by Landlord of such a holding over by Tenant shall not constitute a renewal of this Lease Agreement, and Landlord may cause Tenant to be evicted at any time after the expiration or termination of the term hereof.

20. Notices. Any notice or communication which Landlord may desire or be required to give to Tenant shall be deemed sufficiently given if sent by registered or certified mail, return receipt requested, or overnight mail addressed to Tenant at its address set forth in the introductory paragraph of this Lease Agreement, or at such other address

as Tenant shall designate by written notice to Landlord. Any notice or communication which Tenant may desire or be required to give to Landlord shall be deemed sufficiently given if sent by registered or certified mail, return receipt requested, or overnight mail addressed to Landlord at its address set forth in the introductory paragraph of this Lease Agreement, or at such other address as Landlord shall designate by written notice to Tenant. Notices so sent shall be deemed to have been duly given as of the day received or refused by the addressee.

21. Landlord's Exclusive Broker. Landlord and Tenant acknowledge that Will Leonard of Cape Fear Commercial ("Landlord's Broker"), acting as a licensed real estate broker, was instrumental in the consummation of this Lease Agreement, and that *no broker represented Tenant*. Landlord agrees to pay any commission that may be due to Landlord's Broker, as Landlord's exclusive agent. Tenant represents and warrants to Landlord that it has not had any dealing with any real estate broker or finder other than as set forth herein with respect to the subject matter of this Lease Agreement, and agrees to hold Landlord harmless from and against any and all damages, costs and expenses resulting from any claim(s) for a brokerage commission or finder's fee that may be asserted against Landlord by any other broker or finder with whom the Tenant has dealt or by any other broker or finder who claims to have dealt with Tenant.

22. Security Deposit. Intentionally Omitted

23. Environmental Matters.

(A) As used in this Article, "Hazardous Substance" means any pollutant, contaminant, toxic or hazardous waste, dangerous substance, potentially dangerous substance, noxious substance, toxic substance, flammable, explosive, radioactive material, urea formaldehyde foam insulation, asbestos, PCBs, or any other substances the removal of which is required, or the manufacture, production, generation, use, maintenance, disposal, treatment, storage, transfer, handling or ownership of which is restricted, prohibited, regulated or penalized by any federal, state, county, or municipal statutes or laws now or at any time hereafter in effect, including but not limited to, the Comprehensive Environmental Response, Compensation, and Liability Act (U.S.C. §§ 9601 et seq.), the Hazardous Materials Transportation Act (49 U.S.C. §§ 1801 et seq.), the Resource Conservation and Recovery Act (42 U.S.C. §§ 6901 et seq.), the Federal Water Pollution Control Act (33 U.S.C. §§ 1251 et seq.), the Clean Air Act (42 U.S.C. §§ 7401 et seq.), the Toxic Substances Control Act, as amended (15 U.S.C. §§ 2601 et seq.), and the Occupational Safety and Health Act (29 U.S.C. §§ 651 et seq.), as these laws have been amended or supplemented.

(B) Landlord shall not use, or knowingly permit others to use the Building or the Land or any part thereof for the production, generation, manufacture, treatment, transportation, storage or disposal of any Hazardous Substance, except in compliance with any and all applicable federal, state and local environmental laws, ordinances and regulations.

(C) Landlord shall indemnify defend and hold harmless Tenant, its officers, agents and employees, from and against any and all claims, damages, expenses, penalties, liability and costs, resulting or arising from a breach of the covenant contained in Section 23 (B) above.

(D) Tenant shall not use, or knowingly permit others to use the Demised Premises or any other part of the Building or the Land for the production, generation, manufacture, treatment, transportation, storage or disposal of any Hazardous Substance, except with the prior written consent of Landlord and in compliance with any and all applicable federal, state and local environmental laws, ordinances and regulations. Provided however, Tenant, without Landlord's prior written consent shall be allowed, (in strict compliance with all laws), to utilize ordinary quantities of Hazardous Substances customarily used in general office use (i.e. cleaning supplies, copier toner and similar items).

(E) (1) Tenant shall immediately notify Landlord in writing of (i) any violation, release or discharge (or alleged violation, release or discharge) by Tenant, its employees, agents, representatives, customers, invitees or contractors regarding Hazardous Substances in the Demised Premises, upon the Building, Land or Project, or (ii) the presence or suspected presence of any Hazardous Substances in the Demised Premises, upon the Building, Land or Project and (iii) shall immediately deliver to Landlord any notice received by Tenant relating to (i) and (ii) above from any source; (2) Tenant shall execute affidavits, representations and the like from time to time, within five (5) days of Landlord's request therefor, concerning Tenant's best knowledge and belief regarding the presence of any Hazardous Substances on, under or about the Demised Premises, or upon the Building, Land or Project; (3) Landlord and its agent shall have the right, but not the duty, upon advance notice (except in the case of emergency when no notice shall be required) to inspect the Demised Premises and conduct tests thereon at any time to determine whether the extent to which there has been any violation regarding Hazardous Substances by Tenant or whether there are Hazardous Substances on under, about or in the Demised Premises or upon the Building, Land or Project. In exercising its rights herein, Landlord shall use reasonable

efforts to minimize interference with Tenant's business but such entry shall not constitute an eviction of Tenant, in whole or in part, and Landlord shall not be liable for any interference, loss, or damage to Tenant's property or business caused thereby; (4) If Landlord, any mortgagee or governmental agency shall ever require testing to ascertain whether there has been a release of Hazardous Substances in the Demised Premises upon the Building, Land or Project or a violation of any environmental laws, and such requirement arose in whole or in part because of an act or omission on the part of Tenant, then the reasonable costs thereof shall be reimbursed by Tenant to Landlord upon demand as Additional Rent; (5) Tenant shall indemnify, defend and hold harmless Landlord, its officers, agents and employees, from and against any and all claims, damages, expenses, penalties, liability and costs, resulting or arising from a breach of the covenant contained in Section 23 (B) above; and (6) Radon is a naturally occurring radioactive gas that, when it has accumulated in a building in sufficient quantities may present health risks to persons who are exposed to it over time. Levels of radon that exceed federal and state guidelines may have been found in buildings in the state where the Demised Premises are located. Additional information regarding radon and radon testing may be obtained from your county public health unit. Landlord makes no representation, express or implied, as to the presence or absence of radon gas in the Demised Premises, the Building or the Project and Tenant expressly assumes the risk of same and releases Landlord from any and all liability related thereto.

24. Miscellaneous.

(A) Time is of the essence with respect to the notice requirements and the obligations of the parties under this Lease Agreement.

(B) If there are any covenants yet to be performed by Tenant as of the date of expiration or termination of the term hereof, such covenants shall survive the expiration or termination of the term hereof whether or not they are then known or determined.

(C) This Lease Agreement contains the entire agreement between the parties hereto with respect to the subject matter hereof, and any purported agreement hereafter made shall be ineffective to change, modify, discharge or effect an abandonment of it in whole or in part unless such purported agreement is in writing and signed by the party against whom enforcement is sought. This Lease Agreement shall be governed and construed in accordance with the laws of North Carolina.

(D) No act or omission of Landlord shall be deemed to be a waiver by Landlord of any right or remedy allowed Landlord herein or in law or equity. No acceptance by Landlord of any monies from Tenant (i) shall be deemed a waiver of any known or unknown breach by Tenant, or (ii) shall be deemed an accord and satisfaction. No provision of this Agreement and not default by Tenant shall be deemed waived by Landlord unless such waiver is in writing and signed by Landlord.

25. Mutual Option to Terminate.

(A) Landlord and Tenant shall each have the option to terminate this Lease Agreement as of the last day of any calendar month. To exercise this option, no later than fifteen (15) days prior to the date it desires to terminate this Lease Agreement (the "Termination Date"), the terminating party must give the other party (and the other party must receive) written notice of termination pursuant to this Article, specifying the Termination Date.

(B) Time is agreed to be of the essence with respect to the above notice requirement, and any attempt by Landlord or Tenant to terminate this Lease Agreement at a time or in a manner that is not in strict compliance with the foregoing requirement shall be null and void and of no effect unless the other party waives the deficiency in writing. If Landlord or Tenant elects to terminate in accordance with the foregoing, this Lease Agreement shall come to an end at 11:59 P.M., local time, on the Termination Date, as if such date were the expiration date of this Lease Agreement. In the event Tenant does not fully and finally vacate and surrender to Landlord the Demised Premises on the Termination Date, Tenant shall be deemed a holdover Tenant without Landlord's consent to same and the holdover provisions of the Lease Agreement, which hereby expressly survives the termination of the Lease Agreement, shall apply.

(C) As of the Termination Date, Landlord and Tenant will be deemed released from each and all of their respective obligations (past, present, and future) under the Lease Agreement, except that Tenant will continue to remain liable thereafter: (a) for Landlord's liabilities, costs and expenses of every nature occasioned by Tenant's failure to surrender the Demised Premises and Tenant Improvements in accordance with the terms hereof and of the Lease Agreement (including, without limitation, reasonable attorneys' fees through appeal and any loss of bargain suffered by

Landlord with respect to a prospective tenant for all or any part of the Demised Premises); (b) for the Rent, additional Rent and all other charges accruing under the Lease Agreement up to the Termination Date; and (c) with regard to all liabilities and claims (including, without limitation, mechanics' liens and/or claims for labor and materials asserted to have been furnished to Tenant) incurred by or made against Landlord and/or Tenant in any way connected with, relating to or arising out of the use or occupancy of the Demised Premises by Tenant, or anyone claiming by, through or under Tenant, up to the Termination Date. Tenant shall indemnify and defend Landlord against all claims, demands or suits of third parties arising out of or in any way related to Tenant's use of the Demised Premises, and Tenant's obligations under all hold harmless and indemnification provisions of the Lease Agreement shall survive the termination of the Lease Agreement.

IN WITNESS WHEREOF, and intending to be legally bound hereby, Landlord has caused this Lease Agreement to be executed on its behalf by a duly authorized officer, and Tenant, if a corporation, has caused this Lease Agreement to be executed on its behalf by a duly authorized officer, or, if a partnership, has caused this Lease Agreement to be executed on its behalf by one or more of its duly authorized partners, or, if an individual, has hereunto set his hand, all as of the day and year first written above.

Witness/Attest

Landlord:
LBP Leland, LLC
By: Lord Baltimore Capital Corporation, its Manager

By: _____

President, Real Estate Division

Witness/Attest

Tenant:
Glycotech, Inc.

By: _____

Title: General Mgr.

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EXHIBIT "A" Glycotech

Bay 13 (Shaded Area – ~~[illegible]~~)
(Location/Floor Plan of Demised Premises) 2,500 SF

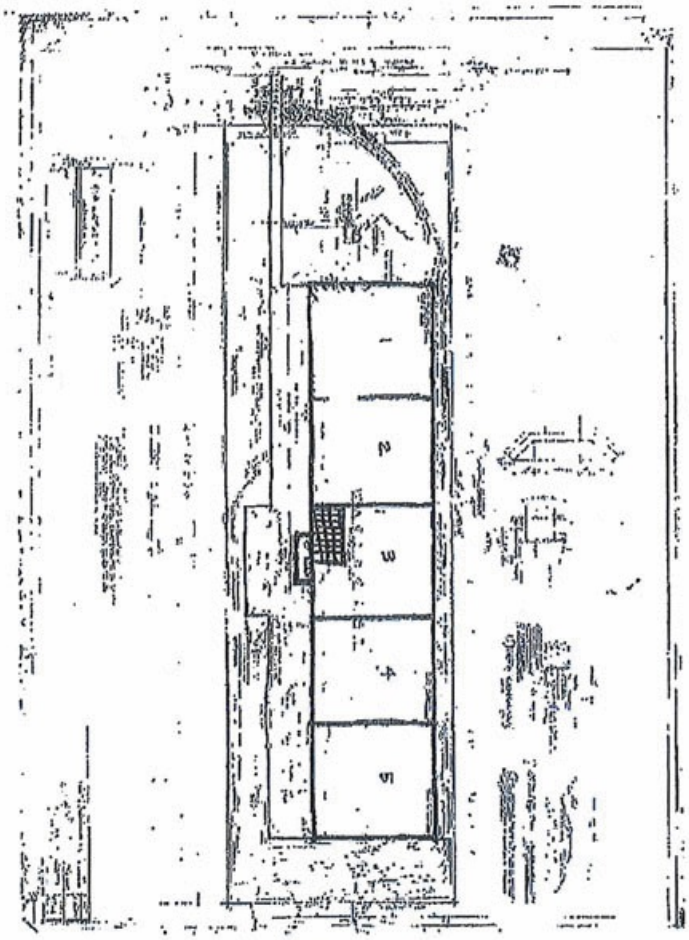

Exhibit "A" – Page 1 of 1

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EXHIBIT "B"

RULES AND REGULATIONS

1. Entry into the Building or onto the Land shall be subject to such rules and regulations as Landlord may from time to time prescribe, and Landlord shall have the right to refuse admittance to any person not possessing satisfactory identification and authorization. However, Landlord assumes no responsibility with respect to and shall not be liable for any damages resulting from the admission of any person, authorized or unauthorized, into the Building or onto the Land.

2. Tenant shall keep all machinery and equipment free of vibration and noise, and shall not do or permit anything to be done in the Demised Premises, which would unreasonably impair or interfere with the use or enjoyment by any other tenant of other premises in the Building.

3. Except as otherwise permitted in the Lease Agreement Tenant shall not bring into or permit to be brought into the Demised Premises any dangerous, hazardous, flammable, toxic, combustible or explosive substance, material or object.

4. Tenant shall not discharge or permit to be discharged into the sewer system, waste lines, vents or flues of the Demised Premises or the Land any acids or hazardous or toxic substances.

5. Tenant shall not store, stack or place or permit to be stored, stacked or placed any machinery, equipment, goods or merchandise outside of the Demised Premises.

6. Tenant shall keep all garbage, trash, rubbish and refuse in rat-proof containers, and shall remove or cause the same to be removed from the Demised Premises and the Land on a regular basis.

7. Tenant shall not install any signage without first obtaining Landlord's prior written consent.

8. Tenant shall not access the roof of the Building at any time.

Contract 2417

TOLEDO CAROLINA INC. — THE WEIGHT SPECIALISTS

Scales

ISO/IEC 17025 Accredited

December 1, 2014

Glycotech, Inc.
Attn:

Re: Contract #2417 PO#2762 Expiration 12/31/14 6 mo. Lab inspection

After review and careful consideration, effective January 1, 2015 your service agreement rate for scale maintenance will be as follows:

Flat Rate, Per Inspection: $540.89 (No Increase)

2015 Contract Rates for Intervening Service

Labor Rate - Industrial Equipment	$ 88.50 per man hour
Lab/High Precision Equipment	123.50 per man hour
Mileage Rate - Pick Up Truck	47.50 per trip
Pick Up Truck w/ Trailer	55.50 per trip
Heavy Duty Test Truck	132.00 per trip
Certificate of Calibration (if required)	12.50 per scale
Certificate of Calibration, typed	42.00 per scale

All other terms and conditions remain the same.

We appreciate your business and look forward to serving you in the coming year. If you have any questions, please give us a call at 843-669-7503 or 800-649-7503.

Thank you for your consideration.

Yours truly,

GM-Service

JV/lw

BRANCH OFFICE:
P.O. BOX 1425
LUMBERTON, NC 28359
PH: 910-738-2394
FX: 910-738-1652

HOME OFFICE:
P.O. BOX 12366
FLORENCE, SC 29504-2366
PH: 843-669-7503
FX: 843-669-7887

BRANCH OFFICE:
P.O. BOX 1763
WILMINGTON, NC 28402
PH: 910-798-8288
FX: 910-798-2110

METTLER TOLEDO Authorized Distributor

TOLEDO CAROLINA
THE WEIGHT SPECIALISTS

P.O. BOX 12366
FLORENCE, SC 29504-2366

ISO/IEC 17025 Accredited

December 1, 2015

Glycotech. Inc.
Attn:

Re: Contract #2417

After careful consideration, effective January 1, 2016 preferential rate for scale maintenance will be as follows:

Flat Rate, Per Inspection: $540.89 (No Increase)

2016 Contract Rates for Intervening Service

Labor Rate -	Industrial Equipment	$ 90.00 per man hour
	Lab/High Precision Equipment	126.00 per man hour
Mileage Rate -	Pick Up Truck	47.50 per trip
	Pick Up Truck w/ Trailer	55.50 per trip
	Heavy Duty Test Truck	132.00 per trip
Certificate of Calibration (if required)		14.00 per scale
Certificate of Calibration, typed		43.50 per scale

All other terms and conditions remain the same.

We appreciate your business and look forward to serving you in the coming year. If you have any questions, please give us a call at 843-669-7503 or 800-649-7503.

Thank you for your consideration.

Yours truly,

GM-Service

JV/lw

BRANCH OFFICE
LUMBERTON, NC
PH: 910-738-2304
FX: 910-738-1652

HOME OFFICE
FLORENCE, SC
PH: 843-669-7503
FX: 843-669-7887

BRANCH OFFICE
WILMINGTON, NC
PH: 910-798-8288
FX: 910-798-2110

METTLER TOLEDO Authorized Distributor

WWW.TOLEDOCAROLINA.COM

TOLEDO CAROLINA
THE WEIGHT SPECIALISTS

ISO/IEC 17025 Accredited

P.O. BOX 12366
FLORENCE, SC 29504-2366

December 1, 2015

Glycotech, Inc.
Attn:
P.O. Box 1956
Leland, NC 28451-1956

Re: Contract #2418 PO#4666

After careful consideration, effective January 1, 2016 preferential rate for scale maintenance will be as follows:

Flat Rate, Per Inspection: $524.25 (No Increase)

2016 Contract Rates for Intervening Service

Labor Rate - Industrial Equipment	$ 90.00 per man hour
Lab/High Precision Equipment	126.00 per man hour
Mileage Rate - Pick Up Truck	47.50 per trip
Pick Up Truck w/ Trailer	55.50 per trip
Heavy Duty Test Truck	132.00 per trip
Certificate of Calibration (if required)	14.00 per scale
Certificate of Calibration, typed	43.50 per scale

All other terms and conditions remain the same.

We appreciate your business and look forward to serving you in the coming year. If you have any questions, please give us a call at 843-669-7503 or 800-649-7503.

Thank you for your consideration.

Yours truly,

GM-Service

JV/lw

BRANCH OFFICE
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PH: 910-738-2394
FX: 910-738-1652

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FLORENCE, SC
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FX: 843-669-7887

BRANCH OFFICE
WILMINGTON, NC
PH: 910-798-8288
FX: 910-798-2110

METTLER TOLEDO Authorized Distributor

WWW.TOLEDOCAROLINA.COM

verizon wireless

Corporate Liability Authorization Form

Please refer to Corporate Liable Authorization Form Instructions. Please complete this form and return it to Verizon Wireless via e-mail by saving a copy to your desktop and sending it as an attachment to: POCUpdates@VerizonWireless.com

I. AUTHORIZED SIGNATURE

The person signing this form represents and warrants that they have the authority to bind the Company/Customer identified below and requesting that Verizon Wireless add/delete Authorized Contacts as noted below. If returning via e-mail please type name.

Signature: Date: 2-12-15

Name:

Title:

Contact Phone Number:

Company Name: Glycotech Inc.

Company Address: 2271 Andrew Jackson Hwy

City: Leland State: NC ZIP: 28451

Fed. Tax ID # 263800272 D&B # 02-881-0212

Contact E-mail

Do you want to add yourself as an Authorized Point of Contact? Check this box if YES. ☐ **If YES, Please designate your Role:**

Please enter the Account Number and/or a Mobile number for company: 823094401-00001

II. AUTHORIZED CONTACT/POC:

Add/Delete	Name	Title	Role	Phone #	Email Address	Mailing Address
Delete		VP				
Delete		HR				
Add		Office Administrator	Administrative Role			PO Box 1956, Leland, NC 28451
Add		Admin. Assist.	View Role			PO Box 1956, Leland, NC 28451
Add		Plant Manager	MyPOC			PO Box 1956, Leland, NC 28451

III. EMAIL DOMAIN

GLYCOTECHINC.COM

To maintain flexibility for your business, the above changes will not impact your My Business online portal authorized personnel. Please access the self serve portal directly to make changes to your online portal authorized personnel.

Cell phone

verizon

Verizon Wireless
One Verizon Way
Basking Ridge, NJ 07920

POC Update Form Instructions

Please complete this form and return it to Verizon Wireless via e-mail by saving a copy to your desktop and sending it as an attachment to: VZWFederal.Implementations@VerizonWireless.com.

Authorized Contacts

Verizon Wireless requires that its business customers designate Authorized Contacts or Point of Contacts (POC's) on their accounts. An Authorized Contact/POC is an individual who is granted authority to act on behalf of the agency for all matters contemplated by your agency's Federal/Government Account Agreement or relating to your agency's account(s).

In order to maintain the authenticity of your Authorized Contact/POC record, we are required to collect certain information that may be used in our customer verification process when you speak to a Verizon Wireless representative regarding your account(s). The information you provide for your Authorized Contact/POC record, including your Address, Mobile Phone, and Email Address will be used as our address of record when contacting or verifying you. Address of record information is subject to certain rules and guidelines under the Federal Communications Commission ("FCC") and various states. Verizon Wireless acknowledges that we have a duty, and you have a right, under federal and applicable state law to protect the confidentiality of your CPNI.

Please ensure that the information provided below is accurate so that we may protect the security of your account and effectively verify you whenever you contact Verizon Wireless. If you ever have a concern that your Authorized Contact/POC information has been compromised, please contact us immediately.

AUTHORIZED CONTACT/POC INFORMATION

Please complete this section in its entirety and sign, if returning via e-mail please type your name in the Signature Field. The person updating and submitting this form represents and warrants that they have been previously established as an authorized contact for the Agency/Customer identified on the form. This form may only be utilized to update your own contact information, and may not be submitted for or on behalf of another authorized contact at your agency.

*Required fields for update

Agency Name: Glycotech Inc	***Email Address:**
POC Name:	**Mailing Address:** 2271 Andrew Jackson Hwy
Job Title: Office Administrator	**City, State, Zip:** Leland, NC 28451
Work Phone: **Ext:** 34	
***Mobile Phone:**	***SPOC Pin:** 6196584
***Account Number:** 0823094401-00001	*Passwords may be 4-8 Numeric Characters only.*
Signature: Rebecca Green	**Date:** 2/2/15

Page 1 of 1

Dumpsters

WASTE INDUSTRIES

SERVICE AGREEMENT

Contract Effective Date 10/1/2015
Service Start Date 10/1/2015

Agreement ID 000261787
Agreement Type Service Level Change

Phone (910) 253-4177 Fax (910) 253-4179
2809 Galloway Road Bolivia, NC 28422-8671

Customer Information

Legal Name _____ Account Number 000285111 Tax ID # _____

Service Information

Company GLYCOTECH
Address 2271 Andrew Jackson Hwy NE
City Leland State NC Zip 284519627
Phone # Fax # (910) 371-9351
Contact
Email

Billing Information

Company GLYCOTECH
Address Po Box 1956
City Leland State NC Zip 284511956
Phone # Fax
Contact

Requested Service Days

Qty	Cont. Size	Frequency	Rate Per Haul	Disposal Rate/Ton	Monthly Rental	Weight	M	T	W	TH	F	S	SU	Service Desc	Monthly Charge
1	8 yard	Weekly												Front End	$183.78

Fees Extra Pickup Fee: $87.00 Environmental/Regulatory Recovery Fee: Varies Monthly

Requested Service Days

Qty	Cont. Size	Frequency	Rate Per Haul	Disposal Rate/Ton	Monthly Rental	Weight	M	T	W	TH	F	S	SU	Service Desc	Monthly Charge
1	8 yard	Weekly												Front End	$162.26

Fees Extra Pickup Fee: $87.00 Environmental/Regulatory Recovery Fee: Varies Monthly

Requested Service Days

Qty	Cont. Size	Frequency	Rate Per Haul	Disposal Rate/Ton	Monthly Rental	Weight	M	T	W	TH	F	S	SU	Service Desc	Monthly Charge
1		None												Service Charge	($11.91)

BRUNCOCR - Brunswick Co Commercial Trash Credit

Requested Service Days

Qty	Cont. Size	Frequency	Rate Per Haul	Disposal Rate/Ton	Monthly Rental	Weight	M	T	W	TH	F	S	SU	Service Desc	Monthly Charge
1	8 yard	Every 2 weeks				1								Front End Cardboard	$84.10

Fees Delivery Fee: $25.00 Extra Pickup Fee: $50.00 Environmental/Regulatory Recovery Fee: Varies Monthly

Terms 60 Months Total $398.23

Special Comments
One Time Charge: Administrative Charge FRONT END - $7.50

I have fully read and understand and initialed the terms and conditions on Pg 2 of this agreement.

Customer
Authorized Signature
Print Name & Title
Date 10-1-15

WI Representative
Authorized Signature
Print Name & Title
Date

SERVICE AGREEMENT

Company GLYCOTECH

TERMS AND CONDITIONS:

I. DUTIES AND RESPONSIBILITIES OF SERVICE PROVIDER:

A. SERVICE: We will provide You with the Equipment and Service Levels specified on the reverse side of this page. You grant to Us the exclusive right to collect and dispose of Proper Waste Materials, and You agree to make the payments to Us as provided herein and on the reverse side of this page.

B. CHANGES IN SERVICES: Changes in services provided by Us or in the fees and charges paid by You may be made only by a written agreement between You and Us. If You relocate to a location within Our service area, We will continue Our services to You and this Agreement will continue to be binding obligation on You and Us.

C. EQUIPMENT: We will deliver and install the Equipment at a site You designate within Our service area. We will collect and dispose of all Proper Waste Materials deposited by You in the Equipment in those intervals specified by You on the reverse side of this page. We will maintain and service the Equipment for use under normal operating conditions.

D. TITLE: Title to all Proper Waste Materials including Recyclable Materials will transfer to Us when You place such materials in the Equipment. You will be responsible for all liabilities that relate to Your disposals or recyclables, including any fines or penalties for improper disposal or disposal of Hazardous Materials.

E. DISPOSAL: We will dispose of Waste in a manner consistent with all applicable laws, regulations and ordinances. Unless otherwise specified on the reverse side of this page, We will use a disposal facility (landfill, transfer station, etc.) that meets all legal requirements and is most cost effective to Your location as determined by Us.

II. DUTIES AND RESPONSIBILITIES OF CUSTOMER:

A. SERVICE FEE: You will pay on a monthly basis, the service fees and charges designated on the reverse side of this page, plus such adjustments as are calculated below:

(1) Sales Tax, Use Tax, Fees and Surcharges. You will be responsible for any and all sales tax, use tax, fees, surcharges and other charges imposed in connection with services provided under or arising out of this Agreement including, without limitation, charges imposed for Waste collection, transportation and disposal. The fees and charges under the Agreement will, at Our option, be increased by the amount of those taxes, fees and surcharges, and You will be responsible for paying such increased amount.

(2) Adjustments: Because disposal, processing and fuel costs are a significant portion of the costs of Our services provided hereunder, We may increase the schedule of charges proportionately to reflect any increase in such costs, plus an appropriate mark-up. We may also adjust the schedule of charges based on other factors, including, without limitation, increases in landfill fees, the Consumer Price Index, the Transportation Index and/or other similar benchmark indices. Where the schedule of charges includes disposal as a component of the charges, disposal will mean the posted gate rate for the disposal at the disposal facility that We utilize plus an appropriate mark-up. You and We agree that the schedule of charges is based upon the estimated average Waste weight that is specified on the reverse side of this page for each cubic yard. If Your Waste exceeds the average Waste weight agreed to herein, We may increase the schedule of charges proportionately to reflect the additional average Waste weight. Subject to Your approval, the fees may be adjusted for other reasons.

(3) Terms: You agree to pay Us the fees set forth herein in accordance with the payment terms of Our invoice. We reserve the right to charge a late fee in an amount equal to the maximum amount allowed by law. In the event any charges You owe Us are required to be collected by or through an attorney, in addition to the principal and interest owing, You will pay an amount equal to the maximum amount allowed by applicable law for attorneys' fees incurred, plus any expenses of litigation.

B. CARE OF EQUIPMENT: The Equipment We will furnish to You will remain Our property. You acknowledge that You have care, custody and control of the Equipment and will be responsible for any loss or damages resulting from Your possession, use, handling and operation of the Equipment except for normal wear and tear. You will not overload by weight or volume, or move or alter the Equipment and You will take reasonable precautions to prevent others from doing the same. You will use the Equipment only for its intended purpose. On collection day, You will provide unobstructed access to the Equipment. If the Equipment is inaccessible or overloaded by weight or volume, Your service will be subject to an additional charge. You will provide the access to be used by Us and You warrant that any right of way provided by You for the Equipment and Our vehicles required to perform the services will be sufficient to bear the weight of the Equipment and Our vehicles. We will not be responsible for damage to Your driving surfaces resulting from the weight of Our vehicles or Equipment.

C. INDEMNITY: We agree to indemnify and hold You harmless from and against any and all claims, demands, actions, fines, penalties, expenses and liabilities (including reasonable attorneys' fees) ("Losses") incurred by You as a result of bodily injury (including death), property damage, or violation of law, to the extent caused by any negligent act, negligent omission or willful misconduct of Us, which occurs during Our provision of services to You under this Agreement; provided that Our indemnification obligation will not apply to occurrences involving Waste other than Proper Waste Materials or involving the negligence or willful misconduct of You, Your employees, representatives and contractors. You agree to indemnify and hold Us harmless from and against any and all Losses incurred by Us arising out of Your breach of this Agreement; the negligent acts omissions or willful misconduct of You, Your employees, representatives or contractors; disposal of Waste other than Proper Waste Materials in the Equipment; and Your use, operation or possession of any of the Equipment furnished by Us.

D. TERM: This Agreement is entered into on the Effective Date as reflected on the reverse side of this page. The term of this Agreement will be 60 months beginning on the date service begins (the "Service Date") as reflected on the reverse side of this page. This Agreement will automatically be renewed for successive 60 month terms without further action by You or Us unless canceled by either party in writing sent by certified mail, hand delivery, or nationally recognized overnight express delivery at least 90 days but no more than 180 days, prior to the end of the initial term or any renewal term. We may terminate or suspend the Agreement immediately if You fail to pay for services rendered within the payment terms, or if You breach any other term of this Agreement. Upon termination of the Agreement for any reason, We may enter upon Your property and remove the Equipment at any time. Repossession of the Equipment may be accomplished without judicial process and without prior notice. If You are not in any breach of any provision of this Agreement, You may terminate the Agreement before the expiration of the term if You pay as liquidated damages, and not as penalty, a sum equal to the total amount of fees and charges charged to You and all related Recyclable Materials revenues received by Us with respect thereto the six (6) month period immediately preceding Your request for termination of the Agreement. If a six (6) month period has not been established, liquidated damages will be defined as six (6) times Your expected monthly fees, charges and Our related Recyclable Materials revenues. You and We acknowledge and agree that Our actual damages for an early termination of the Agreement would be impossible to accurately estimate or calculate and the amount stated herein as liquidated damages is a fair and reasonable estimate of the probable loss that We would sustain if You terminate this Agreement early.

E. RIGHT OF FIRST REFUSAL: You hereby grant to Us a right of first refusal to match any offer relating to services similar to those provided by Us hereunder which You receive (or intend to make) upon termination of this Agreement for any reason, and You will give Us prompt written notice of any such offer and a reasonable opportunity to respond.

III. MISCELLANEOUS: The provisions of this Agreement will be binding upon and inure to the benefit of You and Us and our respective successors and permitted assigns. The indemnities contained herein will survive the termination of this Agreement. Signatures to this Agreement are valid whether original, copied or faxed and this Agreement may be signed in counterparts, all of which will constitute one original. This Agreement will be binding on the party on the reverse side of this page whether signed by an authorized officer or an agent of the party. You may not assign this Agreement or any of Your rights or obligations hereunder without Our prior written consent. For purposes of this Agreement, "assignment" will include sale of more than 50% of Your voting securities, merger, or other assignment by operation of law. Any provision of this Agreement which is unenforceable under applicable law will be ineffective to the extent that it is prohibited or unenforceable without invalidating the remainder or any portion or provision of this Agreement. The parties hereto agree that this Agreement is made and entered into in the State of North Carolina and will be constructed and controlled under the laws of North Carolina. We will not be deemed to have waived any of Our rights or remedies unless the waiver is in writing and signed by Us. This Agreement may not be waived, changed, discharged or terminated orally or by any course of dealing between the parties, but only by an instrument in writing signed by the party against whom any waiver, change, discharge or termination is sought. This Agreement supersedes all prior and contemporaneous agreements between the parties with respect to all matters contained in this Agreement (including, but not limited to, any prior written agreements respecting the Equipment) and this Agreement constitutes the sole and entire agreement between the parties hereto with respect to the subject matter hereof.

IV. DEFINITIONS: The following terms, as used in this Agreement, will have the meanings specified in this paragraph:

(a) "Service Provider" means Waste Industries or TransWaste as it applies;

(b) "You" or "Your" means the customer named on the front page of this Agreement;

(c) "Equipment" means all containers, stationary and self-contained compactors and other equipment provided to You by Us as specified on the reverse side of this page, all of which will remain Our sole and exclusive property;

(d) "Hazardous Materials" means any substance that is toxic, ignitable, reactive, corrosive, acidic, radioactive, volatile, highly flammable, explosive, biomedical or infectious and that is regulated by any local government, State government or United States government, and includes any and all materials or substances that are defined as "hazardous waste", "extremely hazardous waste", or a "hazardous substance" pursuant to local, state or Federal law or regulation. Hazardous materials include, but are not restricted to, asbestos, polychlorinated biphenyls (PCB) and petroleum;

(e) "Proper Waste Materials" or "Waste" means any solid waste material or substance which We can handle and transport without the requirement of a hazardous or toxic waste license or permit which does not contain Hazardous Materials and will include Recyclable Materials;

(f) "Recyclable Material" means material which We determine can be recycled including, but not limited to, aluminum, glass, office paper, production paper, newspaper, cardboard and plastics;

(g) "Service Levels" means the levels of service to be provided to You by Us, as specified on the reverse side of this page, as amended from time to time; and

(h) "We", "Us" or "Our" means Service Provider.

Customer Initials / Date _____ Sales Representative Initials / Date _____

Schedule 5(m)

Off-site Hazardous Material Treatment Facilities

Glycotech
2004 Waste Disposal Sites
(All of these sites received WWPT water and/or sludge)

BFI/CSM Landfill
5105 Morehead Rd
Harrisburg, NC 28075

Michigan Disposal Waste Treatment
Plant
49350 N I-94 Service Drive
Belleville, Michigan 48111

EI DuPont
Chambers Works
Deepwater, NJ 08023

EQ Augusta
3920 Goshen Industrial Blvd
Augusta GA, 30906

Norlite Corp.
628 S Saratoga Street
Cohoes, NY 12047

Pressure Chemical Waste Disposal Sites Used

Chemtron Corp
35850 Schneider Court
Avon, OH 44011

Clean Harbors of Baltimore
1910 Russell Street
Baltimore, MD 21230

Ensco/Teris
309 American Circle
El Derado, AR 71730

EQ Resource Recovery
36345 Van Born Road
Romulus, MI 48174

Giant Cement Company
Hiway 453 & I26
Harleyville, SC 29448

Pollution Control Industries of Indiana
4343 Kennedy Ave
East Chicago Ill

Southeastern Chemical & Solvent
755 Industrial Road
Sumter, SC 29151

Vopak
2759 Battleground Road
Deer Park, Texas 77536

American Environmental Services
1750 Morgantown Industrial Park
Morgantown, WV 26501

Envirite of Ohio, Inc.
2050 Central Avenue, SE
Canton, OH 44707

CT Specialty Properties Waste Disposal Sites Used

Giant Resource Recovery
755 Industry Road
Sumter, SC 29151

AERC/MTI
2591 Mitchell Avenue
Allentown, PA 18103-6609

Glycotech Waste Disposal Sites Used

EWS Alabama
402 Webster Chapel Road
Glencoe, AL 35905

Environmental Enterprises (Ohio)
4650 Spring Grove Ave
Cincinnati, OH 45232

Giant Resource Recovery
755 Industrial Road
Sumter, SC 29151

Vickory Environmental
3596 State Route 412
Vickory, Ohio 43464

Geocycle
2175 Gardner Boulevard
Holly Hill, SC

American Bio-Mass
36 Clearwater Drive
Walterboro, SC 29488

Full Circle Recycle
10440 Covered Bridge Rd
Zebulon, NC 27597

Eagle Point
8880 Old Federal Road
Ball Ground, GA 30107

Shamrock Environmental
6106 Corporate Park Drive
Brown Summit, NC 27214

SR&R Environmental
4920 US Hwy 421 N
Wilmington, NC 28401

Sampson County Disposal
7374 Roseboro Hiway
Roseboro, NC 28302

Cleanlites Recycling
195 Ben Abi Road
Spartanburg, SC 29307

Schedule 6(k)

The following sets out ATC's proposed sampling scope of work to be performed at certain areas of concern (AOC), as well as certain background sampling, as part of a Limited Phase II ESA.

Proposed Sampling Scope of Work

AOC #1 - Wastewater Treatment Plant (WWTP) Area.

ATC proposes to collect four soil samples and two groundwater samples in the area of the WWTP. The soil samples will be analyzed for VOCs, semivolatile organic compounds (SVOCs), and metals. The groundwater samples will be analyzed for VOCs and SVOCs.

AOC #2 – Lagoon.

ATC proposes to collect four soil samples and two groundwater samples in the area of the on-site lagoon, which was a WWTP discharge point in the 1970's. The soil samples will be analyzed for VOCs, SVOCs, and metals. The groundwater samples will be analyzed for VOCs and SVOCs.

AOC #3 - Sulfuric Acid Spill Area.

ATC proposes to collect two soil samples in the area of the former tank farm and two sediment samples from the nearby drainage ditch where a 4,200-gallon spill of sulfuric acid was reported from an aboveground bulk storage tank at the site in 1989. Groundwater samples will also be collected from one existing monitoring well in the area (MW-7). The soil, groundwater, and sediment samples will be analyzed for pH and sulfate. The sediment samples will also be analyzed for VOCs, SVOCs, and metals to provide information regarding other historical spills that might have occurred to the on-site drainage ditch.

AOC #4 - Plant Operations Area.

ATC proposes to collect 10 soil samples and one groundwater samples in the plant operations area, which appears to be a likely source for known impacted groundwater. This area includes numerous subset areas, including the drum storage area, aboveground tank farm, production area, production pad, former sump, recent sump, and subsurface sump piping. The soil samples will be analyzed for VOCs, SVOCs, and metals. The groundwater samples will be analyzed for VOCs and SVOCs.

Background Sampling – Some constituents to be included in the analyses of samples from the above referenced AOCs are naturally occurring. As such, background sampling will be performed to confirm whether the constituents are associated with site operations or naturally occurring conditions.

ATC proposes to collect two background soil samples and one background sediment sample. Groundwater samples will also be collected from one existing upgradient monitoring well (MW-22). The soil and sediment samples will be analyzed for pH, sulfate, and metals. The groundwater samples will be analyzed for pH and sulfate

Exhibit 10.96

CONFIDENTIAL TREATMENT REQUESTED. CERTAIN PORTIONS OF THIS DOCUMENT HAVE BEEN OMITTED PURSUANT TO A REQUEST FOR CONFIDENTIAL TREATMENT AND, WHERE APPLICABLE, HAVE BEEN MARKED WITH AN ASTERISK TO DENOTE WHERE OMISSIONS HAVE BEEN MADE. THE CONFIDENTIAL MATERIAL HAS BEEN FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION.

COOPERATION AGREEMENT

between

NENTER & CO., INC.

and

AMYRIS, INC.

dated as of 26 October 2016

This COOPERATION AGREEMENT (this "Agreement"), dated as of 26 October 2016, is entered into by and between Nenter & Co., Inc., a company duly established and validly existing under the laws of the People's Republic of China, whose registered address is 197 Oriental Road, High Tech Development Zone, Jingzhou City, Hubei Province, 434000, China ("Nenter") and Amyris, Inc., a company duly established and validly existing under the laws of the State of Delaware, United States of America, whose address is 5885 Hollis Street, Ste. 100, Emeryville, CA 94608 ("Amyris") (each of Nenter and Amyris may be referred to herein as a "Party" and collectively, as the "Parties").

WHEREAS, the Parties desire to collaborate to develop and sell new technology and/or commercial products based on [*] (as defined herein) (the "Collaboration");

WHEREAS, Amyris' responsibilities under the Collaboration shall be conducting certain research and development activities pursuant to a project plan to produce [*] Products (as defined herein); and

WHEREAS, Nenter's responsibilities under the Collaboration shall be manufacturing and commercializing such [*] Products, depending on the success of certain milestones agreed between the Parties.

NOW, THEREFORE, in consideration of the premises and the mutual agreements and covenants hereinafter set forth, and intending to be legally bound, Nenter and Amyris hereby agree as follows:

ARTICLE I
DEFINITIONS

SECTION 1.01. Certain Defined Terms. As used in this Agreement, the following capitalized terms shall have the meanings set forth below:

"Action" means any action, claim, suit, arbitration, litigation, investigation or proceeding by or before any Governmental Authority.

"Affiliate" means, with respect to any specified Person, any other Person that, directly or indirectly, through one (1) or more intermediaries, controls, is controlled by, or is under common control with, such specified Person.

"Agreement" means this Cooperation Agreement, including all associated Exhibits attached hereto.

"Amyris" has the meaning set forth in the Preamble.

"Amyris Indemnified Party" has the meaning set forth in Section 8.03(a).

"Assertions" has the meaning set forth in Section 5.02.

"Business Day" means any day that is not a Saturday, a Sunday or other day on which banks are required or authorized by Law to be closed in the City of New York or China.

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

"Chair" has the meaning set forth in Section 2.01.

"Collaboration" has the meaning set forth in the Recitals.

"Commercialization Plan" has the meaning set forth in Section 2.03(a)(iv).

"Confidential Information" means, with respect to a Disclosing Party, all information of any kind whatsoever (including compilations, data, materials, drawings, formulae, models, patent disclosures, inventions, procedures, processes, financial projections, market projections, protocols, results of experimentation and testing, product samples, specifications, strategies, and techniques), and all tangible and intangible embodiments thereof of any kind whatsoever (including apparatus, compositions, documents, drawings, machinery, unpublished patent applications, records, reports), which are marked or otherwise identified as "confidential" at the time of disclosure to the Receiving Party or that, due to the nature of its subject matter or circumstances surrounding its disclosure, would reasonably be understood to be confidential or proprietary. Confidential Information includes the terms and existence of this Agreement. Notwithstanding the foregoing, information shall not be considered Confidential Information if the Receiving Party establishes such information: (a) has been publicly known prior to disclosure by the Disclosing Party; (b) has become publicly known, without fault of the Receiving Party, subsequent to the disclosure of such information by the Disclosing Party; (c) has been received by the Receiving Party at any time, from a source other than the Disclosing Party, and such source rightfully has possession of and the right to disclose such information to the Receiving Party; (d) is otherwise known by the Receiving Party prior to the disclosure of such information by the Disclosing Party; or (e) has been independently developed by or on behalf of Personnel of the Receiving Party without access to or use of such information disclosed by the Disclosing Party.

"control" (including the terms "controlled by" and "under common control with"), with respect to the relationship between or among two or more Persons, means the possession, directly or indirectly or as trustee, personal representative or executor, of the power to direct or cause the direction of the affairs or management of a Person, whether through the ownership of voting securities, as trustee, personal representative or executor, or by contract.

"[*] Field" means any substance(s) or mixture(s) thereof intended to be [*].

"Disclosing Party" has the meaning set forth in Section 9.02.

"Effective Date" means the latter of the date of the shareholders' meeting whereby Guanfu Holding Co., Ltd., the sole shareholder of Nenter, approves this Agreement or the date of approval of this Agreement by Amyris's Board.

"Executive Officers" means, (a) in the case of Amyris, the Chief Executive Officer and (b) in the case of Nenter, the chairman of the board of directors.

"Field of Use" means any use or application primarily related to [*], but excluding the [*] Field.

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

"Force Majeure Event" has the meaning set forth in Section 11.01.

"Governmental Authority" means any federal, national, supranational, state, provincial, local or municipal government, governmental, regulatory or administrative authority, agency or commission or any court, tribunal, or judicial or arbitral body of competent jurisdiction, including acting in the capacity of conservator.

"Indemnified Party" has the meaning set forth in Section 8.03(c).

"Indemnifying Party" has the meaning set forth in Section 8.03(c).

"Intellectual Property" means all rights in the following in any jurisdiction throughout the world: (i) Patents, (ii) Trademarks, (iii) copyrights, including copyrights in computer software, (iv) registrations and applications for registration of any of the foregoing under subclauses (i) – (iii) of this definition, and (v) Know-How.

"JSC" has the meaning set forth in Section 2.01.

"JV" has the meaning set forth in Section 4.03(a).

"Know-How" means any and all technical information, research and development information, trade secrets, formulae, technical specifications, directions, instructions, user guides, operation guides, test protocols, test and qualification approaches, procedures and results, studies, analyses, raw material sources, data, formulation or production technology, conceptions, ideas, innovations, discoveries, inventions, processes, methods, enhancements, modifications, technological developments, techniques, systems, tools, designs, schematics, semiconductor masks, business specifications, engineering drawings and software code.

"Law" means any federal, national, supranational, state, provincial or local statute, law, ordinance, regulation, rule, code, requirement or rule of law (including common law).

"Material Adverse Change" means any event, occurrence, fact, condition or change that is materially adverse to (a) the business, results of operations, financial condition or assets of Amyris, or (b) the ability of Amyris to consummate the transactions contemplated hereby; provided, however, that "Material Adverse Change" shall not include any event, occurrence, fact, condition or change, directly or indirectly, arising out of or attributable to: (i) general economic or political conditions; (ii) conditions generally affecting the industries in which Amyris operates; (iii) any changes in financial, banking or securities markets in general, including any disruption thereof and any decline in the price of any security or any market index or any change in prevailing interest rates; (iv) any action required or permitted by this Agreement or any action taken (or omitted to be taken) with the written consent of or at the written request of Amyris; (v) any matter of which Nenter is aware on the Effective Date based on the information provided and disclosed by Amyris; (vi) any changes in applicable Laws or accounting rules (including GAAP); (vii) the announcement, pendency or completion of the transactions contemplated by this Agreement, including losses or threatened losses of employees, customers, suppliers, distributors or others having relationships with Amyris; (viii) any Force Majeure Event; or (ix) any failure by Amyris to meet any internal or published projections,

forecasts or revenue or earnings predictions (provided that the underlying causes of such failures (subject to the other provisions of this definition) shall not be excluded).

"Nenter" has the meaning set forth in the Preamble.

"Nenter Indemnified Party" has the meaning set forth in Section 8.03(a).

"Nenter Targets" means the results and milestones set forth in a Project Plan that determine whether Nenter has successfully completed its obligations with respect to creating a cost-effective and high-conversion rate conversion process from [*] to [*] Products.

"Party" has the meaning set forth in the Preamble.

"Patents" means all patents together with any extensions, reexaminations and reissues of such patents, patents of addition, patent applications, divisions, continuations, continuations-in-part, and any subsequent filing in any country or jurisdiction claiming priority therefrom.

"Person" means any individual, partnership, firm, corporation, limited liability company, association, trust, joint venture, unincorporated organization or Governmental Authority.

"Personnel" means a Party's directors, officers, employees, agents and independent consultants, contractors, accountants and attorneys.

"Project Plan" has the meaning set forth in Section 4.01(a).

"R&D Targets" means the results and milestones set forth in a Project Plan that determine whether Amyris has successfully completed its obligations with respect to the research and development of [*] Products.

"Receiving Party" has the meaning set forth in Section 9.02.

"Term" has the meaning set forth in Section 3.01.

"Trademarks" means trademarks, service marks, trade names, trade dress and Internet domain names, together with the goodwill associated therewith.

"[*]" means [*], or a derivative thereof.

"[*] Achievement Date" means the date that Amyris achieves all the R&D Targets applicable to the production of [*].

"[*]" means intermediate products created in the process of synthesizing [*] that can be later converted to [*] through chemical synthesis.

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

"[*] Achievement Date" means the date that (i) Amyris achieves all of the R&D Targets applicable to the production of [*] and (ii) Nenter achieves all of the Nenter Targets.

"[*] Products" means [*], as applicable.

"Warrant" means a warrant to purchase ten million (10,000,000) shares of common stock of Amyris (the "Warrant Shares") at a price of fifty cents ($0.50) per share, for an aggregate purchase price of five million dollars ($5,000,000) (the "Warrant Exercise Price"), substantially in the form of Exhibit A.

"Warrant Exercise Price" has the meaning set forth in the definition of "Warrant".

"Warrant Shares" has the meaning set forth in the definition of "Warrant".

ARTICLE II
JOINT STEERING COMMITTEE

SECTION 2.01. Joint Steering Committee; Responsibilities. Within forty-five (45) days of the Effective Date, the Parties shall establish a joint steering committee consisting of two (2) persons appointed by Amyris and two (2) persons appointed by Nenter (the "JSC") to carry out the responsibilities set forth in Section 2.03. Each Party may replace either or both of its JSC members for any reason at any time, effective upon the delivery of prior written notice to the other Party of any such change. One (1) committee member shall be appointed by Amyris as the chairperson of the JSC (the "Chair") to organize and preside over meetings. Each Party shall bear all expenses relating to its members' participation on the JSC, including their attendance at JSC meetings. The JSC shall continue to exist until the termination or expiration of this Agreement.

SECTION 2.02. Meeting Procedure. The JSC shall meet as needed (but not less than once per quarter) during the Term, at times and places or in such form (such as by telephone conference) as the JSC determines. For a JSC meeting to be held, at least one (1) member from each Party must participate in such meeting, including the Chair. For each JSC meeting, the Chair shall provide the committee members, no later than thirty (30) days before the meeting (unless such meeting is an emergency meeting), with notice of the location, time, and, if applicable, dial-in phone numbers, the prior agreed meeting agenda, and, to the extent provided by each Party, copies of any relevant documentation and applications for consideration at the meeting. Each Party shall attempt in good faith to accommodate the scheduling concerns of the other Party in scheduling JSC meetings. The Chair shall be responsible for preparing and circulating, within ten (10) Business Days after a JSC meeting, draft minutes of such JSC meeting for approval by the JSC members; provided that the Chair may delegate such preparation and circulation of such minutes to another person that participates in the JSC meeting. Such minutes shall include detailed records of discussions and detailed descriptions of agreed actions and next steps. Any objections to draft minutes shall be raised within ten (10) Business Days of receipt thereof, and any JSC member raising an objection shall propose alternative language for the minutes within such ten (10) Business Day period. The JSC

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

members shall use good faith efforts to resolve promptly and in an amicable manner any disagreements over minutes of JSC meetings. If no objection is raised during the ten (10) Business Day period following distribution of draft minutes, the minutes shall be deemed approved by the JSC.

SECTION 2.03. Responsibilities of the JSC.

(a) The JSC shall be the forum to monitor, review and set direction of the Parties' activities under this Agreement, and the JSC is specifically responsible for performing the following tasks under this Agreement:

(i) evaluating and deciding on any modifications to the Project Plan in accordance with Section 4.02;

(ii) issuing such reports and furnishing such information as the JSC determines, in its discretion, are necessary or appropriate to keep the Parties informed of the progress of the Project Plan;

(iii) notifying the Parties of any actual or potential technical issues of or deviations from the Project Plan;

(iv) determining whether to pursue the plan to manufacture and commercialize (A) [*] pursuant to Section 4.03(a) or (B) [*] pursuant to Section 4.03(b) (each such plan, a "Commercialization Plan"); and

(v) performing such other functions as are expressly assigned to the JSC under this Agreement or that further the purpose of this Agreement as determined by the mutual written agreement of the Parties from time to time.

(b) For the avoidance of doubt, the JSC shall only have the powers specifically delegated to it by this Agreement and shall have no authority or ability to direct or manage Amyris' execution of the Project Plan. Without limiting the foregoing, the JSC has no authority to, and shall not purport or attempt to:

(i) negotiate agreements on behalf of any Party;

(ii) make representations or warranties on behalf of any Party;

(iii) waive rights of any Party;

(iv) extend credit on behalf of any Party;

(v) take or grant licenses of, transfer ownership, or otherwise encumber Intellectual Property on behalf of any Party; or

(vi) make amendments to this Agreement on behalf of any Party (but subject to Section 11.07).

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

(c) The JSC may at any time establish one (1) or more subcommittees and/or a technical committee, which shall have the responsibilities assigned to them by the JSC, which may include, the issuance of reports and recommendations to the JSC; provided, that the JSC may not delegate or assign to any such committee any of the duties of the JSC set forth in this Section 2.03.

SECTION 2.04. Decision-making; Deadlock. All decisions allocated to the JSC shall require a unanimous, affirmative vote for approval, with one (1) vote cast collectively by each Party's JSC members. Each Party agrees that its JSC members will consider the other Party's comments and concerns in good faith on each decision. In the event that the JSC is unable to reach a unanimous agreement on a decision voted upon by it, then either Party may, within five (5) Business Days after such failed vote, escalate the matter with written notice to the counter Party's Executive Officer. If the Executive Officers are unable to reach a mutually satisfactory resolution of the applicable issue within five (5) Business Days after such escalation, then the Parties shall continue to discuss such issue in good faith but shall continue to perform this Agreement with the matter voted upon by the JSC remaining unapproved. JSC decisions or the failure of the JSC to achieve a unanimous agreement on any decision delegated to it or the failure of the Executive Officers to achieve unanimous agreement on any matter appealed to them under this Section 2.04 shall not be subject to additional review or appeal, including under the dispute resolution procedures in Section 11.09, except to the extent a breach of this Agreement is alleged in good faith. For the avoidance of doubt, any dispute that is not of a type described in this Section 2.04 shall be subject to and governed by Section 11.09 of this Agreement.

SECTION 2.05. Obligation to Inform JSC. Subject to any prohibitions or restrictions on disclosure under Applicable Laws or binding contractual obligations, each Party shall notify the JSC promptly in the event that it becomes aware of any development or failure (including, for the avoidance of doubt, the failure of Nenter to make reasonable progress with respect to achieving the Nenter Targets) that would reasonably be expected to materially impact the Collaboration.

ARTICLE III
TERM

SECTION 3.01. Term. This Agreement shall commence and be effective beginning on the Effective Date and, unless terminated earlier as provided in Article X, shall continue in effect for (i) two (2) years from the Effective Date or (ii) if the Parties pursue a Commercialization Plan in accordance with this Agreement, five (5) years from the Effective Date (the "Term").

ARTICLE IV
RESEARCH AND DEVELOPMENT OF [*] PRODUCTS

SECTION 4.01. Project Plan.

(a) Within two (2) months of the Effective Date, the Parties shall create a project plan that contains the details concerning the scope of work, protocols, specifications, schedule of

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

activities, timeline, milestones (including the R&D Targets and the Nenter Targets) and participating Personnel with respect to (i) Amyris' research and development of [*] Products and (ii) Nenter's research and development of a cost-effective high-conversion rate conversion process from [*] to [*] (the "Project Plan");

(b) Amyris shall use commercially reasonable efforts to diligently research and develop [*] Products, including achieving the R&D Targets.

(c) Nenter shall use commercially reasonable efforts to diligently research and develop a cost-effective conversion process from [*] to [*], including achieving the Nenter Targets.

(d) Each Party shall each provide reports to the JSC on reasonable intervals (but not less than once per quarter) detailing the progress such Party has made with respect to achieving the targets.

(e) For the avoidance of doubt, the Collaboration is a research project whereby the successful completion thereof, including the achievement of the R&D Targets and/or the Nenter Targets, is not assured and, as long as each Party uses its commercially reasonable efforts to diligently perform its respective obligations, such Party shall not be in default or breach under this Agreement for any failure to achieve the R&D Targets or Nenter Targets, as applicable, or any particular result or milestone. The details concerning the scope of work, protocols, specifications, timeline and milestones of the Collaboration (including the R&D Targets and the Nenter Targets) will be agreed by the Parties in the Project Plan created by the Parties pursuant to Section 4.01(a).

SECTION 4.02. Project Plan Modifications. Either Party may propose changes to the Project Plan to the other Party from time to time as appropriate in light of changed circumstances. Any change to the Project Plan will require unanimous approval of the JSC in accordance with Section 2.04. In the event that a proposed change to the Project Plan is not approved by the JSC as provided by the immediately preceding sentence, the then-current Project Plan shall remain in effect.

SECTION 4.03. Commercialization Plans. Upon the JSC making the decision set forth in Section 2.03(a)(iv) and if Nenter exercises the Warrant in accordance with the terms and conditions therein, the Parties shall pursue one (1) of the following Commercialization Plans:

(a) [*] Commercialization Plan. Within one (1) year of the [*] Achievement Date, the Parties shall establish a joint venture company (the "JV") in China (or another location as mutually agreed by the Parties) that shall manufacture and commercialize [*] based on terms and conditions that are mutually agreed by the Parties, whereby:

(i) Nenter shall own a majority of the outstanding equity interest of the JV; and

(ii) Amyris shall grant the JV an exclusive, royalty-free, worldwide license to the necessary Patents and Know-How owned by Amyris solely for the purposes of manufacturing and selling [*] in the Field of Use. Amyris

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shall not be responsible for contributing or providing any capital or tangible assets (including any tangible assets required for the construction and operation of a facility to manufacture [*]) to the JV, and the sole contribution by Amyris to the JV shall be the global exclusive license to the Patents and Know-How and the relevant technology of Amyris in the immediately preceding sentence.

(b) [*] Conversion Commercialization Plan. If (i) Amyris achieves the R&D Targets applicable to the production of [*] and (ii) Nenter achieves the Nenter Targets, the Parties shall establish and implement a worldwide manufacturing and commercialization plan of [*] in the Field of Use, upon terms and conditions that are mutually agreed by the Parties, whereby:

1. Nenter shall, itself or through any of its Affiliates, within one (1) year of the [*] Achievement Date, initiate the construction of a facility located in [*] that shall use [*] [*] to manufacture [*] in the Field of Use;

2. If Amyris decides, due to existing capacity constraints, to construct a new facility for the sole purpose of manufacturing [*] as part of a joint venture with a third party, Amyris shall provide Nenter with a right of priority to enter into such joint venture with Amyris. Amyris shall provide Nenter with notice of such decision to enter into such a joint venture and Nenter shall have thirty (30) days from the date of such notice to agree to participate in such joint venture. If Nenter does not agree to participate in such joint venture or otherwise fails to respond within thirty (30) days after the date of such notice, then Amyris shall be permitted to enter into such joint venture with any third party; and

3. Amyris shall grant Nenter the global exclusive purchase right for such [*] (which such global exclusive purchase right may be suspended if Nenter fails to initiate the facility construction in accordance with Section 4.03(b)(1)); provided that, in the event of such suspension, Amyris shall grant Nenter a global non-exclusive purchase right for such [*]) and Nenter shall (i) not use such [*] for any purpose other than in the Field of Use; (ii) not re-sell or otherwise transfer such [*] to any third party; (iii) be required to purchase a mutually-agreed minimum amount of such [*] each year after Nenter exercises such option and (iv) not engage, without Amyris' prior written consent, in any discussions or negotiations with any third party regarding any actual or potential supply agreement or similar arrangement relating to [*].

ARTICLE V
INTELLECTUAL PROPERTY

SECTION 5.01. Ownership of Intellectual Property.

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

(a) As between the Parties, Nenter acknowledges that all right, title and interest in and to any Intellectual Property (i) owned by Amyris as of the Effective Date and (ii) created by Amyris, its Affiliates or any of their respective Personnel after the Effective Date (whether or not created in connection with fulfilling its obligations under this Agreement) shall remain the sole and exclusive property of Amyris. No license is granted herein by or to Nenter with respect to or under any of Amyris' Intellectual Property.

(b) Amyris shall own all, right, title and interest in and to any Intellectual Property created by Nenter, its Affiliates or any of their respective Personnel that relates to the composition, use or manufacture of [*] Products (other than creating a cost-effective conversion process from [*] to [*] developed by Nenter that do not relate primarily to [*] Products), including the strain construction, fermentation, and scaling up of [*] through biotechnology, and Nenter hereby assigns, and shall cause such Affiliates and such Personnel to assign, all right, title and interest in and to such Intellectual Property to Amyris. Nenter shall promptly notify Amyris within thirty (30) days of any such Intellectual Property created by Nenter. The Parties agree that all such Intellectual Property created by Nenter shall be included in the exclusive license granted by Amyris to the JV under Section 4.03(a)(ii).

(c) Nenter shall own all, right, title and interest in and to any Intellectual Property created by Amyris, its Affiliates or any of their respective Personnel that relates to the creation of a cost-effective conversion process from [*] to [*] developed by Nenter pursuant to the Project Plan that does not relate primarily to [*] Products, and Amyris hereby assigns, and shall cause such Affiliates and such Personnel to assign, all right, title and interest in and to such Intellectual Property to Nenter. Amyris shall promptly notify Nenter within thirty (30) days of any such Intellectual Property created by Amyris.

SECTION 5.02. Infringement Proceedings. Nenter shall promptly notify Amyris in writing of any actual or suspected infringement, violation or misappropriation of Amyris' Intellectual Property that Nenter becomes aware of. Amyris shall have the sole right, but not the obligation, to prosecute or defend against any infringement, violation or misappropriation of its or third party's Intellectual Property and other similar Actions against or by third parties (collectively, "Assertions"). If requested by Amyris, Nenter shall reasonably cooperate with Amyris in any such Assertions at Amyris' expense (including, upon the request of Amyris, joining as a plaintiff or defendant in any such Assertion). Unless otherwise agreed by the Parties, any award, or portion of an award, recovered in any such Assertion shall belong solely to Amyris.

ARTICLE VI
CONSIDERATION

SECTION 6.01. Warrant. Promptly following the Effective Date, in consideration of Nenter's undertakings and covenants in this Agreement and the performance of its obligations hereunder, Amyris shall issue a Warrant to Nenter in accordance with the terms and conditions contained therein. Amyris shall notify and provide reasonable assistance to Nenter, at Nenter's expense and within ninety (90) days of Nenter paying the Warrant Exercise Price, with respect to

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any application and filing procedure in accordance with applicable Law or the rules of the Nasdaq Stock Market associated with Nenter's exercise of the Warrant. The funds paid by Nenter for its exercise of the Warrant shall be legally sourced and otherwise in compliance with applicable Laws. If for any reason the exercise of the Warrant in accordance with the terms and conditions contained therein is deemed invalid or illegal under applicable Law or Amyris fails to obtain any approval, registration or filing that is required by Amyris for Nenter to lawfully exercise the Warrant, Amyris shall, within ten (10) days' prior written notice from Nenter of such invalidity or illegality, refund the Warrant Exercise Price to Nenter to a bank account that shall be designated by Nenter in such notice.

ARTICLE VII
REPRESENTATIONS AND WARRANTIES

SECTION 7.01. Representations and Warranties of Amyris. Amyris represents and warrants to Nenter that, except (i) as disclosed in the public filings of Amyris or (ii) as would not cause a Material Adverse Change, to the knowledge of Amyris, as of the Effective Date:

(a) Organization and Authority. Amyris is a company duly incorporated and validly existing under the laws of the State of Delaware, United States, and has the capacity, right, power and authority to execute and perform its obligations under this Agreement.

(b) No Conflict. The execution and performance by Amyris of its obligations under this Agreement do not:

(i) conflict with or result in the breach of any of the terms, conditions or provisions of, or constitute a material default or require any consent under, any indenture, mortgage, agreement or other instrument or arrangement to which it is a party or by which it is bound;

(ii) violate any of the terms or provisions of its charter or by-laws (or similar organizational documents), as applicable; or

(iii) violate any authorization, judgment decree or order or any Law applicable to Amyris.

(c) No Immunity. No property owned by Amyris is entitled to immunity from set-off, suit, execution or attachment with respect to Amyris' obligations under this Agreement.

(d) No Material Adverse Change. Since the date that is one (1) year prior to the Effective Date, and other than in the ordinary course of business consistent with past practice, there has not been any:

(i) event, occurrence or development that has resulted in a change in the ongoing conduct of business of Amyris that has had, or could reasonably be expected to have, a Material Adverse Change;

(ii) material change to a material contract or agreement by which Amyris or any of its material assets is bound or subject; or

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(iii) written notice received by Amyris that contemplates a loss of, or material cancelation of an order from, any material customer of Amyris.

(e) Litigation.

(i) Except as set forth in Section 7.01(k), there are no Actions pending against or by Amyris affecting any of its properties or assets, which if determined adversely to the Company (or to Seller or any Affiliate thereof) would result in a Material Adverse Change.

(ii) No judgment or order has been issued by a Governmental Authority against Amyris.

(f) Compliance with Law. Amyris is and has, since the date that is one (1) year prior to the Effective Date, been in compliance with all applicable Laws.

(g) Insurance. Amyris maintains insurance policies with reputable insurance carriers who are financially solvent. Amyris has not received written notice that such policies are not in full force and effect, and all premiums due on such policies have been paid and Amyris is otherwise in compliance in all material respects with the terms of such policies.

(h) Labor Matters. There exists no material activity or proceeding of any labor union to organize Amyris' employees nor ongoing or threatened strikes, slowdowns or work stoppages by employees of Amyris or employees of any contractor of Amyris, with respect to any material operations of Amyris. Amyris has complied in all material respects with all applicable labor laws, regulations and rules, and has paid all wages, social benefits and other funds required to be paid to its employees and/or applicable Governmental Authorities in all material respects.

(i) Restriction on Business Activities. There is no agreement, judgment, injunction, order or decree binding upon Amyris which has the effect of restricting or impairing its acquisition of property or the conduct of its business as it is currently conducted.

(j) Real Property. Amyris has good and valid title to, or a legal and valid leasehold interest in, all real property owned, leased or subleased by Amyris.

(k) Ongoing Operation. There are no Actions pending or threatened in writing to effectuate the bankruptcy or insolvency (or similar status) of Amyris.

(l) Intellectual Property. Except for the pending opposition proceedings by [*], there are no Actions pending that contest the validity or enforceability of any Patents owned by Amyris.

SECTION 7.02. Representations and Warranties of Nenter. Nenter hereby represents and warrants to Amyris that, as of the Effective Date:

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(a) Organization and Authority. Nenter is a company duly incorporated and validly existing under the laws of the People's Republic of China, and has the capacity, right, power and authority to execute and perform its obligations under this Agreement.

(b) No Conflict. The execution and performance by Nenter of its obligations under this Agreement do not:

(i) conflict with or result in the breach of any of the terms, conditions or provisions of, or constitute a material default or require any consent under, any indenture, mortgage, agreement or other instrument or arrangement to which it is a party or by which it is bound;

(ii) violate any of the terms or provisions of its charter or by-laws (or similar organizational documents), as applicable; or

(iii) violate any authorization, judgment decree or order or any Law applicable to Nenter.

SECTION 7.03. NO OTHER WARRANTIES. EXCEPT AS EXPRESSLY SET FORTH IN THIS AGREEMENT, AMYRIS HEREBY DISCLAIMS ALL REPRESENTATIONS AND WARRANTIES, WHETHER WRITTEN, ORAL, EXPRESS, IMPLIED, STATUTORY OR OTHERWISE, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY, QUALITY, FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT AND WARRANTIES ARISING FROM A CUSTOM OF TRADE, COURSE OF DEALINGS, USAGE OR TRADE PRACTICE, THE ACCURACY, COMPLETENESS, SAFETY, USEFULNESS FOR ANY PURPOSE OR LIKELIHOOD OF SUCCESS (COMMERCIAL, REGULATORY OR OTHER) OF THE [*] PRODUCTS AND ANY OTHER TECHNICAL INFORMATION, TECHNIQUES, MATERIALS, METHODS, PRODUCTS, PROCESSES OR PRACTICES AT ANY TIME MADE AVAILABLE BY AMYRIS. WITHOUT LIMITING THE FOREGOING, AMYRIS SHALL HAVE NO LIABILITY WHATSOEVER TO NENTER OR ANY OTHER PERSON FOR OR ON ACCOUNT OF ANY INJURY, LOSS, OR DAMAGE, OF ANY KIND OR NATURE, SUSTAINED BY, OR ANY DAMAGE ASSESSED OR ASSERTED AGAINST, OR ANY OTHER LIABILITY INCURRED BY OR IMPOSED ON NENTER OR ANY OTHER PERSON, ARISING OUT OF OR IN CONNECTION WITH OR RESULTING FROM: (A) THE MANUFACTURE, USE, OFFER FOR SALE, SALE, OR IMPORT OF A [*] PRODUCT; (B) THE USE OF OR ANY ERRORS OF OMISSIONS IN ANY KNOW-HOW, TECHNICAL INFORMATION, TECHNIQUES, OR PRACTICES DISCLOSED BY AMYRIS; OR (C) ANY ADVERTISING OR OTHER PROMOTIONAL ACTIVITIES CONCERNING ANY OF THE FOREGOING.

ARTICLE VIII
LIMITATIONS OF LIABILITY; INDEMNIFICATION

SECTION 8.01. Exclusion of Consequential and Other Indirect Damages. EXCEPT FOR ANY DAMAGES RESULTING FROM A PARTY'S GROSS NEGLIGENCE, FRAUD OR INTENTIONAL MISCONDUCT, TO THE FULLEST EXTENT PERMITTED BY LAW, NEITHER PARTY SHALL BE LIABLE TO THE OTHER PARTY OR ANY

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OTHER PERSON FOR ANY INJURY TO OR LOSS OF GOODWILL, REPUTATION, BUSINESS, PRODUCTION, REVENUES, PROFITS, ANTICIPATED PROFITS, CONTRACTS OR OPPORTUNITIES (REGARDLESS OF HOW THESE ARE CLASSIFIED AS DAMAGES), OR FOR ANY CONSEQUENTIAL, INCIDENTAL, INDIRECT, EXEMPLARY, SPECIAL, PUNITIVE OR ENHANCED DAMAGES WHETHER ARISING DIRECTLY OR INDIRECTLY OUT OF THIS AGREEMENT OR THE RESEARCH, DEVELOPMENT, MANUFACTURE OR SALE OF [*] PRODUCTS, OUT OF BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY, PRODUCT LIABILITY OR OTHERWISE (INCLUDING THE ENTRY INTO, PERFORMANCE OR BREACH OF THIS AGREEMENT), REGARDLESS OF WHETHER SUCH LOSS OR DAMAGE WAS FORESEEABLE OR THE PARTY AGAINST WHOM SUCH LIABILITY IS CLAIMED HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH LOSS OR DAMAGE, AND NOTWITHSTANDING THE FAILURE OF ANY AGREED OR OTHER REMEDY OF ITS ESSENTIAL PURPOSE.

SECTION 8.02. Liquidated Damages. In the event Nenter requests a refund of the Warrant Exercise Price in accordance with Section 6.01, and Amyris fails to fully refund the Warrant Exercise Price when due in accordance with Section 6.01, Amyris shall pay Nenter liquidated damages of ten percent (10%) of the Warrant Exercise Price, compounded annually beginning on the day after the date upon which such refund was due.

SECTION 8.03. Indemnification.

(a) Amyris shall indemnify and defend Nenter, its Affiliates and its and their respective Personnel (each, a "Nenter Indemnified Party") from and against any and all damages, losses, liabilities and expenses (including reasonable attorneys' fees and expenses) incurred or suffered by any such Nenter Indemnified Party to the extent based on or arising from any breach by Amyris or its Personnel of this Agreement, including claims brought by a third party pertaining thereto, other than claims for which Nenter is obligated to indemnify Amyris pursuant to Section 8.03(b).

(b) Nenter shall indemnify and defend Amyris, its Affiliates and its and their respective Personnel (each, an "Amyris Indemnified Party") from and against any and all damages, losses, liabilities and expenses (including reasonable attorneys' fees and expenses) incurred or suffered by any such Amyris Indemnified Party to the extent based on or arising out of any breach by Nenter or its Personnel of this Agreement, including claims brought by a third party pertaining thereto, other than claims for which Amyris is obligated to indemnify Nenter pursuant to Section 8.03(a).

(c) The indemnification obligations in Section 8.03(a) and 8.03(b) are subject to the Party receiving indemnification thereunder (the "Indemnified Party") giving the other Party (the "Indemnifying Party"), as applicable, (i) written notice of any third party claim for which indemnification is sought promptly after the Indemnified Party receives written notice of such claim; provided, however, that the failure to provide prompt notice shall not relieve the Indemnifying Party of its indemnification obligations except to the extent that the Indemnifying Party is adversely prejudiced by such failure; and (ii) sole control of the defense of such claim and reasonably cooperating with the Indemnifying Party in such defense at the Indemnifying

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Party's expense; provided, however, that the Indemnifying Party shall not enter into any settlement of any such claim without each Indemnified Party's prior written consent, such consent not to be unreasonably withheld. Notwithstanding the foregoing, if the Indemnifying Party fails to assume the defense as required by this Section 8.03(c) within thirty (30) days after notice from the Indemnified Party of the applicable third party claim (or within such shorter time as is reasonably required by the circumstances) or fails diligently to pursue such defense, or there is a conflict or potential conflict of interest between the Indemnifying Party and the Indemnified Party, then the Indemnified Party may assume the defense of such third party claim at the Indemnifying Party's expense, and the Indemnifying Party shall cooperate with the Indemnified Party at the Indemnifying Party's expense in such defense.

(d) Neither Party may (i) bring an Action against the other Party, (ii) seek indemnification from the other Party pursuant to this Section 8.03 or (iii) terminate this Agreement pursuant to Section 10.01, in each case of (i) – (iii), due to a breach of this Agreement by the other Party if more than one (1) year has passed from the date such Party learned of such breach, which such date shall be evidenced by a written notice delivered to the other Party.

ARTICLE IX
CONFIDENTIALITY

SECTION 9.01. Duty to Furnish Confidential Information. Except as expressly required in this Agreement, neither Party shall have any obligation to furnish any Confidential Information to the other Party.

SECTION 9.02. Confidentiality Obligations. Each Party (the "Receiving Party") acknowledges that, in connection with this Agreement, it will gain access to Confidential Information of the other Party (the "Disclosing Party"). As a condition to being provided with Confidential Information, the Receiving Party shall, during the Term and for ten (10) years thereafter:

(a) not use or reproduce the Disclosing Party's Confidential Information other than as necessary to exercise its rights and perform its obligations under this Agreement;

(b) maintain the Disclosing Party's Confidential Information in strict confidence and, subject to Section 9.03, not disclose the Disclosing Party's Confidential Information without the Disclosing Party's prior written consent; provided, however, that the Receiving Party may disclose the Confidential Information to its Personnel who:

(i) have a need to know the Confidential Information for purposes of the Receiving Party's performance, or exercise of its rights concerning the Confidential Information, under this Agreement;

(ii) have been apprised of this restriction; and

(iii) are themselves bound by written nondisclosure agreements, or are otherwise subject to nondisclosure obligations, at least as restrictive as those set forth in this Section 9.02; provided, further, that the Receiving Party shall be

responsible for ensuring its Personnel's compliance with, and shall be liable for any breach by its Personnel of, this Section 9.02.

The Receiving Party shall use reasonable care (which shall be at least as protective as the efforts it uses for its own Confidential Information) to safeguard the Disclosing Party's Confidential Information from use or disclosure other than as permitted herein.

SECTION 9.03. Exceptions. If the Receiving Party becomes legally compelled by any Governmental Authority to disclose any Confidential Information, the Receiving Party shall:

(a) provide prompt written notice to the Disclosing Party so that the Disclosing Party may seek a protective order or other appropriate remedy or waive its rights under this Section 9;

(b) work with the Disclosing Party in an effort to seek an appropriate protective order or other remedy to prevent or limit public disclosure of such Confidential Information; and

(c) disclose only the portion of Confidential Information that it is legally required to furnish.

SECTION 9.04. Equitable Remedies. Each Party acknowledges and agrees that, due to the proprietary and competitively sensitive nature of the other Party's Confidential Information, the Disclosing Party may be irreparably harmed in the event of any breach, or threatened breach, of provisions of this Agreement, and that monetary damages may not constitute a sufficient remedy as a result thereof. Accordingly, each Party agrees that in the event of any such breach or threatened breach of this Section 9, the Disclosing Party, in addition to any other remedies it may have at law or in equity, shall be entitled to seek equitable relief, including injunctive relief or specific performance or both in any court of competent jurisdiction.

SECTION 9.05. Third Parties. Each Party further acknowledges that certain information, materials or other products that may be supplied to a Party under this Agreement may be proprietary to third parties. In the event that this occurs, the Parties agree that such third parties may impose obligations on the Receiving Party, directly or through the Disclosing Party, regarding use, non-analysis, disposition, inventory tracking and record keeping regarding such materials.

ARTICLE X
TERMINATION

SECTION 10.01. Termination for Cause. In the event that either Party fails to comply with any material term or condition of this Agreement and such failure materially affects the interest of the other Party to enter into this Agreement, then such other Party, in addition to any other remedies it may have at law or in equity, shall have the right to terminate this Agreement on written notice stating the reason for termination, after first having delivered sixty (60) days' prior written notice to the breaching Party, unless, within such sixty (60) day period, the breaching Party remedies the condition(s) giving rise to the Party's termination right under this Section 10.01 .

SECTION 10.02. No Prejudice; Effect of Termination. Except as set forth in this Agreement, the termination of this Agreement for any reason shall not affect any liabilities or obligations of either Party arising before such termination or out of the events causing such termination, or any damages or other remedies to which a Party may be entitled under this Agreement, at law or in equity.

SECTION 10.03. Exception. Either Party may terminate this Agreement, without being construed as such Party's default of this Agreement, if an applicable Governmental Authority in any jurisdiction disapproves of or refuses to authorize the main purpose of the Collaboration (if applicable or required) under this Agreement. For the avoidance of doubt, this Agreement shall not be effective, and the terms and conditions of this Agreement shall have no force or binding effect, until the date of the shareholders' meeting whereby Guanfu Holding Co., Ltd., the sole shareholder of Nenter, approves this Agreement, which approval (or disapproval) must be provided within ten (10) days of the date hereof.

SECTION 10.04. Survival. The provisions of this Agreement which, by their nature and content, are intended, expressly or impliedly, to continue to have effect notwithstanding the completion, rescission, termination, or expiration of this Agreement, shall survive and continue to bind the Parties, including Articles I, V, VI, VII, VIII and XI and Sections 10.02 and 10.04.

ARTICLE XI
GENERAL PROVISIONS

SECTION 11.01. Force Majeure. If either Party is wholly or partially prevented from, or delayed in performing, any of its obligations hereunder, in either case, by reason of events beyond the applicable Party's reasonable control (including elements of nature or acts of God, fire, explosion, natural disasters, floods, earthquakes, embargoes, strikes, epidemics, pandemics, war, acts of terrorism, nuclear disasters, riots, civil disorders, rebellions or revolutions in any country, failure of a third party telecommunications provider, Internet provider or utility or other similar events, to the extent that such events (i) were not caused due to the intentional acts or omissions, negligence or malfeasance of the affected Party or (ii) cannot reasonably be circumvented by the affected Party through the use of commercially reasonable alternate sources, work-around plans or other means of equal or lesser cost to the affected Party) (each, a "Force Majeure Event"), then, the affected Party shall not be responsible for the failure or delay caused by such Force Majeure Event, and the time for performance shall be extended for a period equal to the duration of the Force Majeure Event. Upon the occurrence of a Force Majeure Event, the affected Party shall notify the other Party in writing thereof as promptly as reasonably practicable and provide an estimate of the expected delay in performance due to such Force Majeure Event. The affected Party shall use commercially reasonable efforts to minimize the impact of any Force Majeure Event on its performance.

SECTION 11.02. Expenses. Except as otherwise specified in this Agreement, all costs and expenses, including all taxes, fees instituted by a Governmental Authority or fees and disbursements of counsel, financial advisors and accountants, incurred in connection with this Agreement and the transactions contemplated by this Agreement shall be borne by the Party incurring such costs and expenses.

SECTION 11.03. Relationship of the Parties. Each Party is an independent contractor relative to the other Party under this Agreement. This Agreement is not a partnership agreement, and, except as set forth in Section 4.03(a), nothing in this Agreement shall be construed to establish a relationship of co-partners or joint venturers between the Parties. No employee or representative of a Party, per this Agreement, shall have any authority to bind or obligate the other Party or to create or impose any contractual or other liability on the other Party.

SECTION 11.04. No Assignment. Without the prior written consent of the other Party, neither Party may sell, transfer, assign, delegate, pledge or otherwise dispose of, whether voluntarily, involuntarily, by operation of law or otherwise, this Agreement or any of its rights or duties hereunder (except that Nenter is entitled to sell or transfer the warrant shares under this Agreement). Any assignment or delegation or attempted assignment or delegation not in accordance with this Section 11.04 shall be null and void. This Agreement shall be binding upon and inure solely to the benefit of the Parties and their permitted successors and assigns.

SECTION 11.05. Third Party Beneficiaries. All rights, benefits, and remedies under this Agreement are solely intended for the benefit of the Parties and their respective permitted successors and assigns. No third party shall have any rights whatsoever to enforce any obligation contained this Agreement, seek a benefit or remedy for any breach, or take any other action relating to this Agreement under any legal or equitable theory.

SECTION 11.06. Entire Agreement. This Agreement represents the entire agreement between the Parties regarding the subject matter hereof and supersedes all previous communications, representations, understandings and agreements, whether oral or written, by or between the Parties with respect to the subject matter of this Agreement.

SECTION 11.07. Amendments. This Agreement may be amended or waived if, and only if, such amendment or waiver is in writing and signed, in the case of an amendment, by both Parties or, in the case of a waiver, by the Party against whom the waiver is to be effective. No failure or delay by either Party in exercising any right, power or privilege hereunder (other than a failure or delay beyond a period of time specified herein) shall operate as a waiver thereof, nor shall any waiver by a Party of any term or condition of this Agreement in any one (1) or more instances, be deemed to be or construed as a waiver of the same or any other term or condition of this Agreement on any future occasion.

SECTION 11.08. Severability. If any provision of this Agreement should be held invalid, illegal or unenforceable in any jurisdiction, the Parties shall negotiate in good faith a valid, legal and enforceable substitute provision that most nearly reflects the original intent of the Parties and all other provisions hereof shall remain in full force and effect in such jurisdiction and shall be liberally construed in order to carry out the intentions of the Parties as nearly as may be possible. Such invalidity, illegality or unenforceability shall not affect the validity, legality or enforceability of such provision in any other jurisdiction. Nothing in this Agreement shall be interpreted so as to require a Party to violate any applicable Laws.

SECTION 11.09. Use of Amyris' Name by Nenter. Amyris hereby grants Nenter an authorization to use the name and related Trademarks of Amyris for the purpose of marketing

and promoting [*] Products hereunder; provided that (a) Amyris must give Nenter prior consent to each such use in advance in writing, (b) Nenter shall at all times represent in each such use that such name and related Trademarks are owned by Amyris when in use and (c) any and all goodwill, rights or interests that might be acquired by such use shall inure to the sole benefit of Amyris.

SECTION 11.10. Governing Law and Settlement of Disputes.

(a) This Agreement will be governed by and construed in accordance with the laws of the State of Delaware, excluding any conflicts or choice of law rule or principle that might otherwise refer construction or interpretation of this Agreement to the substantive law of another jurisdiction.

(b) Subject to Section 2.04, Any dispute, controversy or claim arising out of or relating to this Agreement, including any contractual, pre-contractual or non-contractual rights, obligations or liabilities and any question regarding the existence, validity, interpretation, breach of termination or invalidity hereof, shall be resolved through arbitration conducted at and in accordance with the rules and procedures of arbitration of the Hong Kong International Arbitration Center, as may be modified as agreed to by the Parties in writing. The arbitration shall be heard by three (3) arbitrators. Each Party shall nominate one (1) arbitrator within five (5) Business Days after the dispute is submitted to arbitration and the two (2) Party-nominated arbitrators shall select the third arbitrator within five (5) days following the nomination of the second Party-nominated arbitrator. If either Party fails to nominate an arbitrator or the two (2) Party-nominated arbitrators fail to select a third arbitrator, in each case, the arbitrator(s) shall be selected by the Hong Kong International Arbitration Center. Following selection of the arbitral tribunal, upon the request of the Parties, the arbitral tribunal shall hear the Parties' presentations within thirty (30) days of such request. The arbitration proceedings shall be concluded within thirty (30) days after commencement of such proceedings. Within ten (10) Business Days of the conclusion of the arbitration proceedings, the arbitral tribunal shall present to the Parties a written decision regarding the dispute, which shall set forth the findings of fact and conclusions of law relied upon in reaching the decision. The place of arbitration shall be Hong Kong. The language of the arbitration shall be English. Subject to Section 11.10(a), the arbitral tribunal shall have the authority to determine questions and challenges to its own jurisdiction, including questions regarding the validity and scope of this Agreement. The decision of the arbitral tribunal shall be final and binding on the Parties and either Party may enter the decision of the arbitral tribunal for judgment in a court of competent jurisdiction. The existence of any arbitration commenced pursuant to this Section 11.10(b) shall be treated as Confidential Information of each Party for purposes of this Agreement and subject to the terms of Section 9.

SECTION 11.11. Notices. All notices, consents, claims, waivers, requests and other communications hereunder shall be in writing and shall be delivered by email to the following address of each Party:

if to Nenter:

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions

Nenter & Co., Inc.
197 Oriental Road, High Tech Development Zone
Jingzhou, Hubei Province, 434000
Attention: Chairman of the Board of Directors
Attention: Chief Engineer

if to Amyris:

Amyris, Inc.
5885 Hollis Street, Ste. 100
Emeryville, CA 94608
Attention: CEO
Attention: General Counsel

Any such notices, consents, claims, waivers, requests and other communications sent by email shall be deemed to be delivered twenty-four (24) hours after such email is sent.

SECTION 11.12. Interpretation. This Agreement is written and executed in, and all amendments or other communications under or in connection with this Agreement shall be in, the English language. When a reference is made in this Agreement to Articles, Sections, Schedules or Exhibits, such reference shall be to an Article, Section, Schedule or Exhibit to this Agreement unless otherwise indicated. The words "include," "includes," and "including" when used herein shall be deemed in each case to be followed by the words "without limitation" and shall not be construed to limit any general statement that it follows to the specific or similar items or matters immediately following it. The headings and captions in this Agreement are for convenience and reference purposes only and shall not be considered a part of or affect the construction or interpretation of any provision of this Agreement. Words of any gender include the other gender, and words using the singular or plural number also include the plural or singular number, respectively. All references to "dollars" shall be deemed references to United States dollars. Each Party acknowledges and agrees it has had the opportunity to draft, review and edit the language of this Agreement and that no presumption for or against any Party arising out of drafting all or any part of this Agreement will be applied in any controversy, claim or dispute relating to, in connection with or involving this Agreement. Accordingly, the Parties hereby waive the benefit of any rule of Applicable Law and any successor or amended statute, or any legal decision that would require that in cases of uncertainty, the language of a contract should be interpreted most strongly against the Party that drafted such language.

SECTION 11.13. Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. This Agreement may be executed by facsimile or other electronic signatures (including exchange of emailed .pdf files), and such signatures shall be deemed to bind each Party as if they were original signatures.

[*REMAINDER OF PAGE INTENTIONALLY LEFT BLANK; SIGNATURES FOLLOW*]

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by persons duly authorized.

NENTER & CO., INC.

Signature: /s/ Lie Quan Chen

Name: Lie Quan Chen

Title: Chairman of the Board

Signature Date: October 26, 2016

AMYRIS, INC.

Signature: /s/ Raffi Asadorian

Name: Raffi Asadorian

Title: Chief Financial Officer

Signature Date: October 24, 2016

Schedule A to Cooperation Agreement

EXHIBIT A

Form of Warrant

[See attached.]

Exhibit 10.98

CONFIDENTIAL TREATMENT REQUESTED. CERTAIN PORTIONS OF THIS DOCUMENT HAVE BEEN OMITTED PURSUANT TO A REQUEST FOR CONFIDENTIAL TREATMENT AND, WHERE APPLICABLE, HAVE BEEN MARKED WITH AN ASTERISK TO DENOTE WHERE OMISSIONS HAVE BEEN MADE. THE CONFIDENTIAL MATERIAL HAS BEEN FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION.

JOINT VENTURE AGREEMENT

THIS JOINT VENTURE AGREEMENT (this "Agreement") is made and entered into as of December 6, 2016 (the "Effective Date"), by and between (i) Amyris, Inc., a Delaware corporation having its principal place of business at 5885 Hollis Street, Suite 100, Emeryville, California 94608, USA ("Amyris"), and (ii) Nikko Chemicals Co., Ltd., a Japanese corporation having its principal place of business at 1-4-8, Nihonbashi-Bakurocho, Chuo-ku, Tokyo 103-0002, Japan ("Nikko Chemicals") and Nippon Surfactant Industries Co., Ltd., a Japanese corporation having its principal place of business at 7-14 Hiraidekogyodanchi, Utsunomiya, Tochigi 321-0905 ("Nissa" and, together with Nikko Chemicals, "Nikko"). Amyris and Nikko are sometimes referred to herein collectively as the "Parties" and each individually as a "Party." In case of Nikko, the Party's rights and obligations are allocated to Nikko Chemicals and Nissa on an 80%/20% basis unless otherwise expressly stated.

WHEREAS, Amyris is a technology company which is focused on the research, development, production and commercialization of a variety of renewable chemical products;

WHEREAS, Nikko Chemicals is a specialty chemical company which is focused on the manufacture and distribution of ingredients for cosmetic and other applications;

WHEREAS, Nissa is a specialty chemical company which is focused on the manufacture and distribution of ingredients for cosmetic and other applications; and

WHEREAS, Amyris desires to form a Delaware limited liability company (the "Company"), make an in-kind contribution (including assets from Glycotech and Salisbury) to such company and sell fifty percent (50%) of the membership units in such company to Nikko so that the Company will become a joint venture company engaging in the manufacture, marketing, sale, distribution and other disposition of (i) squalane, (ii) hemisqualane, and (iii) other products developed or to be developed through R&D activities involving Amyris (collectively, "Products") under this Agreement and the First Amended and Restated LLC Operating Agreement of Neossance, LLC dated as of the Effective Date ("LLC Operating Agreement").

NOW, THEREFORE, in consideration of the agreements and obligations set forth herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby agree as follows:

SECTION 1. FORMATION OF LLC

1 . Formation and Contribution. On or prior to the Closing (as hereinafter defined), Amyris shall form or shall have formed the Company as a limited liability company under the law of the State of Delaware, USA and shall contribute or shall have contributed the Neossance Business (as hereinafter defined), free and clear of any Encumbrances, to the Company in exchange for 100 membership units of the Company ("Shares"). Documents showing the formation is attached hereto as Annex 1.1 and documents showing the contribution shall be delivered on or prior to the Closing.

2. Neossance Business. For the purpose of this Agreement, the Neossance Business shall mean manufacturing, marketing, sale, distribution and other disposition of the Products as conducted by Amyris, as of the date hereof or prior to the contribution described in Section 1.1, (A) in any field, in the case of squalane; (B) in any field that is not excluded based on an agreement currently valid by and between Amyris and a third party, in the case of hemisqualane; and (C) in the field of cosmetics (which for the avoidance of doubt excludes those (i) solely related to any market(s) or industry(ies) other than cosmetics or (ii) subject to certain [*] and such other fields as agreed by the Parties, in the case of all other Products (collectively, the "Field") and in bulk to incorporate into other products for sale to consumers, as well as any and all properties, assets, inventory and rights necessary for and used in relation to the foregoing (collectively, "Assets"), and shall include the following:

(a) Glycotech / Salisbury Assets:

(i) any and all right, title and interest in and to the real property located at 2271 Andrew Jackson Highway, Leland, Brunswick County, North Carolina (the "Real Property"), as well as furniture, fixtures, equipment, inventory, raw materials, supplies and other tangible assets located at or used or owned by Glycotech, Inc. ("Glycotech") and/or Salisbury Partners, LLC ("Salisbury") in connection with the manufacturing facility at the Real Property;

(ii) any and all right, title and interest in and to the processes, procedures, instructions, formulations, techniques and similar matters related to the development, production or other activities under the Production Services Agreement dated February 1, 2011 between Glycotech and Amyris (attached hereto as Annex 1.2(a)(ii), "PSA"), and any and all intellectual property relating exclusively thereto (including those invented by employees and contractors of Glycotech/Salisbury and owned by Glycotech/Salisbury), including all inventions, trade secrets, know-how and copyrights (including key patents listed on Annex 1.2(a)(ii)(B)); and

(iii) any and all rights under the Environmental Indemnification Agreement dated November 7, 2008 between C.T. Specialty Properties, L.L.C. and the Access and Indemnity Agreement dated February 26, 2009 between Salisbury and Akzo Nobel SPG LLC and Akzo Nobel's agreement with Amyris relating thereto (collectively, the "Akzo Nobel Agreements"); and

(b) Amyris Assets:

(i) any and all of right, title and interest of Amyris in, to and under the following assets:

(A) all relationships with all existing and prospective customers of Products in the Field;

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

(B) all municipal, state, federal and foreign permits, licenses, registrations, filings, and authorizations held or used by Amyris in connection with any business activities involving the Products in the Field;

(C) all promotional materials, sales literature, advertising, brochures, user manuals, graphics and artwork to the extent they relate to Products in the Field;

(D) all books, records, files, documents, data, information and correspondence (or portions thereof) held or used by Amyris to the extent they relate to the Products in the Field; and

(E) the goodwill of Amyris to the extent they relate to the Products in the Field.

(ii) any and all rights of Amyris under distribution agreements and other agreements involving Amyris (material agreements being listed on Exhibit A);

(iii) a royalty-free, perpetual and sublicensable license to use, make, have made, sell, offer for sale, import and otherwise dispose of Products for their respective permitted Fields as defined in Section 1.2 of this Agreement under any know-how, patents, trademarks and other intellectual property rights, currently or in the future, owned by or licensed to Amyris regarding the Products (including key patents listed on Exhibit B-1 and key trademarks listed on Exhibit C), which license is exclusive to the extent license rights to such intellectual property have not been granted to a third party (for the avoidance of doubt no license rights to intellectual property listed on Exhibits B-1 and C have been granted to any third party); and

(iv) all copyrights (whether registered or unregistered) involving the Products (e.g., advertising and marketing materials in all media (web, sound, print), product packaging, product labeling, instructions for use and product inserts).

3 . No Liabilities. Notwithstanding the foregoing, the Company shall not assume or have any responsibility or liability for, and Amyris shall retain, be responsible and liable for, and perform and discharge any liability and obligation:

(a) arising out of or relating to the ownership or operation of the Assets (including Glycotech/Salisbury Assets, the Amyris Assets, and the Real Property) and the Neossance Business (including without limitation any liability for environmental issues involving the Real Property) prior to the Closing;

(b) arising or existing prior to the Closing under any contract or agreement relating to the Assets and the Neossance Business (including any obligations to pay for purchase of products/services that are agreed prior to the Closing);

(c) arising out of the failure of Amyris, Salisbury or Glycotech and their Affiliates to comply with any Applicable Law prior to the Closing; and

(d) based upon any acts or omissions by Amyris, Salisbury or Glycotech prior to the Closing.

4 . Shared Assets. If Amyris needs to utilize any Assets, the Parties shall discuss and determine the terms and conditions on which Amyris may use such Assets.

5. License Grants.

(a) Amyris hereby grants to the Company a royalty-free, non-sublicensable license under the intellectual property rights owned by Amyris necessary to use, make, have made, sell, offer for sale, import Products for their respective permitted Fields as defined in Section 1.2 of this Agreement (including key patents listed on Exhibit B-2), and for no other purpose, which license is non-exclusive to the extent license rights to such intellectual property have been granted to a third party.

(b) Amyris hereby grants to the Company and Nikko (i) a non-exclusive, royalty-free, non-sublicensable license under the intellectual property rights owned by Amyris related to the production of farnesene by or for the Company, solely to use, make, have made, sell, offer for sale and/or import Products and (ii) a non-exclusive, royalty-free, non-sublicensable license to use and make know-how and materials to generate strains and strains themselves (collectively, "Strain Materials") for the production of farnesense, each only the occurrence of any of the following events ("Triggering Events"): (A) a valid termination by Nikko of the supply agreement described in Section 5.1 hereof ("Supply Agreement") following a material breach of or default under such supply agreement by Amyris that remains uncured following any applicable cure period or (B) any other situation where Amyris becomes unable to supply farnesene to the Company in case that such Supply Agreement is not executed.

(c) Amyris shall commence the placement of Strain Materials in escrow with a third party mutually acceptable to the Parties immediately after the Closing and shall complete such arrangement within forty five (45) days of the Closing, so that the Company and Nikko shall receive such Strain Materials upon the occurrence of any of the Triggering Events.

6. Loan. In order for Amyris to transfer the Real Property to the Company, free and clear of any encumbrances, Amyris hereby acknowledges that it needs to pay $3,900,000 ("Payment Amount") to Salisbury, as evidenced by a pay-off letter (the "Pay-Off Letter") issued by Glycotech/Salisbury (which shall include, among others, a commitment to terminate the UCC financing statement filed by the First Western Bank & Trust (DBA All Lines Leasing) and reconvey or otherwise terminate any encumbrances in favor of Glycotech/Salisbury with respect to Glycotech/Salisbury Assets).

To ensure such payment described above, Nikko Chemicals shall loan an amount equal to the Payment Amount to Amyris and pay such Payment Amount, on behalf of Amyris, to Salisbury (or as otherwise mutually agreed by the Parties), provided that (i) Nikko Chemicals receives the Pay-Off Letter executed by Glycotech/Salisbury; (ii) Amyris grants to Nikko Chemicals a first-priority security interest in and to 10% of the Shares; (iii) a UCC financing statement is filed to secure Nikko Chemicals' security interest in and to 10% of the Shares; (iv) Payment Amount is evidenced by a purchase money promissory note (the "Purchase Money Note").

The Purchase Money Note shall bear interest at the rate of five percent (5%) per annum, with a term of thirteen (13) years, and payable in level monthly payments of principal and interest in an amount of $30,557.09, with the first such monthly payment to be due on the first day of the month following the month in which the Closing occurs, and continuing on the first day of each successive month thereafter. Further, Amyris shall pay $400,000 in equal monthly installments of $100,000 on January 1, 2017, February 1, 2017, March 1, 2017 and April 1, 2017.

In addition to the repayment described in the immediately preceding paragraph, Amyris shall, commencing with the distributions from the Company relating to the fourth fiscal year of the Company and continuing for each fiscal year thereafter until the Purchase Money Note is fully paid off, pay Nikko Chemicals an amount equal to the profits distributed to it by the Company in order to accelerate its repayment to Nikko Chemicals. The Purchase Money Note shall provide for a late fee of 5% for any payments delinquent more than five (5) days.

To secure prompt payment in full when due (whether at stated maturity, by acceleration or otherwise) and performance of Amyris' obligations under the Purchase Money Note, Amyris hereby pledges and grants to Nikko Chemicals a first-priority security interest in and to all of Amyris' right, title and interest in, to and under ten (10) percent of the Shares (i.e., membership interests of the Company) (the "Pledged Shares"). Amyris hereby agrees that it will not sell, assign, encumber or otherwise transfer or dispose of such Shares, except as expressly permitted by the LLC Operating Agreement. Amyris irrevocably appoints Nikko Chemicals as its true and lawful attorney-in-fact of Amyris to make, execute and file UCC financing statement to secure Nikko's security interest in and to 10% of the Shares described above.

In the event of default by Amyris under the Purchase Money Note, the Pledged Shares will be transferred to Nikko Chemicals so that Nikko Chemicals' shareholding percentage will increase by ten (10) percent, regardless of the amount repaid by Amyris under the Purchase Money Note on or prior to such default.

7 . Sales Commission. For the avoidance of doubt, it is hereby confirmed that, regardless of the consummation of the transaction contemplated hereby, Amyris will continue paying Nikko Chemicals the sales commission under the Sales Commission Agreement dated April 1, 2016 by and between Amyris and Nikko Chemicals.

SECTION 2. PURCHASE AND SALE OF SHARES

1 . Transfer of Shares. Subject to the terms and conditions set forth herein, at the Closing (as hereinafter defined), Nikko shall purchase and acquire from Amyris, and Amyris shall sell, assign, convey, transfer and deliver to Nikko, fifty (50) Shares (i.e., 40 Shares for Nikko Chemicals and 10 Shares for Nissa), which Shares (a) shall be fully paid and non-assessable, (b) shall, on a fully diluted basis, represent 50% of the issued and outstanding shares of the Company, (c) shall be free and clear of any and all Encumbrances, and (d) shall include all rights attaching to the Shares (including voting rights and the right to receive all profits and distributions declared, made or paid on or after the date hereof).

2 . Purchase Price. In acquiring the 50% of the Shares in Section 2.1 (40% by Nikko Chemicals and 10% by Nissa), Nikko shall pay Amyris the following purchase price (the "Purchase Price"):

(a) an initial purchase price equal to ten million dollars (US$10,000,000) payable within three Business Days after the Closing (the "Initial Purchase Price"); and

(b) an earnout equal to the profits distributed to Nikko in cash as a Member of the Company until the earlier of: (a) three years from the date hereof (even if Amyris receives less than ten million dollars) and (b) such time as Amyris has received a total of ten million dollars (US$10,000,000) (even if such time is less than three years from the date hereof) (the "Earnout").

Nikko shall pay Amyris each earnout in an amount equal to the profits distributed to it by the Company (at the rate of 40% by Nikko Chemicals and 10% by Nissa) and such payment shall be made within one week of such receipt of such profits.

In the event that any of the Neossance Business contributed to the Company is subject to any Encumbrances, the Initial Purchase Price and the Earnout shall be used to remove such Encumbrances so that the Neossance Business shall become free and clear of any Encumbrances.

3 . Tax Treatment. For U.S. federal income and other applicable Tax purposes, the Parties agree to treat the purchase of the Shares by Nikko in a manner consistent with Revenue Ruling 99-5, Situation #2. As a result, the Parties agree to treat Nikko as purchasing a 50% interest in each of the Assets of the Company (which are treated as held directly by Amyris for U.S. federal income Tax purposes), followed immediately by a contribution by Nikko and Amyris of their respective interests in such Assets to the Company.

4 . Purchase Price Allocation. No later than forty five (45) days after the Closing, Nikko shall prepare and deliver to Amyris an allocation (the "Purchase Price Allocation") of the purchase price (as determined for U.S. federal income Tax purposes) and any other amounts treated as consideration for U.S. federal income Tax purposes among the Assets consistent with Section 1060 of the Code and the Treasury Regulations promulgated thereunder (and any similar provision of state, local or foreign Tax law, as appropriate). Nikko, Amyris and their Affiliates shall file all Tax Returns (including, but not limited to, IRS Form 8594) in all respects and for all purposes consistent with such Purchase Price Allocation. Amyris shall timely and properly prepare, execute, file and deliver all such documentation, forms and other information as Nikko shall reasonably request to prepare the Purchase Price Allocation. Neither Nikko, Amyris nor their Affiliates shall take any position (whether on any Tax Returns, in any Tax Proceeding, or otherwise) that is inconsistent with the Purchase Price Allocation, unless required to do so by applicable law. If the amount of the Purchase Price or any other amounts treated as consideration for U.S. federal income Tax purposes is adjusted pursuant to the terms of this Agreement, then the Purchase Price Allocation shall be amended by Nikko to reflect such adjustment and Nikko shall deliver a copy of such amended Purchase Price Allocation to Amyris, which amended Purchase Price Allocation shall be binding on Nikko, Amyris and their Affiliates in accordance with the provisions contained in this Section 2.4. For the purpose of this Section, "Tax Proceeding" means any Tax audit, assessment, examination, litigation, dispute, review, information request, proposed deficiency or adjustment, or administrative or court proceedings of any kind relating to Taxes.

5. Withholding. Nikko shall be entitled to deduct and withholding, or cause to be deducted and withheld, from any amounts payable pursuant to this Agreement such amounts as it determines are required to be deducted or withheld therefrom under any provision of U.S. federal, state, local or foreign Tax law or under any other applicable legal requirement. To the extent such amounts are so deducted and withheld and paid over to the appropriate Governmental Authority, such amounts will be treated for all purposes of this Agreement as having been paid to the Person in respect of which such deduction and withholding was made.

SECTION 3. CLOSING

1. Closing. Subject to the terms and conditions set forth herein, the closing of the transactions contemplated hereby (the "Closing") shall occur at such place and at such time, if any, as agreed to by the Parties.

2. Closing Deliveries.

(a) On or prior to the Closing, Amyris shall deliver, or cause to be delivered, to Nikko a certificate of Amyris' Secretary or other duly authorized officer, in a form reasonably acceptable to Nikko, certifying that (A) attached are true and correct copies of the resolutions of Amyris authorizing the execution, delivery and performance of this Agreement and the other documents to which it is a party contemplated hereby and thereby and the consummation of the transactions contemplated by this Agreement, (B) all such resolutions are in full force and effect and have not been repealed or contravened, (C) such resolutions constitute all the resolutions adopted in connection with the transactions contemplated by this Agreement and (D) all of its representations and warranties set forth herein are true and correct. Further, on or prior to the Closing, Amyris shall provide (i) written consents to consummate the transaction contemplated hereby, which are issued by all of the financial institution(s) and other Persons lending money to or providing guarantees for Amyris (and whose consent is required for such consummation), (ii) written consent from Akzo Nobel SPG LLC confirming that the Company is entitled to exercise any and all rights under the Akzo Nobel Agreements or other documentation relating to the Akzo Nobel Agreements reasonably satisfactory to Nikko, (iii) a statement pursuant to Treasury Regulation Section 1.1445-2(b), in a form reasonably satisfactory to Nikko, providing that Amyris is not a "foreign person" for purposes of Section 1445 of the Code, (iv) a list of Amyris' debt-holders; (v) warranty deed conveying the Real Property to the Company together with any necessary sewer, utility and access easements; (vi) a bill of sale and assignment from Amyris conveying to the Company the Assets; (vii) a statement of termination of the UCC financing statement filed for the First Western Bank & Trust (DBA All Lines Leasing); and (viii) financial statements of Glycotech/Salisbury. In relation to Section 3.2.(a)(i), Amyris hereby confirms that it will deliver a letter of waiver and release issued by Stegodon Corporation concerning the transactions contemplated by this Agreement and that no other consent is required to consummate such transactions in accordance with the terms of this Agreement.

(b) On or prior to the Closing, each of Nikko Chemicals and Nissa shall deliver, or cause to be delivered, to Amyris a certificate of Nikko Chemicals' or Nissa's Secretary, as applicable, or other duly authorized officer, in a form reasonably acceptable to Amyris, certifying that (A) attached are true and correct copies of the resolutions of Nikko Chemicals or Nissa, as applicable, authorizing the execution, delivery and performance of this Agreement, the other documents and the other documents to which it is a party contemplated hereby and thereby and the consummation of the transactions contemplated by this Agreement, (B) all such resolutions are in full force and effect and have not been repealed or contravened, (C) such resolutions constitute all the resolutions adopted in connection with the transactions contemplated by this Agreement and (D) all of its representations and warranties set forth herein are true and correct. Further, at the Closing, Nikko shall remit the Initial Purchase Price in accordance with Section 2.2.

3. Transfer Taxes. Any Transfer Taxes shall be borne by Amyris. The Party required by applicable law to file any Tax Return with respect to such Transfer Taxes will do so within the time period prescribed by applicable law and will pay all Transfer Taxes required to be paid in connection therewith; provided, however, that Amyris will promptly reimburse Nikko for any Transfer Taxes so paid by Nikko. To the extent that Amyris is required to file any Tax Return pursuant to the preceding sentence, Amyris shall provide Nikko with evidence satisfactory to Nikko that any Transfer Taxes required to be paid in connection therewith have been timely paid to the applicable Governmental Authority.

SECTION 4. REPRESENTATIONS AND WARRANTIES

1. As an inducement to Nikko to enter into this Agreement, Amyris hereby makes the representations and warranties concerning Amyris as set forth in Exhibit D and those concerning the Company as set forth in Exhibit E. As an inducement to Amyris to enter into this Agreement, each of Nikko Chemicals and Nissa hereby makes the representations and warranties set forth in Exhibit F. The representations and warranties contained in this Agreement shall survive until the expiration of the applicable statute of limitations with respect thereto.

2. Each Party shall indemnify, save and hold the other Party, its Affiliates and each of their respective directors, officers, employees, stockholders, successors, transferees and assignees, and other representative (collectively, "Representatives") of such Person harmless from and against any and all losses, liabilities and costs (including without limitation attorney's fees) arising out of or in connection with (i) any breach or inaccuracy with respect to any representations or warranties set forth in this Agreement, or (ii) any non-compliance with any of the covenants, agreements or obligations set forth in this Agreement.

3. All indemnification payments made under this Agreement shall be treated for Tax purpose by the Parties as an adjustment to the purchase price, unless otherwise required by applicable law.

SECTION 5. POST-CLOSING ACTIONS

1. Supply Agreement. Amyris shall execute, and shall cause Amyris Brasil Ltda. ("Amyris Brasil") to execute, with the Company an agreement to supply farnesene to the Company. Further, as soon as possible after the Closing, Amyris shall secure another route (i.e., CJ BIO) to supply farnesene to the Company at the same price level as Amyris. At a reasonable time, Nikko shall have the right to inspect Amyris and Amyris Brasil to verify that Amyris supplies farnesene to the Company through Amyris Brasil with no or nominal profit.

2 . Service Agreements. Each Party may enter into agreements with the Company in which such Party shall provide its administration, financial or other services to the Company from time to time; provided, however, the effectiveness of such agreements shall be subject to an approval at the Company's board of directors (the "Board").

3 . Contract Manufacturing Agreements. Each Party may enter into agreements with the Company in which the Company shall manufacture such products as designated by such Party from time to time; provided, however, that such manufacturing activities shall not negatively affect the Company's business activities with respect to the Products (in particular, squalane and hemisqualane) and that the effectiveness of such agreements shall be subject to an approval at the Board.

4 . Space Leasing Agreements. Each Party may enter into agreements with the Company in which the Company leases available space to such Party from time to time; provided, however, that such lease shall not negatively affect the Company's business activities with respect to the Products (in particular, squalane and hemisqualane) and that the effectiveness of such agreements shall be subject to an approval at the Board.

5 . Manufacture of Products. Amyris shall guarantee that the Company manufactures squalane at a Fully Burdened Cost of no more than [*] and hemisqualane at a Fully Burdened Cost of no more than [*]. Any amount exceeding such agreed price(s) shall be borne and paid by Amyris.

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

6. Distribution. Amyris and its Affiliates shall conduct all of its business related to the Products in the Field and in bulk through the Company. Amyris and its Affiliates shall purchase all of its requirements of the Products (whether the Products are in the Field, in bulk or otherwise) from the Company.

7. Customers. Amyris shall transfer to the Company any and all of its and its Affiliates' actual and potential customers for the Products. All of the contracts executed by and between Amyris and its customers and currently effective are listed on Exhibit A.

8. Access to R&D. Each Party shall make available to the Company under commercially reasonable terms its research and development expertise regarding the Products; provided, however, that any costs for labor and materials shall be borne by the Company. Whether and under what additional terms and provisions the Company shall seek to utilize such research and development expertise of either or both Parties shall be subject to determination by the Board from time to time in its discretion.

9. Third Party Product. If Amyris engages in research and development activities with its business partner or any other Person and if such Person does not have exclusivity as to the product developed through such activities, then the Company shall have the right to sell, distribute or otherwise deal with such product in the Field.

10. Working Capital. Promptly after the Closing, Amyris will loan $500,000, and Nikko will loan $1,500,000 (i.e., $1,200,000 by Nikko Chemicals and $300,000 by Nissa), to the Company for its working capital. If the Company is unable to repay the loan to a Party as due, then such Party shall be entitled to convert the loan into Shares under the LLC Operating Agreement.

11. Non-Competition. Neither Party nor any of its Affiliates shall, directly or indirectly, engage in the Neossance Business in the Field and/or in Bulk (excluding any business already existing as of the Effectively Date and that is not transferred to the Company) or shall participate in or receive any benefit from any such business without prior written consent of the other Party.

12. Buy-Out. In the event of (i) an acquisition, merger, sale of assets or other similar reorganization, or (ii) a dissolution, backruptcy, insolvency, demerger, divestment or other similar event of one Party, the other Party shall have the first right to purchase all of the Shares owned by the Party experiencing such event. The purchase price for the Shares shall be as follows: in the case of an event described in clause (i) the purchase price shall be equal to the then current fair market value of the Shares to be purchased, or in the case of an event described in clause (ii), the purchase price shall be equal to the then current fair market value or book value of the Shares to be purchased, whichever is lower. For purposes of this Section 5.12, fair market value shall be determined by a firm mutually agreed upon by the Parties with expertise in valuations.

13. Assignment of Assets. To the extent that any Assets held by Amyris, Glycotech or Salisbury are discovered to constitute the Neossance Business, Amyris shall cooperate with Nikko and shall execute and deliver any instruments of transfer or assignment reasonably necessary to transfer and assign such Assets to the Company.

14. Further Assurances. Each Party agrees to execute such documents, instruments or conveyances and take such actions as may be reasonably requested by the other Party and otherwise cooperate in a reasonable manner with the other Party, its Affiliates and their respective Representatives in connection with any action that may be necessary, proper or advisable to carry out the provisions hereof or transactions contemplated hereby.

SECTION 6. MISCELLANEOUS

1 . Confidentiality. Each Party shall keep the existence and terms of this Agreement, as well as any information of the other Party made available under this Agreement, strictly confidential; provided, however, that this provision shall not apply to: (a) any disclosure to the Parties' counsels and other professional advisors; (b) any disclosure in the event of legal proceedings initiated among the Parties; (c) any disclosure to the directors, officers or employees of the concerned Party or its Affiliate on a need-to-know basis; (d) any disclosure required by Applicable Law, by any relevant regulatory authority (including in any Tax Returns) or by the rules of any recognized stock exchange; (e) any disclosure of information where such information has entered the public domain or been received by the concerned Party otherwise than through breach of this Agreement; and (f) any disclosure reasonably required to be made in order to enforce any provision of this Agreement.

2 . Notice. All notices under this Agreement shall be sent by registered mail or nationally recognized overnight courier, in each case, with confirmation of receipt, and shall be deemed to have been sent on the date of receipt or on the date of mailing if preceded by transmission of the text of such notice by facsimile (with confirmation of transmission) to the number or by e-mail to the e-mail address given by each Party in writing.

3 . Press Release. At or promptly after the execution of this Agreement, each Party may issue a press release concerning the transaction(s) contemplated by this Agreement.

4 . Costs and Expenses. Except as otherwise specifically provided for in this Agreement, each Party will bear its own expenses, costs, and fees (including without limitation legal fees) incurred in connection with the transactions contemplated hereby, including the preparation, negotiation and execution of this Agreement and other documents contemplated hereby and compliance with their terms and conditions. Except as set forth in Section 3.3, all documentary transfer or transaction duties and any other transfer taxes (along with any interests or penalties related thereto), arising as a result of the sale and purchase of the Shares shall be equally borne by the Parties.

5 . Governing Law. This Agreement shall be construed and interpreted in accordance with and governed by the Laws of the State of Delaware (without regard to the choice of law provisions thereof). Any and all disputes arising out of or in connection with this Agreement shall be finally and exclusively settled under the Rules of Arbitration of the International Chamber of Commerce by three arbitrators appointed in accordance with the said Rules. The place of arbitration shall be Tokyo, Japan, in the event of an arbitration proceeding initiated by Amyris, or San Francisco, California, United States, in the event of an arbitration initiated by Nikko, and judgment on the award rendered by the arbitrators may be entered in any court having jurisdiction thereof.

6 . Parties Bound; No Third Party Beneficiaries. This Agreement shall inure to the benefit of and shall be binding upon the Parties and their respective heirs, successors and assigns. No provision of this Agreement is intended to or shall be construed to grant or confer any right to enforce this Agreement or any remedy for breach of this Agreement to or upon any Person other than the Parties.

7. Amendment. No change or modification to this Agreement shall be valid unless the same is approved by the Parties in writing.

8. Assignment. Neither Party may assign, by operation of Law or otherwise, either this Agreement or any of its rights, interests, or obligations hereunder without the express prior written consent of the other Party. Notwithstanding the foregoing, Nikko may, without Amyris' or the Company's consent, assign this Agreement and any of its rights, interests and obligations hereunder (including any relevant portion of the Shares) to Nissa.

9. Severability. If any provision of this Agreement or the application thereof to any Person or circumstance shall, for any reason and to any extent, be invalid or unenforceable, the remainder of this Agreement and the application of such provision to other Persons or circumstances shall not be affected thereby but rather shall be enforced to the greatest extent permitted by Applicable Law.

10. No Waiver. No waiver of any term or condition of this Agreement shall be valid or binding on a Party unless the same shall have been set forth in a written document, specifically referring to this Agreement and duly signed by the waiving Party.

11. Headings and Captions. The headings and captions contained in this Agreement are inserted only as a matter of convenience and in no way define, limit or extend the scope or intent of this Agreement or any provisions hereof.

12. Counterparts. This Agreement may be executed in one or more counterparts, with the same effect as if the Parties had signed the same document. Each counterpart so executed shall be deemed to be an original, and all such counterparts shall be construed together and shall constitute one agreement.

[Signature Page Follows]

IN WITNESS WHEREOF, the Parties have executed and delivered this Agreement as of the date first above written.

NIKKO CHEMICALS CO., LTD.

By: /s/ Shizuo Ukaji
Name: Shizuo Ukaji
Title: President & Chief Executive Officer

NIPPON SURFACTANT INDUSTRIES CO., LTD.,

By: /s/ Shogo Sekine
Name: Shogo Sekine
Title: President

AMYRIS, INC.

By: /s/ John Melo
Name: John Melo
Title: President & Chief Executive Officer

[*Signature Page to Joint Venture Agreement*]

EXHIBIT A

AMYRIS ASSIGNED CONTRACTS

[*]

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

EXHIBIT B-1

PATENTS

Amyris Ref	Title	Application No.	File Date	Pub Number	Pub Date	Patent Number	Issue Date
[*]	[*]	[*]	[*]	[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]	-----	-----	-----	[*]
[*]	[*]	[*]	[*]	[*]	[*]	-----	[*]
[*]	[*]	[*]	[*]	[*]	[*]	-----	[*]
[*]	[*]	[*]	[*]	-----	-----	-----	[*]
[*]	[*]	[*]	[*]	-----	-----	-----	[*]

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

EXHIBIT B-2

PATENTS

Amyris Ref	Title	Application No.	File Date	Pub Number	Pub Date	Patent Number	Issue Date
[*]	[*]	[*]	[*]	-----	-----	[*]	[*]
[*]	[*]	[*]	[*]	-----	-----	[*]	[*]
[*]	[*]	[*]	-----	-----	-----	-----	[*]
[*]	[*]	[*]	-----	[*]	[*]	[*]	[*]
[*]	[*]	[*]	-----	[*]	[*]	[*]	[*]
[*]	[*]	[*]	-----	[*]	[*]	[*]	[*]
[*]	[*]	[*]	-----	[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]	[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]	[*]	[*]	[*]	[*]

Amyris Ref	Title	Application No.	File Date	Pub Number	Pub Date	Patent Number	Issue Date
[*]	[*]	[*]	[*]	[*]	[*]	-----	[*]
[*]	[*]	[*]	-----	-----	-----	[*]	[*]
[*]	[*]	[*]	-----	-----	-----	-----	[*]
[*]	[*]	[*]	-----	-----	-----	-----	[*]
[*]	[*]	[*]	-----	[*]	[*]	[*]	[*]
[*]	[*]	[*]	-----	[*]	[*]	-----	[*]
[*]	[*]	[*]	-----	-----	-----	[*]	[*]
[*]	[*]	[*]	-----	-----	-----	-----	-----

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

EXHIBIT C

TRADEMARKS

Mark	Country	Class	Goods & Services Claimed	App. No.	File Date	Reg. No.	Reg. Date
NEOSSANCE	US	1,3	*1 – Emollient used as an ingredient for cosmetics and personal care compositions* *3 – Oils for cosmetic and personal care purposes*	85/541,582	02/13/12	4,209,630	09/18/12
NEOSSANCE	Int'l Reg.	1,3	*1 – Emollient used as an ingredient for cosmetics and personal care compositions* *3 – Oils for cosmetic and personal care purposes*	IR1133812	07/11/12	IR1133812	07/11/12
NEOSSANCE	BR	1	*1 – Emollient used as an ingredient for cosmetics and personal care compositions*	905060539	07/23/12	905060539	07/07/15
NEOSSANCE	BR	3	*3 – Oils for cosmetic and personal care purposes*	905060555	07/23/12	905060555	07/07/15
NEOSSANCE	EU	1,3	*1 – Emollient used as an ingredient for cosmetics and personal care compositions* *3 – Oils for cosmetic and personal care purposes*	IR1133812	07/11/12	IR1133812	07/26/13
NEOSSANCE	JP	1,3	*1 – Emollient used as an ingredient for cosmetics and personal care compositions* *3 – Oils for cosmetic and personal care purposes*	IR1133812	07/11/12	IR1133812	07/26/13

NEOSSANCE	KR	1,3	*1 – Emollient used as an ingredient for cosmetics and personal care compositions* *3 – Oils for cosmetic and personal care purposes*	40-2014-0071401	10/23/14	401124885	08/21/15

EXHIBIT D

REPRESENTATIONS AND WARRANTIES CONCERNING AMYRIS

Amyris hereby represents and warrants that the following are true and correct as of the Closing Date:

1. **Organization**. Amyris is duly organized and validly existing under the laws of the state of Delaware, with the power and authority to own and operate its business as presently conducted.

2. **Authority.** The execution and delivery by Amyris of this Agreement and any other documents to which Amyris is a party, the performance by Amyris of its obligations hereunder and thereunder and the consummation by Amyris of the transactions contemplated hereby and thereby have been duly authorized by all requisite action on the part of Amyris. This Agreement has been duly executed and delivered by Amyris, and (assuming due authorization, execution and delivery by Nikko) this Agreement constitutes a legal, valid and binding obligation of Amyris enforceable against Amyris in accordance with its terms.

3. **Consent**. No consent of any Person, governmental approval or other governmental filing is required to be made or obtained by Amyris in connection with the execution, delivery or performance of this Agreement or the consummation of the transactions contemplated hereby.

4. **No Violation.** The execution, delivery and performance of this Agreement and the consummation of the transactions contemplated hereby will not result in: (a) a violation of or a conflict with any provision of the organizational documents or the contracts of Amyris in any material respect or (b) a violation by Amyris any Applicable Law.

5. **Ownership of Shares**. Prior to the Closing, Amyris has been the record and beneficial owner of 100 Shares (on a fully-diluted basis), free and clear of any and all Encumbrances.

6. **Compliance**. Glycotech/Salisbury operated the Neossance Business for Amyris in all material respects in conformity with all applicable Laws, except for such breaches that are covered by Akzo Nobel Agreements. Neither Amyris nor Glycotech/Salisbury has been subject to any Claim by Governmental Authority in any jurisdiction involving the Assets and/or the Neossance Business.

7. **Tax Filing**. Amyris has timely filed all Tax Returns required to be filed by it, and such Tax Returns are correct and complete in all respects, were prepared in compliance with applicable law. All Taxes owed by Amyris (whether or not shown or required to be shown on any Tax Return) have been paid. There are no Encumbrances for Taxes (other than statutory liens for Taxes that are not yet delinquent) upon any of the Assets.

8. **Tax Ruling**. Amyris has not executed or entered into any agreement with, or obtained any consents, clearances or Tax exemptions or holidays from, any Governmental Authority, or has been subject to any ruling guidance, with respect to the Assets or the Neossance Business.

EXHIBIT E

REPRESENTATIONS AND WARRANTIES CONCERNING THE COMPANY

Amyris hereby represents and warrants that the following are true and correct as of the Closing Date:

1. **Organization**. The Company is a limited liability company duly organized and validly existing under the laws of the Delaware, with the power and authority to own and operate the Neossance Business.

2. **Certificate of Formation**. True, correct and complete copies of the Company's certificate of formation and other documents (collectively, "Organizational Documents"), and a current good standing certificate of the Company are contained in Annex 1.1.

3. **Authority.** The execution and delivery by the Company of this Agreement and any other document to which the Company is a party, the performance by the Company of its obligations hereunder and thereunder and the consummation by the Company of the transactions contemplated hereby and thereby have been duly authorized by all requisite action on the part of the Company. This Agreement has been duly executed and delivered by the Company, and (assuming due authorization, execution and delivery by Nikko) this Agreement constitutes a legal, valid and binding obligation of the Company enforceable against the Company in accordance with its terms.

4. **Capitalization.** One hundred (100) Shares of the Company are issued and outstanding. No other equity or other interests in the Company has been issued. All outstanding Shares have been duly authorized, validly issued, fully paid and non-assessable.

5. **Assets.** The Company has good and valid title to the personal property and other Assets and owns, free and clear of Encumbrances, all Assets (including Intellectual Property"). All such Assets are in good operating condition (ordinary wear and tear excepted) and sufficient for the Company to operate the Neossance Business.

6. **Permit**. The Company has all valid approvals, permits and licenses necessary for the conduct of the Neossance Business.

7. **Contracts**. Exhibit A contains a complete, true and correct list of all material contracts to which Amyris is a party or by which it is bound involving the Neossance Business (the "Contracts"). All such Contracts are valid, binding and in full force and effect, as assigned from Amyris to the Company. No party to the Contracts is in default or in violation in any material respect of any such Contracts.

8. **Distribution**. The Company has not made or agreed to make any distribution of profits of the Company.

9. **Insolvency**. As of the Closing, the Company is not insolvent and is not subject to the filing of any petition in bankruptcy under any provisions of federal or state bankruptcy law nor is the Company subject to liquidation or re-organization proceedings.

10. **Affiliate Transactions**. The Company has not incurred any indebtedness to Amyris or any of its respective Affiliates or immediate family members of Amyris management.

11. **Environment**. Activities and facilities acquired by the Company by way of capital contribution from Amyris are not and have not been the source of any pollution or any damage to human health or the environment. Further, no dangerous or toxic wastes or substances are or have been stored or treated in material violation of any Environmental Law by the Company on the Real Property. The Company has not, either directly or through a third party, disposed of wastes from any product or packaging outside of sites adapted for its storage, treatment, evacuation or destruction which are regulated by competent authorities for purposes of such operations in material violation of any Environmental Law.

12. **Taxes**. The Company has no liability for the Taxes of any Person under Treasury Regulation Section 1.1502-6, or as a transferee or successor, by operation of law, by contract, or otherwise.

13. **Real Property Holding Corporation**. The Company is not a "United States real property holding corporation" within the meaning of Section 897(c)(2) of the Code.

EXHIBIT F

REPRESENTATIONS AND WARRANTIES CONCERNING NIKKO

Nikko hereby represents and warrants that the following are true and correct as of the Closing Date:

1. **Organization**. Nikko is duly organized and validly existing under the laws of its Japan, with the power and authority to own and operate its business as presently conducted.

2. **Authority.** The execution and delivery by Nikko of this Agreement and any other documents to which Nikko is a party, the performance by Nikko of its obligations hereunder and thereunder and the consummation by Nikko of the transactions contemplated hereby and thereby have been duly authorized by all requisite action on the part of Nikko. This Agreement has been duly executed and delivered by Nikko, and (assuming due authorization, execution and delivery by Amyris and the Company) this Agreement constitutes a legal, valid and binding obligation of Nikko enforceable against Nikko in accordance with its terms.

3. **Consent**. No consent of any Person, governmental approval or other governmental filing is required to be made or obtained by Nikko in connection with the execution, delivery or performance of this Agreement or the consummation of the transactions contemplated hereby.

4. **No Violation.** The execution, delivery and performance of this Agreement and the consummation of the transactions contemplated hereby will not result in: (a) a violation of or a conflict with any provision of the organizational documents or the contracts of Nikko in any material respect or (b) a violation by Nikko any Applicable Law.

5. **Investment Purpose.** Nikko is acquiring the Shares solely for its own account for investment purposes and not with a view to, or for offer or sale in connection with, any distribution thereof. Nikko acknowledges that the Shares are not registered under the Securities Act of 1933, as amended, or any state securities laws, and that the Shares may not be transferred or sold by Nikko except pursuant to the registration provisions of the Securities Act of 1933, as amended or pursuant to an applicable exemption therefrom and subject to state securities laws and regulations, as applicable.

SCHEDULE A

INTEPRETATIONS AND DEFINITIONS

A. INTERPRETATIONS

(a) Unless the context of this Agreement otherwise requires, (i) words of any gender include each other gender; (ii) words using the singular or plural number also include the plural or singular number, respectively; (iii) the terms "hereof", "herein", "hereby" and derivative or similar words refer to this entire Agreement; (iv) the term "Article" refers to the specified Article or Article of this Agreement; (v) the word "including" shall mean "including, without limitation"; and (vi) the word "or" shall be disjunctive but not exclusive.

(b) References to agreements and other documents shall be deemed to include all subsequent amendments and other modifications thereto.

(c) The schedules and exhibits to this Agreement are a material part hereof and shall be treated as if fully incorporated into the body of this Agreement.

(d) Whenever this Agreement refers to a number of days, such number shall refer to calendar days and shall be counted from the day immediately following the date from which such number of days is to be counted.

(e) References to Articles, Exhibits and Schedules are references to articles of, exhibits to and schedules to, this Agreement.

(f) This Agreement shall be construed without regard to any presumption or rule requiring construction or interpretation against the party drafting an instrument or causing any instrument to be drafted.

B. DEFINITIONS

All capitalized terms and not defined herein shall have the meanings ascribed to them below.

"**Affiliates**" means, with respect to any Person, any other Person that, directly or indirectly, controls, is controlled by or is under common control with such Person. The term "control" shall mean the power to direct, or cause the direction of, the management and policies of a Person through voting securities, by contract or otherwise.

"**Applicable Law**" means, as to any Person, any statute, law, rule, regulation, directive, treaty, judgment, order, decree or injunction of any Governmental Authority that is applicable to or binding upon such Person or any of its properties.

"**Business Day**" means a day on which commercial banks in San Francisco, California and Tokyo, Japan are generally open to conduct their regular banking business.

"**Code**" means the Internal Revenue Code of 1986, as amended from time to time, the provisions of succeeding law, and to the extent applicable, the Treasury Regulations.

"**Claim**" means any dispute in any civil, criminal, administrative, arbitration, tax, regulatory or other proceedings, claims, investigations, inquiries, actions (including disciplinary) or prosecutions before any Governmental Authority.

"**Disclosure Schedules**" means the disclosure schedules delivered with the execution and delivery of this Agreement.

"**Encumbrance**" means any lien, judgment, pledge, attachment, escrow, option, charge, easement, restrictive covenant, security interest, deed of trust, right of first refusal, mortgage, right-of-way, encroachment, building or use restriction, encumbrance or other right of third parties, whether voluntarily incurred or arising by operation of laws, and includes, without limitation, any agreement to give any of the foregoing in the future, and any contingent or conditional sales agreement or other title retention agreement including rights of retention.

"**Environmental Laws**" means all Applicable Laws relating to pollution or protection of the environment (including, without limitation, ambient air, surface water, ground water, land surface, or subsurface strata).

"Fully Burdened Cost" means (a) the direct labor costs (including salary and wages and fringe benefits) incurred by the Company in producing the applicable Product; (b) the cost of materials used by the Company (including feedstock and raw materials, intermediates, components and packaging materials, and including shipping and handling costs, freight-in charges and any applicable sales taxes and/or customs duties therefor); (c) a reasonable allocation of overhead (including without limitation indirect labor costs, supplies and materials, plant insurance and property taxes) and facilities and equipment expense (including rent, utilities, repairs and maintenance costs, equipment rental, and depreciation expense over the expected life of the buildings and equipment), (d) costs for administration and for management of material procurement (including ingredient procurement, if applicable) and other manufacturing or other applicable activities, including quality control and quality assurance (QA), performed directly in support of the applicable activity, calculated in accordance with GAAP in effect from time to time, consistently applied; (e) if applicable, amounts paid (net of rebates or discounts, if any) to contract manufacturers or service providers in connection with their supply of ingredient or subcontracting of the applicable activity (including shipping costs and any applicable taxes and/or duties therefor) and (f) any royalties payable to a third party attributable to the applicable activity; *provided, however*, that no cost may be counted more than once in such calculation.

"**GAAP**" means the generally accepted accounting principles and practices applicable in the United States.

"**Governmental Authority**" means any domestic or foreign government, governmental authority, court, tribunal, agency or other regulatory, administrative or judicial agency, commission or organization, and any subdivision, branch or department of any of the foregoing.

"**Intellectual Property**" means any patents, trademarks, trade names, designs, models, know-how and/or other intellectual property rights.

"**Person**" shall mean an individual, corporation, partnership, joint venture, limited liability company, governmental authority, unincorporated organization, trust, association or other entity.

"**Tax**" or "**Taxes**" means any federal, state, local, or non-U.S. income, gross receipts, license, payroll, employment, excise, severance, stamp, occupation, premium, windfall profits, environmental, customs duties, capital stock, franchise, profits, withholding, social security (or similar), unemployment, disability, real property, personal property, sales, use, transfer, registration, value added, alternative or add-on minimum, estimated, or other tax of any kind whatsoever, including any interest, penalty, or addition thereto, whether disputed or not.

"**Tax Return**" means any return, certificate, declaration, notice, report, statement, election, information statement or other document filed or required to be filed with respect to Taxes, including any amendments thereof, and including any schedules and attachments thereto.

"**Transfer Taxes**" means any transfer, stamp, documentary, sales, use, registration, value-added and other similar Taxes (including all applicable real estate transfer Taxes and real property transfer gains Taxes and including any filing and recording fees) incurred in connection with this Agreement and the transactions contemplated hereby.

"**Treasury Regulations**" shall mean the final and temporary regulations that have been issued by the U.S. Department of Treasury pursuant to its authority under the Code, and any successor regulations.

Exhibit 10.99

CONFIDENTIAL TREATMENT REQUESTED. CERTAIN PORTIONS OF THIS DOCUMENT HAVE BEEN OMITTED PURSUANT TO A REQUEST FOR CONFIDENTIAL TREATMENT AND, WHERE APPLICABLE, HAVE BEEN MARKED WITH AN ASTERISK TO DENOTE WHERE OMISSIONS HAVE BEEN MADE. THE CONFIDENTIAL MATERIAL HAS BEEN FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION.

FIRST AMENDED AND RESTATED LLC OPERATING AGREEMENT OF NEOSSANCE, LLC a Delaware Limited Liability Company

THIS FIRST AMENDED AND RESTATED LLC OPERATING AGREEMENT (this " **Agreement**") of ABC LLC (the "**Company**") is made and entered into as of December 6, 2016 (the "**Effective Date**"), by and between (i) Amyris, Inc., a Delaware corporation ("**Amyris"**), and (ii) Nikko Chemical Co., Ltd., a Japanese corporation ("**Nikko Chemicals**") and Nippon Surfactant Industries Co., Ltd., a Japanese corporation ("Nissa" and, together with Nikko Chemicals, "**Nikko**"). Amyris and Nikko are sometimes referred to herein collectively as the "**Members**" and each individually as a "**Member**." In case of Nikko, the Member's rights and obligations are allocated to Nikko Chemicals and Nissa on an 80%/20% basis unless otherwise expressly stated. Any capitalized terms used but not defined herein shall have the meaning set forth in Exhibit A.

ARTICLE 1 ORGANIZATIONAL MATTERS

1.1 Formation. On December 5, 2016, the Company was formed as a Delaware limited liability company upon the filing of a Certificate of Formation with the Secretary of State of Delaware (the "**Certificate of Formation**"). The Members hereby ratify and approve the execution and filing of the Certificate of Formation and agree that this Agreement shall constitute the "limited liability company agreement" of the Company within the meaning of the Act. The rights and liabilities of the Members shall be determined pursuant to the Act and this Agreement. To the extent that the rights or obligations of any Member are different by reason of any provision of this Agreement than they would be in the absence of such provision, this Agreement shall, to the extent permitted by the Act, control.

1.2 Name. The name of the Company shall be "Neossance, LLC". The name of the Company shall not include the company name or brand name of a Member if such Member is no longer a party to this Agreement or withdraws from the Company.

1.3 Term. The term of the Company commenced as of the date of the filing of the Certificate of Formation in accordance with the Act and shall continue on a perpetual basis unless sooner terminated in connection with the Company's dissolution under this Agreement or the Act.

1.4 Office and Agent. The principal office of the Company shall be located at Emeryville, California or such other location as the Board shall determine. The initial registered agent for service of process for the Company shall be as set forth in the Certificate of Formation. The Board may change the Company's agent for service of process or the principal office at any time.

1.5 Business of the Company. The purpose of the Company is to engage in the following businesses (collectively, the "**Business**"):

(a) manufacturing, marketing, sale, distribution and other disposition of (i) squalane, (ii) hemisqualane, and (iii) other products developed or to be developed through R&D activities involving Amyris (collectively, " **Products**") (A) in any field, in the case of squalane; (B) in any field that is not excluded based on an agreement currently valid by and between Amyris and a third party, in the case of hemisqualane; and (C) in the field of cosmetics (which for the avoidance of doubt excludes those (i) solely related to any market(s) or industry(ies) other than cosmetics or (ii) subject to certain [*]) and such other fields as agreed by the Parties, in the case of all other Products;

(b) such other businesses as the Board approves; and

(c) all other lawful activities reasonably necessary or convenient to the foregoing.

1.6 Powers of the Company. In furtherance of the purpose of the Company as set forth in Section 1.5, the Company shall have the power and authority to take in its name all actions necessary, useful or appropriate in the Board's discretion to accomplish its purpose, including, but not limited to, the powers set forth in the Act, as amended from time to time.

ARTICLE 2
CAPITAL CONTRIBUTIONS; SHARES

2.1 Capital Contributions.

(a) Capital Contributions to the Company shall consist of cash or property valued at the fair market value as agreed to by the Members, net of any liabilities assumed by the Company or to which the relevant property is subject. The Capital Contributions of the Members of the Company from time to time shall be set forth in Exhibit B. Additional Capital Contributions shall be made from time to time as the Members shall determine, in each case on an equal (50%/50%) basis unless otherwise mutually agreed by the Members. The Company shall not pay any interest on any Capital Contributions.

(b) In addition to the Additional Capital Contributions, the Members may elect to provide (i) loans or (ii) guaranties (for the Company to borrow from financial institutions) based on the determination by the Board. If the Company is unable to repay the loan as due (to the lending Member or the financial institution) and if any repayment is made by a Member on behalf of the Company, then such repayment shall be treated as a Capital Contribution and the Member shall be entitled to receive Shares in respect of such Capital Contribution in an amount determined pursuant to Section 2.2(b).

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

(c) At such time as the Board determines, but not later than the expiration of the period of the Earnout under Section 2(b) of the JV Agreement, the Board shall develop a capital expansion plan to increase capacity at the Company's manufacturing facility(ies) to [*], which plan shall include requirements, if applicable, for Additional Capital Contributions by the Members.

2.2 Shares.

(a) The membership interests of the Members shall be denominated in shares ("**Shares**"). The Shares of the Members of the Company from time to time shall be set forth in Exhibit B.

(b) Upon a Capital Contribution of any Member, the Company shall issue additional Shares to such Member in such number of Shares as determined by the Board.

ARTICLE 3
RIGHTS AND OBLIGATIONS OF MEMBERS

3.1 Members; Obligations to Update. All Members of the Company from time to time and their last known business or mailing addresses shall be listed on Exhibit B. The Board shall update Exhibit B from time to time as necessary to accurately reflect the information therein, and each Member shall cooperate in such effort with respect to information relating to such Member.

3.2 Rights of Members. Members shall have the rights and obligations provided in this Agreement and, to the extent consistent with this Agreement, the Act. Except as otherwise expressly provided in this Agreement, no Member, in its capacity as such, shall have any right, power or authority to take part in the management or control of the Company or its business and affairs or to act for or bind the Company in any way.

3.3 Admission of Additional Members. Additional Members may be admitted with the unanimous approval of the Members.

3.4 Withdrawals or Resignations. Member may withdraw, retire and/or resign from the Company, without any approval of other Member(s) by way of surrendering all of its Shares to the Company.

3.5 Payments to Members. Except as specified in or authorized by the Board in a manner consistent with this Agreement, no Member or its Affiliate shall be entitled to remuneration for services rendered or goods provided to the Company as Member or an officer of the Company.

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

ARTICLE 4
MANAGEMENT AND CONTROL OF THE COMPANY

4.1 Board.

(a) The Company shall be managed by a Board of Directors (the "**Board**") in accordance with the terms of this Agreement and the Act. For the purpose of this Agreement, the Board shall constitute a "manager" under the Act.

(b) The Board shall initially consist of four (4) Directors, two (2) of whom shall be appointed by Amyris and two (2) of whom shall be appointed by Nikko. Amyris hereby appoints John Melo and Caroline Hadfield, and Nikko hereby appoints Shizuo Ukaji and Ikko Tanaka to serve as the initial Board of the Company. The number of Directors to be appointed by each Member shall be adjusted based on a change in the Company Interest. One of the Directors appointed by Nikko shall be designated the "Board Director Responsible for Sales"; such Director shall initially be Ikko Tanaka. One of the Directors appointed by Amyris shall be designated the "Board Director Responsible for Product and Channel"; such Director shall initially be Caroline Hadfield. Any Director may appoint an assistant to such Director, who shall be designated the "Assistant Amyris Board Member" or "Assistant Nikko Board Member", as applicable.

(c) Each Member shall have the right, at any time and in its sole discretion, to remove any Director appointed by such Member, effective upon delivery of written notice to the Company and each other Member. In the case of a vacancy in the office of a Director for any reason (including removal pursuant to the preceding sentence), the vacancy shall be filled by the Member that appointed the Director to which such vacancy relates.

4.2 Officers.

(a) The Company's day-to-day operations shall be managed by officers appointed by the Board. Officers other than the CEO shall be subject to the authority of the CEO. Nikko shall select the CEO from and among Directors.

The CEO shall supervise and implement the Company's business and strategy based on the Board's resolutions. Further, the CEO shall have the right (i) to review and make the final determination as to the evaluation of the Company's employees, (ii) to appoint the Assistant CEO to fulfill his or her duties and vote, on his or her behalf, at the Board meetings in person and (iii) to delegate his or her authority to any Person. Nikko has the right to designate the CEO. The Board shall appoint the CEO in accordance with such nomination. Nikko hereby designates John Melo to serve as the initial CEO of the Company for a period of one year.

The CFO shall supervise and implement the Company's financial strategy based on the Board's resolutions. Further, the CFO shall have the right to delegate his or her authority to any

Person. Amyris has the right to designate the CFO. The Board shall appoint the CFO in accordance with such nomination. Amyris hereby designates Shizuo Ukaji to serve as the initial CFO of the Company for a period of one year.

(b) The Company shall also have a Secretary and such other officers, if any, as may be appointed by the Board from time to time. Nikko has the right to designate the Secretary and shall designate Kaitaro Sekine to serve as the initial Secretary of the Company. The Board shall appoint any such other officer(s) in accordance with such designations.

(c) Each Member shall have the right, at any time and in its sole discretion, to remove any officer designated by such Member (including, for example, the CEO designated by Nikko), effective upon delivery of written notice to the Company and each other Member. In the case of a vacancy in any officer position for any reason (including removal pursuant to the preceding sentence), the vacancy shall be filled by a designee of the Member that designated the officer to which such vacancy relates.

4.3 Board Meetings.

(a) The CEO shall (i) convene a meeting of the Board at least once per quarter (which may be waived by an agreement of the Members); (ii) have the authority to convene Board meetings at any other time as determined in his or her discretion; and (iii) convene a Board meeting at the request of any Director. The CEO shall, subject to the notice requirements of Section 4.3(d), have the authority to specify the time and place of any Board meeting; provided, that the CEO shall in good faith and to the fullest extent practicable ensure that meetings are scheduled at times and places when all Directors are available to participate. Directors shall utilize commercially reasonable efforts to be available for meetings upon request of the CEO in conformance with Section 4.3(d), below, and shall promptly inform the CEO in the event that such Director will be unable to attend a proposed meeting. The CEO shall serve as the chair of a Board meeting. In case of the CEO's unavailability, the Assistant CEO shall act as the chair of such meeting.

(b) Directors may participate in a meeting of the Board by means of a conference telephone or similar communications equipment through which all persons participating in the meeting can hear each other, and such participation in a meeting shall constitute presence in person at such meeting.

(c) Any action required or permitted to be taken by the Board, either at a meeting or otherwise, may be taken without a meeting if the Directors consent to, approve or authorize such action in writing by a majority vote of the Directors.

(d) Without limitation of the requirements of Section 4.3(a) for consideration of the availability of all Directors in scheduling meetings, written notice of each Board meeting shall be given to each Director not less than fourteen (14) days in advance of such meeting (which fourteen day (14) period may be shortened by written waiver of the Director in question or actual attendance by such Director, without objection, at the applicable Board meeting).

Minutes of Board meetings shall be prepared by the Company and distributed to each Director promptly following each meeting. Each Member shall bear all travel and other expenses incurred by its respective appointees in connection with attendance at each Board meeting.

(e) Matters listed on Exhibit C ("**Board Resolutions**") shall require approval by the Board. The presence of a majority of Directors shall constitute a quorum for any meeting of the Board. Any approval, determination or resolution of the Board shall require the approval of a majority of Directors participating in such meeting.

4.4 Member Meetings.

(a) The Board shall provide notice to the Members (i) of each annual meeting of Members at least fourteen (14) days before the scheduled date of the meeting, and (ii) of each other meeting of Members at least thirty (30) days before the scheduled date of the applicable meeting.

(b) The Company shall have at least one meeting of Members each calendar year. Such meeting will take place at such time and place as are determined by the Board. The Board may cause the Company to hold additional Member meetings at such times and places as it determines, provided that the notice requirements of Section 4.4(a)(ii) are satisfied. Minutes of such meetings shall be prepared by the Company and distributed to each Member promptly following each meeting.

(c) Matters listed on Exhibit D ("**Member Resolutions**") shall require approval by the Members. The presence of all Members shall constitute a quorum for any meeting of Members. Any approval, determination or resolution of the Members shall require the approval of a majority of Shares/Company Interests represented by the Members participating in such meeting.

4.5 Deadlock. If any item requiring Member Resolution or Board Resolution is unresolved, such item shall be discussed and determined by the CEOs (i.e., top executives) of Amyris and Nikko Chemicals in good faith.

ARTICLE 5
DISTRIBUTIONS AND TAX MATTERS

5.1 Non-Liquidating Distributions. Subject to Applicable Law and any limitations contained elsewhere in this Agreement, the Board shall cause the Company to make distributions of Net Cash Flow of the Company as calculated for each calendar year at such times as the Board deems appropriate in its sole discretion, but not later than March 15 following the applicable calendar year. All such distributions to the Members shall be in the following orders of priority:

(a) First, to the Members in proportion to their respective Unreturned Capital Contribution Balances, until each Member's Unreturned Capital Contribution Balance equals zero; and

(b) Second, to the Members in proportion to their respective Company Interests.

5.2 Liquidating Distributions. Notwithstanding the provisions of this Article to the contrary, cash or property of the Company available for distribution upon the dissolution of the Company (including cash or property received upon the sale or other disposition of assets in anticipation of or in connection with such dissolution) shall be distributed to the Members in accordance with Section 5.1. For this purpose, all assets not sold shall be treated as sold at their fair market values as determined by the Board.

5.3 Withholding Taxes. The Company shall withhold from distributions to, and allocations among, the Members to the extent required by Applicable Law, and shall pay over such amounts to the applicable taxing authority. Any amount so withheld by the Company with regard to the Member shall be treated for purposes of this Agreement as an amount actually distributed to such Member pursuant to Section 5.1.

5.4 Other Tax Matters. Notwithstanding any contrary provision of this Agreement, rules governing certain tax matters and related items are set forth in Exhibit E attached hereto and made a part hereof.

5.5 Limitation on Distributions. No distribution shall be made to a Member pursuant to Section 5.1 to the extent that such distribution would: (i) cause the Company to be insolvent or (ii) render a Member liable for a return of such distribution under Applicable Law. For the purposes of this Section 5.5, a distribution shall cause the Company to be, or otherwise render the Company, "insolvent," if, at the time of the distribution, after giving effect to the distribution, all liabilities of the Company (other than liabilities to Members on account of their interests in the Company and liabilities for which the recourse of creditors is limited to specified property of the Company) exceed the fair market value of the assets of the Company, except that the fair market value of property that is subject to a liability for which the recourse of creditors is limited to specified property of the Company shall be included in the assets of the Company only to the extent that the fair market value of that property exceeds that liability.

ARTICLE 6
TRANSFER AND ASSIGNMENT OF SHARE

No Member shall, directly or indirectly, sell, assign, encumber or otherwise transfer or dispose of ("**transfer**") all or any portion of its Shares, or any right or interest therein, except with the prior approval of each non-transferring Member, which approval may be given or withheld in the sole discretion of such non-transferring Member; provided, however, that Nikko may Transfer, without any other Member's approval, all or any part of its Shares to Nikko Chemicals or Nissa. Any transferee or assignee shall be bound by the terms of this Agreement (including Article 6) and the JV Agreement. Any transfer in violation of this Article 6 shall be null and void.

ARTICLE 7
ACCOUNTING AND RECORDS

7.1 Books and Records. The books and records of the Company shall be kept at the Company's principal office. The Company shall maintain its books and records in accordance with Applicable Law, GAAP and reasonable commercial practices.

7.2 Bank Account. The Company's bank account and other financial accounts to be used by the Company shall be established with the Bank of Tokyo-Mitsubishi UFJ (including MUFG Union Bank).

7.3 Financial Statements and Accounting Records.

(a) Financial statements for the Company, including, without limitation, a balance sheet, income statement, statement of cash flows and statement of Members' equity (collectively, the "**Financial Statements**"), shall be submitted by the Company to each of the Members (i) within thirty (30) days after the end of each fiscal quarter for such quarter; and (ii) within sixty (60) days after the end of each fiscal year for such year.

(b) The Financial Statements covering each fiscal year shall be audited and certified by an internationally recognized accounting firm retained by the Company as selected by the Members. The Financial Statements shall be prepared in accordance with GAAP and shall contain such financial data as is reasonably necessary to keep the Members advised of the Company's financial status and allow them to complete their respective tax filings.

7.4 Right of Inspection. During the regular office hours of the Company, and upon reasonable notice to the Company, each Member shall have (a) access to all properties, books of account, and records of the Company; and (b) the right to make copies from such books and records at such Member's own expense. For the avoidance of doubt, any information obtained by the Members through exercise of rights granted under this Section 7.4 shall, to the extent constituting Confidential Information (as defined in the JV Agreement), be subject to the confidentiality provisions set forth in the JV Agreement.

7.5 Fiscal Year and Taxable Year . The fiscal year of the Company shall be from January 1 to December 31 of such year. The Company's taxable year for U.S. federal income tax purposes shall, unless otherwise required by Applicable Law, be the same as its fiscal year.

ARTICLE 8
LIABILITY OF MEMBERS AND BOARD; LIMITATION OF DUTIES

8.1 No Liability for Company Obligations. Notwithstanding anything to the contrary contained herein, the debts, obligations and liabilities of the Company shall be solely the debts, obligations and liabilities of the Company, and no Member, Director or officers shall be

obligated personally for any debt, obligation or liability of the Company solely by reason of being a Member, Director or officers of the Company.

8.2 No Liability of Directors or Officers to Company. No Director or officer of the Company shall be liable to the Company or any Member for any loss or damage sustained by the Company or any Member, unless the loss or damage shall have been the result of fraud, gross negligence or intentional misconduct by the Director or officer.

ARTICLE 9
DISSOLUTION AND WINDING UP

The Company shall be dissolved, and shall terminate and wind up its affairs, upon the first to occur of the following: (a) the unanimous determination by the Members to dissolve the Company; or (b) the entry of a decree of judicial dissolution pursuant to Section 18-802 of the Act. Upon the dissolution of the Company, the Company's assets shall be disposed of and its affairs wound up pursuant to this Article 9 and the appropriate provisions of the JV Agreement and the Act.

ARTICLE 10
INDEMNIFICATION

10.1 Indemnification. The Company shall, to the maximum extent permitted by Applicable Law, indemnify and hold harmless the Directors, Members, their respective Affiliates and the officers, directors and employees of the foregoing Persons (collectively, "**Indemnitees**"), and the Company and the Members shall release each Indemnitee, to the maximum extent permitted by Applicable Law, from any and all Losses (including reasonable legal expenses) arising from any and all Proceedings (collectively, "**Claims**") which arise out of, relate to or are in connection with this Agreement or the management or conduct of the business or affairs of the Company, except for any Losses that are finally found by a court or arbitral body of competent jurisdiction to have resulted primarily from the bad faith, gross negligence or intentional misconduct of, or breach of its obligations, or knowing violation of law by, the Indemnitee seeking indemnification.

10.2 Not Exclusive. The indemnification provided by this Article 10 shall not be deemed to be exclusive of any other rights to which any Person may be entitled under any agreement, or as a matter of law, or otherwise, both as to action in a Person's official capacity and to action in another capacity.

10.3 Indemnification Continuing. The indemnification provided by this Article 10 shall continue as to a Person who has ceased to be an Indemnitee and shall inure to the benefit of the heirs, executors and administrators of such a Person.

ARTICLE 11
MISCELLANEOUS

11.1 Governing Law. This Agreement shall be construed and interpreted in accordance with and governed by the Laws of the State of Delaware (without regard to the choice of law provisions thereof).

11.2 No Third Party Beneficiaries. This Agreement shall inure to the benefit of and shall be binding upon the Members and their respective heirs, successors and assigns. No provision of this Agreement is intended to or shall be construed to grant or confer any right to enforce this Agreement or any remedy for breach of this Agreement to or upon any Person other than the Members.

11.3 Amendment. No change or modification to this Agreement shall be valid unless the same is approved by the Members in writing.

11.4 Severability. If any provision of this Agreement or the application thereof to any Person or circumstance shall, for any reason and to any extent, be invalid or unenforceable, the remainder of this Agreement and the application of such provision to other Persons or circumstances shall not be affected thereby but rather shall be enforced to the greatest extent permitted by law.

11.5 Construction. When from the context it appears appropriate, each term stated either in the singular or the plural shall include the singular and the plural and pronouns stated either in the masculine, the feminine or the neuter shall include the masculine, the feminine and the neuter.

11.6 Headings and Captions. The headings and captions contained in this Agreement are inserted only as a matter of convenience and in no way define, limit or extend the scope or intent of this Agreement or any provisions hereof.

11.7 Counterparts. This Agreement may be executed in one or more counterparts, with the same effect as if the Members had signed the same document. Each counterpart so executed shall be deemed to be an original, and all such counterparts shall be construed together and shall constitute one agreement.

11.8 No Waiver. No waiver of any term or condition of this Agreement shall be valid or binding on a Member unless the same shall have been set forth in a written document, specifically referring to this Agreement and duly signed by the waiving Member.

11.9 Conflicts with JV Agreement. In the event of any ambiguity or conflict arising between the terms of this Agreement and those of the JV Agreement, the terms of the JV Agreement shall control and prevail as among the Members.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the Members of ABC LLC, a Delaware limited liability company, have executed this Agreement, effective as of the date first written above.

MEMBERS:

AMYRIS, INC.

By: /s/ John Melo
Name: John Melo
Title: President & Chief Executive Officer

NIKKO CHEMICALS CO., LTD.

By: /s/ Shizuo Ukaji
Name: Shizuo Ukaji
Title: President & Chief Executive Officer

NIPPON SURFACTANT INDUSTRIES CO., LTD.

By: /s/ Shogo Sekine
Name: Shogo Sekine
Title: President

EXHIBIT A

DEFINED TERMS

As used in this Agreement, the following terms shall have the following meanings. Unless otherwise defined herein, terms used herein that are defined in the JV Agreement shall have the meanings set forth for such terms in the JV Agreement.

"**Act**" means the Delaware Limited Liability Company Act, as amended and in effect from time to time.

"**Affiliates**" shall mean, with respect to any Person, any other Person that, directly or indirectly, controls, is controlled by or is under common control with such Person. The term "control" shall mean the power to direct, or cause the direction of, the management and policies of a Person through voting securities, by contract or otherwise.

"**Applicable Law**" means, as to any Person, any statute, law, rule, regulation, directive, treaty, judgment, order, decree or injunction of any Governmental Authority that is applicable to or binding upon such Person or any of its properties.

"**Capital Contribution**" shall mean, with respect to any Member, the aggregate amount of cash and the fair market value of property contributed to the Company by the Member.

"**C Corporation**" shall have the meaning set forth in Section A of Exhibit E.

"**Code**" shall mean the Internal Revenue Code of 1986, as amended from time to time, the provisions of succeeding law, and to the extent applicable, the Treasury Regulations.

"**Company Interest**" shall mean the percentage of the Shares held by each Member, as set forth in Exhibit B.

"**GAAP**" shall mean the generally accepted accounting principles and practices applicable in the United States.

"**Governmental Authority**" means any domestic or foreign government, governmental authority, court, tribunal, agency or other regulatory, administrative or judicial agency, commission or organization, and any subdivision, branch or department of any of the foregoing.

"**JV Agreement**" means the Joint Venture Agreement, dated as of December 6, 2016 by and between Amyris, Nikko Chemicals and Nissa.

"**Losses**" shall mean any and all claims, losses, liabilities, damages (including fines, penalties, and criminal or civil judgments and settlements), costs (including court costs) and expenses (including reasonable attorneys' and accountants' fees).

"**Director**" means a manager of the Company with the powers and duties specified for a manager under this Agreement, the JV Agreement and the Act.

"**Members**" means each Person who holds the Shares in accordance with the terms hereof.

"**Net Cash Flow**" shall mean, for any calendar year, the sum of gross proceeds received by the Company from the Company operations less the portion thereof used to pay or establish reserves for all Company expenses, obligations, liabilities and capital expenditures, investments and reinvestments, all as determined by the Board in an annual plan and budget to be adopted not less than thirty (30) days prior to the start of each calendar year (except in the case of the plan and budget for 2017, which shall be adopted by the Board as soon as practicable following the Effective Date).

"**Person**" shall mean an individual, corporation, partnership, joint venture, limited liability company, governmental authority, unincorporated organization, trust, association or other entity.

"**Proceeding**" shall mean any action, litigation, arbitration, suit, proceeding or investigation or review of any nature, civil, criminal, regulatory or otherwise, before any Governmental Authority.

"**Securities**" means Shares (including as represented by Shares), other equity securities of the Company, and options, warrants, convertible securities, exchangeable securities or other rights to acquire Shares or other equity securities of the Company.

"**Treasury Regulations**" shall mean the final and temporary regulations that have been issued by the U.S. Department of Treasury pursuant to its authority under the Code, and any successor regulations.

"**Unreturned Capital Contribution Balance**" means, with respect to a Member, the excess (if any) of (i) such Member's aggregate Capital Contributions, over (ii) the distributions made to such Member under Section 5.1(a). For the avoidance of doubt, no cost or expense nor any diminution or reduction in profits incurred by Amyris in connection with performing its obligations under Section 5.5 of the JV Agreement ("Manufacture of Products") shall be considered a "Capital Contribution" for purposes of determining any Member's Unreturned Capital Contribution Balance.

EXHIBIT B

MEMBERS

Member Name and Address	Capital Contribution	Shares (Company Interest)
Nikko Chemicals Co., Ltd., a Japanese corporation (1-4-8, Nihonbashi-Bakurocho, Chuo-ku, Tokyo 103-0002, Japan)	Cash Contribution ($8 million plus Earnout)*	40 (40%)
Nippon Surfactant Industries Co., Ltd., a Japanese corporation (7-14 Hiraidekogyodanchi, Utsunomiya, Tochigi 321-0905, Japan)	Cash Contribution ($2 million plus Earnout)*	10 (10%)
Amyris, Inc., a Delaware corporation (5885 Hollis Street, Suite 100, Emeryville, California 94608, USA)	In-Kind Contribution (Equivalent to Nikko's Cash Contribution)	50 (50%)
TOTAL	**$20 million (excluding Earnout)**	**100**

* The Members acknowledge and agree that the purchase price (including Earnout) payable by Nikko (i.e., Nikko Chemicals and Nissa) to Amyris for 50 Shares, as described more fully in JV Agreement shall represent, and otherwise be treated for purposes of this Agreement (including Article 2 and Article 5 hereof), as a Capital Contribution. Nikko's Capital Contribution will be adjusted annually based on the amount of the Earnout paid to Amyris by Nikko under the JV Agreement. As an illustration, if Amyris receives $2 million as an Earnout under the JV Agreement, then Nikko's Capital Contribution will be adjusted to be $12 million (i.e., $10 million as initial payment and $2 million as Earnout) and Amyris' Capital Contribution will also be adjusted to be $12 million. For clarification, unless and until Amyris receives the Earnouts, no such adjustment shall be made.

EXHIBIT C

BOARD RESOLUTIONS

(a) approval of the Company's Financial Statements and distribution of profits;

(b) nomination of accounting firm(s) for Members' approval and appointment of officers;

(c) employment, promotion, rotation, termination or other material action with respect to Company personnel with the rank of senior business manager or higher;

(d) determination or action with respect to salary increases and bonuses of any Company personnel;

(e) change in the form of organization or U.S. federal income tax classification of the Company;

(f) investment or other expenditure by the Company in an amount (singly or together with all related investments or other expenditures) greater than US$10,000;

(g) acquisition or disposition of assets by the Company with value or for consideration (singly or together with all related acquisitions or dispositions) greater than US$10,000;

(h) borrowing or other incurrence of money debt by the Company in an amount (singly or together with all related borrowings or other related incurrences of money debt) greater than US$10,000;

(i) guarantee or other commitment by the Company with respect to money debt or other obligations of any other Person in an amount (singly or together with all related money debt and other obligations) greater than US$10,000;

(j) lease of real or personal property by the Company requiring aggregate payments during the applicable lease term in an amount greater than US$10,000;

(k) transfer, license or other disposition of, and any acquisition of, Intellectual Property Assets;

(l) material action(s) with respect to any existing or prospective patent of the Company in any jurisdiction, including filings with respect to patent applications, reissues and continuations;

(m) execution, amendment or termination of any material agreement (including any such agreements with an Affiliate of any Member);

(n) dissolution or liquidation of the Company;

(o) establishment, amendment or termination of any internal rules or policies of the Company (including employment rules or policies);

(p) approval of or amendment to any annual or other material business, strategic or financial plan of the Company;

(q) approval of or amendment to any transaction, arrangement and/or agreement between the Company and any of its Members, Directors or officers;

(r) such other matters in Exhibit E that require Board approval or action; and

(s) execution of agreements or commitments with respect to any of the foregoing.

EXHIBIT D

MEMBER RESOLUTIONS

(a) change of the Company's name;

(b) approval of accounting firm(s) nominated by the Board, and appointment of Directors;

(c) change in the Company's authorized or outstanding equity interests or capitalization, including without limitation through any issuance, redemption or repurchase of Shares or other Securities by the Company and any Capital Contributions;

(d) change in the scope of the Business of the Company;

(e) investment or other expenditure by the Company in an amount (singly or together with all related investments or other expenditures) greater than US$50,000;

(f) acquisition or disposition of assets by the Company with value or for consideration (singly or together with all related acquisitions or dispositions) greater than US$50,000;

(g) borrowing or other incurrence of money debt by the Company in an amount (singly or together with all related borrowings or other related incurrences of money debt) greater than US$50,000;

(h) guarantee or other commitment by the Company with respect to money debt or other obligations of any other Person in an amount (singly or together with all related money debt and other obligations) greater than US$50,000;

(i) lease of real or personal property by the Company requiring aggregate payments during the applicable lease term in an amount greater than US$50,000;

(j) amendment to this Agreement;

(k) dissolution of the Company or withdrawal from the Company by any Member;

(l) such other matters requiring approval of both Members as set forth in Exhibit E;

(m) execution of agreements or commitments with respect to any of the foregoing; and

(n) adoption of the capital expansion plan described in Section 2.1(c).

EXHIBIT E

TAXES; RELATED MATTERS

A. Allocations Generally.

(1) The Company shall establish and maintain an individual Capital Account for each Member. Unless otherwise stated in this Agreement, the number of the Shares issued to any Member shall not be adjusted for any increase or decrease in such Capital Account. No Member will have the right to withdraw or receive any return of, or interest on, any balance in such Member's Capital Account. No Member will have any obligation to restore any deficit or negative balance in the Capital Account of such Member.

(2) Except as otherwise provided in **Section B**, Profits and Losses of the Company shall be allocated among the Members in a manner such that, after giving effect to any special allocations required by **Section B**, the Capital Account balance of each Member, immediately after making such allocation, is, as nearly as possible, equal to the distributions that would be made to such Member if the Company were dissolved, its affairs wound up and its assets sold for cash equal to their book value (as determined for purposes of maintaining Capital Accounts), all Company liabilities were satisfied (limited with respect to each nonrecourse liability (as defined in the Treasury Regulations under Section 704 of the Code) to the book value of the assets securing such liability), and the net assets of the Company were distributed in accordance with Section 5.2 of this Agreement to the Members immediately after making such allocation, reduced by each Member's share of "partnership minimum gain" and "partner nonrecourse debt minimum gain," as determined in the Treasury Regulations under Section 704 of the Code.

B. Regulatory Allocations and Other Allocation Rules.

Notwithstanding anything in the Agreement to the contrary, the following special allocations will be made as follows, and, as appropriate, in the following order:

(1) Items of Company loss and deduction otherwise allocable to a Member hereunder that would cause such Member (hereinafter, a "**Restricted Holder**") to have a deficit balance in his or her or its Adjusted Capital Account, or would increase the deficit balance in his or her or its Adjusted Capital Account, as of the end of the Fiscal Year to which such items relate shall not be allocated to such Restricted Holder and instead shall be allocated to the other Members *pro rata* in proportion to their positive Adjusted Capital Account balances until all Adjusted Capital Account balances equal zero, and then to all Members in proportion to their percentage ownership of all outstanding Shares.

(2) If there is a net decrease in Company Minimum Gain for any Fiscal Year (except as a result of conversion or refinancing of Company indebtedness, certain capital contributions or revaluation of the Company's property as further outlined in Treasury Regulation Sections 1.704-2(d)(4), (f)(2) or (f)(3)), each Member shall be specially allocated items of Company income and gain for such year (and, if necessary, subsequent years) in an amount equal to that Member's share of the net decrease in Company Minimum Gain. The items to be so allocated shall be determined in accordance with Treasury Regulations Section 1.704-2(f). This **Section B(2)** is intended to comply with the minimum gain chargeback requirement in said Section of the Treasury Regulations and shall be interpreted consistently therewith. Allocations pursuant to this **Section B(2)** shall be made in proportion to the respective amounts required to be allocated to each Member pursuant hereto.

(3) If there is a net decrease in Minimum Gain Attributable to Member Nonrecourse Debt during any Fiscal Year (other than due to the conversion, refinancing or other change in the debt instrument causing it to become partially or wholly nonrecourse, certain capital contributions, or certain revaluations of the Company's property as further outlined in Treasury Regulations Section 1.704-2(i)(4)), each Member shall be specially allocated items of Company income and gain for such year (and, if necessary, subsequent years) in an amount equal to that Member's share of the net decrease in the Minimum Gain Attributable to Member Nonrecourse Debt. The items to be so allocated shall be determined in accordance with Treasury Regulations Section 1.704-2(i)(4) and (j)(2). This **Section B(3)** is intended to comply with the minimum gain chargeback requirement with respect to Member Nonrecourse Debt contained in said Section of the Treasury Regulations and shall be interpreted consistently therewith. Allocations pursuant to this **Section B(3)** shall be made in proportion to the respective amounts required to be allocated to each Member pursuant hereto.

(4) In the event a Member unexpectedly receives any adjustments, allocations or distributions described in Treasury Regulations Section 1.704-1(b)(2)(ii)(d)(4), (5), or (6), and such Member has an Adjusted Capital Account deficit, items of Company income and gain shall be specially allocated to such Member in an amount and manner sufficient to eliminate the Adjusted Capital Account deficit as quickly as possible. This **Section B(4)** is intended to constitute a qualified income offset under Treasury Regulations Section 1.704-1(b)(2)(ii)(d) and shall be interpreted consistently therewith.

(5) Nonrecourse Deductions for any Fiscal Year or other applicable period shall be allocated to the Members as deemed appropriate by the Board, but only as permitted by the Treasury Regulations.

(6) Member Nonrecourse Deductions for any Fiscal Year or other applicable period shall be specially allocated to the Member that bears the economic risk of loss for the debt (*i.e.*, the Member Nonrecourse Debt) with respect to which such Member Nonrecourse Deductions are attributable (as determined under applicable Treasury Regulations).

(7) To the extent that Treasury Regulations Section 1.704-1(b)(2)(iv)(m) requires that Capital Accounts be adjusted with respect to an adjustment to the basis of Company property pursuant to a Code Section 754 election, such adjustment shall be treated as an item of income, gain or loss and allocated to the Members as appropriate.

(8) In the event any Member has a deficit Capital Account at the end of any Fiscal Year which is in excess of the amount such Member is obligated to restore pursuant to the penultimate sentences of Treasury Regulations Sections 1.704-2(g)(1) and 1.704-2(i)(5), each such Member shall be specially allocated items of Company income and gain in the amount of such excess as quickly as possible, *provided* that an allocation pursuant to this **Section B(8)** shall be made only if and to the extent that such Member would have a deficit Capital Account in excess of such amount after all other allocations provided for under this Agreement have been made as if **Section B(4)** and this **Section B(8)** were not in this Agreement.

(9) The allocations set forth in **Sections B(1)** through (and including) **B(8)** (the "**Regulatory Allocations**") are intended to comply with certain requirements of the Treasury Regulations. It is the intent of the Members that, to the extent possible, all Regulatory Allocations shall be offset either with other Regulatory Allocations or with special allocations of other items of Company income, gain, loss or deduction pursuant to this **Section B(9)**. Therefore, notwithstanding any other provision of the Agreement or this **Exhibit E** (other than the Regulatory Allocations), the Board shall make such offsetting special allocations of Company income, gain, loss or deduction in current or future periods in whatever manner it determines appropriate such that, after such offsetting allocations are made, each Member's Capital Account balance is, to the extent possible, equal to the Capital Account balance such Member would have had if the Regulatory Allocations were not part of this **Exhibit E** and all Company items were allocated pursuant to **Section A** hereof. In exercising its discretion under this **Section B(9)**, the Board shall take into account future Regulatory Allocations under **Sections B(2)** and **B(3)** that, although not yet made, are likely to offset other Regulatory Allocations previously made under **Sections B(5)** and **B(6)**.

(10) Allocations to Members whose interests vary during a year by reason of transfer, redemption, admission, capital contributions, or otherwise, shall be made as determined by the Board in accordance with permissible methods under Code Section 706.

C. Tax Allocations.

(1) Subject to **Section C(2)**, items of income, gain, loss, deduction and credit to be allocated for income tax purposes (collectively, "**Tax Items**") will be allocated among the Members on the same basis as their respective book items, as provided in **Sections A** through (and including) **B**.

(2) If any Company property is subject to Code Section 704(c) or is reflected in the Capital Accounts of the Members and on the books of the Company at a value that differs from the adjusted tax basis of such property, then the Tax Items with respect to such property will, in accordance with the requirements of Treasury Regulations Section 1.704-1(b)(4)(i), be shared among the Members in a manner that takes account of the variation between the adjusted tax basis of the applicable property and its value. The Board is authorized to choose any reasonable method permitted by the Treasury Regulations pursuant to Code Section 704(c); provided, however, that the Company shall apply the "remedial" method with respect to all Section 704(c) gain that is attributable to Amyris as of the date of this Agreement.

(3) Pursuant to Treasury Regulations Section 1.752-3, each Member's interest in Company profits, for purposes of determining such Member's shares of excess "nonrecourse liabilities" shall equal such Member's Company Interest.

(4) Any payment of foreign tax that may be creditable against any Member's federal income tax liability shall be allocated to the Members in the same manner as the allocation of the income or gain generating such foreign tax credit. Other tax credits shall be allocated to the Members in a manner reasonably determined by the Board.

(5) The Members are aware of the income tax consequences of the allocations made by this Agreement and will report their shares of Tax Items for income tax purposes consistently with this Agreement.

D. Tax Classification.

The Members that the Company intend that, unless the Board determines otherwise, the Company shall be operated in a manner consistent with its treatment as a "partnership" other than a publicly traded partnership for U.S. federal, state and local income and franchise tax purposes. In accordance therewith, (a) no Member shall file any election with any taxing authority to have the Company treated otherwise, and (b) each Member hereby represents, covenants, and warrants that it shall not maintain a position inconsistent with such treatment, in each case subject to a determination by the Board that the Company should no longer seek to be taxable as a partnership.

E. Additional Tax Matters.

(1) For all tax years of the Company not subject to the BBA Rules, if the Company constitutes a "partnership" described by Section 6231(a)(1) of the Code, or if the Company elects to be treated as such pursuant to this **Section E(1)**, the Board shall appoint the Tax Matters Member in compliance with the Code and the Treasury Regulations. All expenses incurred by the Tax Matters Member with respect to any tax matter that does or may affect the Company, or any Member by reason thereof, shall be paid for out of Company assets and shall be treated as Company expenses; *provided, however*, that the Company shall not be obligated to pay any such expenses incurred as a result of the Tax Matters Member's bad faith, gross negligence or intentional misconduct. The Company may elect to be treated as a "partnership" described by Section 6231(a)(1) at the discretion of the Board, and each Member shall take such actions as the Board reasonably requests to perfect any such election. References to Code Sections in this **Section E(1)** are to such provisions as they existed before the enactment of the Bipartisan Budget Act of 2015.

(2) For all tax years that are subject to the BBA Rules, the Company's "partnership representative" (the "**Company Representative**") shall be such Person as the Board designates from time to time in accordance with the BBA Rules. Each Member shall take such actions as are necessary or convenient to effect the appointment of a Company Representative that has been selected in accordance with this **Section E(2)**. The Company shall elect into the partnership audit regime enacted by the Bipartisan Budget Act of 2015, and the Company and the Members shall take all actions necessary to effect such election. The Company Representative has full discretion to represent and bind the Company in each audit conducted by any taxing authority, including without limitation the power and authority (i) to make an election under Section 6223 (if available) or Section 6226 of the Code and any Treasury Regulations promulgated in accordance therewith and (ii) to take, and to cause the Company to take, all actions necessary or convenient to give effect to such an election. Each Member agrees to take all actions that the Company Representative informs it are reasonably necessary to effect a decision of the Company Representative in its capacity as such, including without limitation (A) providing any information reasonably requested in connection with any tax audit or related proceeding (which information may be freely disclosed to the Internal Revenue Service or other relevant taxing authorities), (B) paying all liabilities attributable to such Member as the result of an election under Section 6226 of the Code, (C) filing any amended returns that the Company Representative determines to be necessary or appropriate to reduce an imputed underpayment under Section 6225(c) of the Code or (D) paying all liabilities associated with such an amended return. The costs and expenses incurred by a Member in connection with the preceding sentence shall not be treated as expenses of, or Capital Contributions to, the Company. All expenses incurred by the Company Representative with respect to any tax matter that does or may affect the Company, or any Member by reason thereof, shall be paid for out of Company assets and shall be treated as Company expenses; *provided*, *however*, that the Company shall not be obligated to pay any such expenses incurred as a result of the Company Representative's bad faith, gross negligence or intentional misconduct. References to Code Sections in this **Section E(2)** are to such provisions as amended by the Bipartisan Budget Act of 2015.

(3) If any tax audit under the BBA Rules or similar foreign, state, or local laws or regulations results in the imposition of a tax liability on the Company itself and the Company Representative determines in its sole discretion that any portion of such liability (including associated interest and penalties) is specifically attributable to a Member (whether as a result of its status, actions, inactions or otherwise), then at the Company Representative's election such amount shall (a) be contributed to the Company by such Member, and such contribution shall not be treated as a Capital Contribution for purposes of determining a Member's Shares or Company Interest, or (ii) be deemed to have been distributed to such Member, and a corresponding amount shall be withheld from the next distributions to which the Member would otherwise be entitled.

(4) Notwithstanding all other provisions of this Agreement, each Member agrees that its obligations to comply with the Company Representative's decisions under this **Section E** shall survive any transfer of its Company interest and the termination of the Company as a tax partnership. Accordingly, each Person that ceases to be a Member shall, notwithstanding such divestiture, (i) reimburse and indemnify the Company against any liability that would be attributed to such Person under **Section E(3)** if the Person were a Member at the time of determination, and (ii) promptly provide updated contact information to the Company upon any change to such information until the fourth anniversary of the Company's status as a tax partnership is terminated.

(5) If a Member is permitted under the Code to participate in Company-level administrative or judicial tax proceedings, such Member shall be responsible for all expenses incurred by it in connection with such participation. The cost of any adjustments to all Members and the cost of any resulting audits or adjustments of Members will be borne solely by the Members without reimbursement by the Company.

(6) For the avoidance of doubt, the Tax Matters Member and the Company Representative are each "officers of the Company" for purposes of Section 8.2 and Article 10.

(7) No Member shall file a notice with the Internal Revenue Service under Section 6222 of the Code in connection with such Member's intention to treat an item on such Member's federal income tax return in a manner which is inconsistent with the treatment of such item on the Company's federal income tax return unless such Member has, not less than thirty (30) days prior to the filing of such notice, provided the Board with a copy of the notice and thereafter in a timely manner provides such other information related thereto as the Board shall reasonably request.

(8) Any Member entering into a settlement agreement with the Internal Revenue Service that concerns a Company item shall notify the Board of such settlement agreement and its terms within thirty (30) days after the date thereof.

(9) Except to the extent specifically provided in the Code or Treasury Regulations (or the laws of another relevant taxing jurisdiction) or otherwise provided herein, the Board, in its sole discretion, shall have exclusive authority to act for or on behalf of the Company with regard to tax matters, including the authority to make (or decline to make) any available tax elections (including elections under Section 754 of the Code). The Board shall prepare and file or cause to be prepared and filed any federal, state, local and foreign tax returns for the Company and shall be the sole signatory to such returns, except to the extent any other Person is required by law to also sign such returns. The Company shall deliver to each Member a Schedule K-1 relating to such Member's interest in the Company within 90 days after each taxable year, or as soon as reasonably practicable thereafter.

F. Definitions.

The following terms shall have the following meanings.

"**Adjusted Asset Value**" means, with respect to any asset of the Company, the adjusted basis of such asset for federal income tax purposes, except as follows:

(i) The Adjusted Asset Value of any asset contributed to the Company by a Member will be the gross fair market value of such asset as determined by the Board.

(ii) If the Board reasonably determines that an adjustment is necessary or appropriate to reflect the relative interests of the Members in the Company, the Adjusted Asset Values of all Company assets will be adjusted to equal their gross fair market values, as determined by the Board, taking Section 7701(g) of the Code into account, as of the following times: (a) a Capital Contribution (other than a de minimis Capital Contribution) to the Company by a new or existing Member; (b) any distribution by the Company to a Member of more than a de minimis amount of Company property (other than cash); (c) any distribution by the Company to a Member of more than a de minimis amount of cash in connection with the redemption of all or a portion of a Member's Shares in the Company; and (d) at such other times as the Board reasonably determines necessary or advisable in order to comply with Treasury Regulations Sections 1.704 1(b) and 1.704 2.

(iii) The Adjusted Asset Values of Company property will be increased (or decreased) to reflect any adjustments to the adjusted basis of such assets pursuant to Sections 734(b) or 743(b) of the Code, but only to the extent that such adjustments are taken into account in determining Capital Accounts pursuant to Section 1.704 1(b)(2)(iv)(m) of the Treasury Regulations; provided, however, that Adjusted Asset Values will not be adjusted pursuant to this paragraph to the extent that the Board reasonably determines that an adjustment pursuant to paragraph (ii) above is necessary or appropriate in connection with a transaction that would otherwise result in an adjustment pursuant to this paragraph (iii).

(iv) The Adjusted Asset Value of an asset will be adjusted by the Depreciation taken into account with respect to such asset for purposes of computing Profits and Losses.

"**Adjusted Capital Account**" means, with respect to any Member, such Member's Capital Account as of the end of the relevant Fiscal Year, after giving effect to the following adjustments: (i) credit to such Capital Account any amounts that such Member is obligated or treated as obligated to restore with respect to any deficit balance in such Capital Account pursuant to Section 1.704 1(b)(2)(ii)(c) of the Treasury Regulations, or is deemed to be obligated to restore with respect to any deficit balance pursuant to the penultimate sentences of Sections 1.704 2(g)(1) and 1.704 2(i)(5) of the Treasury Regulations; and (ii) debit to such Capital Account the items described in Treasury Regulations Sections 1.704 1(b)(2)(ii)(d)(4), 1.704 1(b)(2)(ii)(d)(5) and 1.704 1(b)(2)(ii)(d)(6). The foregoing definition of Adjusted Capital Account is intended to comply with the provisions of Section 1.704 1(b)(2)(ii)(d) of the Treasury Regulations and will be interpreted consistently therewith.

"**BBA Rules**" means Sections 6221 through 6241 of the Code, as amended by the Bipartisan Budget Act of 2015, and all Treasury Regulations and guidance issued thereunder.

"**Capital Account**" means the capital account established on behalf of each Member on the books of the Company. In general, the Capital Account of each Member initially shall be credited with the amount of such Member's initial Capital Contribution to the Company, as set forth on Exhibit B. Thereafter, each such Member's Capital Account shall be: increased by (a) the amount of money contributed by such Member to the Company, (b) the Adjusted Asset Value of any property contributed by such member to the Company (net of liabilities securing such contributed property that the Company is considered to assume or take subject to) and (c) allocations to such Member of Profits and other items of book income and gain; decreased by (d) the amount of money distributed to such Member by the Company, (e) the Adjusted Asset Value of property distributed by the Company to such Member (net of liabilities securing such distributed property that such Member is considered to assume or take subject to) and (f) allocations to such Member of Losses and other items of book loss and deduction; and otherwise adjusted in accordance with the additional rules set forth in Treasury Regulations Section 1.704 1(b)(2)(iv). The Capital Accounts also shall be adjusted (x) as reasonably determined by the Board, to reflect any redemption, forfeiture or transfer of Shares, and (y) in accordance with Treasury Regulations Section 1.704 1(b)(2)(iv)(m). It is the intent of the Members that the Capital Accounts of all Members be determined and maintained, to the greatest extent possible, in accordance with the principles of Treasury Regulations Section 1.704 1(b)(2)(iv) at all times throughout the full term of the Company. Accordingly, the Board is authorized to make any other adjustments to the Capital Accounts so that the Capital Accounts and allocations thereto comply with such Section.

"**Company Minimum Gain**" means "partnership minimum gain" as set forth in Section 1.704-2(b)(2) of the Treasury Regulations.

"**Depreciation**" means, with respect to any Company asset for any Fiscal Year or other period, the depreciation, depletion or amortization, as the case may be, allowed or allowable for federal income tax purposes with respect to such asset for such Fiscal Year or other period; *provided, however*, that if there is a difference between the Adjusted Asset Value and the adjusted tax basis of such asset, Depreciation will mean "book depreciation, depletion or amortization" as determined under Section 1.704-1(b)(2)(iv)(g)(3) of the Treasury Regulations; *provided, further*, that, if any property has a zero adjusted basis for federal income tax purposes, Depreciation may be determined under any reasonable method selected by the Board.

"**Member Nonrecourse Debt**" means "partner nonrecourse debt" as set forth in Treasury Regulations Section 1.704-2(b)(4).

"**Member Nonrecourse Deductions**" means "partner nonrecourse deductions" as set forth in Treasury Regulations Section 1.704-2(i)(2).

"**Minimum Gain Attributable to Member Nonrecourse Debt**" means "partner nonrecourse debt minimum gain" as determined in accordance with Treasury Regulations Section 1.704-2(i)(2).

"**Nonrecourse Deductions**" has the meaning set forth under Sections 1.704-2(b)(1) and (c) of the Treasury Regulations.

"**Profits**" and "**Losses**" means, for each Fiscal Year or other period, an amount equal to the Company's taxable income or loss for such year or other period, determined in accordance with Code Section 703(a) (for this purpose, all items of income, gain, loss or deduction required to be stated separately pursuant to Code Section 703(a)(1) shall be included in taxable income or loss), with the following adjustments: (i) any income of the Company that is exempt from federal income tax and not otherwise taken into account in computing Profits or Losses shall be added to such taxable income or loss; (ii) any expenditures of the Company described in Code Section 705(a)(2)(B) or treated as Code Section 705(a)(2)(B) expenditures pursuant to Treasury Regulations Section 1.704-1(b)(2)(iv)(i) shall be subtracted from such taxable income or loss; (iii) gain or loss resulting from any disposition of a property with respect to which gain or loss is recognized for federal income tax purposes shall be computed by reference to the Adjusted Asset Value of the property disposed of, notwithstanding that the adjusted tax basis of such property differs from its Adjusted Asset Value; (iv) in lieu of the depreciation, amortization and other cost recovery deductions taken into account in computing such taxable income or loss, the Company shall compute such deductions based on Depreciation; (v) if the Adjusted Asset Value of an asset is adjusted pursuant to the definition of Adjusted Asset Value, then the amount of such adjustment shall be treated as an item of gain or loss and included in the computation of Profits and Losses; and (vi) items of Company gross income, gains, deductions and losses allocated pursuant to **Section B** of **Exhibit E** shall not be included in the computation of Profits and Losses.

Exhibit 10.107

November 23, 2016

Kathleen Valiasek

Dear Kathy:

On behalf of Amyris, Inc. ("***Amyris***" or the "***Company***"), I am delighted to offer to you employment with Amyris. If you accept this offer and satisfy the conditions of acceptance set forth herein, your employment with Amyris will commence on January 4, 2017, or on a different date mutually agreed to by both parties, under the following terms:

Position
You will be employed full-time by Amyris as Chief Financial Officer (CFO) reporting to John Melo, CEO.

Salary
Your base salary will be $350,000 per year ($29,167 per month) payable in accordance with Amyris' regular payroll schedule which is currently semi-monthly. Your salary will be subject to adjustment from time to time pursuant to the Company's employee compensation policies then in effect.

Bonus
You will be eligible for a discretionary performance-based bonus, with your initial aggregate annual bonus target being $115,500.00. Such bonus shall be earned and paid out in accordance with the applicable executive bonus plan adopted by the Company for each year.

Benefits
You will be eligible to participate in the employee benefits and benefit plans that are available to full-time employees of Amyris. Currently, these include (i) 12 paid holidays, (ii) three weeks of paid vacation (pro-rated by hiring date), (iii) up to six days of paid sick leave per year (pro-rated by hiring date), (iv) medical insurance, (v) dental insurance, (vi) vision insurance, (vii) supplemental health and flexible spending accounts, (viii) group term life insurance, (ix) accidental death & disability insurance, (x) long-term disability insurance, and (xi) 401K plan. You will also be eligible to receive paid access to adjacent gym facilities. The terms of your benefits will be governed by the applicable plan documents and Amyris' company policies. Enclosed is an Employee Benefits Overview.

Equity
Amyris will recommend to its Board of Directors or the relevant committee of the Board of Directors that you be granted (i) an option to purchase 250,000 shares of common stock of Amyris; and (ii) an award of 167,000 restricted stock units ("***RSUs***"). The option would have an exercise price per share equal to the fair market value of a share of Amyris common stock on the date of grant (generally the closing price of Amyris common stock on NASDAQ as of the date of grant) and vest as follows: (i) 50,000 shares will vest upon completion of six months of employment, and (ii) 25% of the remaining shares subject to the option upon completion of your twelfth month of employment, and (iii) the balance of the shares subject to the option in a series of 36 equal monthly instalments upon completion of each additional month of employment with Amyris thereafter. The 167,000 share RSU awards would vest in equal annual instalments over three years from the vesting commencement date. Any option(s) or RSU award(s) granted to you will be granted as of a date set in accordance with Amyris' standard equity award granting policy and subject to the then-current terms and conditions of the relevant Amyris equity plan and agreements.

Amyris' Company Policies
As an employee of Amyris, you will be subject to, and expected to comply with its policies and procedures, personnel and otherwise, as such policies are developed and communicated to you.

"At-Will" Employment
Employment with Amyris is "at-will". This means that it is not for any specified period of time and can be terminated by you or by Amyris at any time, with or without advance notice, and for any or no particular reason or cause. It also means that your job duties, title and responsibility and reporting level, compensation and benefits, as well as Amyris' personnel policies and procedures, may be changed at any time in the sole discretion of Amyris. However, the "at-will" nature of your employment shall remain unchanged during your tenure as an employee of Amyris and may not be changed, except in an express writing signed by you and by an authorized Amyris executive officer signing on behalf of Amyris.

Termination and Change in Control Benefits
As an executive of Amyris, you will be eligible to participate in the Company's Executive Severance Plan (the "***Severance Plan***"), a copy of which is attached hereto as ***Exhibit A***. In order to participate in the Severance Plan, you will be required to execute the "Participation Agreement" in the form attached to the Severance Plan and to comply with the other terms of the Severance Plan.

Full-Time Service to Amyris
Amyris requires that, as a full-time employee, you devote your full business time, attention, skills and efforts to the tasks and duties of your position as assigned by Amyris. If you wish to request consent to provide services (for any or no form of compensation) to any other person or business entity while employed by Amyris, you must first receive permission from an officer of Amyris.

Conditions of Offer
In order to accept this offer, and for your acceptance to be effective, you must satisfy the following conditions:

1. You must provide satisfactory documentary proof of your identity and right to work in the United States of America on your first day of employment.

2. You must agree in writing to the terms of the enclosed *Proprietary Information and Inventions Agreement* ("PIIA") without modification.

3. You must consent to, and Amyris must obtain satisfactory results from, reference and background checks. Until you have been informed in writing by Amyris that such checks have been completed and the results satisfactory, you may wish to defer reliance on this offer.

4. You must agree in writing to the terms of the enclosed *Mutual Agreement to Binding Arbitration* ("Arbitration Agreement") without modification.

By signing and accepting this offer, you represent and warrant that: (i) you are not subject to any pre-existing contractual or other legal obligation with any person, company or business enterprise which may be an impediment to your employment with, or your providing services to, Amyris as its employee; and (ii) you have not and shall not bring onto Amyris' premises, or use in the course of your employment with Amyris, any confidential or proprietary information of another person, company or business enterprise to whom you previously provided services.

Entire Agreement
Provided that the conditions of this offer and your acceptance are satisfied, this letter together with the enclosed PIIA and Arbitration Agreement (collectively, the "Offer Documents") shall constitute the full and complete agreement between you and Amyris regarding the terms and conditions of your employment. The Offer Documents cancel, supersede and replace any and all prior negotiations, representations or agreements, written and oral, between you and Amyris or any representative or agent of Amyris regarding any aspect of your employment. Any change to the terms of your employment with Amyris, as set forth in this letter, must be in an individualized writing to you, signed by Amyris to be effective.

Please confirm your acceptance of this offer, by signing and returning the enclosed copy of this letter as well as the PIIA and Arbitration Agreement to Christine Ofori, CHRO by November 28, 2016. If not accepted by you as of that date, this offer will expire. We look forward to having you join Amyris. If you have any questions, please do not hesitate to contact me at

Sincerely,

/s/ Christine Ofori

Christine Ofori
Chief Human Resources Officer

I HAVE READ AND ACCEPT THIS EMPLOYMENT OFFER:

/s/ Kathleen Valiasek
Kathleen Valiasek

11/28 , 2016
Date

Enclosures:
Proprietary Information and Inventions Agreement
Mutual Agreement to Arbitrate
Employee Benefits Overview

Exhibit 10.119

Description of Non-Employee Director Compensation Arrangements

In December 2010, the Board of Directors (the "***Board***") of Amyris, Inc. (the "***Company***") adopted a non-employee director compensation program (the "***Program***") that took effect on January 1, 2011. In February 2012, October 2013, November 2013 and November 2014, the Leadership Development and Compensation Committee of the Board (the "***LDCC***") determined that it would not recommend to the Board any changes to the Program for 2012, 2013, 2014 or 2015, respectively. In February 2015, due to the commitment required for the role and consistent with similarly situated companies, the Board approved an increase to the annual cash retainer payable to the chair of the Audit Committee of the Board (the "***Audit Committee***") from $15,000 to $30,000, effective January 1, 2015. In November 2015, the LDCC recommended to the Board that it increase the equity component of the Program to provide for awards at approximately the 50th market percentile. In December 2015, the Board approved an increase to the equity component of the Program, which had previously consisted of an initial award upon joining the Board of an option to purchase 20,000 shares of the Company's common stock ("***Common Stock***") and an annual award consisting of an option to purchase 6,000 shares of Common Stock and 3,000 restricted stock units. In October 2016, the LDCC further recommended to the Board that it add an annual retainer for the position of non-executive Board chair in the form of an award of 35,000 restricted stock units to the Program, which the Board approved in November 2016. Under the amended Program, in each case subject to final approval by the Board with respect to equity awards:

- Each non-employee director receives an annual cash retainer of $40,000, an initial award upon joining the Board consisting of an option to purchase 45,000 shares of Common Stock and 30,000 restricted stock units, and an annual award consisting of an option to purchase 26,000 shares of Common Stock and 17,000 restricted stock units. The initial option award vests in equal quarterly installments over three years, the initial restricted stock unit award vests in equal annual installments over three years, and the annual option and restricted stock unit awards become fully vested after one year (in each case subject to continued service through the applicable vesting date).

- The non-executive Board chair receives an additional annual award of 35,000 restricted stock units. The award becomes fully vested after one year (subject to continued service through the vesting date).

- The chair of the Audit Committee receives an additional annual cash retainer of $30,000.

- The chair of the LDCC receives an additional annual cash retainer of $10,000.

- The chair of the Nominating and Governance Committee of the Board (the "***NGC***") receives an additional annual cash retainer of $9,000.

- Audit Committee, LDCC and NGC members other than the chair receive an additional annual cash retainer of $7,500, $5,000 and $4,500, respectively.

In general, all of the retainers described above are paid quarterly in arrears. In cases where a non-employee director serves for part of the year in a capacity entitling him or her to a retainer payment, the retainer is prorated to reflect his or her period of service in that capacity. Non-employee directors are also eligible for reimbursement of their expenses incurred in attending Board and committee meetings.

Exhibit 10.120

Description of Executive Officer Compensation Arrangements

The following discussion describes and analyzes the compensation policies, arrangements and decisions for our named executive officers in 2016. In 2011, our stockholders adopted a three year interval for conducting future stockholder say-on-pay votes. Accordingly, we last conducted a stockholder say-on-pay vote at our annual meeting in 2014 and at that time our stockholders approved, on an advisory basis, the compensation of our named executive officers (our stockholders will again be voting, on an advisory basis, on the compensation of our named executive officers as well as the frequency of the stockholder say-on-pay vote at our 2017 annual meeting). Our existing compensation policies, arrangements and decisions are consistent with our compensation philosophy and objectives discussed below and align the interests of our named executive officers with Amyris' short-term and long-term goals. During 2016, our named executive officers were:

- John Melo, President and Chief Executive Officer
- Raffi Asadorian, Chief Financial Officer(1)
- Joel Cherry, President, Research and Development
- Nicholas Khadder, Senior Vice President and General Counsel(2)

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(1) Mr. Asadorian resigned from the company effective January 4, 2017, at which time Kathleen Valiasek assumed the role of Chief Financial Officer.

(2) Mr. Khadder resigned from the company effective June 14, 2016.

Compensation Philosophy and Objectives and Elements of Compensation

The primary objectives of our executive compensation program in 2016 were to:

- Attract, retain, and motivate highly talented employees that are key to our success;
- Reinforce our core values and foster a sense of ownership, urgency and entrepreneurial spirit;
- Link compensation to individual, team, and company performance (as appropriate by employee level);
- Emphasize performance-based compensation for individuals who can most directly impact stockholder value; and
- Provide exceptional pay for delivering exceptional results.

Our success depends, among other things, on attracting and retaining executive officers with experience and skills in a number of different areas as we continue to drive improvements in our technology platform and production process, pursue and establish key commercial relationships, develop and commercialize products, and establish a reliable supply chain and manufacturing organization.

Our business continues to be in an early stage of development with cash management being one key consideration for our strategy and operations. Accordingly, for 2016, we intended to provide a competitive compensation program that would enable us to attract and retain the top executives and employees necessary to develop our business, while being prudent in the management of our cash and equity. Based on this approach, we continued to aim to balance and reward annual and long-term performance with a total compensation package that included a mix of both cash and equity. Our compensation program was intended to align the interests of management, key employees and stockholders and to encourage the creation of stockholder value by providing long-term incentives through equity ownership. We continued to adhere to this general compensation philosophy for 2016.

Our intent and philosophy in designing compensation packages at the time of hiring of new executives is based on providing compensation that we believe is sufficient to enable us to attract the necessary talent, within prudent limitations as discussed above. Compensation of our executive officers after the initial period following their hiring is influenced by the amounts of compensation that we initially agreed to pay them, as well as by our evaluation of their subsequent performance, changes in their levels of responsibility, retention considerations, prevailing market conditions, the financial condition and prospects of our company, and our attempt to maintain some level of internal pay parity in the compensation of existing executive officers relative to the compensation paid to more recently hired executives.

We compensate our executive officers with a combination of salaries, cash bonuses and equity awards. We believe this combination of cash and equity, subject to strategic allocation among such components, is largely consistent with the forms of compensation provided by other companies with which we compete for executive talent, and, as such, matches the expectations of our executive officers and of the market for executive talent. We also believe that this combination provides appropriate incentive levels to retain our executives, reward them for performance in the short term and induce them to contribute to the creation of value in Amyris over the long term. We view the different components of our executive compensation as distinct, each serving particular functions in furthering our compensation philosophy and objectives, and, together, providing a holistic approach to achieving such philosophy and objectives.

Base Salary. We believe we must maintain base salary levels that are sufficiently competitive to position us to attract and retain the executive officers we need and that it is important for our executive officers to perceive that over time they will continue to have the opportunity to earn a salary that they regard as competitive. The Leadership Development and Compensation Committee of the Board (the "Leadership Development and Compensation Committee" or the "Committee") reviews and adjusts, as appropriate, the base salaries of our executives on an annual basis, and makes decisions with respect to the base salaries of new executives at the time of hire. In making such determinations, the Committee considers many factors, including our overall financial performance, the individual performance of the executive officer in question (including, for executives other than our chief executive officer, recommendations from our chief executive officer based on performance evaluations of the executive officer in question), the executive's potential to contribute to our annual and longer-term strategic goals, the executive officer's scope of responsibilities, qualifications and experience, competitive market practices for base salary, prevailing market conditions and internal pay parity.

Cash Bonuses. We believe the ability to earn cash bonuses should provide incentives to our executive officers to effectively pursue goals established by the Board and should be regarded by executive officers as appropriately rewarding effective performance against these goals. For 2016, the Leadership Development and Compensation Committee adopted a cash bonus plan for our executive officers, the details of which are described below under "2016 Compensation." The 2016 cash bonus plan included company performance goals and individual performance goals and was structured to motivate our executive officers to achieve our short-term financial and operational goals and to reward exceptional company and individual performance. In particular, our 2016 cash bonus plan was designed to provide incentives to our executive officers to achieve 2016 company financial and operational targets on a quarterly and annual basis, together with various key individual operational objectives that are considered for annual performance achievement. In general, target bonuses for executives are first set in their offer letters based on similar factors to those described above with respect to the determination of initial base salary at the time of hire (or promotion, as the case may be). For subsequent years, target bonuses for executives may be adjusted by the Leadership Development and Compensation Committee based on various factors, including any modifications to base salary, competitive market practices and other considerations described above with respect to adjustments in executive base salaries.

Equity Awards. Our equity awards are also designed to be sufficiently competitive to allow us to attract and retain executives. In 2016, we granted both stock option and restricted stock unit awards to executive officers. Option awards for executive officers are granted with an exercise price equal to the fair market value of our common stock on the date of grant; accordingly, such option awards will have value to our named executive officers only if the market price of our common stock increases after the date of grant. Under our 2010 Equity Incentive Plan, the fair market value of our common stock is the closing price of our common stock on The NASDAQ Stock Market on the date of determination. Restricted stock unit awards represent the right to receive full-value shares of our common stock without payment of any exercise price. Shares of our common stock are not issued when a restricted stock unit award is granted; instead, once a restricted stock unit award vests, one share of our common stock is issued for each vested restricted stock unit. Generally, we grant smaller restricted stock unit awards as compared to option awards because restricted stock units have a greater fair value per unit than options. However, in 2016 we placed a greater emphasis on restricted stock unit awards to increase the perceived value of the equity awards granted to our executives. The relative weighting between the option and restricted stock unit awards granted to our executives is based on a review of market practices.

We typically grant option awards with four-year vesting schedules. Stock option grants include a one year "cliff", where the option award vests as to 25% of the shares after one year, and monthly thereafter, subject to continued service through each vesting date. Our restricted stock unit awards have generally been issued with three-year vesting schedules, vesting as to 1/3rd of the units annually, subject to continued service through each vesting date. We believe such vesting schedules are generally consistent with the option and restricted stock unit award granting practices of our peer group companies.

We grant equity awards to our executive officers in connection with their hiring, or, as applicable, their promotion from other roles at the company. The size of initial equity awards is determined based on the executive's position with us and takes into consideration the executive's base salary and other compensation as well as an analysis of the grant and compensation practices of our peer group companies in connection with establishing our overall compensation policies. The initial equity awards are generally intended to provide the executive with an incentive to build value in the organization over an extended period of time, while remaining consistent with our overall compensation philosophy. Insofar as we have to date incurred operating losses and consumed substantial amounts of cash in our operations, and to compensate for cash salaries and cash bonus opportunities that were, in certain cases, lower than those offered by competing employers, we have sought to attract executives to join us by granting equity awards that would have the potential to provide significant value if we are successful.

We also occasionally grant additional equity awards in recognition of commendable performance and in connection with significant changes in responsibilities. Further, equity awards are a component of the annual compensation package of our executive officers. In 2016, the Leadership Development and Compensation Committee granted equity awards based on input from management regarding performance, retention and other considerations. In approving such awards, the Leadership Development and Compensation Committee has taken into account various factors, including the responsibilities, past performance and anticipated future contribution of the executive officer, the executive's overall compensation package, the executive's existing equity holdings in Amyris and practice at peer companies.

Role of Stockholder Say-on-Pay Votes. At our 2011 and 2014 annual meetings of stockholders, our stockholders voted, on an advisory basis, on the compensation of our named executive officers (commonly referred to as a "stockholder say-on-pay vote"). A majority of the votes cast were voted in favor of the non-binding advisory resolutions approving the compensation of our named executive officers as summarized in our 2011 and 2014 proxy statements. The Leadership Development and Compensation Committee believes that this affirms our stockholders' support of our approach to executive compensation, and, accordingly, did not materially change its approach to executive compensation in 2016 and does not intend to do so in 2017. Our stockholders will again be voting, on an advisory basis, on the compensation of our named executive officers as well as the frequency of future stockholder say-on-pay votes at our 2017 annual meeting.

Compensation Policies and Practices As They Relate to Risk Management

The Leadership Development and Compensation Committee determined, through discussions with management and Compensia at Committee meetings held in February 2016 and February 2017, that our policies and practices of compensating our employees, including executive officers, are not reasonably likely to have a material adverse effect on us. The assessments conducted by the Committee focused on the key terms of our bonus payments and equity compensation programs in 2016, and our plans for such programs in 2017. Among other things, the Committee focused on whether our compensation programs created incentives for risk-taking behavior and whether existing risk mitigation features were sufficient in light of the overall structure and composition of our compensation programs. Among other things, the Committee considered the following aspects of our overall compensation program:

- Our base salaries are generally high enough to provide our employees with sufficient income so that they are not dependent on bonus income to meet their basic cost of living.

- Cash bonus targets are typically 10 – 20% of an employee's base salary (30 – 80% for executives), which provides balanced incentives for performance, but does not encourage excessive risk taking to achieve such goals.

- For key employees, our 2016 bonus plan (and planned 2017 bonus plan) emphasizes company performance over individual objectives and total bonus funding available for payout in a given year is capped at 137.5% of target funding, with payouts ranging from 0% to 225% of an individual's annual target bonus depending on company and individual performance.

- Generally, we do not provide commission or similar compensation programs to our employees. However, in 2016, we implemented a sales commission plan for certain individuals involved in sales activities. The sales commission plan in 2016 for these individuals provided what we view as moderate leverage, in which 60-70% of the salesperson's cash compensation was base salary and 30-40% was commission-based, depending on the nature of the role. Further, under the sales commission plan, commissions are not earned by the salesperson until the company has collected cash from the relevant customer.

- For our executives, we target the 40th percentile of our Peer Group (as defined below) for cash compensation and greater than or equal to the 75th percentile of our Peer Group (subject to dilution constraints) for equity compensation, which typically vests over three to four years, providing our executives with significant incentives for our longer-term success.

Based on these considerations, the Committee determined that our compensation programs, including our executive and non-executive compensation programs, provide an appropriate balance of incentives and do not encourage our executives or other employees to take excessive risks or otherwise create risks that are likely to have a material adverse effect on us.

Role of Compensation Consultant. In connection with an annual review of executive compensation programs for 2016, the Leadership Development and Compensation Committee retained Compensia, a national compensation consulting firm, to provide it with advice and guidance on our executive compensation policies and practices and to provide relevant information about the executive compensation practices of similarly situated companies. In 2016, Compensia assisted in the preparation of materials for executive compensation proposals in advance of Leadership Development and Compensation Committee meetings, including 2016 compensation levels for executives and the design of our cash bonus, equity, severance and change of control programs and other executive benefit programs. Compensia also reviewed and advised the Leadership Development and Compensation Committee on materials relating to executive compensation prepared by management for Committee consideration. In addition, in the fourth quarter of 2015, Compensia assisted the Leadership Development and Compensation Committee in developing a compensation Peer Group for 2016 (discussed below). The Leadership Development and Compensation Committee retained Compensia again in the third quarter of 2016 to provide assistance with respect to our 2017 compensation planning, including updates to the compensation Peer Group.

Compensia, under the direction of the Leadership Development and Compensation Committee, may continue to periodically conduct a review of the competitiveness of our executive compensation programs, including base salaries, cash bonus compensation, equity awards and other executive benefits, by analyzing the compensation practices of companies in our compensation Peer Group, as well as data from third-party compensation surveys. Generally, the Leadership Development and Compensation Committee uses the results of such analyses to assess the competitiveness of our executives' total compensation, and to determine whether each element of such total compensation is properly aligned with reasonable and responsible practices among our peer companies.

The Leadership Development and Compensation Committee also retained Compensia for assistance in reviewing and deciding on director compensation programs when our director compensation program was originally adopted in late 2010 and again when such program was subsequently amended in December 2015 and November 2016, and to provide market data and materials to management and the Committee.

Compensation Decision Process

Under the charter of our Leadership Development and Compensation Committee, the Board has delegated to the Committee the authority and responsibility to discharge the responsibilities of the Board relating to compensation of our executive officers. This includes, among other things, review and approval of the compensation of our executive officers and of the terms of any compensation agreements with our executive officers.

In general, our Leadership Development and Compensation Committee is responsible for the design, implementation and oversight of our executive compensation program. In accordance with its charter, the Committee determines the annual compensation of our Chief Executive Officer and other executive officers and reports its compensation decisions to the Board. The Committee also administers our equity compensation plans, including our 2010 Equity Incentive Plan and 2010 Employee Stock Purchase Plan. Generally, our Human Resources, Finance and Legal departments work with our Chief Executive Officer to design and develop new compensation programs applicable to our executive officers and directors, to recommend changes to existing compensation programs, to recommend financial and other performance targets to be achieved under those programs, to prepare analyses of financial data, to prepare peer compensation comparisons and other committee briefing materials, and to implement the decisions of the Leadership Development and Compensation Committee. Members of these departments and our Chief Executive Officer also meet separately with Compensia to convey information on proposals that management may make to the Leadership Development and Compensation Committee, as well as to allow Compensia to collect information about Amyris to develop its recommendations. In addition, our Chief Executive Officer conducts reviews of the performance and compensation of the other executive officers, and based on these reviews and input from Compensia and our Human Resources department, makes recommendations regarding executive compensation (other than his own) directly to the Leadership Development and Compensation Committee. For the Chief Executive Officer's compensation, the Chief Human Resources Officer works directly with the Leadership Development and Compensation Committee chair, as well as Compensia and the Human Resources, Finance and Legal Departments of Amyris to design, develop, recommend to the Committee and implement the above compensation analysis and programs, as well as review the performance of the Chief Executive Officer. None of our executive officers participated in the determinations or deliberations of the Leadership Development and Compensation Committee regarding the amount of any component of his or her own 2016 compensation.

Use of Competitive Data. To monitor the competitiveness of our executive officers' compensation, the Leadership Development and Compensation Committee adopted a compensation peer group (or the Peer Group) used in connection with 2016 compensation that reflected the pay of executives in comparable positions at similarly-situated companies. The data gathered from the Peer Group was used as a reference in setting executive pay levels (including cash and equity compensation), Board compensation, pay and incentive plan practices, severance and change-in-control practices, equity utilization, and pay/performance alignment. The Peer Group was composed of a cross-section of publicly-traded, U.S.-based companies of similar size to Amyris (on the basis of revenue, market capitalization, number of employees and R&D spend) from related industries (biotechnology, chemicals, oil, gas and consumable fuels, food products, personal products and household products). Based on these criteria, the following companies were included in the Peer Group adopted by the Leadership Development and Compensation Committee in November 2015 for use in assessing the market position of our executive compensation for 2016:

2016 Peer Group

- Balchem (Specialty Chemicals)
- BioAmber (Commodity Chemicals)
- Chemtura (Specialty Chemicals)
- Codexis (Specialty Chemicals)
- Innospec (Specialty Chemicals)
- Intrexon (Biotechnology)
- Kraton Performance Polymers (Specialty Chemicals)
- Landec (Packaged Foods & Meats)
- Metabolix (Specialty Chemicals)
- Renewable Energy Group (Oil & Gas Refining & Marketing)
- Rentech (Forest Products)
- Senomyx (Specialty Chemicals)
- Solazyme (Specialty Chemicals)

In November 2016, the Leadership Development and Compensation Committee undertook a review of the Peer Group for 2017. Similar to our approach for the 2016 Peer Group, we identified potential peers by screening publicly-traded, U.S.-based companies of similar size to us (on the basis of revenue, market capitalization, number of employees and R&D spend) from related industries (biotechnology, chemicals, oil, gas and consumable fuels, food products, personal products and household products). Based on such analysis, we did not make any changes to the Peer Group for 2017.

In addition to reviewing the compensation practices of the Peer Group, the Leadership Development and Compensation Committee looks to the collective experience and judgment of its members and advisors, as well as relevant industry survey data, in determining total compensation and the various compensation components provided to our executive officers. While the Leadership Development and Compensation Committee does not believe that the Peer Group data is appropriate as a stand-alone tool for setting executive compensation due to the unique nature of our business, it believes that this information is a valuable reference source during its decision-making process.

Target Compensation Levels. For 2016, consistent with 2015, the Leadership Development and Compensation Committee generally targeted the 40th percentile of our competitive market for total cash compensation (base salary and target cash bonus), as determined based on the Peer Group, supplemented by data from relevant industry surveys. The Committee chose the 40th percentile for total cash compensation in part because we are still in the early stages of product development and therefore need to conserve our cash while we ramp up our operations. Equity has been a critical and prominent component in our overall compensation package and we believe that it will remain an important tool for attracting, retaining and motivating our key talent by providing an opportunity for wealth creation as a result of our long-term success, particularly while we are growing our business and providing total cash compensation that is below the median of our competitive market. As a result, the Leadership Development and Compensation Committee has generally targeted equity compensation levels at or above the 75th percentile of our competitive market for equity compensation based on the Peer Group, supplemented by data from relevant industry surveys, and taking into consideration the Leadership Development and Compensation Committee approved targeted annual burn rate.

The Leadership Development and Compensation Committee approved annual equity awards to our named executive officers in May 2016 based primarily on our compensation strategy to provide annual equity compensation at or above the 75th percentile of the Peer Group (subject to dilution constraints). Additionally, in determining these annual equity grants, the Leadership Development and Compensation Committee considered the retention value of existing awards held by our named executive officers (taking into account option exercise prices and the prevailing market value of our common stock), the executives' overall compensation packages, practice at peer companies and the responsibilities, performance, anticipated future contributions and retention risk of our named executive officers.

For 2017, we expect to continue to target the same percentiles as we have in prior years using our Peer Group and relevant industry survey data, which approach the Leadership Development and Compensation Committee approved in August 2016.

2016 Compensation

Background. In setting the compensation program and decisions for our executive officers for 2016, the Leadership Development and Compensation Committee sought to balance achievement of critical operational goals with retention of key personnel, including our executive officers. Accordingly, the Committee focused in particular on providing a strong equity compensation program in order to provide strong retention incentives through challenging periods. It also focused on cash management in setting our total cash compensation target percentiles (and associated salary and bonus target levels) for executive officers. Another key theme for 2016 was establishing strong incentives to drive company performance, including continued emphasis on company performance goals over individual goals in the 2016 executive cash bonus plan and on equity compensation for longer-term upside potential and sharing in company growth.

Base Salaries. In May 2016, the Leadership Development and Compensation Committee reviewed executive base salaries, bonus targets and total cash compensation against the Peer Group and determined that no base salary adjustments were needed to ensure competitive base salaries for our executive officers.

Cash Bonuses. The Leadership Development and Compensation Committee adopted a 2016 bonus plan for our executive officers in February 2016. Under the plan, executive officers were eligible for bonuses based on the achievement of company metrics for each quarter in 2016, as well as a portion allocated to annual company and individual performance. The 2016 bonus plan was intended to provide a balanced focus on both our long-term strategic goals and shorter-term quarterly operational goals. The 2016 bonus plan provided for funding and payout of cash bonus awards based on the company's quarterly and annual performance during 2016 under certain metrics set by the Leadership Development and Compensation Committee for each quarter and for the year. Payouts, if any, under the 2016 bonus plan occurred following a review of our results and performance each quarter and, for the annual component, a review occurred in February 2017 with respect to the annual performance of the company as well as each individual's performance. The 2016 bonus plan provided for a 50% weighting for quarterly achievement (with each quarter worth 12.5% of the total bonus fund for the year) and 50% for full 2016 achievement.

The total funding possible under the 2016 bonus plan was based on a cash value (or the "target bonus fund") determined by the executive officers' target bonus levels. Target bonus levels for the executive officers varied by officer, but were generally set between 30% and 35% of their annual base salary, other than for Mr. Melo, whose target bonus level was set at approximately 80% of his annual base salary. The quarterly and annual funding of the 2016 bonus plan was based on achievement of the following company performance metrics for each quarter during 2016 (as determined by the Leadership Development and Compensation Committee and, in the case of quarterly funding, as applicable for the quarter based on our operating plan): total revenues (weighted 40%), cash operating expenditures (weighted 30%) and production costs (weighted 30%). For each quarterly period and for the annual period under the bonus plan, "threshold," "target" and "superior" performance levels were set for each performance metric, which performance levels were intended to capture the relative difficulty of achievement of that metric.

If the company did not achieve at least a 70% weighted average achievement level of the performance metrics described above that achieved at least the "threshold" performance level for a given bonus plan period (the "funding threshold"), no funding would occur for such period. If the company achieved at least the funding threshold level, 70% funding would occur. For a weighted average achievement between the funding threshold level and "target" level, a pro rata increase in funding would occur up to 100% of the target bonus fund allocated to such period. For weighted average achievement above the target level, an increase in funding of 2.5% for every 1% above target performance would occur up to, for the quarterly funding, 125% of the target bonus fund for such quarter, and for the annual funding, 150% of the annual target bonus fund.

Any payouts for the quarterly bonus periods would be the same as the funded level (provided the recipient met eligibility requirements through the payout date), and would be subject to a cap of 100% of the allocated quarterly target bonus fund. Any funding in excess of 100% of the allocated quarterly target bonus fund would not be paid out, and instead would be allocable to the annual bonus fund. Excess quarterly funding not paid, but added to the annual bonus fund, is in addition to the annual bonus fund maximum of 150% of the annual target bonus fund. Payouts for the annual bonus period would be made from the aggregate funded amount in the discretion of the Committee based on company and individual performance, and could range from 0% to 200% of an individual's funded amount for the annual bonus period (including any excess quarterly funding). The Committee chose to emphasize company performance goals for the quarterly and annual bonus plan periods given the critical importance of our short term strategic goals, but to retain reasonable incentives and rewards for exceptional individual performance, recognizing the value of such incentives and rewards to our operational performance and to individual retention. For 2016, the Leadership Development and Compensation Committee set the following target bonus levels for our named executive officers:

Name	Target Bonus ($)
John Melo	450,000
Raffi Asadorian[1]	150,000
Joel Cherry	126,000
Nicholas Khadder[2]	100,000

(1) Mr. Asadorian resigned from the company effective January 4, 2017, at which time Kathleen Valiasek assumed the role of Chief Financial Officer.

(2) Mr. Khadder resigned from the company effective June 14, 2016.

The full year target bonus for each of our named executive officers was reviewed by the Leadership Development and Compensation Committee in early 2016 based upon a review of target total cash compensation for similar roles among executives at companies in the Peer Group. As a result of this analysis, the 2016 bonus targets for each of our named executive officers were identical to the 2015 bonus targets for such executive officers.

Based on the foregoing bonus plan structure, the Leadership Development and Compensation Committee was responsible for determining the percentage achievement levels for Amyris for each of the quarters in 2016 and the levels of achievement for Amyris and each individual executive officer with respect to the annual portion following the end of 2016. Individual bonuses were awarded for each quarter based on the Leadership Development and Compensation Committee's assessment of company results, and with respect to the annual portion, the Leadership Development and Compensation Committee's assessment of company results as well as each executive officer's contributions to these results, his or her progress toward achieving his or her individual goals, and his or her demonstrating our core values.

If the minimum threshold level for company performance had not been achieved in any quarter or for the full year, no bonus funding would have occurred for such period, regardless of individual performance. For example, the minimum company performance level for the first quarter of 2016 was not achieved and therefore no bonuses were paid under the 2016 bonus plan for the first quarter of 2016. For individual performance, achievement below the threshold level would have resulted in bonus funding and eligibility being determined in the discretion of the Leadership Development and Compensation Committee. Also, actual payment of any bonuses in 2016 remained subject to the final discretion of the Committee.

Company Performance Goals. Each quarter, company performance was measured and weighted against targets related to total revenues, cash operating expenditures and production costs. The quarterly and annual weighting and achievement for each metric are described below.

These targets were initially discussed with the Board and the Leadership Development and Compensation Committee through the second half of 2015 and adopted in final form in March 2016 and subsequently discussed and evaluated each quarter in 2016 and February 2017 based on quarterly and annual performance (in February 2017, the Leadership Development and Compensation Committee discussed and evaluated the fourth quarter as well as the full year 2016 results) and continued development of our business and operating plans for 2016 and beyond. The specific goals comprising the targets were both qualitative and quantitative, and achievement levels were to be determined in the discretion of the Leadership Development and Compensation Committee following each period under the bonus plan.

Degree of Difficulty in Achieving Performance Goals. The Leadership Development and Compensation Committee considered the likelihood of achievement when recommending and approving, respectively, the company and individual performance goals and bonus plan structures for each of the bonus plan periods in 2016, but it did not undertake a detailed statistical analysis of the difficulty of achievement of each measure. For 2016, the Committee considered the 70% achievement level to be achievable with significant effort, 100% to be challenging, requiring circumstances to align as predicted and exceptional levels of effort on the part of the executive team, and any amounts in excess of 100% to be unlikely, requiring significant unexpected sources of revenue or financing, breakthroughs in technology, manufacturing operations and process development, and business development efforts, as well as favorable external conditions.

2016 Quarterly and Annual Bonus Plan Funding and Award Decisions. In each of May 2016, August 2016, November 2016 and February 2017, the Leadership Development and Compensation Committee determined that the company's quarterly and annual performance goals were achieved as follows:

Company Performance Goal	Weight	Weighted Achievement Level	Funding Level
Q1			
Product Revenue and Collaboration Inflows	55%	0%	
Cash Opex	45%	42.1%	
Brotas Cash Production Costs	0%	N/A	
Total Q1	**100.0%**	**42.1%**	**% 0(1)**
Q2			
Product Revenue and Collaboration Inflows	40%	44.8%	
Cash Opex	30%	27.2%	
Brotas Cash Production Costs	30%	0%	
Total Q2	**100.0%**	**72.0%**	**72.0%**
Q3			
Product Revenue and Collaboration Inflows	40%	25.0%	
Cash Opex	30%	27.1%	
Brotas Cash Production Costs	30%	28.0%	
Total Q3	**100.0%**	**80.1%**	**80.1%**
Q4			
Product Revenue and Collaboration Inflows	40%	35.3%	
Cash Opex	30%	29.4%	
Brotas Cash Production Costs	30%	25.7%	
Total Q4	**100.0%**	**90.4%**	**90.4%**
ANNUAL			
Product Revenue and Collaboration Inflows	40%	32.2%	
Cash Opex	30%	27.9%	
Brotas Cash Production Costs	30%	27.3%	
Total Annual	**100.0%**	**87.4%**	**87.4%**

(1) Because the 70% threshold was not met, no bonus was payable for Q1 2016.

Individual Performance Goals.

For the annual portion of the bonus plan tied to individual performance, the Committee considered several factors, including the following:

- For Mr. Melo, the achievement of growing product and collaboration revenues, meeting technical targets, developing efficient and stable manufacturing operations, managing operating expenses, improving employee engagement, maintaining a safe work environment, executive leadership and living the company's values.

- For Mr. Asadorian, the achievement of ensuring sufficient liquidity and adequate capital to run the business and manage growth, ensuring proper management of the finance department to support the business, and improving finance and IT application processes for efficiencies and cost savings, executive leadership and living the company's values.

- For Dr. Cherry, the achievement of increasing collaboration revenue through the expansion of existing partnerships and developing new partnerships, improving employee engagement, maintaining a safe work environment, managing operating expenses, meeting technical targets, executive leadership and living the company's values.

- For Mr. Khadder, the achievement of supporting joint ventures, collaborations, fundraising and other corporate transactions, managing operating expenses, maintaining effective compliance functions, managing the company's intellectual property portfolio, executive leadership and living the company's values.

Based on the foregoing, and taking into account the factors above, the Committee approved the following 2016 cash bonus awards:

Name	2016 Cumulative Quarterly Bonus Payouts ($)	2016 Annual Portion Bonus Payout ($)	2016 Aggregate Annual and Quarterly Bonus Payouts ($)	Annual Bonus Target ($)	2016 Actual Bonus Earned as a % of Target Bonus
John Melo	136,406	196,650	333,056	450,000	74.0
Raffi Asadorian(1)	28,519	-	28,519	150,000	19.0
Joel Cherry	38,194	55,062	93,256	126,000	74.0
Nicholas Khadder(2)	-	-	-	100,000	-

(1) Mr. Asadorian resigned from the company effective January 4, 2017, at which time Kathleen Valiasek assumed the role of Chief Financial Officer. Mr. Asadorian was not eligible for the 2016 fourth quarter or annual bonuses because he ceased being an employee of Amyris prior to the evaluation and payout of such bonuses.

(2) Mr. Khadder resigned from the company effective June 14, 2016. Mr. Khadder was not eligible for the 2016 second, third or fourth quarter or annual bonuses because he ceased being an employee of Amyris prior to the evaluation and payout of such bonuses.

The Committee considered a variety of factors in determining, in its discretion, to award the bonus payouts described above. In addition to the levels of achievement in the 2016 bonus plan company performance (for the quarterly and annual portions) and individual performance (for the annual portion) categories, the Committee considered our cash needs as well as the level of performance of each named executive officer in achieving company results and their respective assigned individual goals. We believe that, notwithstanding our continuing need to preserve cash, the payment of these awards was appropriate because the bonus plan appropriately held named executive officers accountable for achievement of company and individual goals, and the payouts were reasonable and appropriate in light of the company's progress.

Equity Awards. In May 2016, the Leadership Development and Compensation Committee approved annual equity awards for our named executive officers. These included the option and restricted stock unit awards set forth in the "Grants of Plan-Based Awards in 2016" table below. The Leadership Development and Compensation Committee determined the allocation of equity awards between options and restricted stock units after consultation with Compensia, in evaluating the practices of peer companies (including the Peer Group) and in consultation with management, taking into consideration, among other things, the appropriate balance between rewarding previous performance, retention, upside value potential tied to the company's and the executive officer's future performance, and the mix of the executive officer's current holdings.

The size of the awards varied among our named executive officers based on the value of unvested equity awards already held by the named executive officer, the relative contributions of the named executive officer during 2015, and anticipated levels of responsibility for key corporate objectives in 2016. For the 2016 stock option awards granted to our named executive officers, 25% of the shares subject to each award will vest one year from the vesting commencement date (May 1, 2016) and 1/48th of the shares subject to the award will vest monthly thereafter, subject to continued service through each vesting date. The 2016 restricted stock unit awards will vest annually over three years from the vesting commencement date (May 1, 2016), subject to continued service through each vesting date.

Please see the "Grants of Plan-Based Awards in 2016" table below for more information regarding the award types and sizes, grant dates, exercise prices and vesting schedules of the awards described in the preceding paragraph.

Severance Plan. In November 2013, the Leadership Development and Compensation Committee adopted the Amyris, Inc. Executive Severance Plan (or the "Plan"). The Plan has an initial term of 36 months and thereafter will be automatically extended for successive additional one-year periods unless the company provides six months' notice of non-renewal prior to the end of the applicable term. In May 2016, the Leadership Development and Compensation Committee reviewed the terms of the Plan and elected to allow it to automatically renew upon the expiration of its initial term in November 2016. The Leadership Development and Compensation Committee adopted the Plan to provide a consistent and updated severance framework for Amyris executives that aligns with peer practices. All continuing named executive officers, and all senior level employees of Amyris that are eligible to participate in the Plan (or, collectively, the "participants"), have entered into participation agreements to participate in the Plan. The benefits under the Plan supersede and replace any rights the participants have in connection with any change of control or severance benefits contained in such participants' employment offer letters, equity award agreements or any other agreement that specifically relates to accelerated vesting of equity awards. Mr. Asadorian received certain benefits under the Plan in connection with his separation from the company in January 2017. Mr. Khadder was not eligible for and did not receive any benefits under the Plan in connection with his separation from the company in June 2016.

We believe that the Plan appropriately balances our need to offer a competitive level of severance protection to our executive officers and to induce our executive officers to remain in our employ through the potentially disruptive conditions that may exist around the time of a change in control, while not unduly rewarding executive officers for a termination of their employment.

Other Executive Benefits and Perquisites. We provide the following benefits to our executive officers on the same basis as other eligible employees:

- health insurance;
- vacation, personal holidays and sick days;
- life insurance and supplemental life insurance;
- short-term and long-term disability; and
- a Section 401(k) plan with an employer matching contribution.

We believe that these benefits are generally consistent with those offered by other companies with which we compete for executive talent.

Some of the executive officers whom we have hired, including Mr. Asadorian, held positions in locations outside of Northern California at the time they agreed to join us at our headquarters in Emeryville, California. We have agreed in these instances to pay certain relocation and travel expenses to these executives, including temporary housing. The amounts of relocation and travel expenses paid to our named executive officers are included in the "All Other Compensation" column of the "Summary Compensation" table below and the associated footnotes. Given the high cost of living in the San Francisco Bay Area relative to most other metropolitan areas in the United States, we believe that for us not to be limited to hiring executives located near our headquarters in Emeryville, California, we must be willing to offer to pay an agreed upon amount of relocation costs.

Other Compensation Practices and Policies. The following additional compensation practices and policies apply to our named executive officers:

Timing of Equity Awards. The timing of equity awards has been determined by the Board or the Leadership Development and Compensation Committee based on the Board's or the Committee's view at the time regarding the adequacy of executive equity interests in Amyris for purposes of retention and motivation.

In March 2016, the Board ratified our existing policy regarding equity award grant dates, fixing grant dates in an effort to ensure the integrity of the equity award granting process. This policy took effect beginning with equity awards granted after the original adoption of the policy in March 2011. Under the policy, equity awards are generally granted on the following schedule:

- For equity awards to ongoing employees, the grant date is set as the first business day of the week following the week in which the award is approved; and
- For equity awards to new hires, the grant date is set as the first business day of the week following the later of the week in which the award is approved or the week in which the new hire commences his or her employment.

Tax Considerations. Section 162(m) of the Code disallows a tax deduction by any publicly held corporation for individual compensation exceeding $1.0 million in any taxable year for its chief executive officer and its three other most highly-compensated executive officers (other than its chief financial officer), unless such compensation is "performance-based" or satisfies the conditions of another exemption. To date, the Committee has not taken the deductibility limit imposed by Section 162(m) into consideration in setting compensation. However, our 2010 Equity Incentive Plan includes various provisions designed to allow us to qualify stock options and other equity awards as "performance-based compensation" under Section 162(m), including a limitation on the maximum number of shares subject to awards that may be granted to an individual under the 2010 Equity Incentive Plan in any one year. Among other requirements, for certain awards granted under the 2010 Equity Incentive Plan to qualify as fully deductible performance-based compensation under Section 162(m), our stockholders were required to re-approve the 2010 Equity Incentive Plan on or before the first annual meeting of stockholders at which directors were to be elected that occurred after the close of the third calendar year following the calendar year of our initial public offering. We sought and received such approval at our 2012 annual meeting of stockholders. Section 162(m) also requires re-approval of the 2010 Equity Incentive Plan by stockholders after five years if the compensation committee has retained discretion to select the criteria used to set performance goals under the 2010 Equity Incentive Plan from year to year. The 2010 Equity Incentive Plan permits the Leadership Development and Compensation Committee to choose from among several objective performance measures as the basis for the granting and/or vesting of "performance-based" equity compensation under the 2010 Equity Incentive Plan. Accordingly, we are seeking re-approval of the 2010 Equity Incentive Plan by our stockholders at our 2017 annual meeting of stockholders so that certain grants made under the 2010 Equity Incentive Plan may qualify as "performance-based compensation" under Section 162(m) of the Code and therefore continue to be exempt from the cap on our tax deduction imposed by Section 162(m) of the Code.

Our Leadership Development and Compensation Committee may adopt a policy at some point in the future providing that, where reasonably practicable, we will seek to qualify the compensation paid to our executive officers for an exemption from the deductibility limitations of Section 162(m). Until such policy is implemented, our Leadership Development and Compensation Committee may, in its discretion, authorize compensation payments that do not consider the deductibility limit imposed by Section 162(m) when it believes that such payments are appropriate to attract and retain executive talent.

Compensation Recovery Policy. We do not have a formal policy regarding adjustment or recovery of awards or payments if the relevant performance measures upon which they are based are restated or otherwise adjusted in a manner that would reduce the size of the award or payment. Under those circumstances, the Board or the Leadership Development and Compensation Committee would evaluate whether adjustments or recoveries of awards were appropriate based upon the facts and circumstances surrounding the restatement or other adjustment. We anticipate that the Board or the Leadership Development and Compensation Committee will adopt a policy regarding restatements in the future based on anticipated SEC and NASDAQ regulations requiring listed companies to have a policy that requires repayment of incentive compensation that was paid to current or former executive officers in the three fiscal years preceding any restatement due to material noncompliance with financial reporting requirements.

Stock Ownership Policy. We have not established stock ownership or similar guidelines with regard to our executive officers. All of our executive officers currently have a direct or indirect, through their stock option holdings, equity interest in our company and we believe that they regard the potential returns from these interests as a significant element of their potential compensation for services to us.

Insider Trading Policy and Hedging Prohibition. We have a policy entitled "Procedures and Guidelines Governing Securities Trades by Company Personnel" (referred to as our "Insider Trading Policy") that, among other things, prohibits our employees, officers and directors from trading in our securities while in possession of material, non-public information. In addition, under our Insider Trading Policy, our employees, officers and directors may not acquire, sell or trade in any interest or position relating to the future price of our securities (such as a put option, a call option or a short sale).

Exhibit 21.01

SUBSIDIARIES OF THE REGISTRANT

Subsidiaries	**State or Other Jurisdiction of Incorporation or Organization**
Amyris Fuels, LLC	**Delaware**
AB Technologies LLC	**Delaware**
Amyris Brasil Ltda.	**Brazil**
SMA Indústria Química S.A.	**Brazil**
Amyris Bio Products Portugal, Unipessoal, Lda.	**Portugal**

Exhibit 23.01

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-3 (Nos. 333-203216, 333-204102, 333-204378, 333-206331, 333-208018, and 333-215318) and S-8 (Nos. 333-169715, 333-172514, 333-180006, 333-187598, 333-188711, 333-195259, 333-203213, and 333-210569) of Amyris, Inc. of our report dated April 17, 2017 relating to the consolidated financial statements and financial statement schedule, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP
PricewaterhouseCoopers LLP
San Jose, California
April 17, 2017

PricewaterhouseCoopers LLP, 488 Almaden Boulevard, Suite 1800, San Jose, CA 95110
T: (408) 817 3700, F: (408) 817 5050, www.pwc.com/us

Exhibit 31.01

CERTIFICATION OF CHIEF EXECUTIVE OFFICER

PURSUANT TO RULE 13a-14(c) and 15d-14(a) OF THE SECURITIES EXCHANGE ACT OF 1934

I, John Melo, certify that:

1. I have reviewed this Annual Report on Form 10-K of Amyris, Inc.;

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

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

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

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

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

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

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

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

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

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

Date: April 17, 2017

/s/ JOHN G. MELO
John Melo
President and Chief Executive Officer

Exhibit 31.02

CERTIFICATION OF CHIEF FINANCIAL OFFICER

PURSUANT TO RULE 13a-14(c) and 15d-14(a) OF THE SECURITIES EXCHANGE ACT OF 1934

I, Kathleen Valiasek, certify that:

1. I have reviewed this Annual Report on Form 10-K of Amyris, Inc.;

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

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

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

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

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

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

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

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

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

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

Date: April 17, 2017

/s/ KATHLEEN VALIASEK
Kathleen Valiasek
Chief Financial Officer

Exhibit 32.01

Certification of CEO Furnished Pursuant to 18 U.S.C. Section 1350,
As Adopted Pursuant To
Section 906 of The Sarbanes-Oxley Act of 2002

In connection with the Annual Report of Amyris, Inc. (the "Company") on Form 10-K for the year ended December 31, 2016, as filed with the Securities and Exchange Commission on the date hereof, I, John Melo, Chief Executive Officer of the Company, certify for the purposes of section 1350 of chapter 63 of title 18 of the United States Code, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to the best of my knowledge,

(i) the Annual Report of the Company on Form 10-K for the year ended December 31, 2016 (the "Report"), fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934, and

(ii) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: April 17, 2017

/s/ JOHN G. MELO
John Melo
President and Chief Executive Officer
(Principal Executive Officer)

Exhibit 32.02

Certification of CFO Furnished Pursuant to 18 U.S.C. Section 1350,
As Adopted Pursuant To
Section 906 of The Sarbanes-Oxley Act of 2002

In connection with the Annual Report of Amyris, Inc. (the "Company") on Form 10-K for the year ended December 31, 2016, as filed with the Securities and Exchange Commission on the date hereof, I, Kathleen Valiasek, Chief Financial Officer of the Company, certify for the purposes of section 1350 of chapter 63 of title 18 of the United States Code, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to the best of my knowledge,

(i) the Annual Report of the Company on Form 10-K for the year ended December 31, 2016 (the "Report"), fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934, and

(ii) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: April 17, 2017

/s/ KATHLEEN VALIASEK
Kathleen Valiasek
Chief Financial Officer
(Principal Financial Officer)

Exhibit 99.3

Novvi LLC

Financial Statements

December 31, 2016

Unaudited

Novvi LLC

Financial Statements

December 31, 2016

Unaudited

Table of Contents

Novvi LLC

Balance Sheets

Unaudited

	December 31,	
	2016	2015
Assets		
Current assets		
Cash and cash equivalents	$ 684,731	$ 187,612
Accounts receivable	1,493,495	36,068
Inventories, net	4,758,491	564,403
Prepaid expenses	0	0
Total current assets	6,936,717	788,083
Property, plant and equipment, net	3,188,672	3,001,968
Total assets	$ 10,125,389	$ 3,790,051
Liabilities and Members' Capital (Deficit)		
Current liabilities		
Accounts payable	$ 1,855,157	$ 1,169,772
Accrued expenses	225,474	260,868
Deferred revenues	0	0
Total current liabilities	2,080,631	1,430,640
Notes payable – related parties	0	8,738,556
Total liabilities	2,080,631	10,169,196
Commitments and contingencies	0	0
Members' capital (deficit)	8,044,758	(6,379,145)
Total liabilities and members' capital (deficit)	$ 10,125,389	$ 3,790,051

See notes to financial statements.

Novvi LLC

Statements of Operations

Unaudited

	Year Ended December 31, 2016	Year Ended December 31, 2015
Revenues	$ 748,544	$ 821,514
Cost of sales	3,402,459	1,055,110
Gross margin	(2,653,915)	(233,596)
Operating expenses		
Research and development	34,348	235,283
Selling, general and administrative expenses	3,868,655	4,383,040
Depreciation and amortization	149,546	150,567
Total operating expenses	4,052,549	4,768,890
Operating loss	(6,706,464)	(5,002,486)
Other income (expense)		
Interest expense	(15,999)	(24,070)
Other income	0	2,063
Total other income, net	(15,999)	(22,007)
Net loss	$ (6,722,463)	$ (5,024,493)

See notes to financial statements.

Novvi LLC

Statements of Changes in Members' Capital (Deficit)

For the Years Ended December 31, 2016 and 2015

Unaudited

	Total Members' Capital (Deficit)
Members' deficit – December 31, 2015	$ (6,379,145)
Additional Capital Stock	$ 11,000,000
Additional Paid In Capital	$ 10,146,366
Net loss	$ (6,722,463)
Members' deficit – December 31, 2016	$ 8,044,758

See notes to financial statements.

Novvi LLC

Statements of Cash Flows

Unaudited

	Year Ended December 31, 2016	Year Ended December 31, 2015
Cash flows from operating activities		
Net loss	$ (6,722,463)	$ (5,024,493)
Adjustments to reconcile net loss to net cash used in operating activities		
Depreciation	113,531	142,192
Inventory allowance provision	462,805	1,818,147
Changes in operating assets and liabilities		
Accounts receivable	(1,457,426)	84,097
Inventories	(4,656,893)	2,289,995
Prepaid expenses	0	32,867
Accounts payable	685,385	457,241
Accrued expenses	(35,394)	(510,704)
Deferred revenue	0	(35,015)
Net cash used in operating activities	(11,610,455)	(4,381,967)
Cash flows from investing activities		
Purchases of property, plant and equipment	(300,235)	(190,524)
Net cash used in investing activities	(300,235)	(190,524)
Cash flows from financing activities		
Proceeds from notes payable – related parties	(8,738,556)	3,158,556
Contributions from members	11,000,000	0
Changes to paid in capital	10,146,364	0
Net cash provided by financing activities	12,407,809	3,158,556
Net increase (decrease) in cash and cash equivalents	497,119	(1,413,935)
Cash and cash equivalents – beginning of year/period	187,612	1,601,547
Cash and cash equivalents – end of year	$ 684,731	$ 187,612

See notes to financial statements.

Novvi LLC

Notes to Financial Statements - Unaudited

December 31, 2016

Note 1 - Background

Organization

Novvi LLC (the "Company"), was formed on September 6, 2011 as a Delaware limited liability company but remained dormant until March 26, 2013 when its members effected a joint operating agreement. Until March 26, 2013, there were no operations or activity. Accordingly, the Company views this as its inception date.

The Company has four members with three owning 32.3% each and one owning 3.1% of the outstanding membership units. The purpose of the joint venture is to collaborate on the development, production, marketing, and distribution of base oils, additives, and lubricants derived from farnesene, or other chemicals it may identify, for use in the lubricant market. The Company currently has operations in Emeryville, California, Leland, North Carolina and Houston, Texas.

Under the terms of the operating agreement, at formation, one member was obligated to make a contribution of $10 million. The second member was obligated to contribute certain licenses and rights as defined in the operating agreement. No value was assigned to these licenses and rights in the financial statements.

The Company is governed by a six-member Board of Managers (the "Board"), with each member having an ownership stake > 28% represented by two managers. The Board appoints the officers of the Company, who are responsible for carrying out the daily operating activities as directed by the Board. The Company's net income or loss is allocated to the members in accordance with the Company's operating agreement.

Liquidity

The Company has incurred losses and negative cash flows from operations since inception. For the years ended December 31, 2016, December 31, 2015, the Company incurred net losses from operations of $6,722,463 and $5,024,493 respectively, and negative cash flows from operations of $11,574,440 and $4,373,592, respectively. The Company will require capital funding from sources other than operations to fund its ongoing operations. However, management believes the Company will raise additional capital in the near term through member contributions, offerings of equity, or debt securities to fund its ongoing operations. Failure to successfully implement the proprietary technology, generate sufficient revenues, raise additional capital, or reduce certain discretionary spending could have a material adverse effect on the Company's ability to continue as a going concern and to achieve its intended business objectives.

Revenue recognition

The Company recognizes revenue when a sales arrangement exists, risk and title to the product transfers to the customer and collectability is reasonably assured. Amounts collected prior to products produced and shipped are recorded as deferred revenue until shipment and risk and title transfers to the customer.

Note 2 - Summary of Significant Accounting Policies

Cash and cash equivalents

The Company considers all highly liquid investments with a maturity of three months or less at the time of purchase to be cash and cash equivalents.

Inventories

Inventories are stated at the lower cost or market and consist of raw materials, work in progress, finished goods and spare parts. Market is determined on the basis of estimated realizable values. Cost is determined as follows: raw materials and the material component of work in progress and finished goods are valued using the average cost for base oils. Labor and overhead are applied to work in progress and finished goods using a standard cost methodology based on total pounds produced in the production units. Spare parts inventories are comprised of plant spare parts needed to keep the plant operational.

An allowance is provided when it has been determined that the carrying value of inventories is below market as of the reporting date and is not recoverable. As of December 31, 2016, the Company determined the net realizable value of the inventories was less than the cost basis recorded based on recent sales and have recorded an allowance of $671,937 which is included in cost of sales in the accompanying statements of operations. The December 31, 2015 allowance was $209,132.

Property, plant and equipment

Property, plant and equipment are stated at cost. Expenditures for repairs and maintenance are charged to expense when incurred. Expenditures for major renewals and betterments, which extend the useful lives of existing property, plant and equipment, are capitalized and depreciated. Upon retirement or disposition of property and equipment, the cost and related accumulated depreciation are removed from the accounts and any resulting gain or loss is recognized in the statement of operations. Depreciation expense is recorded on the straight-line basis over the following estimated useful lives:

	Years
Machinery and equipment	10 - 15
Computer software and equipment	3 - 5
Plant, tanks, pipelines and other major components	25

Long-lived assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. If the sum of the expected undiscounted cash flows is less than the carrying value of the related asset or group of assets, a loss is recognized for the difference between the fair value and carrying value of the asset or group of assets. In management's opinion, there was no impairment of property, plant and equipment required as of December 31, 2016 and 2015.

Research and development

Research and development costs are expensed as incurred.

Note 2 - Summary of Significant Accounting Policies (Continued)

Income taxes

The Company does not pay Federal income tax on its taxable income. Instead, the members are liable for Federal income tax on their respective shares of the Company's taxable income reported on their Federal income tax returns.

The Company is subject to an income tax imposed by the state of Texas. The tax is a 1% tax that is levied on taxable margin. Taxable margin is defined as total revenue less deductions for cost of goods sold or compensation and benefits in which the total calculated taxable margin cannot exceed 70% of total revenue.

The Company recognizes in the financial statements the impact of an uncertain tax position only if it is more likely than not of being sustained upon examination by the taxing authority based on the technical merits of the position. The tax years from 2011 and forward are open for examination by the Internal Revenue Service. Any penalties or interest assessed as a result of an examination will be recognized in income tax expense.

Financial instruments and credit risk

The Company's financial instruments consist of cash and cash equivalents and accounts payable. The carrying amount of each financial instrument approximates its fair value because of the short term nature of these items.

The Company maintains its cash account with a major bank with terms of the deposits being on demand to minimize risk. The Company has not incurred any losses related to these deposits.

For the year ended December 31, 2016, 10 customers accounted for all of the Company's revenue.

In 2016, the Company purchases farnesene for the 2016 campaign. With the exception of farnesene, all the raw materials purchased are commodity products commonly available from other suppliers, if needed, so the loss of their supplier would not have a material impact on the Company. The farnesene used in production is only produced by one supplier, a member of the Company. The loss of this supplier could have a material impact on the Company's operations. Total purchases of farnesene were $1,303,573 and $310,960 respectively, for the year ended December 31, 2016 and December 31, 2015.

Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reported period. Actual results could differ from those estimates.

Note 3 - Inventories, Net

Inventories consisted of the following as of December 31:

	2016	2015
Raw Materials	$ 179,856	$ 370,327
Work in process	2,756,122	0
Finished goods	2,468,178	384,179
Spare parts	26,272	19,029
	5,430,428	773,535
Inventory allowance	(671,937)	(209,132)
Inventories, net	$ 4,758,491	$ 564,403

Note 4 - Property, Plant and Equipment, Net

Property, plant and equipment consisted of the following as of December 31:

	2016	2015
Plant	$ 2,286,933	$ 1,896,580
Machinery and equipment	722,671	703,115
Computer equipment	42,062	41,702
Construction in progress	490,645	600,678
	3,542,311	3,242,075
Less accumulated depreciation	(353,639)	(240,107)
Property, plant and equipment, net	$ 3,188,672	$ 3,001,968

Note 5 - Notes Payable - Related Parties

On May 13, 2015, the Company entered into a third senior note agreement with the two members of the Company totaling $2,142,556 with each member lending $1,071,278. Principal payment and interest are due at maturity date which is the earlier of May 13, 2018 or when the Company has admitted a new member. The note bears interest at a fixed rate of 0.36% per annum and is unsecured. As of December 31, 2015, the outstanding balance on the notes totaled $2,142,556.

On August 19, 2015, the Company entered into a fourth senior note agreement with the two members of the Company totaling $320,000 with each member lending $160,000. Principal payment and interest are due at the maturity date which is the earlier of August 19, 2018 or when the Company has admitted a new member. The note bears interest at a fixed rate of 0.36% per annum and is unsecured. As of December 31, 2015, the outstanding balance on the notes totaled $320,000.

On October 16, 2015, the Company entered into a fifth senior note agreement with the two members of the Company totaling $272,000 with each member lending $136,000. Principal payment and interest are due at the maturity date which is the earlier of October 16, 2018 or when the Company has admitted a new member. The note bears interest at a fixed rate of 0.36% per annum and is unsecured. As of December 31, 2015, the outstanding balance on the notes totaled $272,000.

On November 13, 2015, the Company entered into a sixth senior note agreement with the two members of the Company totaling $184,000 with each member lending $92,000. Principal payment and interest are due at the maturity date which is the earlier of November 13, 2018 or when the Company has admitted a new member. The note bears interest at a fixed rate of 0.36% per annum and is unsecured. As of December 31, 2015, the outstanding balance on the notes totaled $184,000.

On December 18, 2015, the Company entered into a seventh senior note agreement with the two members of the Company totaling $240,000 with each member lending $120,000. Principal payment and interest are due at the maturity date which is the earlier of December 18, 2018 or when the Company has admitted a new member. The note bears interest at a fixed rate of 0.36% per annum and is unsecured. As of December 31, 2015, the outstanding balance on the notes totaled $240,000.

On April 4, 2016, the Company entered into an eighth senior note agreement with the one members of the Company totaling $207,000. Principal payment and interest are due at the maturity date which is the earlier of December 18, 2018 or when the Company has admitted a new member. The note bears interest at a fixed rate of 0.36% per annum and is unsecured.

On April 29, 2016, the Company entered into a ninth senior note agreement with the one members of the Company totaling $129,365. Principal payment and interest are due at the maturity date which is the earlier of December 18, 2018 or when the Company has admitted a new member. The note bears interest at a fixed rate of 0.36% per annum and is unsecured.

On June 10, 2016, the Company entered into a tenth senior note agreement with the one members of the Company totaling $73,000. Principal payment and interest are due at the maturity date which is the earlier of December 18, 2018 or when the Company has admitted a new member. The note bears interest at a fixed rate of 0.36% per annum and is unsecured.

In July of 2016, all existing notes in the amount of $9,147,721, and accrued interest in the amount of $46,396, were forgiven by the two members with the offset in additional paid in capital.

Note 6 - Employee Benefit Plan

Employees may elect to participate in the Company's defined contribution 401(k) Profit Sharing Plan (the "Plan"). Eligibility is obtained by being 21 years of age, upon which employees may enroll in the Plan. Participants can make annual salary contributions up to certain maximum amounts allowed by the Internal Revenue Service. Company contributions to the Plan are discretionary and determined by the Board. During 2016 and 2015, the Company did not elect to make a discretionary contribution to the Plan.

Note 7 - Commitments and Contingencies

Litigation

In the normal course of business, the Company is subject to various claims, legal actions, and disputes. The Company provides for losses, if any, in the year in which they can be reasonably estimated. In the Company's opinion, there are currently no such matters outstanding that would have a material effect on the accompanying financial statements.

Operating leases

Effective March 26, 2013, the Company entered into a cancellable sublease agreement with a certain member for lab space and equipment including office supplies, located in Emeryville, California. Total lease expense paid and/or owed to this member for 2016 and 2015 was approximately $339,935 and $713,000 respectively, and is included in selling, general and administrative expenses in the accompanying statements of operations. An additional amount of $415,282 was forgiven with the offset going to additional paid in capital. The monthly rent expense for this lease is approximately $60,000. This lease is cancellable with a 30 day notice.

The Company also subleases office space in Houston, Texas from a third party. Total rent expense from this lease for the year ended December 31, 2016 was approximately $27,930. This lease is cancellable with a 30 day notice.

Note 8 - Related Parties Transactions

The Company entered into an IP License Agreement (the "Agreement") with a member of the Company, under which the member granted the Company (i) an exclusive (subject to certain limited exceptions), worldwide, royalty-free license to develop, produce and commercialize base oils, additives, and lubricants derived from farnesene for use in the automotive and industrial lubricants markets and (ii) a non-exclusive, royalty free license, subject to certain conditions, to manufacture farnesene solely for its own products. In addition, both members granted the Company certain rights of first refusal with respect to alternative base oil and additive technologies that may be acquired by the members during the term of the Agreement. The Agreement has an initial term of 20 years from the date of the Agreement, subject to standard early termination provisions.

As of December 31, 2016, the Company owed this member approximately $70,970.

Note 8 - Related Parties Transactions (Continued)

The Company received cash contributions from members totaling $11,000,000 for the year ended December 31, 2016.

Note 9 - Subsequent Events

Management has evaluated subsequent events as of March 16, 2017, the date the financial statements were available to be issued, and has determined that there are no subsequent events to be reported.

Exhibit 99.4

Section 13(r) Disclosure

Total S.A. has provided disclosure pursuant to Section 13(r) of the Securities Exchange Act of 1934 regarding certain Iran-related activities of its affiliates (collectively, the "Total Group") during the 2016 calendar year, as set forth below. Total S.A. has stated that it believes that these activities are not sanctionable. Unless otherwise noted, all foreign currency translations to U.S. dollars in this exhibit are made using exchange rates as of January 1, 2017.

Upstream

Following the suspension of certain international economic sanctions against Iran on January 16, 2016, the Total Group commenced various business development activities in Iran. The Total Group entered into a memorandum of understanding ("MOU") with the National Iranian Oil Company ("NIOC"), pursuant to which NIOC provided technical data on certain oil and gas projects so that the Total Group could assess potential developments in Iran in compliance with the remaining applicable international economic sanctions. The Total Group subsequently proposed to develop and operate the South Pars Phase 11 gas field offshore Iran in the Persian Gulf along the international border with Qatar. This resulted in the negotiation and signing, on November 8, 2016, of a heads of agreement ("HOA") for the development and operation of the field. The parties to the HOA are NIOC, Total E&P South Pars S.A.S. (a wholly owned affiliate of Total S.A.), CNPC International Ltd. (a wholly owned affiliate of China National Petroleum Company) and Petropars Ltd. (a wholly owned affiliate of NIOC). The HOA contains the key principles and commercial terms that will be adopted in a definitive contract for the development and operation of South Pars Phase 11, should such definitive contract be finally agreed. The project is expected to have a production capacity of 370,000 boe/d and the produced gas will be fed into Iran's gas network. The Total Group is expected to operate the project with a 50.1% interest alongside Petropars (19.9%) and CNPC (30%). The required investment is expected to be approximately $4 billion, of which the Total Group would finance 50.1%, with all equity contributions and payments in non-U.S. currency. In preparation for the South Pars Phase 11 project, the Total Group commenced engineering and reservoir studies, which were presented in part to Pars Oil & Gas Company (a NIOC affiliate) in 2016 during a technical workshop. In the event of new or reinstated international economic sanctions, if such sanctions were to prevent the Total Group from performing under the anticipated contract for South Pars Phase 11, the Total Group expects to be able to terminate the contract and recover its past costs from NIOC (unless prevented by sanctions).

Regarding other potential oil and gas projects covered by the aforementioned MOU, the Total Group held technical meetings in 2016 with representatives of NIOC and its affiliated companies and carried out a technical review of the South Azadegan oil field in Iran as well as the Iran LNG Project (a project contemplating a 10 Mt/y LNG production facility at Tombak Port on Iran's Persian Gulf coast), the results of which were partially disclosed to NIOC and relevant affiliated companies.

In addition, in connection with anticipated activities under the aforementioned MOU and HOA, the Total Group attended meetings in 2016 with the Iranian oil and gas ministry and several Iranian companies with ties to the government of Iran.

Also in 2016, the Total Group was selected, along with other international oil and gas companies, to form an advisory group to the oil and gas ministries of Iran and Oman concerning a possible future gas pipeline between the two countries. In that regard, the Total Group entered into a confidentiality agreement and attended meetings with these companies and ministries.

In addition, the Total Group registered in 2016 a branch office of a new entity, Total Iran B.V., a wholly-owned affiliate of Total S.A., the purpose of which is to serve as the representation office for the Total Group in Iran. This entity replaces Total E&P Iran, which previously served the same purpose, but only for Exploration & Production.

Neither revenues nor profits were recognized from any of the aforementioned activities in 2016, and the Total Group expects to conduct similar business development activities in 2017.

Some payments are yet to be reimbursed to the Total Group with respect to past expenditures and remuneration under buyback contracts entered into between 1997 and 1999 with NIOC for the development of the South Pars 2&3 and Dorood fields. With respect to these contracts, development operations were completed in 2010 and the Total Group is no longer involved in the operation of these fields.

Concerning payments to Iranian entities in 2016, Total E&P Iran (100%), Elf Petroleum Iran (99.8%), Total Sirri (100%) and Total South Pars (99.8%) collectively made payments of approximately IRR 3 billion (approximately $92,705) to (i) the Iranian administration for taxes and social security contributions concerning the personnel of the aforementioned local office and residual buyback contract-related obligations, and (ii) Iranian public entities for payments with respect to the maintenance of the aforementioned local office (e.g., utilities, telecommunications). The Total Group expects similar types of payments to be made by these affiliates in 2017, albeit in higher amounts due to increased business development activity in Iran. Neither revenues nor profits were recognized from the aforementioned activities in 2016.

Furthermore, Total E&P UK Limited ("TEP UK"), a wholly-owned affiliate of the Total Group, holds a 43.25% interest in a joint venture at the Bruce field in the UK with BP Exploration Operating Company Limited (37.5%, operator), BHP Billiton Petroleum Great Britain Ltd (16%) and Marubeni Oil & Gas (North Sea) Limited (3.75%). This joint venture is party to an agreement (the "Bruce Rhum Agreement") governing certain transportation, processing and operation services provided to a joint venture at the Rhum field in the UK that is co-owned by BP (50%, operator) and the Iranian Oil Company UK Ltd ("IOC"), a subsidiary of NIOC (50%) (together, the "Rhum Owners"). TEP UK owned and operated the pipeline of the Frigg UK Association and the St Fergus Gas Terminal and was party to an agreement governing provision of transportation and processing services to the Rhum Owners (the "Rhum FUKA Agreement") (the Bruce Rhum Agreement and the Rhum FUKA Agreement being referred to collectively as the "Rhum Agreements"). On August 27, 2015, TEP UK signed a sale and purchase agreement to divest its entire interest in the Frigg UK Association pipeline and St Fergus Gas Terminal to NSMP Operations Limited ("NSMP"). On March 15, 2016, the divestment was completed and TEP UK's interest in the Rhum FUKA Agreement was novated to NSMP. As from this date, TEP UK's only interest in the Rhum FUKA Agreement is in relation to the settlement of historical force majeure claims with the Rhum Owners relating to the period when the Rhum field was shut down. To the Total Group's knowledge, provision of all services under the Rhum Agreements was initially suspended in November 2010, when the Rhum field stopped production following the adoption of EU sanctions, other than critical safety-related services (i.e., monitoring and marine inspection of the Rhum facilities), which were permitted by EU sanctions regulations. On October 22, 2013, the UK government notified IOC of its decision to apply a temporary management scheme to IOC's interest in the Rhum field within the meaning of UK Regulations 3 and 5 of the Hydrocarbons (Temporary Management Scheme) Regulations 2013 (the "Hydrocarbons Regulations"). From October 22, 2013 until the termination of the temporary management scheme on March 16, 2016 (as further explained below), all correspondence by TEP UK in respect of IOC's interest in the Rhum Agreements was with the UK government in its capacity as temporary manager of IOC's interests. On December 6, 2013, the UK government authorized TEP UK, among others, under Article 43a of EU Regulation 267/2012, as amended by 1263/2012 and under Regulation 9 of the Hydrocarbons Regulations, to carry out activities in relation to the operation and production of the Rhum field. In addition, on September 4, 2013, the U.S. Treasury Department issued a license to BP authorizing BP and certain others to engage in various activities relating to the operation and production of the Rhum field. Following receipt of all necessary authorizations, the Rhum field resumed production on October 26, 2014 with IOC's interest in the Rhum field and the Rhum Agreements subject to the UK government's temporary management pursuant to the Hydrocarbons Regulations. Services were provided by TEP UK under the Rhum Agreements from October 26, 2014 and TEP UK received tariff income and revenues from BP and the UK government (in its capacity as temporary manager of IOC's interest in the Rhum field) in accordance with the terms of the Rhum Agreements until the termination of the temporary management scheme in March 2016. As IOC ceased to be a listed person within the meaning of the Hydrocarbons Regulations on January 16, 2016, the UK government gave notice to IOC on January 22, 2016 of the termination of the temporary management scheme with effect from March 16, 2016 in accordance with regulation 26(1)(a) and 27(1)(a) of the Hydrocarbons Regulations. As a result, since March 16, 2016, TEP UK has liaised directly with IOC concerning its interest in the Bruce Rhum Agreement, and services have been provided by TEP UK under the Bruce Rhum Agreement to IOC as Rhum Owner. In 2016, these activities generated for TEP UK gross revenue of approximately £8 million (approximately $9.9 million) and net profit of approximately £0.20 million (approximately $0.2 million). Subject to the foregoing, TEP UK intends to continue such activities so long as they continue to be permissible under UK and EU law and not be in breach of remaining applicable international economic sanctions.

Downstream

The Total Group does not own or operate any refineries or chemicals plants in Iran and did not purchase Iranian hydrocarbons when prohibited by applicable EU and U.S. economic and financial sanctions.

The Total Group resumed its trading activities with Iran in February 2016 via its wholly-owned affiliates Totsa Total Oil Trading S.A. and Total Trading Asia Pte Ltd. During 2016, approximately 50 Mb of crude oil from Iran were purchased for nearly €1.8 billion (approximately $1.9 billion) pursuant to a mix of spot and term contracts. Most of this crude oil was used to supply the Total Group's refineries and, therefore, it is not possible to estimate the related gross revenue and net profit. However, approximately 1.4 Mb of this crude oil were sold to entities outside of the Total Group. In addition, in 2016 approximately 11 Mb of petroleum products were bought from/sold to entities with ties to the government of Iran. These operations generated gross revenue of nearly €374 million (approximately $393.5 million) and net profit of approximately €2.7 million (approximately $2.8 million). The affiliates expect to continue these activities in 2017.

Saft Groupe S.A. ("Saft"), a wholly-owned affiliate of the Total Group, in 2016 sold signaling and backup battery systems for metros and railways as well as products for the utilities and oil and gas sectors to companies in Iran, including some having direct or indirect ties with the Iranian government. In 2016, this activity generated gross revenue of approximately €5.6 million (approximately $5.9 million) and net profit of approximately €800,000 (approximately $841,636). Saft expects to continue this activity in 2017.

Saft also attended the Iran Oil Show in 2016, where it discussed business opportunities with Iranian customers, including those with direct or indirect ties with the Iranian government. Saft expects to conduct similar business development activities in 2017.

Total Solar (formerly named Total Energie Developpement), a wholly-owned affiliate of the Total Group, had preliminary discussions in 2016 regarding the potential development of solar projects with companies in Iran, including some having direct or indirect ties with the Iranian government. Neither revenues nor profits were recognized from this activity in 2016, and Total Solar expects to continue this activity in 2017.

Total S.A. signed in 2016 a non-binding memorandum of understanding with the National Petrochemical Company, a company owned by the government of Iran, to consider a project for the construction in Iran of a steamcracker and polyethylene production lines. In relation to the early stages of this project, several visits to Iran were conducted in 2016 and one employee has been seconded to Total Iran B.V. Total S.A. recognized no revenue or profit from this activity in 2016 and similar activities are expected to continue in 2017.

Representatives of the companies Le Joint Français (a subsidiary of Hutchinson SA) and Hutchinson SNC, wholly-owned affiliates of the Total Group, conducted multiple visits to Iran in 2016 to discuss business opportunities in the car industry sector with several companies, including some having direct or indirect ties with the Iranian government. These companies recognized no revenue or profit from this activity in 2016 and expect to continue such discussions in the future.

Hutchinson Gmbh, a wholly-owned affiliate of the Total Group, sold plastic tubing for automobiles in 2016 to Iran Khodro, a company in which the government of Iran holds a 20% interest and which is supervised by Iran's Industrial Management Organization. In 2016, these activities generated gross revenue of approximately €900,000 (approximately $946,840) and net profit of approximately €150,000 (approximately $157,807). This company expects to continue this activity in 2017.

Hanwha Total Petrochemicals ("HTC"), a joint venture in which Total Holdings UK Limited (a wholly-owned affiliate of the Total Group) holds a 50% interest and Hanwha General Chemicals holds a 50% interest, purchased nearly 25 Mb of condensates from NIOC for approximately KRW 1,300 billion (approximately $1.1 million). These condensates are used as raw material for certain of the Total Group's steamcrackers. HTC expects to continue this activity in 2017.

Total Research & Technology Feluy ("TRTF"), a wholly-owned affiliate of the Total Group, commenced in 2016 the process to file a patent in Iran for pipes comprising a multimodal metallocene-catalyzed polyethylene resin. Related to this process, TRTF had contacts with Iranian government officials, but no fees were paid. TRTF expects to continue the patent filing process in 2017.

Until December 2012, at which time it sold its entire interest, the Total Group held a 50% interest in the lubricants retail company Beh Total (now named Beh Tam) along with Behran Oil (50%), a company controlled by entities with ties to the government of Iran. As part of the sale of the Total Group's interest in Beh Tam, Total S.A. agreed to license the trademark "Total" to Beh Tam for an initial 3-year period for the sale by Beh Tam of lubricants to domestic consumers in Iran. In 2014, Total E&P Iran ("TEPI"), a wholly-owned affiliate of Total S.A., received, on behalf of Total S.A., royalty payments of approximately IRR 24 billion (nearly $1 million) from Beh Tam for such license. These payments were based on Beh Tam's sales of lubricants during the previous calendar year. In 2015, royalty payments were suspended due to a procedure brought by the Iranian tax authorities against TEPI. At the end of 2016, this procedure was still pending and no royalty payments had been received since 2015. Representatives of Total Outre Mer, a wholly-owned affiliate of the Total Group, made several visits to Beh Tam and Behran Oil during 2016 regarding the possible purchase of shares of Beh Tam. Subsequent to an internal reorganization, the matter was transferred to Total Oil Asia-Pacific Ltd, another wholly-owned affiliate of the Total Group, which had several exchanges with representatives of Behran Oil. As of the end of 2016, no agreement had been reached, no money was paid or received by either company. Similar discussions may take place in the future.

Total Marketing Middle East FZE ("TMME"), a wholly-owned affiliate of the Total Group, sold lubricants to Beh Tam in 2016. The sale in 2016 of approximately 54 tons of lubricants and special fluids generated gross revenue of approximately AED 420,000 (approximately $30,711) and net profit of approximately AED 360,000 (approximately $26,324). TMME expects to continue this activity in 2017.

Total Marketing France ("TMF"), a company wholly-owned by Total Marketing Services ("TMS"), itself a company wholly-owned by Total S.A. and six Total Group employees, provided in 2016 fuel payment cards to the Iranian embassy in France for use in the Total Group's service stations. In 2016, these activities generated gross revenue of nearly €22,000 (approximately $23,145) and net profit of nearly €900 (approximately $947). TMF expects to continue this activity in 2017.

TMF also sold jet fuel in 2016 to Iran Air as part of its airplane refueling activities at Paris Orly airport in France. The sale of approximately 2.8 million liters of jet fuel generated gross revenue of approximately €982,000 (approximately $1.0 million) and net profit of approximately €10,000 (approximately $10,520). TMF expects to continue this activity through at least February 2017, when the contract arrives at its term.

Air Total International ("ATI"), a wholly-owned affiliate of the Total Group, on two occasions in 2016 sold jet fuel to a broker based at Le Bourget airport near Paris that was destined for the refueling of an Iranian government airplane (official presidential/ministerial visits). These sales generated gross revenue of approximately €8,000 (approximately $8,416) and net profit of approximately €1,600 (approximately $1,683). ATI may conduct similar activities in 2017.

Total Belgium ("TB"), a company wholly-owned by the Total Group, provided in 2016 fuel payment cards to the Iranian embassy in Brussels (Belgium) for use in the Total Group's service stations. In 2016, these activities generated gross revenue of approximately €1,500 (approximately $1,578) and net profit of approximately €300 (approximately $316). TB expects to continue this activity in 2017.

Proxifuel, a company wholly-owned by the Total Group, sold in 2016 heating oil to the Iranian embassy in Brussels. In 2016, these activities generated gross revenue of approximately €200 (approximately $210) and net profit of approximately €80 (approximately $84). Proxifuel expects to continue this activity in 2017.

Caldeo, a company wholly-owned by TMS, sold in 2016 approximately 3 cubic meters of domestic heating oil to the Iranian embassy in France, which generated gross revenue of nearly €435 (approximately $458) and net profit of nearly €115 (approximately $121). Caldeo expects to continue this activity in 2017.

Total Namibia (PTY) Ltd ("TN"), a wholly-owned affiliate of Total South Africa (PTY) Ltd (of which the Total Group holds 50.1%), sold petroleum products and services during 2016 to Rössing Uranium Limited, a company in which the Iranian Foreign Investment Co. holds an interest of 15.3%. In 2016, these activities generated gross revenue of nearly N$249 million (approximately $18.2 million) and net profit of approximately N$8 million (approximately $0.6 million). TN expects to continue this activity in 2017.