

AMYRIS, INC.
Form 10-K
March 28, 2013

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, 2012

OR

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

For the Transition Period from _____ to _____

Commission File Number: 001-34885

AMYRIS, INC.

(Exact name of registrant as specified in its charter)

Delaware

55-0856151

(State or other jurisdiction of incorporation or organization)

(I.R.S. Employer

Identification No.)

5885 Hollis Street, Suite 100, Emeryville, California

94608

(Address of principal executive office)

(Zip Code)

(510) 450-0761

(Registrant's telephone number, including area code)

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

Title of each class

Name of each exchange on which registered

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 ☒

☐

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Non-accelerated filer "(Do not check if a smaller reporting company) Smaller reporting company "
Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange
Act.): Yes " No x

As of June 29, 2012, 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 \$154.3 million, based on the closing price of the registrant's common stock on the NASDAQ Global Select Market on such date. 73,876,289 shares of the Registrant's common stock, par value \$0.0001 per share, were outstanding as of March 1, 2013.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of registrant's proxy statement to be delivered to stockholders in connection with the registrant's 2013 Annual Meeting of Stockholders to be held on or about May 9, 2013 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, 2012

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FORWARD-LOOKING STATEMENTS

This report on Form 10-K, including the sections entitled “Item 1. Business,” “Item 1A. Risk Factors,” and “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations,” contains forward-looking statements reflecting our current expectations that involve risks and uncertainties and which are subject to safe harbors under the Securities Act of 1933, as amended, or the Securities Act, and the Securities Exchange Act of 1934, as amended. These forward-looking statements include, but are not limited to, statements concerning our strategy, future production capacity and other aspects of our future operations, ability to improve our production efficiencies, future financial position, future revenues, projected costs, expectations regarding demand and acceptance for our technologies, growth opportunities and trends in the market in which we operate, prospects and plans and objectives of management. The words “anticipates,” “believes,” “estimates,” “expects,” “intends,” “may,” “plans,” “projects,” “will,” “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. We do not assume any obligation to update any forward-looking statements.

TRADEMARKS

Amyris®, the Amyris logo, Biofene® and No Compromise® are trademarks or registered trademarks of Amyris, Inc. This report also contains trademarks and trade names of other business that are the property of their respective holders.

PART I

ITEM 1. BUSINESS

Overview

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

We were 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, our scientists developed technology capable of creating microbial strains to produce artemisinic acid - a precursor of artemisinin, an effective anti-malarial drug. In 2008, we granted a royalty-free license to this technology to Sanofi-Aventis, which currently expects to begin distributing artemisinin-based anti-malarial drugs made through our technology in 2013.

Building on our success with semi-synthetic artemisinin to combat malaria, Amyris has been applying its industrial synthetic biology platform to provide alternatives to a broad range of petroleum-sourced products. Amyris has focused its development efforts on the production of Biofene®, Amyris's brand of renewable farnesene, a long-chain, branched liquid hydrocarbon molecule. Using Biofene as a building block molecule, we are developing a wide range of renewable products for our target markets.

While our platform is able to utilize a wide variety of feedstocks, we are focusing our large-scale production plans primarily on the use of Brazilian sugarcane as our feedstock because of its abundance, low cost and relative price stability. By locating our production facilities in Brazil, we are leveraging a mature sugarcane growing and fermentation infrastructure, reducing our production costs, and accessing feedstock that is somewhat insulated from price volatility. We have also produced Biofene from other feedstocks such as sugar beets, corn dextrose, sweet sorghum and cellulosic sugars.

Amyris's first purpose-built, large-scale Biofene production plant commenced operations in southeastern Brazil in December 2012. This plant is in Brotas in the state of São Paulo and is adjacent to an existing sugar and ethanol mill, Paraíso Bioenergia. Amyris has also advanced initial construction of a second large-scale production plant in Brazil, located at the Usina São Martinho sugar and ethanol mill (also in the state of São Paulo), which we intend to complete when production economics support start-up of that plant. To satisfy initial demand for our products until our own facilities are operating, we have leveraged contract-manufacturing capabilities of established companies.

Our business strategy is to focus our direct commercialization efforts on higher-value, lower-volume markets while moving lower-margin, higher-volume 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 large-market commodity products.

Amyris is focused on building its renewable-product leadership position initially with squalane in cosmetics, niche fuel opportunities, fragrance oils, and farnesene for liquid polymers applications. We believe that success in these early markets will pave the way to accessing larger markets and having a more significant impact in the longer term.

We were incorporated in 2003. We have two operating subsidiaries, Amyris Brasil Ltda. (formerly Amyris Brasil S.A.), or Amyris Brasil, and Amyris Fuels LLC, or Amyris Fuels. Amyris Brasil oversees the establishment and expansion of our production in Brazil. Amyris Fuels was originally established to help us develop fuel distribution capabilities in the U.S.

We began selling fuels through Amyris Fuels in June 2008. Amyris Fuels generated revenue from the sale of ethanol and reformulated ethanol-blended gasoline to wholesale customers through a network of terminals in the eastern U.S. We completed our planned transition out of the ethanol and ethanol-blended gasoline business in the third quarter of 2012. In 2012, we generated \$73.7 million in revenues, including \$38.8 million from sales of ethanol and ethanol-blended gasoline by Amyris Fuels, \$24.1 million from grants and collaborations, and \$10.8 million from product sales of our renewable products.

Our Business Strategy

Petroleum is a fundamental building block for many products, such as consumer products, chemicals, plastics and transportation fuels that are essential to modern economies. Recently, the increased demand for petroleum in the face of limited supply, supply chain uncertainties and negative environmental impacts have created challenges to the current petroleum infrastructure. As a result, there have been many attempts to create products comparable to petroleum derivatives without these drawbacks. However, initial approaches have faced a number of challenges that have limited their success, including exposure to volatile feedstock pricing, questionable environmental sustainability, limited product portfolio, and dependency on government policy.

Our objective is to become the leading provider of renewable, high-performance alternatives to selected petroleum-sourced chemicals and fuels. By leveraging our synthetic biology platform, our partners' know-how, and our experience in industrial fermentation, our products are designed to enable our customers to reduce the environmental impact of their products without compromising performance, and, in some cases, our renewable products provide superior performance to the petroleum-sourced products they are replacing.

Key elements of our strategy include:

Leveraging our technology platform to improve efficiency. We continue applying synthetic biology, primarily our strain engineering platform, to lower the cost of production of our products through improvements in yields and 1. other production process efficiencies. We do this with our industrial platform for yeast strain development at our world-class laboratories. We also support scale up to commercial production in two pilot plant facilities and a demonstration production facility, as well as at various contract manufacturing locations.

Accelerating development through collaborations. In order to accelerate the development of new technologies, production methods or products, we enter into collaborative research, development and commercialization agreements, such as our existing agreements with Total Gas & Power USA SAS, or Total, Firmenich SA, or 2. Firmenich, Givaudan Schweiz AG, or Givaudan, Cosan Indústria e Comércio S.A., or Cosan, Kuraray Co., Ltd., or Kuraray, M&G Finanziaria S.R.L, or M&G, Method Home Products, Inc., or Method, and Manufacture Francaise de Pneumatiques Michelin, or Michelin. We have also entered into partnerships with the U.S. government to develop certain technologies and processes capable of improving our ability of producing alternatives to petroleum-sourced products.

Delivering cost efficient manufacturing. Building on our breakthrough technology and experience gained from production through third party contract manufacturing, we built, commissioned and are now operating our own large-scale Biofene production plant in Brotas, in the state of São Paulo, Brazil. We opted to focus on Brazilian 3. sugarcane as the feedstock to support our production ramp because of its abundance, low-cost and relative price stability. As we develop cost efficient manufacturing in our first production facility, we expect to seek to work selectively with other Brazilian sugar and ethanol producers to build additional facilities adjacent to their existing mills, thereby reducing the capital required to establish and scale our production operations.

Targeting product markets to maximize returns. We have begun to commercialize our products derived from Biofene primarily in select specialty chemical markets characterized by higher-margin, lower-volume products, where we believe we can earn positive gross margins with current production process efficiencies. For example, in 2011 we initiated sales of a cosmetic emollient, squalane, produced from Biofene. We have also established sales 4. channels to certain niche diesel markets in metropolitan bus fleets in Brazil. As we lower our production costs through technological and manufacturing improvements, we intend to expand into broader, lower-margin, higher volume commodity product markets, such as the broad-based fuels market and base oil lubricants markets, through joint venture arrangements.

Our Breakthrough Technology

Our synthetic biology platform enables us to modify the genetic pathways of microorganisms, primarily yeast, to turn them into living factories to produce target molecules for which we believe there may be significant market opportunities. In addition to using our synthetic biology platform to identify and improve strains of microbes to produce target molecules, we are using our technology platform to develop production processes that we believe will allow us to scale to commercial levels.

The primary biological pathway within the microbe that we currently use to produce our target molecules is the isoprenoid pathway. Isoprenoids constitute a large, diverse class of organic chemicals with current product applications in a wide range of industries, including specialty chemicals and fuels. With this pathway, we can potentially produce thousands of different isoprenoid molecules.

The key steps in our strain engineering and scale-up process have been as follows:

Identifying target molecules. We start our process by identifying a commercial application where we can deliver a No Compromise solution that we want to pursue. 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 are comprised of these key chemical structures and that may be produced by our yeast strains.

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

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

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. We design our lab scale two-liter fermenters to mimic the conditions found in larger scale fermentation so that our findings may translate predictably from lab scale to pilot, demonstration and commercial scale. In addition to our lab scale fermenters, we have operating pilot plants in our facilities in Emeryville, California and Campinas, Brazil, as well as two 5,000-liter fermenters in our Campinas demonstration facility. To date, most of our efforts have focused on developing yeast strains to produce Biofene and, to a lesser extent, flavors and fragrances, with significant development efforts devoted to chemical synthesis of other products from Biofene. Though our technology platform allows us to develop yeast strains engineered to produce other target molecules, we expect to continue focusing most of our strain-engineering efforts on Biofene production and, to a lesser extent, selected specialty chemical ingredients, for the foreseeable future.

Our Industrial Production

Our industrial production operations generally involve two major steps. First, we produce a target molecule by means of an industrial fermentation process. In some cases this target molecule is itself the desired end product. In other cases, it must be converted into the desired end product by a second step where we use chemical synthesis of the initial target molecule to produce a final target molecule.

Commercial Production of Target Fermentation Molecules

We have initiated commercial production of Biofene, our initial fermentation molecule, at our purpose-built, large-scale Biofene production plant in Brotas, in the State of São Paulo, Brazil. Our Biofene production plant in Brotas is adjacent to an existing sugar and ethanol mill, Paraíso Bioenergia. Under our agreement with Paraíso Bioenergia S.A., or Paraíso Bioenergia, they will supply sugarcane juice and other utilities and we were responsible

for construction (which commenced in August 2011) and operation of our Biofene production facility. Our Biofene production plant has six 200,000 liter production fermenters and was designed to process sugarcane juice, or its equivalent, from up to one million tons of raw sugarcane annually. In December 2012, following a successful commissioning phase, we began production of Biofene at the facility. Our first shipment of Biofene produced at the facility occurred on February 1, 2013.

Prior to operating our own facility, we relied on multiple contract manufacturing facilities in the U.S., Brazil and Spain, which used 100,000 to 240,000 liter fermenters and multiple kinds of feedstock.

We have also advanced initial construction of a second large-scale production plant in Brazil, located at the Usina São Martinho sugar and ethanol mill also in the state of São Paulo, which we intend to complete when production economics support start-up of that plant. We entered into agreements with Usina São Martinho S.A., or Usina São Martinho, a subsidiary of São

Martinho S.A., to establish the facility at Usina São Martinho, and the plant is being built by a joint venture (SMA Indústria Química S.A., or SMA). We formed SMA in 2010, and commenced site preparation in December 2010 and civil construction in February 2011. In early 2012, we suspended construction at SMA pending completion and operation of our Brotas facility. The SMA plant is intended to provide a large-scale production facility to support our longer-term production plans.

Following the completion of our SMA plant, we expect to seek to expand our large-scale production capacity of intermediate molecules by entering into agreements with owners of additional sugar and ethanol mills in Brazil.

Chemical Finishing Process

In some cases, we perform additional chemical finishing steps to convert initial target molecules into other finished products, such as renewable squalane, lubricants, polymers and diesel. We have established an agreement with Glycotech Inc., or Glycotech, for use of the Leland, North Carolina facility of Salisbury Partners, LLC to convert Biofene into squalane and other final products. We expect to enter into additional agreements with other chemical companies for finishing services to access flexible capacity and an array of services as we develop additional products.

Our Products

We are focused on developing a broad range of products to address six identified markets: cosmetics, lubricants, flavors and fragrances, polymers, consumer products and transportation fuels.

Cosmetics

Through simple chemical finishing steps, we are able to convert Biofene into squalane. Squalane is used today as a moisturizing ingredient in cosmetics and other personal care products. Squalane traditionally has been manufactured from olive oil or extracted from shark liver oil. We believe Amyris-produced squalane offers a purity that is equal or superior to squalane derived from conventional sources. The relatively high price of squalane to date has meant that its use has been limited to small quantities in mass-market product formulations or to use in luxury products. We believe that we are capable of producing squalane at a price that would permit formulators to use squalane more broadly. To initially market and distribute squalane, we established a relationship with Soliance, a leading distributor of renewable cosmetics ingredients based in the Champagne-Ardenne region in France. We also have agreements with Nikko Chemicals Co. Ltd., or Nikko, a distributor in Japan, and Centerchem, Inc., or Centerchem, a distributor in North America. We anticipate identifying additional distributors in 2013.

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, 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. Biofene may be chemically modified to serve as a base oil, additive, and/or lubricant. We believe the high-purity, synthetic base oil and additive molecules that can be made from Biofene could enable lubricant products to perform in harsh environments under extremes of temperature, moisture, dirt and wear.

In December 2010, we entered into an agreement with Cosan and its affiliates to establish a joint venture for the worldwide development, production and commercialization of renewable base oils for the automotive, industrial and commercial lubricants markets. In March 2013, we expanded this collaboration to also include additives and

lubricants for the automotive, industrial and commercial lubricants markets. The joint venture is operated through Novvi LLC. We anticipate that Novvi LLC will source Biofene for its products initially from Amyris production facilities, and Amyris and Cosan, as co-owners of Novvi LLC, would share its development, marketing and operating costs.

Flavors and Fragrances

We believe we are well situated to cost-effectively and sustainably produce natural oils and aroma chemicals that are commonly used in the flavors and fragrances market. Many of the natural ingredients used in flavors and fragrances market are expensive because there is limited supply and the synthetic alternatives require complex chemical conversions. Amyris intends to offer flavors and fragrances companies a natural route to procure these ingredients without sacrificing cost or quality.

Currently, we are working with partners to develop a variety of flavors and fragrances ingredients that are either direct fermentation target molecules or derivatives of fermentation target molecules.

We plan to participate in the flavors and fragrance market by providing sustainable replacements that are high quality, reliably available, and competitively priced. To begin to develop our product offerings in this area, we have established the following partnerships:

A collaboration and joint development arrangement with Firmenich, a global flavors and fragrances company headquartered in Geneva, Switzerland. Under a March 2013 master collaboration agreement (which superseded prior arrangements with Firmenich), we will research and develop flavors and fragrances compounds and grant Firmenich exclusive access to such compounds in exchange for research and development funding and a profit sharing arrangement. The new agreement superseded and expanded a prior collaboration agreement with Firmenich for joint development and commercialization of specific ingredients within the flavors and fragrances field.

A co-development agreement with Givaudan, a global flavors and fragrance company headquartered in Vernier, Switzerland. Under the agreement, we will develop a derivative of Biofene to be used as a building block for one of the proprietary fragrance ingredients in Givaudan's portfolio. Under the agreement, upon achievement of certain success criteria, we would supply Biofene to Givaudan to derive the proprietary ingredient for the global fragrances and flavors market and share in the economic value created from the use of Biofene.

Polymers and Plastic Additives

Synthetic polymers are commonly used in the manufacture of thousands of products that incorporate plastics and other polymeric materials, and we believe Biofene has the potential to provide significant opportunities for development of renewable products for the polymer market.

In July 2011, we entered into a collaboration agreement with Kuraray to develop polymers from Biofene. Under the agreement, Kuraray will use Biofene to replace petroleum-derived molecules such as butadiene and isoprene in the production of specified classes of high-performing polymers. Upon successful completion of the technical development program for the first polymer, Amyris and Kuraray would enter into a supply agreement for Kuraray's exclusive use of Biofene in the manufacturing and commercialization of these polymer products.

Home & Personal Care Products

Biofene also offers a platform for development of sustainable, high-performing and cost-competitive ingredients for the fabric and home care (such as detergents, fabric softener, dish soap, and household cleaning products) and the personal care (such as hair care and body care) markets. We have entered into some evaluation and collaboration agreements with certain producers of home and personal care products to explore opportunities in these markets.

Transportation Fuels

We have selected diesel as our primary area of focus within the transportation fuels market because of its projected global demand growth, the lack of a scalable, competitive renewable product, and our belief that our fuel product has properties superior to those of existing renewable alternatives. In general, we will produce our renewable diesel by the simple chemical step of hydrogenating our Biofene. Hydrogenation is a common chemical process currently used in the production of numerous products, such as saturation of vegetable oils to make margarine.

In July 2011, we entered into an agreement with Petrobras Distribuidora S.A., or Petrobras, to sell diesel derived from Biofene to Petrobras to blend with fuel supplied and distributed by Petrobras to city bus fleets of São Paulo and Rio de Janeiro, Brazil. In November 2011 and July 2012, we entered into amendments of our technology license, development, research and collaboration agreement with Total to establish a renewable diesel development program

as described in more detail below under "Total Collaboration Products."

We have completed significant steps to validate our ability to produce a market-accepted diesel product. By design, our product is a hydrocarbon of similar size to many of the hydrocarbons in petroleum-sourced diesel fuel. Due to the similarity of its chemical composition to that of existing petroleum-sourced diesel, our product has the properties required of diesel fuel and thereby satisfies the ASTM D975 Table 1 specifications for petroleum-derived diesel fuel oils. The Environmental Protection Agency, or EPA, has registered our diesel for use as a 35% blend with petroleum diesel in highway vehicles and non-road equipment and we are working to obtain registration for a higher blend with petroleum diesel, as opposed to the typical 3-10% blend of other bio-diesel products with petroleum diesel. We have received required approvals with Brazilian ANP (Agência Nacional do Petróleo,

Gas Natural e Biocombustíveis) for specific uses of our fuel in the country, and are pursuing Diesel Fuel registration with the CARB (California Air Resources Board) and other relevant regulatory bodies.

Our ability to enter the diesel market is also dependent upon our ability to continue to achieve the required regulatory approvals in the global markets in which we will seek to sell our diesel products. These approvals primarily involve clearance by the relevant environmental agencies in the particular jurisdiction. We must also be certified by a sufficient number of diesel engine manufacturers, vehicle manufacturers or operators of large trucking fleets so that our diesel will have an appropriately large and accessible addressable market. These certification processes include fuel analysis modeling and the testing of engines and their components to ensure that the use of our diesel fuel does not degrade performance or reduce the lifecycle of the engine or cause it to fail to meet emissions standards.

We have completed successful engine testing of our diesel fuel with Cummins Engine Company, or Cummins, and Mercedes-Benz Brasil at a blend of up to 10%, and our renewable diesel has received OEM engine warranties from Cummins, Volkswagen AG and Mercedes-Benz Brasil for demonstration purposes. We continue to work with other diesel engine manufacturers to qualify our product for use in their engines.

Total Collaboration Products

We have a license, development, research and collaboration agreement with Total that sets forth the terms for the research, development, production and commercialization of chemical and/or fuels products to be agreed on by the parties. The agreement establishes a multi-phased process through which compounds are identified, screened, selected for product feasibility study, and then ultimately selected as a lead compound for development. To commercialize any strains and compounds that are developed, Amyris and Total expect to form one or more joint ventures, the first of which we expect will be the fuels joint venture described below. Both Amyris and Total retain certain rights to make covered products independently subject to making royalty payments to the non-producing party, and Total has certain rights to require Amyris to work on non-collaboration projects. We have retained rights to produce and commercialize products in the following markets: flavors and fragrances; cosmetics, pharmaceuticals, consumer packaged goods, food additives, and pesticides. The first programs we are focusing on with Total relate to renewable diesel and jet fuel and industrial lubricants; however, we and Total retain the right to propose product development programs under these agreements in the future.

In November 2011, we entered into an amendment of the collaboration agreement with Total with respect to development and commercialization of Biofene for diesel. This represented an expansion of the initial collaboration that the parties established in 2010, and established a global, exclusive collaboration for the development of Biofene for diesel and a framework for the creation of a joint venture to manufacture and commercialize Biofene for diesel. In addition, a limited number of other potential products were subject to development for the joint venture on a non-exclusive basis. In July 2012, we entered into a further amendment of the collaboration agreement with Total that expanded Total's investment in the Biofene collaboration, incorporated the development of certain joint venture products for use in diesel and jet fuel into the scope of the collaboration, and changed the structure of the funding from Total to include a convertible debt mechanism.

Product Distribution and Sales

We intend to distribute and sell our products either directly, through joint ventures, or with partners, depending on the market. For most chemical applications, we intend to sell directly to specialty chemical and consumer products companies. For example, we would expect to sell directly to Firmenich, Givaudan, Kuraray, M&G, Method and Michelin under our agreements with them. Generally, our collaboration agreements such as these do not include any specific purchase obligations, and sales are contingent upon achievement of technical and commercial milestones. In addition, we expect to commercialize certain products, including fuels and base oils through joint venture

arrangements with Total and Cosan, respectively.

Commencing in 2008, we began developing a fuels distribution network and distribution capabilities in the U.S. through Amyris Fuels. Through mid-2012, we purchased ethanol produced by third parties and gasoline and sold both pure ethanol and reformulated ethanol-blended gasoline to wholesale customers. For 2012, Mansfield Oil Company accounted for more than 10% of our reported revenues by virtue of its purchases of ethanol and reformulated ethanol-blended gasoline from Amyris Fuels. Collaboration revenues from Total also accounted for more than 10% of our reported revenues in 2012. Customers purchased ethanol and ethanol-blended gasoline from us under short-term agreements and spot transactions, and we generally did not have any contractual commitments from customers to purchase ethanol and ethanol-blended gasoline from us over any period of time.

Nearly all of our customer revenue through the third quarter of 2012 came from the sale of ethanol and reformulated ethanol-blended gasoline, with the remainder of our revenues coming from collaborations and government grants and, more recently, sales of our renewable products. In the third quarter of 2012, we transitioned out of the ethanol and ethanol-blended gasoline

business. We do not expect to be able to replace much of the revenue lost as a result of this transition, particularly in 2013, while we continue our efforts to establish a renewable products business.

Intellectual Property

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

As of March 1, 2013, we had 202 issued U.S. and foreign patents and 302 pending U.S. and foreign patent applications that are owned by or licensed to us. We also use other forms of protection (such as trademark, copyright, and trade secret) to protect our intellectual property, particularly where we do not believe patent protection is appropriate or obtainable. We aim to take advantage of all of the intellectual property rights that are available to us and believe that this comprehensive approach provides us with a strong proprietary position.

We have obtained patents for various fuel products: U.S. Patent No. 7,399,323 directed to our renewable diesel fuel composition; U.S. Patent No. 7,540,888 directed to our renewable gasoline fuel composition; and U.S. Patents No. 7,589,243 and No. 7,671,245, which are directed to our renewable jet products. Since obtaining our fuels patents, we have expanded the use of this program to our chemicals portfolio and have recently obtained U.S. Patent Nos. 7,592,295 and 7,691,792 for our lubricant products, and U.S. Patent Nos. 7,655,739 and 7,759,444 for our adhesive and polymer products.

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

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

Competition

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

Chemical Products

In the specialty chemical markets that we are initially seeking to enter, and in other chemical markets that we may seek to enter in the future, we will compete with the established providers of chemicals currently used in these products. Producers of these incumbent products include global oil companies, large international chemical companies

and companies specializing in specific products, such as squalane or essential oils. We may also compete in one or more of these markets with products that are offered as alternatives to the traditional petroleum-based or other traditional products being offered in these markets.

Transportation Fuel Products

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

and other fuels. Biodiesel companies convert vegetable oils and animal oils into diesel fuel and some are seeking to produce diesel and other transportation fuels using thermochemical methods to convert biomass into renewable fuels.

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

Competitive Factors

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

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

We believe that for our chemical products to succeed in the market, we must demonstrate that our products are comparable alternatives to existing products and to any alternative products that are being developed for the same markets based on some combination of product cost, availability, performance, and consumer preference characteristics. With respect to our diesel and other transportation fuels products, we believe that our product must perform as effectively as petroleum-based fuel, or alternative fuels, and be available on a cost-competitive basis. In addition, with the wide range of renewable fuels products under development, we must be successful in reaching potential customers and convincing them that ours are effective and reliable alternatives.

Environmental and Other Regulatory Matters

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

The use of genetically-modified microorganisms, or GMMs, such as our yeast strains, is subject to laws and regulations in many countries. In the U.S., the EPA regulates the commercial use of GMMs as well as potential products produced from the GMMs. Various states within the U.S. could choose to regulate products made with

GMMs as well. While the strain of genetically modified yeast that we use, *S. cerevisiae*, is eligible for exemption from EPA review because the EPA recognizes it as posing a low risk we must satisfy certain criteria to achieve this exemption, including but not limited to use of compliant containment structures and safety procedures. In Brazil, GMMs are regulated by CTNBio under its Biosafety Law No. 11.105-2005. We have obtained approval from CTNBio to generally use GMMs under specific conditions in our Campinas facilities and our production plant in Brotas for research and development purposes. In addition, we have received CTNBio approval for commercial use of a specific strain in our Brotas plant.

We expect to encounter GMM regulations in most if not all of the countries in which we may seek to make our products, however, the scope and nature of these regulations will likely be different 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.”

Our renewable chemical products may be subject to regulation by government agencies in our target markets. The EPA administers the requirements of the Toxic Substances Control Act, or the TSCA, which regulates the commercial use of chemicals. Before an entity can manufacture a chemical, it needs to determine whether that chemical is listed in the TSCA inventory. If the substance is listed, then manufacture 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 up to 180 days to review the filing.

Our diesel fuel is subject to regulation by various government agencies. In the U.S., this includes the EPA and the CARB. In Brazil, this includes ANP. To date we have obtained registration with the EPA for the use of our diesel in the U.S. at a 35% blend rate with petroleum diesel. In addition, ANP has authorized the use of our diesel fuel at blend rates of 10% and 30% for specific bus fleets. We are also currently in the process of registering our fuel with the CARB and the European Commission. Registration with each of these bodies is required for the sale and use of our fuels within their respective jurisdictions. In addition, for us to achieve full access to the U.S. 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 facility, 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 Relating to Our Business-We may not be able to obtain regulatory approval for the sale of our renewable products.”

Amyris Fuels is subject to various U.S. federal regulations relating to its marketing and distribution of ethanol and ethanol-blended gasoline, and it is registered with the EPA in connection with its use of ethanol as a fuel additive. In addition, Amyris Fuels is subject to various state regulations, including regulations regarding excise tax payments and the posting of surety bonds.

Research and Development

We devote substantial resources to our research and development efforts. As of March 1, 2013, our research and development organization included approximately 209 employees, 63 of whom held Ph.D.s. Our technology development is currently focused primarily on improving the performance of our production strains and on developing strains that produce new molecules. To facilitate the transfer of our fermentation technology to production, we operate pilot-scale fermentation facilities in both Emeryville, California and Campinas, Brazil, and transfer strains on a regular basis. Our process consists of a number of discrete steps including:

- identifying new target molecules
- creating new microbial strains capable of producing the target molecule
- increasing product yield and productivity from microbial strains through strain modification or fermentation improvements
- increasing efficiency of product separation and purification
- continuous translation of these steps from lab to commercial scale production.

Our research and development expenditures were approximately \$73.6 million, \$87.3 million, and \$55.2 million and for the fiscal years ended December 31, 2012, 2011 and 2010, respectively.

Employees

As of March 1, 2013, we had 397 full-time employees. Of these employees, 254 were in the U.S. and 143 were in Brazil. Except for labor union representation for Brazil-based employees based on labor code requirements in Brazil, none of our employees is represented by a labor union or is covered by a collective bargaining agreement. We have

never experienced any employment-related work stoppages and consider relations with our employees to be good.

Financial Information About Geographic Areas

Financial information regarding revenues and long-lived assets by geographic area is included in Note 17 "Reporting Segments" in "Notes to Consolidated Financial Statements" included in this Form 10-K.

Business Background and Available Information

We organized our business in July 2003 as a California corporation under the name Amyris Biotechnologies, Inc. and have maintained our headquarters and research facilities in the San Francisco Bay Area since that time. In June 2010, we reincorporated

in Delaware and changed our name to Amyris, Inc. We commenced research activities in 2005, focusing on the development of an alternative source of artemisinin 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. In the third quarter of 2012, we transitioned out of the ethanol and reformulated ethanol-blended gasoline business, 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 laboratories in Campinas. Our corporate headquarters are located at 5885 Hollis Street, Suite 100, Emeryville, CA 94608, and our telephone number is (510) 450-0761. Our website address is www.amyris.com. The information contained in or accessible through our website or contained on other websites is not deemed to be part of this report on Form 10-K.

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

We make our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and all amendments to such reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 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 Securities and Exchange Commission.

ITEM 1A. RISK FACTORS

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

Risks Related to Our Business

We have incurred losses to date, anticipate continuing to incur losses in the future 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 2014. As of December 31, 2012, we had an accumulated deficit of \$586.3 million and had cash, cash equivalents and short term investments of \$30.7 million. We have significant outstanding debt and contractual obligations related to purchase commitments, as well as capital and operating leases. As of December 31, 2012, our debt totaled \$104.2 million, of which \$3.3 million matures within the next twelve months. In addition, our debt agreements contain various covenants, including restrictions on business that could cause us to be at risk of defaults. We expect to incur additional costs and expenses related to the continued development and expansion of our business, including construction and operation of our manufacturing facilities, our research and development operations, continued operation of our pilot plants and demonstration facility, and engineering and design work. Further, we expect to incur costs related to contract manufacturing arrangements. There can be no assurance that we will ever achieve or sustain profitability on a quarterly or annual basis.

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

To commercialize our products, we must be successful in using our yeast strains to produce target molecules at commercial scale and at a commercially viable cost. Such production will require that our technology and processes be scaled from laboratory, pilot and demonstration projects to commercial-scale production. If we cannot achieve commercially-viable production economics, we will be unable to achieve a sustainable integrated renewable products business. Most of our commercial manufacturing experience to date has been at contract manufacturing facilities. For the future, we are focused on developing most of our production capacity through purpose-built, large-scale production plants in Brazil, which is 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 commissioning and scaling up production at these larger-scale plants, either in a timely manner or with production economics that allow us to meet our plans for commercialization. Even to the extent we successfully complete product development in our laboratories and pilot and demonstration facilities, and at contract manufacturing facilities, we may be unable to translate such success to large-scale, purpose-built plants. If this occurs, our ability to commercialize our technology will be adversely affected and we may be unable to produce and sell any significant volumes of our products. Also, with respect to products that we are able to bring to market, we may not be able to lower the cost of production, which would adversely affect our ability to sell such products profitably.

We will require additional financing to fund our anticipated operations and may not be able to obtain such financing on favorable terms, if at all.

Our planned 2013 working capital needs and our planned operating and capital expenditures for 2013 are dependent on significant inflows of cash from existing collaboration partners, as well as additional funding from new collaborations, equity or debt offerings, credit facilities or loans, or combinations of these sources. 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 its business. Our operating plan contemplates capital expenditures of approximately \$10.0 million in 2013 and we expect to continue to incur costs in connection with our existing contract manufacturing arrangements. Furthermore, we are expecting additional funding in 2013 from collaborations, equity or debt offerings, or combinations of these sources. Our operating plan contemplates securing a portion of this additional funding in the second quarter of 2013. However, as of the date of this filing, we have not yet secured this additional funding and there can be no assurance that financing will be available on commercially acceptable terms or at all. For example, some of our existing anticipated financing sources, such as research and development collaborations, are subject to risk that we cannot meet milestones or are not yet subject to definitive agreements or mandatory

funding commitments and we may not be able to secure additional equity or debt financing in a timely manner or on reasonable terms, if at all.

If we seek additional types of funding that involve the issuance of equity securities, our existing stockholders would suffer dilution. For example, in 2012, we completed private placements of our common stock that resulted in the issuance of approximately 26.1 million shares of our common stock of which approximately 5.0 million shares were issued in January 2013 following receipt of proceeds. We also issued approximately \$78.3 million in unsecured senior convertible promissory notes that are convertible into common stock at an initial conversion price of \$7.0682 per share. Through 2015, we expect to issue up to an aggregate of \$51.7 million in additional unsecured senior convertible promissory notes under the agreements with Total described below under the caption, "Our relationship with our strategic partner, Total, may have a substantial impact on our company." In addition to dilution, to the extent we issue convertible promissory notes and similar instruments, we would become subject to various covenants, including restrictions on our business, that could cause us to be at risk of defaults. For example, the convertible notes we issued in 2012 contained various covenants, including restrictions on the amount of debt we are permitted to incur.

If we are unable to raise additional financing, or if other expected sources of funding are delayed or not received, we would take the following actions as early as the second quarter of 2013 to support our liquidity needs through the remainder of 2013 and into 2014:

- Effect significant headcount reductions in the U.S. and in Brazil, particularly with respect to both general and administrative employees and other employees not connected to critical or contracted activities.

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

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

- Suspend operations at our pilot plants and demonstration facilities.

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

The contingency cash plan contemplating these actions is designed to save us an estimated \$35 million to \$40 million over the next twelve months. Implementing this plan could have a material 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 a material adverse effect on our ability to meet contractual requirements, including obligations to maintain manufacturing operations, and increase the severity of the consequences described above. We also may be forced to seek funding on terms that are not favorable to us. For example, in order to raise sufficient funds, we could be forced to issue preferred and discounted equity, agree to onerous covenants, grant security interests in our assets, enter into collaboration and licensing arrangements that require us to relinquish commercial rights or grant licenses on terms that are not favorable to us, or any or all of these.

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

A substantial component of our planned production capacity in the near and long term depends on successful operations at our initial and planned large-scale production plants in Brazil. We are in the early stages of operating our first purpose-built, large-scale production plant in Brotas 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. Once our large-scale production facilities are built, we must successfully commission them and they must perform as we have designed them. If we encounter significant delays, cost overruns, engineering

issues, contamination problems, equipment supply constraints or other serious challenges in bringing these facilities online and operating them at commercial scale, we may be unable to produce our initial renewable products in the time frame we have planned. We may also need to continue to use contract manufacturing sources more than we expect, which would reduce our anticipated gross margins and may prevent us from accessing certain markets for our products. Further, if our efforts to complete and commence production at these facilities are not successful, other mill owners in Brazil may decide not to work with us to develop additional production facilities, demand more favorable terms or delay their commitment to invest capital in our production.

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

Our decision to focus our efforts for production capacity on the manufacturing facility in Brotas means that we will have limited manufacturing sources for our products in 2013 and beyond. Accordingly, any failure to establish operations at that plant could have a significant negative impact on our business, including our ability to achieve commercial viability for our products. Construction and commissioning of the plant in Brotas was recently completed, and we cannot be sure that we will be able to successfully scale up and operate the plant at levels sufficient to supply farnesene previously produced at contract manufacturing facilities. Furthermore, while we are moving our production focus to our plant in Brotas based on an expectation that we will ultimately be able to produce farnesene at a lower cost using such facility, we cannot be sure when, or if, using such plant will in fact result in such lower production costs than contract manufacturing facilities. Also, with the facility in Brotas, we will, for the first time, be the operator of a commercial fermentation and separation facility. We are inexperienced at operating plants and may face unexpected difficulties associated with the operation of the plant. For example, we have in the past, at certain contract manufacturing facilities, encountered significant 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, and other similar challenges. Such challenges could arise in our plant in Brotas, and we cannot be certain that we will be able to remedy them quickly or effectively enough to achieve commercially viable near-term production costs and volumes.

As part of our arrangement to build the plant in Brotas, we have an agreement with Paraíso Bioenergia to purchase from Paraíso Bioenergia sugarcane juice corresponding to a certain number of tons of sugarcane per year, along with specified water and vapor volumes. Until this annual volume is reached, we are restricted from purchasing sugarcane juice for processing in the facility from any third party, subject to limited exceptions, unless we pay the premium to Paraíso Bioenergia that we would have paid if we bought the juice from them. As such, we will be relying on Paraíso Bioenergia to supply such juice and utilities on a timely basis, in the volumes we need, and at competitive prices. If a third party can offer superior prices and Paraíso Bioenergia does not consent to our purchasing from such third party, we would be required to pay Paraíso Bioenergia the applicable premium, which would have a negative impact on our production cost. Furthermore, we agreed to pay a price for the juice that is based on the lower of the cost of two other products produced by Paraíso Bioenergia using such juice, plus a premium. Paraíso Bioenergia may not want to sell sugarcane juice to us if the price of one of the other products is substantially higher than the one setting the price for the juice we purchase. While the agreement provides that Paraíso Bioenergia would have to pay a penalty to us if it fails to supply the agreed-upon volume of juice for a given month, the penalty may not be enough to compensate us for the increased cost if third-party suppliers do not offer competitive prices. Also, if the prices of the other products produced by Paraíso Bioenergia 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, we may be required to renegotiate our agreement, which could result in manufacturing disruptions and delays.

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

We have various agreements with Usina São Martinho that contemplate construction of another large-scale manufacturing facility in Brazil. Under these agreements, we are responsible for designing and managing the construction project, and are responsible for the initial construction costs. We projected the construction costs of the project to be approximately US\$100 million. While we completed a significant portion of the construction of the plant before 2012, we delayed further construction and commissioning of the plant while we constructed and commissioned our production plant in Brotas, and we expect to continue to defer the project for the near term based on economic considerations and to allow us to focus on successful implementation at our production plant in Brotas. While Usina São Martinho was obligated to contribute up to approximately R\$61.8 million (approximately US\$30.2 million based on the exchange rate as of December 31, 2012) to the construction of the plant, such contributions depended on, among other things, successful commencement of operations at the plant. Based on our shifting manufacturing priorities and uncertainty regarding financing availability, we cannot currently predict when or if our facility at Usina São Martinho will be completed or commence commercial operations, which means that Usina São Martinho's anticipated contribution will be delayed and may never occur. Under our existing agreement with Usina São Martinho, if the joint venture fails to commence operations by the end of 2013, Usina São Martinho has the right to terminate the joint venture and to require us to buy Usina São Martinho's equity in the joint venture at its acquisition cost, and transfer the joint venture's assets at the Usina

São Martinho site to another location. In that event, we would incur significant costs and be required to find alternative locations for the facility. In March 2013, we met with Usina São Martinho and the parties agreed in principle to a revised business plan for the joint venture with the plant becoming operational in 2016, and, while we are in the process of documenting that revised business plan as an amendment to the agreement, we may not be able to reach final agreement on the revised terms. In addition, if Amyris Brasil becomes controlled, directly or indirectly, by a competitor of Usina São Martinho, then Usina São Martinho has the right to acquire our interest in the joint venture and if Usina São Martinho becomes controlled, directly or indirectly, by a competitor of ours, then we have the right to sell our interest in the joint venture to Usina São Martinho. In either case, the purchase price is to be determined in accordance with the joint venture agreements, and we would continue to have the obligation to acquire products produced by the joint venture for the remainder of the term of the supply agreement then in effect even though we might no longer be involved in the joint venture's management.

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

Our reliance on and relationships with contract manufacturers exposes us to risks relating to costs, contractual terms and logistics .

We commenced commercial production of Biofene and some specialty chemical products in 2011 through the use of contract manufacturers, and we anticipate that we will continue to use contract manufacturers 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. Establishing and operating contract manufacturing facilities requires us to make significant capital expenditures, which reduces our cash and places this capital at risk. For example, based on an evaluation of our assets associated with contract manufacturing facilities and anticipated levels of use of such facilities, we recorded a loss on write off of production assets of approximately \$5.5 million in the year ended December 31, 2012. Further write off of such assets may occur in future quarters as we continue to evaluate and adjust our priorities for production, including the levels of utilization of our current and planned manufacturing facilities, which would cause us to incur additional losses associated with such facilities in the future. Also, many of our contract manufacturing agreements 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. We incurred a \$40.4 million loss in the year ended December 31, 2012 related to \$10.0 million in facility modification costs and \$30.4 million of fixed purchase commitment losses associated with a scale-back of production at certain facilities. Some of our contract manufacturing agreements have also contained requirements to pay bonuses for milestone achievements by the contractor, minimum offtake requirements with penalties for failure to purchase specified amounts in a given period, and other terms that created contingent liabilities or other obligations for us. Any failure to comply with such requirements could result in legal claims against us, resulting in additional liability and diverting management attention, which could have a material adverse effect on our business.

The locations of contract manufacturers can pose additional cost, logistics and feedstock challenges. If production capacity is available at a plant that is remote from usable chemical finishing or distribution facilities, or from

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

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

As we have focused on building and commissioning our own plant and improving our production economics, we have limited our use of contract manufacturing and have terminated relationships with some of our contract manufacturing partners. The failure to have multiple available supply options 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 stop or adjust anticipated production levels at contract manufacturing facilities, such adjustments 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 varying periods of time. Also, in order for production to commence under our contract manufacturing arrangements, we will generally have to provide equipment needed for the production of our products and we cannot be assured that such equipment can be ordered, or installed, on a timely basis, at acceptable costs, or at all. Further, in order to establish new manufacturing facilities, we need to transfer our yeast strains and production processes from lab to commercial plants controlled by third parties, which may pose technical or operational challenges that delay production or increase our costs.

If we are unable to decrease 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.

Currently, our costs of production are not low enough to allow us to offer many of our planned products at competitive prices. Our production costs depend on many factors that could have a negative effect on our ability to offer our planned products at competitive prices. Key factors beyond production scale and feedstock cost that impact our production costs include yield, productivity, separation efficiency and chemical process efficiency. Yield refers to the amount of the desired molecule that can be produced from a fixed amount of feedstock. Productivity represents the rate at which our product is produced by a given yeast strain. Separation efficiency refers to the amount of desired product produced in the fermentation process that we are able to extract and the time that it takes to do so. Chemical process efficiency refers to the cost and yield for the chemical finishing steps that convert our target molecule into a desired product. In order to successfully enter transportation fuels and certain chemical markets, we must produce those products at significantly lower costs, which will require both substantially higher yields than we have achieved to date and other significant improvements in production efficiency, including in productivity and in separation and chemical process efficiencies. There can be no assurance that we will be able to make these improvements or reduce our production costs sufficiently to offer our planned products at competitive prices, and any such failure could have a material adverse impact on our business and prospects.

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

There can be no assurance that our products will be approved or accepted by customers, that customers will choose our products over competing products, or that we will be able to sell our products profitably at prices and with features sufficient to establish demand. The markets we intend to enter first are primarily those for specialty chemical products used by large consumer products or specialty chemical companies. In entering these markets, 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, regulatory issues, product liability and other factors, many of which are unknown to, or not well understood by, us. Satisfying these processes may take many months or years. If we are unable to convince these potential customers (and the consumers who purchase products containing such chemicals) that our products are comparable to the chemicals that they currently use or that the use of our products is otherwise to their benefits, we will not be successful in entering these markets and our business will be adversely affected.

In order for our diesel fuel to be accepted in various countries around the world, diesel engine manufacturers must determine that the use of our fuels in their equipment will not invalidate product warranties and that they otherwise regard our diesel fuel as an acceptable fuel. In addition, we must successfully demonstrate to these manufacturers that our fuel does not degrade the performance or reduce the life cycle of their engines or cause them to fail to meet emissions standards. Meeting these suitability standards can be a time consuming and expensive process, and we may invest substantial time and resources into such qualification efforts without ultimately securing approval. To date, our diesel fuel has achieved limited approvals from certain engine manufacturers, but we cannot be assured that other engine or vehicle manufacturers or fleet operators, will approve usage of our fuels. To distribute our diesel fuel, we must also meet requirements imposed by pipeline operators and fuel distributors. If these operators impose volume limitations on the transport of our fuels, our ability to sell our fuels may be impaired. Our ability to sell a jet fuel product is subject to similar types of qualification requirements as diesel, although we believe the qualification process will ultimately take longer and will be more expensive than the process for diesel.

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

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

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

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

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

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

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

The oil companies, large chemical companies and well-established agricultural products companies with whom we compete are much larger than we are, 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-competitive basis with 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-competitive basis. In addition, with the wide range of renewable fuels products under development, we must be successful in reaching potential customers and convincing them that ours are effective and reliable alternatives.

Our relationship with our strategic partner, Total, has a substantial impact on our company.

We have a license, development, research and collaboration agreement with Total, under which we may develop, produce and commercialize products with Total, that originally contemplated Total paying up to the first \$50 million in research costs for selected research and development projects (which arrangement has been modified as described below). As of March 1, 2013, Total held approximately 18.4% of our outstanding common stock. Under the agreement, Total has a right of first negotiation with us with respect to exclusive commercialization arrangements that we would propose to enter into with certain third parties, as well as the right to purchase any of our products on terms not less favorable than those offered to or received by us from third parties in any market where Total or its affiliates have a significant market position. These rights might inhibit potential strategic partners or potential customers from entering into negotiations with us about future business opportunities. Total also has the right to terminate the collaboration agreement in the event we undergo a sale or change of control to certain entities, which could discourage a potential acquirer from making an offer to acquire us.

In November 2011, we entered into an amendment of the collaboration agreement with Total with respect to development and commercialization of Biofene for diesel. This represented an expansion of the initial collaboration that the parties established in 2010, and established a global, exclusive collaboration for the development of Biofene for diesel and a framework for the creation of a joint venture to manufacture and commercialize Biofene for diesel. In addition, a limited number of other potential products were subject to development for the joint venture on a non-exclusive basis. In July 2012, we entered into a further amendment of the collaboration agreement with Total that expanded Total's investment in the Biofene collaboration, incorporated the development of certain joint venture products for use in diesel and jet fuel into the scope of the collaboration, and changed the structure of the funding from Total to include a convertible debt mechanism. Under the new agreements, Total funded \$30 million in new cash investment during the third quarter of 2012 and, in March 2013, agreed to provide an additional \$30 million in 2013. Total may decide to provide further funding in 2014. Upon completion of the research and development program, we and Total would form a joint venture company that would have exclusive rights to produce and market renewable diesel and/or jet fuel. Should Total decide not to pursue commercialization, under certain conditions, it is eligible to recover up to \$100 million, payable in March 2017, in the form of cash or in the form of common stock at a conversion price of \$7.0682 per share (or, for notes issued in 2013, a lower price as determined under the March 2013 letter agreement as described below in MD&A-Overview-Total).

Under the agreements related to the July 2012 amendment, the \$50 million in funding by Total originally contemplated under the collaboration agreement is deemed to be exhausted, so the funding under the most recent amendment is all the funding still contemplated by our agreements with Total. We cannot be certain that Total will choose to continue funding the research and development program or ultimately opt in to participate in the anticipated joint venture. Under the new agreements, Total may, at certain decision points through a final decision date following the earlier of completion of the research and development program or December 31, 2016, decide not to continue funding or participating in the program and, if it does, any notes issued to Total to date will remain outstanding and become payable or convertible into our common stock. If Total chooses to demand repayment of amounts advanced under the notes, we may not be able to repay them by the maturity date in March 2017, which could lead to defaults and our insolvency, and Total and other creditors could pursue collection claims against us. If the notes become convertible and Total chooses to convert them, the resulting issuance of common stock would be dilutive to other stockholders. Under the July 2012 agreements, Total also has a right to participate in our future equity or convertible debt financings through December 31, 2013 to preserve its pro rata ownership of us (and thereafter in limited circumstances). The agreements provided that the purchase price for the first \$30 million of purchases under this pro rata right would be paid by cancellation of outstanding notes held by Total; Total canceled \$5 million of an outstanding convertible promissory note in connection with a private placement in December 2012, which reduced the amount of notes it could cancel to exercise its pro rata rights by \$5 million. Exercise by Total of this right by cancellation of notes reduces the cash proceeds we receive from any covered offering.

The new agreements provide that we will provide an exclusive license to our intellectual property related to the manufacture and commercialization of Biofene-based diesel and jet fuel to the above-mentioned fuels joint venture, and also contemplate providing an option to Total to buy out our interest in the joint venture under certain circumstances such as our insolvency. Furthermore, the new agreements contemplate that Total can, if there is a deadlock in finalizing various matters related to the formation of the joint venture, initiate a bidding process where the fair value of the proposed joint venture would be determined and we would be required to choose whether to (i) sell our joint venture assets to Total for 50% of the joint venture value, (ii) proceed with formation of the joint venture with Total as a 50% owner and accept Total's position regarding the funding requirements of the joint venture, or (iii) proceed with the formation of the joint venture with Total as a 50% owner, accepting Total's position regarding the funding requirements of the joint venture, and then sell all or a portion of our 50% interest in the joint venture to Total for a price equal to the fair value multiplied by the percentage ownership of the joint venture sold to Total. If we are forced to relinquish our rights with respect to diesel and jet fuel under these scenarios (or under an early exclusive license as described above), our ability to continue pursuing our fuels business will be impaired.

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 harmed.

We are subject to risks related to our reliance on collaboration arrangements to fund development and commercialization of our products.

For most product markets we are trying to address, we either have or are seeking collaboration partners to fund the research and development, commercialization and production efforts required for the target products. Typically we provide limited exclusive rights and revenue sharing with respect to the production and sale of particular types of products in specific markets in exchange for such up-front funding. These exclusivity, revenue-sharing and other similar terms limit our ability to commercialize our products and technology, and may impact the size of our business or our profitability in ways that we do not currently envision. In addition, revenues from these types of relationships are a key part of our cash plan for 2013 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, including broader exclusivity provisions for commercial partners and a smaller financial stake in any successful ventures resulting from collaborations.

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

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

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

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

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

For the foreseeable future, we will be subject to risks associated with the concentration of essential product sourcing and operations in Brazil. The Brazilian government has changed in the past, and may change in the future, monetary, taxation, credit,

tariff and other policies to influence the course of Brazil's economy. For example, the government's actions to control inflation have at times involved setting wage and price controls, adjusting interest rates, imposing taxes and exchange controls and limiting imports into Brazil. We have no control over, and cannot predict, what policies or actions the Brazilian government may take in the future. Our business, financial performance and prospects may be adversely affected by, among others, the following factors:

- delays or failures in securing licenses, permits or other governmental approvals necessary to build and operate facilities and use our yeast strains to produce products;

- rapid consolidation in the sugar and ethanol industries in Brazil, which could result in a decrease in competition;

- political, economic, diplomatic or social instability in or affecting Brazil;

- changing interest rates;

- tax burden and policies;

- effects of changes in currency exchange rates;

- exchange controls and restrictions on remittances abroad;

- inflation;

- land reform movements;

- 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 U.S.;

- tariffs, trade protection measures and other regulatory requirements;

- successful compliance with U.S. and foreign laws that regulate the conduct of business abroad;

- an inability, or reduced ability, to protect our intellectual property in Brazil including any effect of compulsory licensing imposed by government action; and

- difficulties and costs of staffing and managing foreign operations.

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

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

We currently incur significant costs and expenses in Brazilian reais 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 U.S. dollar and other foreign currencies. There can be no assurance that the Brazilian real will not significantly appreciate or depreciate against the U.S. 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 U.S. dollar compared to those foreign currencies will increase our costs as expressed in U.S. 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 U.S. dollar in Brazil. Whether in Brazil or otherwise, we may not be able to adjust the prices of our products to offset the effects of inflation or foreign currency appreciation on our cost structure, which could increase our costs and reduce our net operating margins. If we do not successfully manage these risks through hedging or other mechanisms, our revenues and results of operations could be adversely affected.

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

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

In Brazil, GMMs are regulated by the National Biosafety Technical Commission, or CTNBio. We have obtained approval from CTNBio to use GMMs in a contained environment in our Campinas facilities for research and development purposes as well as at a contract manufacturing facility in Brazil. In addition, we have obtained initial commercial approval from CTNBio for one of our current yeast strains. As we continue to develop new yeast strains and deploy our technology at new production facilities in Brazil, we will be required to obtain further approvals from CTNBio in order to use these strains in commercial production in Brazil. We may not be able to obtain approvals from relevant Brazilian authorities on a timely basis, or at all, and if we do not, our ability to produce our products in Brazil would be impaired, which would adversely affect our results of operations and financial condition.

In addition to our production operations in the U.S. 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 the scope and nature of these regulations will likely be different from country to country. If we cannot meet the applicable requirements in other countries in which we intend to produce products using our yeast strains, or if it takes longer than anticipated to obtain such approvals, our business could be adversely affected.

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 U.S., the EPA administers the Toxic Substances Control Act, or TSCA, which regulates the commercial registration, distribution, and use of many chemicals. Before an entity can manufacture or distribute 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 up to 180 days to review the filing. Some of the products we produce or plan to produce, such as Biofene and squalane, are already in the TSCA inventory. Others,

such as our farnesane (diesel) and new jet fuel molecules, are not yet listed. We may not be able to expediently receive approval from the EPA to list the molecules we would like to make on the TSCA registry, resulting in delays or significant increases in testing requirements. A similar program exists in the European Union, called REACH (Registration, Evaluation, Authorization, and Restriction of Chemical Substances). Under this program, we need to register our products, including Biofene, with the European Commission, and this process could cause delays or significant costs. To the extent that other geographies, such as Brazil, may rely on TSCA or REACH (or similar laws and programs) for chemical registration in their geographies, delays with the U.S. or European authorities may subsequently delay entry into these markets as well.

Our diesel fuel is subject to regulation by various government agencies, including the EPA and the CARB in the U.S. and ANP in Brazil. To date, we have obtained registration with the EPA for the use of our diesel fuel in the U.S. at a 35% blend rate with petroleum diesel. In addition, ANP has authorized the use of our diesel fuel at blend rates of 10% and 30% for specific bus fleets. We are also currently in the process of registering our fuel with the CARB and the European Commission. Registration with each of these bodies is required for the sale and use of our fuels within their respective jurisdictions. In addition, for us to

achieve full access to the U.S. fuels market for our fuel products, we will need to obtain EPA and CARB (and potentially other state agencies) certifications for our feedstock pathway and production facilities, including certification of a feedstock lifecycle analysis relating to greenhouse gas emissions. Any delay in obtaining these additional certifications could impair our ability to sell our renewable fuels to refiners, importers, blenders and other parties that produce transportation fuels as they comply with federal and state requirements to include certified renewable fuels in their products.

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

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

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

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

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

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

We use hazardous chemicals and radioactive and biological materials in our business and such materials are subject to a variety of federal, state and local laws and regulations governing the use, generation, manufacture, storage, handling and disposal of these materials both in the U.S. and overseas. Although we have implemented safety procedures for

handling and disposing of these materials and related waste products in an effort to comply with these laws and regulations, we cannot be sure that our safety measures will prevent accidental injury or contamination from the use, storage, handling or disposal of hazardous materials. In the event of contamination or injury, we could be held liable for any resulting damages, and any liability could exceed our insurance coverage. There can be no assurance that violations of environmental, health and safety laws will not occur in the future as a result of human error, accident, equipment failure or other causes. Compliance with applicable environmental laws and regulations may be expensive, and the failure to comply with past, present, or future laws could result in the imposition of fines, third party property damage, product liability and personal injury claims, investigation and remediation costs, the suspension of production, or a cessation of operations, and our liability may exceed our total assets. Liability under environmental laws can be joint and several and without regard to comparative fault. Environmental laws could become more stringent over time, imposing greater compliance costs and increasing risks and penalties associated with violations, which could impair our research, development or production efforts and harm our business.

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

We anticipate that most of our renewable products, and in particular our fuels, will be marketed as alternatives to corresponding petroleum-based products. If the price of oil falls, we may be unable to produce products that are cost-effective alternatives to petroleum-based products. Declining oil prices, or the perception of a future decline in oil prices, may adversely affect the prices we can obtain from our potential customers or prevent potential customers from entering into agreements with us to buy our products. During sustained periods of lower oil prices we may be unable to sell some of our products, which could materially and adversely affect 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 or commissioning of new production facilities, or the time to ramp up and stabilize production following completion of a new production facility;

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

- disruptions in the production process at any manufacturing facility;

- 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 sales to customers for our products;

- increases in price or decreases in availability of feedstock;

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

- fluctuations in foreign currency exchange rates;

- gains or losses associated with our hedging activities;

- 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 associated with changes in governmental regulations and environmental, health and safety requirements;

- reductions or changes to existing fuel and chemical regulations and policies;

• departure of executives or other key management employees resulting in transition and severance costs;

• our ability to use our net operating loss carryforwards to offset future taxable income;

• business interruptions such as earthquakes and other natural disasters;

• our ability to integrate businesses that we may acquire;

• 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.

In addition, nearly all of our revenue through the third quarter of 2012 came from the sale of ethanol and reformulated ethanol-blended gasoline, with the remainder coming from collaborations and government grants and, more recently, sales of our renewable products. In the third quarter of 2012, we transitioned out of the ethanol and reformulated ethanol-blended gasoline business. We do not expect to be able to replace much of the revenue lost as a result of this transition, particularly in 2013 while we continue our efforts to establish a renewable products business.

As part of our operating plan for 2013, we are reducing our cost structure by improving efficiency in our operations and reducing non-critical expenditures. These efforts have included, and may include in the future, reductions to our workforce and adjustments to the timing and scope of planned capital expenditures.

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 build our business, we will need to hire additional qualified research and development, management and other personnel to succeed. The process of hiring, training and successfully integrating qualified personnel into our operation, in both the U.S. and Brazil, is a lengthy and expensive one. The market for qualified personnel is very competitive because of the limited number of people available with the necessary technical skills and understanding of our technology and anticipated products, particularly in Brazil. Our failure to hire and retain qualified personnel could impair our ability to meet our research and development and business objectives and adversely affect our results of operations and financial condition.

The loss of any key member of our management or key technical and operational employees, or the failure to attract or retain such employees could prevent us from developing and commercializing our products for our target markets and executing our business strategy. We also may not be able to attract or retain qualified employees in the future due to the intense competition for qualified personnel among biotechnology and other technology-based businesses, particularly in the renewable chemicals and fuels area, or due to the availability of personnel with the qualifications or experience necessary for our business. In addition, reductions to our workforce as part of cost-saving measures may make it more difficult for us to attract and retain key employees. If do not maintain the necessary personnel to accomplish our business objectives, we may experience staffing constraints that will adversely affect our ability to meet the demands of our collaborators and customers in a timely fashion or to support our internal research and development programs and operations. In particular, our product and process development programs are dependent on our ability to attract and retain highly skilled technical and operational personnel. Competition for such personnel from numerous companies and academic and other research institutions may limit our ability to do so on acceptable terms. All of our employees are at-will employees, which mean 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 397 at March 1, 2013. 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 U.S. and other countries. As of March 1, 2013, we had 202 issued U.S. and foreign patents and 302 pending U.S. and foreign patent applications that were owned by or licensed to us. We will be able to protect our proprietary rights from unauthorized use by third parties only to the extent that our proprietary technologies and future products are covered by valid and enforceable patents or are effectively maintained as trade secrets.

We apply for patents covering both our technologies and product candidates, as we deem appropriate. However, we may fail to apply for patents on important technologies or product candidates in a timely fashion, or at all. Our existing and future patents may not be sufficiently broad to prevent others from practicing our technologies or from developing competing products or technologies. In addition, the patent positions of companies like ours are highly uncertain and involve complex legal and factual questions for which important legal principles remain unresolved. No consistent policy regarding the breadth of patent claims has emerged to date in the U.S. and the landscape is expected to become even more uncertain in view of recent rule changes by the Patent and Trademark Office, or USPTO, the introduction of patent reform legislation in Congress and recent decisions in patent law cases by the U.S. Supreme Court. In addition, we obtained certain key U.S. patents using a procedure for accelerated examination recently implemented by the USPTO which requires special activities and disclosures that may create additional risks related to the validity or enforceability of the U.S. patents so obtained. The patent situation outside of the U.S. 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 patent applications or those 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. In particular, U.S. patents we obtained using the USPTO accelerated examination program may introduce additional risks to the validity or enforceability of some or all of these specially-obtained U.S. patents if validity or enforceability are challenged. 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 U.S. or other territories. Additional uncertainty may result from potential passage of patent reform legislation by the U.S. Congress, legal precedent by the U.S. Federal Circuit and Supreme Court as they determine legal issues concerning the scope and construction of patent claims and inconsistent interpretation of patent laws by the lower courts. Accordingly, we cannot ensure that any of our pending patent applications will result in issued patents, or even if issued, predict the breadth, validity and enforceability of the claims upheld in our and other companies' patents.

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

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

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

We require new employees and consultants to execute confidentiality agreements upon the commencement of an employment or consulting arrangement with us. These agreements generally require that all confidential information developed by the individual or made known to the individual by us during the course of the individual's relationship with us be kept confidential and not disclosed to third parties. These agreements also generally provide that inventions conceived by the individual in the course of rendering services to us shall be our exclusive property. Nevertheless, our proprietary information may be disclosed, or these agreements may be unenforceable or difficult to enforce. Additionally, trade secret law in Brazil differs from that in the U.S. which requires us to take a different approach to protecting our trade secrets in Brazil. Some of these approaches to trade secret protection may be novel and untested under Brazilian law and we cannot guarantee that we would prevail if our trade secrets are contested in Brazil. If any of the above risks materializes, our failure to obtain or maintain trade secret protection could adversely affect our competitive business position.

Third parties may misappropriate our yeast strains.

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

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

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

determined to be valid, we may be enjoined from pursuing 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 U.S. 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 U.S., 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 U.S. 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.

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 or chemical finishers. These claims could be brought by various parties, including customers who are purchasing products directly from us or other users who purchase products from our customers. We could also be named as co-parties in product liability suits that are brought against the contract manufacturers or Brazilian sugar and ethanol mills with whom we partner to produce our products. Insurance coverage is expensive, may be difficult to obtain and may not be available in the future on acceptable terms. We cannot be certain that our contract manufacturers or the sugar and ethanol producers who partner with us to produce our products will have adequate insurance coverage to cover against potential claims. Any insurance we do maintain may not provide adequate coverage against potential losses, and if claims or losses exceed our liability insurance coverage, our business would be adversely impacted. In addition, insurance coverage may become more expensive, which would harm our results of operations.

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

From time to time, we may in the ordinary course of business be named as a defendant in lawsuits, claims and other legal proceedings. These actions may seek, among other things, compensation for alleged personal injury, worker's compensation, employment discrimination, breach of contract, property damages, civil penalties and other losses of injunctive or declaratory relief. In the event that such actions or indemnities are ultimately resolved unfavorably at amounts exceeding our accrued liability, or at material amounts, the outcome could materially and adversely affect our reputation, business and results of operations. In addition, payments of significant amounts, even if reserved, could adversely affect our liquidity position.

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

Effective internal controls are necessary for us to provide reliable financial reports and prevent fraud. In addition, Section 404 of the Sarbanes-Oxley Act of 2002 requires us and our independent registered public accounting firm to evaluate and report on our internal control over financial reporting. 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. This may be particularly true where we are establishing such entities with commercial partners that do not have sophisticated financial accounting processes in place, or where we are entering into new relationships at a rapid pace, straining our integration capacity. Additionally, if we do not receive the information from the joint venture or variable interest entity on a timely basis, this could cause delays in our external reporting. Even if we conclude, and our independent registered public accounting firm concurs, that our internal control over financial reporting provides reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with

generally accepted accounting principles, because of its inherent limitations, internal control over financial reporting may not prevent or detect fraud or misstatements. Failure to implement required new or improved controls, or difficulties encountered in their implementation, could harm our results of operations or cause us to fail to meet our reporting obligations. If we or our independent registered public accounting firm discover a material weakness, the disclosure of that fact, even if quickly remedied, could reduce the market's confidence in our financial statements and harm our stock price. In addition, failure to comply with Section 404 could subject us to a variety of administrative sanctions, including SEC action, ineligibility for short form resale registration, the suspension or delisting of our common stock from the stock exchange on which it is listed, and the inability of registered broker-dealers to make a market in our common stock, which would further reduce our stock price and could harm our business.

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

We apply the applicable accounting principles set forth in the U.S. Financial Accounting Standards Board's Accounting Standards Codification to our intangible assets (including goodwill), which prohibits the amortization of intangible assets with

indefinite useful lives and requires that these assets be reviewed for impairment at least annually. There are several methods that can be used to determine the estimated fair value of the in-process research and development acquired in a business combination. We have used the “income method,” which applies a probability weighting that considers the risk of development and commercialization, to the estimated future net cash flows that are derived from projected sales revenues and estimated costs. These projections are based on factors such as relevant market size, pricing of similar products, and expected industry trends. The estimated future net cash flows are then discounted to the present value using an appropriate discount rate. These assets are treated as indefinite-lived intangible assets until completion or abandonment of the projects, at which time the assets will be amortized over the remaining useful life or written off, as appropriate. If the carrying amount of the assets is greater than the measures of fair value, impairment is considered to have occurred and a write-down of the asset is recorded. Any finding that the value of our intangible assets has been impaired would require us to write-down the impaired portion, which could reduce the value of our assets and reduce our net income for the year in which the related impairment charges occur. As of December 31, 2012, we had a net carrying value of approximately \$9.1 million in in-process research and development and goodwill associated with our acquisition of Draths Corporation.

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

In general, under Section 382 of the Internal Revenue Code, or Code, a corporation that undergoes an “ownership change” is subject to limitations on its ability to utilize its pre-change net operating loss carryforwards, or NOLs, to offset future taxable income. If the Internal Revenue Service challenges our analysis that our existing NOLs are not subject to limitations arising from previous ownership changes, or if we undergo an ownership change, our ability to utilize NOLs could be limited by Section 382 of the Code. Future changes in our stock ownership, some of which are outside of our control, could result in an ownership change under Section 382 of the Code. Furthermore, our ability to utilize NOLs of companies that we may acquire in the future may be subject to limitations. For these reasons, we may not be able to utilize a material portion of the NOLs carryforward as of December 31, 2012, even if we attain profitability.

Loss of government contract revenues could impair our research and development efforts.

In 2010, we were awarded an “Integrated Bio-Refinery” grant from the U.S. Department of Energy, or DOE. The terms of this grant make funds available to us to leverage and expand our existing Emeryville, California, pilot plant and support laboratories to develop U.S.-based production capabilities for renewable fuels and chemicals derived from sweet sorghum. In 2012, we entered into a Technology Investment Agreement with The Defense Advanced Research Projects Agency (DARPA), under which we are performing certain research and development activities funded in part by DARPA. Generally, these agreements have fixed terms and may be terminated, modified or recovered 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 the DOE or DARPA terminate their agreements with us, in addition to reducing our revenues, our U.S.-based research and development activities could be impaired, which would harm our business.

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

We conduct our primary research and development operations in the San Francisco Bay Area in an active earthquake zone, and certain of our suppliers conduct their operations in the same region or in other locations that are susceptible to natural disasters. In addition, California and some of the locations where certain of our suppliers are located have

experienced shortages of water, electric power and natural gas from time to time. The occurrence of a natural disaster, such as an earthquake, drought or flood, or localized extended outages of critical utilities or transportation systems, or any critical resource shortages, affecting us or our suppliers could cause a significant interruption in our business, damage or destroy our facilities, production equipment or inventory or those of our suppliers and cause us to incur significant costs or result in limitations on the availability of our raw materials, any of which could harm our business, financial condition and results of operations. The insurance we maintain against fires, earthquakes and other natural disasters may not be adequate to cover our losses in any particular case.

Risks Related to Ownership of Our Common Stock

Our stock price may be volatile.

The market price of our common stock has been, and we expect it to continue to be, subject to significant volatility, and it has declined significantly from our initial public offering price. As of January 31, 2013, the reported closing price for our common stock on the NASDAQ Global Select Market was \$3.04 per share. Market prices for securities of early stage companies have

historically been particularly volatile. Such fluctuations could be in response to, among other things, the factors described in this “Risk Factors” section or elsewhere in this report, or other factors, some of which are beyond our control, such as:

- fluctuations in our financial results or outlook or those of companies perceived to be similar to us;
- changes in estimates of our financial results or recommendations by securities analysts;
- changes in market valuations of similar companies;
- changes in the prices of commodities associated with our business such as sugar, ethanol and petroleum;
- 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 U.S., 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 litigation. We may be the target of this type of litigation in the future. Securities litigation against us could result in substantial costs and divert our management's attention from other business concerns, which could seriously harm our business.

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

As of March 1, 2013:

- our executive officers and directors and their affiliates (including Total) together held approximately 36.5% of our outstanding common stock;
- Total held approximately 18.4% of our outstanding common stock; and
- our next two largest holders of outstanding common stock after Total (Maxwell Mauritius Pte. Ltd. and Biolding Investment SA, each of whom has a designee on our Board of Directors) together held approximately 22.1% of our

outstanding common stock.

This significant concentration of share ownership may adversely affect the trading price for our common stock because investors often perceive disadvantages in owning stock in companies with controlling stockholders. Also, these stockholders, acting together, will be able to control our management and affairs and matters requiring stockholder approval, including the election of directors and the approval of significant corporate transactions, such as mergers, consolidations or the sale of substantially all of our assets. Consequently, this concentration of ownership may have the effect of delaying or preventing a change of control, including a merger, consolidation or other business combination involving us, or discouraging a potential acquirer from making a tender offer or otherwise attempting to obtain control, even if that change of control would benefit our other stockholders.

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

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

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

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

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

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

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

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

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

These and other provisions in our amended and restated certificate of incorporation and our amended and restated bylaws that became effective upon the completion of our initial public offering under Delaware law and in our agreement 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 March 5, 2013:

Name	Age	Position
Executive Officers:		
John Melo	47	Director, President and Chief Executive Officer
Steven R. Mills	57	Chief Financial Officer
Peter Boynton	58	Chief Commercial Officer
Joel Cherry, Ph.D.	52	President of Research and Development
Paulo Diniz	55	Chief Executive Officer, Amyris Brasil Ltda.
Gary Loeb	43	Senior Vice President, General Counsel and Corporate Secretary
Zanna McFerson	47	Chief Business Officer
Key Employees:		
Jack Newman, Ph.D.	46	Chief Scientific Officer

John Melo

John Melo has served as our President and Chief Executive Officer and a director since January 2007 and our President since January 2008. Before joining Amyris, Mr. Melo served in various senior management 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 the Bay Area Biosciences Association (BayBio). Mr. Melo is an appointed member to the U.S. section of the U.S.-Brazil CEO Forum. Mr. Melo's experience as a senior executive at one of the world's largest energy companies provides critical leadership in designing the fuels value chain, shaping strategic direction and business transactions, and in building teams to drive innovation.

Steven R. Mills

Steven Mills has served as our Chief Financial Officer since May 2012. Prior to joining Amyris, Mr. Mills served as Senior Executive Vice President of Performance & Growth at Archer-Daniels-Midland Company (ADM), a global agricultural commodity processing company, from December 2010 to February 2012. Previously, he served as ADM's Executive Vice President and Chief Financial Officer from March 2008 to December 2010. Mr. Mills joined ADM in 1979 and served in various senior accounting and treasury roles, including 12 years as Controller. He has been a director and a member of the audit committee of Black Hills Corporation, a diversified energy holding company, since October 2011. Mr. Mills also serves on the boards of Illinois College and Hickory Point Bank & Trust. He holds a Bachelor of Science degree in Mathematics from Illinois College in Jacksonville, Illinois.

Peter Boynton

Peter Boynton has served as our Chief Commercial Officer since December 2009. Mr. Boynton joined Amyris from Tate & Lyle Plc., a global food and agricultural ingredients company, where he served in various positions from 1999 to December 2009, most recently as Senior Vice President, Bio-products, and Fermentation. Previously, he held

multiple positions at Cargill, Inc., a privately-held food and agriculture company, from 1980 to 1998, lastly as Vice President NACM. Mr. Boynton holds a Bachelor of Science degree in Economics from the University of Georgia.

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.

Paulo Diniz

Paulo Diniz joined us as the CEO of Amyris Brasil in March 2011. Prior to joining Amyris, Mr. Diniz served as Chief Financial Officer of Bunge Brasil S.A., a wholly owned subsidiary of Bunge Ltd., an agribusiness and food company, from April 2009 to November 2010. From 2003 to April 2009, Mr. Diniz was Chief Financial Officer and a member of the board of directors of Cosan S.A., a renewable energy company. He received a Master of Business Administration degree from IMD in Switzerland, a B. of Sc. degree in Production Engineering from USP in Brazil, and did post graduate work in human resources at INSEAD in France.

Gary Loeb

Gary Loeb joined Amyris in March 2011 as Senior Corporate and Regulatory Counsel and became General Counsel and Corporate Secretary in May 2012. Previously, Mr. Loeb served as Vice President of Intellectual Property from March 2008 to May 2011 and as Head of Litigation, most recently as Associate General Counsel, from 2003 to March 2008 at Genentech, Inc., a biotechnology company. Prior to joining Genentech in 2000, Mr. Loeb practiced general intellectual property law in Los Angeles and San Francisco. Mr. Loeb holds a Doctor of Jurisprudence degree from Columbia Law School and a Bachelor of Science degree in Biological Sciences and Bachelor of Arts degree in English from Stanford University. Mr. Loeb also served as an Adjunct Professor at the University of San Francisco School of Law from 2006 through 2011, where he lectured on biotechnology law.

Zanna McFerson

Zanna McFerson joined us as our Chief Business Officer in March 2013. Prior to joining Amyris, Ms. McFerson was a Vice President at Cargill, Incorporated, a privately-held international producer and marketer of food, agricultural, financial and industrial products and services, where she served as Business Director, Truvia Enterprise, from August 2008 to February 2013. Previously, Ms. McFerson served as Business Director, Health and Nutrition - Truvia, at Cargill from May 2006 to July 2008. She joined Cargill in 1990 as a commodity trader and held various roles in sales, management, and new product development until joining the leadership team of Cargill Health and Nutrition in May 2005. Ms. McFerson received a Bachelor of Arts degree in Economics from the University of Illinois and a Master of Business Administration degree from the University of Iowa. She served on the Board of Directors for the International Stevia Council, is a member of the Finnish American Chamber of Commerce, and contributes to the American Swedish Institute in Minneapolis.

Key Employee

Jack Newman, Ph.D.

Dr. Jack Newman is a co-founder of Amyris and has served as our Chief Scientific Officer since July 2011 and previously as our Senior Vice President of Research since July 2007, and also served as our Director, Biology from 2004 to June 2007. Dr. Newman holds a Bachelor of Arts degree in Molecular and Cell Biology from the University of California, Berkeley and a Doctor of Philosophy degree from the University of Wisconsin-Madison in the field of microbial physiology and gene regulation.

Our executive officers are elected by, and serve at the discretion of, our Board of Directors. There are no family relationships among any of our directors and executive officers.

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 this space, we use approximately 113,000 square feet for general office purposes and lab space, and approximately 23,000 square feet comprise our pilot plant. Our leases expire in May 2018 and we have an option to extend these leases for five

years. We also lease approximately 19,375 square feet of space in North Carolina under a month-to-month lease. This lease relates to manufacturing operations through Glycotech, one of our variable interest entities.

Amyris Brasil leases approximately 52,000 square feet of space in Campinas, Brazil, pursuant to two leases that will expire in October 2015 and November 2016. Of this space, approximately 36,000 square feet comprise a pilot plant and demonstration facility, and the remainder is general office and lab space. Amyris Brasil has a right of first refusal to purchase the space if the landlord elects to sell it and an option to extend the lease for five additional years.

Our first large-scale Biofene production plant commenced operations in December 2012 in Brotas in the state of São Paulo, Brazil and is adjacent to an existing sugar and ethanol mill, Paraíso Bioenergia. Amyris Brasil leases approximately 800,000 square feet of space for this plant, which has six 200,000 liter production fermenters and was designed to process sugarcane juice, or its equivalent, from up to one million tons of raw sugarcane annually; this lease expires in March 2026. Amyris Brasil also leases approximately 500,000 square feet of space for a future manufacturing site; this lease expires in January 2031.

We have also secured the use of a Biofene storage tank with an aggregate capacity of 10,000 barrels in Illinois. This facility provides temporary storage of our renewable farnesene prior to further processing into one of our finished products. Our current agreement expires in September 2013. In addition, we have secured a second location for the same purpose in Texas for the use of a Biofene storage tank with an aggregate capacity of 10,000 barrels. Our current agreement in Texas expires in January 2014.

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

ITEM 3. LEGAL PROCEEDINGS

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

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

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

Market Information for Common Stock

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

	Price Range Per Share	
	High	Low
Fiscal 2012		
Fourth quarter	\$3.48	\$2.16
Third quarter	\$4.56	\$2.74
Second quarter	\$5.16	\$1.57
First quarter	\$12.29	\$4.45
Fiscal 2011		
Fourth quarter	\$20.86	\$9.90
Third quarter	\$28.75	\$17.57
Second quarter	\$30.78	\$24.01
First quarter	\$33.99	\$26.57

Holders

As of March 1, 2013, there were approximately 121 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. In addition, our equipment lease with TriplePoint Capital LLC currently restricts our ability to pay dividends.

Securities Authorized for Issuance Under Equity Compensation Plans

See Item 12 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, 2012 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 27 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	03/31/2011	6/30/2011	9/30/2011	12/31/2011	03/31/2012	6/30/2012	9/30/2012	12/31/2012
Amyris, Inc.	\$ 100	\$ 162	\$ 173	\$ 170	\$ 123	\$ 70	\$ 31	\$ 27	\$ 21	\$ 19
S&P SmallCap 600 Index	\$ 100	\$ 116	\$ 124	\$ 124	\$ 99	\$ 116	\$ 129	\$ 124	\$ 130	\$ 133
NASDAQ Clean Edge Green Energy Index	\$ 100	\$ 109	\$ 112	\$ 102	\$ 66	\$ 64	\$ 72	\$ 62	\$ 59	\$ 63

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

Recent Sales of Unregistered Securities

On February 23, 2012, we sold 10,160,325 shares of our common stock at a price of \$5.78 per share for aggregate cash proceeds of approximately \$58.7 million.

On February 24, 2012, we sold senior unsecured convertible promissory notes in an aggregate principal amount of \$25.0 million for aggregate cash proceeds of \$25.0 million. Such notes were 3% senior unsecured convertible promissory notes with a March 1, 2017 maturity date and a conversion price equal to \$7.0682 per share of common stock. As of December 31, 2012, the notes were convertible into an aggregate of up to 3,536,968 shares of common stock. The conversion price of the notes is subject to adjustment for proportional adjustments to outstanding common stock and under anti-dilution provisions in case of certain dividends and distributions. The note 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 Amyris. In addition, if the note holders do not require such repayment upon a change of control, then upon conversion of the notes following such change of control, we are required to pay the interest that would have otherwise accrued through maturity.

On May 18, 2012, we sold 1,736,100 shares of our common stock at a price of \$2.36 per share for aggregate cash proceeds of approximately \$4.1 million.

In July and September 2012, we completed the sale of senior unsecured convertible promissory notes in an aggregate principal amount of \$53.3 million pursuant to a purchase agreement with Total ("Total Notes"). Under the purchase agreement: (i) on July 30, 2012, we sold a 1.5% senior unsecured convertible note due 2017 to Total in the face amount of \$38.3 million, including \$15.0 million in new funds and repayment by Amyris of \$23.3 million in previously-provided diesel research and development funding by Total, and (ii) on September 14, 2012, we sold another note (in the same form) for \$15.0 million in new funds from Total. The purchase agreement provides that additional notes may be sold in subsequent closings in July 2013 (for cash proceeds to Amyris of \$30.0 million) and July 2014 (for cash proceeds to Amyris of \$21.7 million, which would be settled in an initial installment of \$10.85 million payable at such closing and a second installment of \$10.85 million payable in January 2015).

The Total Notes each have a March 1, 2017 maturity date and a conversion price equal to \$7.0682 per share of our common stock. The Total Notes bear interest of 1.5% per year (with a default rate of 2.5%), accruing from date of funding and payable at maturity or on conversion or a change of control where Total exercises a right to require us to repay the notes. Accrued interest is canceled if the notes are canceled based on a decision by Total to proceed with the underlying program and joint venture (a "Go" decision as discussed in "Note 9 - Significant Agreements" in Part I, Item 1 of this report). The notes become convertible into our common stock (i) within 10 trading days prior to maturity (if they are not canceled as described above prior to their maturity date), (ii) on a change of control of Amyris, (iii) if Total is no longer the largest stockholder of Amyris following a "No-Go" decision (subject to a six-month lock-up with respect to any shares of common stock issued upon conversion), and (iv) on a default by Amyris. If Total makes a final "Go" decision, then the notes will be exchanged by Total for equity interests in the Fuels JV, after which the notes will not be convertible and any obligation to pay principal or interest on the notes will be extinguished. If Total makes a "No-Go" decision, outstanding notes will remain outstanding and become payable at maturity.

As of September 30, 2012, the Total Notes were convertible into an aggregate of approximately 7,540,817 shares of our common stock. The conversion price of the notes is subject to adjustment for proportional adjustments to outstanding common stock and under anti-dilution provisions in case of certain dividends and distributions. Total has a right to require repayment of 101% of the principal amount of the notes in the event of a change of control of Amyris and the notes provide for payment of unpaid interest on conversion following such a change of control if Total does not require such repayment.

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

No underwriters were involved in the foregoing sales of securities. These securities were issued in private transactions pursuant to Section 4(2) of the Securities Act. The recipients of these securities acquired the securities for investment purposes only and without intent to resell, were able to fend for themselves in these transactions, and were accredited investors as defined in Rule 501 of Regulation D promulgated under Section 3(b) of the Securities Act, and appropriate restrictions were set out in the agreements for, and stock certificates and notes issued in, these transactions. These security holders had adequate access, through their relationships with us, to information about us.

ITEM 6. SELECTED FINANCIAL DATA

The selected consolidated statements of operations data for the years ended December 31, 2012, 2011 and 2010 and the selected consolidated balance sheets data as of December 31, 2012 and 2011 are derived from our audited Consolidated Financial Statements, appearing elsewhere in this report. The historical results presented below are not necessarily indicative of financial results to be achieved in future periods. You should read the following selected financial data in conjunction with “Management’s Discussion Analysis of Financial Condition and Results of Operations” and our Consolidated Financial Statements and related Notes included in Item 8 of this report.

	Years Ended December 31,				
	2012	2011	2010	2009	2008
	(In Thousands, Except Share and Per Share Amounts)				
Consolidated Statements of Operations Data:					
Revenues					
Product sales	\$49,638	\$129,837	\$68,664	\$61,689	\$10,680
Grants and collaborations revenue	24,056	17,154	11,647	2,919	3,212
Total revenues	73,694	146,991	80,311	64,608	13,892
Cost and operating expenses					
Cost of products sold	77,314	155,615	70,515	60,428	10,364
Loss on purchase commitments and write off of production assets	45,854	—	—	—	—
Research and development ⁽¹⁾	73,630	87,317	55,249	38,263	30,306
Sales, general and administrative ⁽¹⁾	78,718	83,231	40,393	23,558	16,622
Restructuring and asset impairment (income) charges	—	—	(2,061	) 5,768	—
Total cost and operating expenses	275,516	326,163	164,096	128,017	57,292
Net loss from operations	(201,822	) (179,172	) (83,785	) (63,409	) (43,400
Other income (expense):					
Interest income	1,472	1,542	1,540	448	1,378
Interest expense	(4,926	) (1,543	) (1,443	) (1,218	) (377
Other income (expense), net	224	214	898	(621	) (144
Total other income (expense)	(3,230	) 213	995	(1,391	) 857
Loss before income taxes	(205,052	) (178,959	) (82,790	) (64,800	) (42,543
Income tax benefit (provision)	(981	) (552	) —	—	207
Net loss	\$(206,033	) \$(179,511	) \$(82,790	) \$(64,800	) \$(42,336
Loss attributable to noncontrolling interest	894	641	920	341	472
Net loss attributable to Amyris, Inc.	\$(205,139	) \$(178,870	) \$(81,870	) \$(64,459	) \$(41,864
Deemed dividend related to a beneficial conversion feature	—	—	(42,009) —	—
Net loss attributable to Amyris, Inc. common stockholders	\$(205,139	) \$(178,870	) \$(123,879	) \$(64,459	) \$(41,864
Net loss per share attributable to common stockholders, basic and diluted	\$(3.62	) \$(3.99	) \$(8.35	) \$(13.56	) \$(9.91
	56,717,869	44,799,056	14,840,253	4,753,085	4,223,533

Weighted-average shares of
common stock outstanding used in
computing net loss per share of
common stock, basic and diluted

(1) Includes stock-based compensation expense.

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	As of December 31,				
	2012	2011	2010	2009	2008
	(In Thousands)				
Consolidated Balance Sheets Data:					
Cash, cash equivalents, investments and restricted cash	\$31,644	\$103,592	\$257,933	\$71,716	\$52,888
Working capital	3,668	47,205	242,818	51,062	32,356
Property, plant and equipment, net	163,121	128,101	54,847	42,560	41,565
Total assets	242,834	320,111	357,453	122,159	98,823
Total indebtedness ⁽¹⁾	106,774	47,660	12,590	20,608	6,747
Convertible preferred stock warrant liability	—	—	—	2,740	2,132
Convertible preferred stock	—	—	—	179,651	121,436
Redeemable noncontrolling interest	—	—	—	5,506	—
Total equity (deficit)	66,229	160,812	307,548	(113,745)	(52,143)

Total indebtedness as of December 31, 2012, 2011, 2010, 2009 and 2008 includes \$2.6 million, \$6.3 million, \$5.9 million, \$7.2 million and \$3.6 million, respectively, in capital lease obligations, \$1.6 million, \$3.1 million, \$5.7 million, \$4.0 million and zero, respectively, in notes payable, \$26.2 million, \$19.4 million, \$1.0 million, \$1.0 million and \$3.1 million, respectively, in loan payable, \$12.4 million, \$18.9 million, zero, \$8.3 million and zero respectively, in credit facility. Total indebtedness as of December 31, 2012 also included \$25.0 million in convertible notes and \$39.0 million in related party convertible notes. There was no convertible notes balance outstanding as of December 31, 2011, 2010, 2009 and 2008 (see Note 5 and Note 6 to our Consolidated Financial Statements).

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

Overview

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

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

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

Our first purpose-built, large-scale Biofene production plant commenced operations in southeastern Brazil in December 2012. This plant in Brotas, in the state of São Paulo, is adjacent to an existing sugar and ethanol mill, Paraíso Bioenergia. We have also advanced initial construction of a second large-scale production plant in Brazil, located at the Usina São Martinho sugar and ethanol mill also in the state of São Paulo, which we intend to complete when production economics support start-up of that plant. To satisfy initial commercial demand for our products until our own facilities are operating, we have leveraged contract-manufacturing capabilities of established companies.

Our business strategy is to focus our direct commercialization efforts on higher-value, lower-volume markets while moving lower-margin, higher-volume 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 large-market commodity products. Our initial renewable products efforts have been focused on cosmetics, niche fuel opportunities, fragrance oils, and farnesene for liquid polymers.

Total Relationship

In June 2010, we entered into a collaboration agreement with Total. This agreement provided for joint collaboration on the development of products through the use of our synthetic biology platform. In connection with this agreement, Total invested \$133.2 million in our equity. In November 2011, we entered into an amendment of the collaboration agreement with Total with respect to development and commercialization of Biofene for diesel. This represented an expansion of the initial collaboration with Total, and established a global, exclusive collaboration for the development of Biofene for diesel and a framework for the creation of a joint venture to manufacture and commercialize Biofene for diesel. In addition, a limited number of other potential products were subject to development for the joint venture on a non-exclusive basis. In July 2012, we entered into a further amendment of the collaboration agreement with Total that expanded Total's investment in the Biofene collaboration, incorporated the development of certain joint venture products for use in diesel and jet fuel into the scope of the collaboration, and changed the structure of the funding from Total to include a convertible debt mechanism. Under the new agreements, we issued senior unsecured convertible notes to Total for an aggregate of \$30.0 million in new cash in the third quarter of 2012. Total may decide to provide further funding at annual decision points in mid-2013 and 2014. Upon completion of the research and development program, we and Total would form a joint venture company that would have exclusive rights to produce and market renewable diesel and/or jet fuel. Should Total decide not to pursue commercialization, under certain conditions, it is eligible to recover up to \$100 million, payable in March 2017, in the form of cash or in the form of common stock at a conversion price of \$7.0682 per share (or, for notes issued in 2013, a lower price as determined under the March 2013 letter agreement as described below).

In connection with a private placement of our common stock that occurred in December 2012, Total elected to participate by exchanging approximately \$5.0 million of its \$53.3 million in senior unsecured convertible debt outstanding for 1,677,852 shares at the purchase price in this private placement of \$2.98 per share. As such, \$5.0 million of the outstanding \$53.3 million in senior unsecured convertible debt was cancelled.

In March 2013, we entered into a letter agreement with Total under which Total agreed to waive its right to cease its participation in our fuels collaboration at the July 2013 decision point referenced above and committed to proceed with the July 2013 funding tranche of \$30.0 million (subject to our satisfaction of the relevant closing conditions for such funding in the securities purchase agreement). As consideration for this waiver and commitment, we agreed to:

Reduce the conversion price for the senior unsecured convertible promissory notes to be issued in connection with such funding from \$7.0682 per share to a price per share equal to the greater of (i) the consolidated closing bid price of our common stock on the date of the letter agreement, plus \$0.01, and (ii) \$3.08 per share, provided that the conversion price will not be reduced by more than the maximum possible amount permitted under the NASDAQ rules such that the new conversion price would require us to obtain stockholder consent; and

Grant Total a senior security interest in our intellectual property, subject to certain exclusions and subject to release by Total when we 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 our request and contingent upon us meeting our obligations described above, it would pay advance installments of the amounts otherwise payable at the July 2013 closing. Specifically, if we request such advance installments, subject to certain closing conditions and delivery of certifications regarding our cash levels, Total is obligated to fund \$10.0 million no later than May 15, 2013, and an additional \$10.0 million no later than June 15, 2013, with the remainder funding on the original July

2013 closing date.

Contract Manufacturing

In 2010 and 2011, to support our initial commercial production of Biofene, we entered into contract manufacturing agreements with various contract manufacturing partners. We also established contract manufacturing relationships to support conversion of Biofene into finished chemical products. Under the terms of the associated contract manufacturing agreements, we provided necessary equipment for the manufacturing of products, over which we retained ownership. During 2012 and 2011, we reimbursed contract manufacturers for an aggregate of \$13.8 million in expenditures related to the modification of their facilities. We recorded these costs as facility modification costs in other assets and amortized them as an offset against purchases of inventory. Certain of our contract manufacturing agreements have also imposed fixed purchase commitments on us, regardless of production volumes.

In January 2011, we entered into a production service agreement with Glycotech under which Glycotech performs finishing steps to convert Biofene into squalane, diesel, base oils for industrial lubricants, and other products. In addition, in July 2011, we

entered into a contract manufacturing agreement with Albemarle under which Albemarle is to provide toll manufacturing services at its facility in South Carolina and we are obligated to reimburse Albemarle for capital expenditures related to facility modifications required for the services. In February 2012, we entered into an amended and restated agreement with Albemarle, which superseded the original contract manufacturing agreement with Albemarle. The term of the new agreement continues through December 31, 2019. The agreement includes certain obligations for us to pay fixed costs totaling \$7.5 million, of which \$3.5 million and \$4.0 million are payable in 2012 and 2014, respectively. In addition, fixed costs of \$2.0 million per quarter are payable in 2013 if we exercise our option to have product manufactured in the facility in 2013. The agreement also includes variable pricing during the contract term. We may seek to enter into additional contract manufacturing arrangements. We expect to work with third parties specializing in particular industries to convert Biofene by simple chemical processes and initially to sell it primarily in the forms of squalane, diesel, base oils for industrial lubricants, and other products.

Beginning in March 2012, we initiated a plan to shift production capacity from the contract manufacturing facilities to Amyris-owned plants that were then under construction. As a result, we evaluated our contract manufacturing agreements and recorded a loss of \$31.2 million related to \$10.0 million in facility modification costs and \$21.2 million of fixed purchase commitments in the first quarter of 2012. We recognized additional charges of \$1.4 million and \$7.8 million, respectively, in the third and fourth quarter of 2012 associated with losses on fixed purchase commitments. We computed the loss on facility modification costs and fixed purchase commitments using the same lower of cost or market approach that is used to value inventory. The computation of the loss on firm purchase commitments is subject to several estimates, including cost to complete and the ultimate selling price of any of our products manufactured at the relevant production facilities, and is therefore inherently uncertain. We also recorded a loss on write-off of production assets of \$5.5 million related to Amyris-owned production equipment at contract manufacturing facilities in the three months ended March 31, 2012. We will continue to evaluate the potential for losses in future periods based on updated production and sales price assumptions.

During the year ended December 31, 2012, we incurred \$38.7 million of scale-up costs to support our production of Biofene-derived products that are included within cost of products sold. These scale-up costs include the contract manufacturing cost related to production of Biofene-derived products and the finishing of Biofene into finished products. We continue to commit significant resources to our production process in advance of our achieving full commercial production volume. As only a portion of our production costs varies with our revenue, our production costs will be greater than our revenue until we achieve significant product volume. We anticipate that our production costs will decrease as we continue to improve our processes and increase throughput.

Sales and Revenue

To commercialize our initial Biofene-derived product, squalane, for sale to cosmetics companies for use as a moisturizing ingredient in cosmetics and other personal care products, we have entered into marketing and distribution agreements with a number of distributors since June 2010. As an initial step towards commercialization of Biofene-based diesel, we have entered into agreements with several bus operators in São Paulo, Brazil. Our diesel fuel is supplied to BR Distribuidora, a division of Petrobras, which in turn blends our product with petroleum diesel and sells to a number of bus operators including Santa Brígida, the largest bus fleet operator in São Paulo. For the industrial lubricants market, in June 2011 we established a joint venture with Cosan for the worldwide development, production and commercialization of renewable base oils.

We have also entered into agreements to sell Biofene and its derivatives directly to various potential customers, including with M&G for use in plastics, with Kuraray for use in production of polymers, with Michelin for use in tires, with Firmenich and Givaudan for ingredients for the flavors and fragrances market, and with Method for use in home and personal care products. Production and sale of our products pursuant to any of these relationships will depend on the achievement of contract-specific technical, development and commercial milestones.

Since inception through December 31, 2012, we have recognized \$392.5 million in revenue, primarily from the sale of ethanol and reformulated ethanol-blended gasoline. We transitioned out of the ethanol and ethanol-blended business during the third quarter ended September 30, 2012. We do not expect to be able to replace much of the revenues lost in the near term as a result of this transition, particularly in 2013 while we continue our efforts to establish our renewable products business.

Financing

In 2012, we completed multiple financings involving loans and convertible debt and equity offerings. In February 2012, we completed a private placement of 10.2 million shares of common stock for aggregate proceeds of \$58.7 million and raised \$25.0 million from an offering of senior unsecured convertible promissory notes. In May 2012, we completed a private placement of 1.7 million shares of common stock for aggregate proceeds of \$4.1 million. In July 2012, we completed a sale of \$38.3 million in a senior unsecured convertible promissory note for cash proceeds of \$15.0 million and our repayment of \$23.3 million in

previously-provided research and development funds and, in September 2012, we completed a sale of an additional senior unsecured convertible promissory note for additional cash proceeds of \$15.0 million. In December 2012, we completed a private placement of 14.2 million shares of common stock for aggregate proceeds of \$37.2 million and the cancellation of \$5.0 million worth of outstanding senior unsecured convertible promissory notes we previously issued to Total in exchange for approximately 1.7 million shares of common stock. Under the December 2012 purchase agreement and related documents, the purchase of a portion of the shares, representing \$15.0 million of the proceeds from that transaction, was not settled until January 2013. Cash received as of December 31, 2012 in the December 2012 financing, net of the note conversion and the January 2013 settlement, was \$22.2 million.

Liquidity

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 2014. As of December 31, 2012, we had an accumulated deficit of \$586.3 million and had cash, cash equivalents and short term investments of \$30.7 million. We have significant outstanding debt and contractual obligations related to purchase commitments, as well as capital and operating leases. As of December 31, 2012, our debt totaled \$104.2 million, of which \$3.3 million matures within the next twelve months. In addition, our debt agreements contain various covenants, including restrictions on business that could cause us to be at risk of defaults. In March 2013, we signed a collaboration agreement that included a funding component, and obtained a commitment letter from Total with respect to additional convertible note funding (as described above), and we expect to use amounts received under these arrangements to fund our operations. Furthermore, we are expecting additional funding in 2013 from collaborations, equity or debt offerings, or combinations of these sources. Our operating plan contemplates securing a portion of this additional funding in the second quarter of 2013. However, as of the date of this filing, we have not yet secured this additional funding. There can be no assurance that financing will be available on commercially acceptable terms or at all. If we are unable to raise additional financing, or if other expected sources of funding are delayed or not received, we would take actions to support our liquidity needs that could have a material negative impact on our ability to continue our business as currently contemplated. See “Liquidity and Capital Resources” below in this section for additional detail regarding these contingency plans and their potential effects on our business.

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 currently recognize revenues from the sale of farnesene-derived products, from the delivery of collaborative research services and from government grants. Through the third quarter of 2012, we also sold ethanol and reformulated ethanol-blended gasoline under short-term agreements and in spot transactions at prevailing market prices. Revenues are 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 collectibility 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. Through the third quarter of 2012, we also sold ethanol and reformulated ethanol-blended gasoline under short-term agreements and in spot transactions at prevailing market prices. Revenues are recognized, net of discounts and allowances, once passage of title and risk of loss have occurred, provided all other revenue recognition criteria have also been met.

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

Grants and Collaborative Research Services

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

Government grants are made pursuant to agreements that generally provide cost reimbursement for certain types of expenditures in return for research and development activities over a contractually defined period. Revenues from government grants are recognized in the period during which the related costs are incurred, provided that the conditions under which the government grants were provided have been met and only perfunctory obligations are outstanding. Under a government contract signed in June 2012, we will receive funding based on achievement of program milestones and accordingly revenues are recognized using the proportionate performance method based upon actual efforts to date relative to the amount of expected effort to be incurred, up to the amount of verified payable milestones.

Consolidations

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 flow attributable to a long-lived asset over its estimated remaining useful life. Our estimates of anticipated cash flows could be reduced significantly in the future. As a result, the carrying amounts of our long-lived assets could be reduced through impairment

charges in the future. We recorded losses on write-off of production assets of \$6.4 million during the year ended December 31, 2012. There were no such losses on write off of production assets recorded in the years ended December 31, 2011 and 2010.

Inventories

Inventories, which consist of farnesene-derived products, ethanol and reformulated ethanol-blended gasoline, are stated at the lower of cost or market. In the quarter ended September 30, 2012, we sold our remaining inventory of ethanol and reformulated ethanol-blended gasoline as we transitioned out of this business. We evaluate the recoverability of our inventories based on assumptions about expected demand and net realizable value. If we determine that the cost of inventory exceeds its estimated net realizable value, we record a write-down equal to the difference between the cost of inventory and the estimated net realizable value. If actual net realizable values are lower 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 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.

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.

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.

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.

We evaluate our intangible assets with finite lives for indications of impairment whenever events or changes in circumstances indicate that the carrying value may not be recoverable. Intangible assets consist of purchased licenses and permits and are amortized on a straight-line basis over their estimated useful lives. 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

undiscounted future cash flows of the technology over the remaining amortization period, 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. We have not recognized any impairment charges on our intangible assets through December 31, 2012.

Stock-Based Compensation

Stock-based compensation cost for 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.

Significant Factors, Assumptions and Methodologies Used In Determining Fair Value

We utilize the Black-Scholes option pricing model to estimate the fair value of our equity awards. The Black-Scholes option pricing model requires inputs such as the expected term of the grant, expected volatility and risk-free interest rate. Further, the forfeiture rate also affects the amount of aggregate compensation that we are required to record as an expense. These inputs are subjective and generally require significant judgment.

The fair value of employee stock options was estimated using the following weighted-average assumptions:

	Years Ended December 31,		
	2012	2011	2010
Expected dividend yield	—%	—%	—%
Risk-free interest rate	1.1%	2.3%	2.5%
Expected term (in years)	6.0	5.8	6.0
Expected volatility	77%	86%	96%

Expected term is derived from a comparable group of publicly listed companies that has a similar industry, life cycle, revenue, and market capitalization and the historical data on employee exercises.

Expected volatility is derived from a combination of historical volatility for our stock and the historical volatilities of a comparable group of publicly listed companies within our industry over a period equal to the expected term of our options because we do not yet have a long trading history.

Risk-free interest rate is the market yield currently available on United States Treasury securities with maturities approximately equal to the option's expected term.

Expected dividend yield was assumed to be zero as we have not paid, and do not anticipate, declaring any cash dividends to holders of our common stock in the foreseeable future.

We estimate our forfeiture rate based on an analysis of our actual forfeitures and will continue to evaluate the appropriateness of the forfeiture rate based on actual forfeiture experience, analysis of employee turnover and other factors. Quarterly changes in the estimated forfeiture rate can have a significant effect on reported stock-based compensation expense, as the cumulative effect of adjusting the rate for all expense amortization is recognized in the period the forfeiture estimate is changed. If a revised forfeiture rate is higher than the previously estimated forfeiture rate, an adjustment is made that will result in a decrease to the stock-based compensation expense recognized in the consolidated financial statements. If a revised forfeiture rate is lower than the previously estimated forfeiture rate, an adjustment is made that will result in an increase to the stock-based compensation expense recognized in the consolidated financial statements.

We will continue to use judgment in evaluating the expected term, volatility and forfeiture rate related to our own stock-based compensation on a prospective basis and incorporating these factors into the Black-Scholes option pricing model.

Each of these inputs is subjective and generally requires significant management judgment to determine. If, in the future, we determine that another method for calculating the fair value of our stock options is more reasonable, or if another method for calculating these input assumptions is prescribed by authoritative guidance, and, therefore, should be used to estimate expected volatility or expected term, the fair value calculated for our employee stock options could change significantly. Higher volatility and longer expected terms generally result in an increase to stock-based compensation expense determined at the date of grant.

Income Taxes

We are subject to income taxes in both the U.S. 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 if it is more likely than not that some portion of the deferred tax assets will not be fully realizable. This assessment requires judgment as to the likelihood and amounts of future taxable income by tax jurisdiction. At December 31, 2012, we had a full valuation allowance against all of our deferred tax assets.

We apply the provisions of FASB's 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 a compound embedded derivative (a conversion option that contains a "make-whole interest" provision) requiring bifurcation and accounting at fair value because the economic and contractual characteristics of the embedded derivative met the criteria for bifurcation and separate accounting due to the conversion option containing a "make-whole interest" provision, that requires cash payment for forgone interest upon a change of control. We estimate the fair value of the compound embedded derivative using a Black-Scholes 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 our common stock into which the notes are convertible. The change in the fair value of the bifurcated compound derivative is primarily related to the change in price of the underlying common stock and is reflected in our consolidated statements of operations as "other income (expense)."

Results of Operations

Comparison of Year Ended December 31, 2012 to Year Ended December 31, 2011

Revenues

	Years Ended December 31, 2012 2011 (Dollars in thousands)		Year-to Year Change	Percentage Change	
Revenues					
Product sales	\$49,638	\$129,837	\$(80,199)	(62))%
Grants and collaborations revenue	24,056	17,154	6,902	40	%
Total revenues	\$73,694	\$146,991	\$(73,297)	(50))%

Our total revenues decreased by \$73.3 million to \$73.7 million in 2012 with such reduction resulting primarily from decreases in product sales. Revenue from product sales decreased by \$80.2 million to \$49.6 million primarily from lower sales of ethanol and reformulated ethanol-blended gasoline purchased from third parties which accounted for \$90.2 million of the reduction, with a decrease in gallons sold and an increase in average selling price per gallon compared to 2011. We sold 2.3 million gallons of ethanol and 11.2 million gallons of reformulated ethanol-blended gasoline in the 2012 compared to 10.1 million gallons of ethanol and 36.4 million gallons of reformulated ethanol-blended gasoline sales in the prior year. Product sales of our farnesene-derived products increased \$10.0 million in 2012 compared to the prior year. Grants and collaborations revenue in 2012 increased by \$6.9 million compared to the prior year primarily due to the revenue recognized upon the amendment of our collaboration agreement with Total as described in more detail in "Financial Statements and Supplementary Data-Note 4-Balance Sheet Components," which resulted in the recognition of approximately \$9.8 million in collaboration revenue, partially offset by a decline in other collaboration revenue of \$2.9 million.

Nearly all of our revenues to date have come from the sale of ethanol and reformulated ethanol-blended gasoline with the remainder coming from renewable products as well as from collaborations and government grants. We transitioned out of the ethanol and ethanol-blended gasoline business during the third quarter of 2012. We do not expect to be able to replace much of the revenue lost in the near term as a result of this transition, particularly in 2013 while we continue our efforts to establish a renewable products business.

Cost and Operating Expenses

	Years Ended December 31, 2012 2011 (Dollars in thousands)		Year-to Year Change	Percentage Change	
Cost of products sold	\$77,314	\$155,615	\$(78,301)	(50))%
Loss on purchase commitments and write-off of production assets	45,854	—	45,854	nm	
Research and development	73,630	87,317	(13,687)	(16))%
Sales, general and administrative	78,718	83,231	(4,513)	(5))%
Total cost and operating expenses	\$275,516	\$326,163	\$(50,647)	(16))%

nm= not meaningful

Cost of Products Sold

Cost of products sold consists primarily of cost of purchased ethanol and reformulated ethanol-blended gasoline, terminal fees paid for storage and handling, transportation costs between terminals and changes in the fair value of derivative commodity instruments. Starting in the second quarter of 2011, our cost of products sold also included production costs of farnesene-derived products, which included 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 valuations. Cost of farnesene-derived products sold also includes certain costs related to the scale-up in production of such products. Our cost of products sold decreased by \$78.3 million to \$77.3 million in 2012 compared to the prior year. We had a decrease of \$91.5 million in costs of ethanol and reformulated ethanol-blended gasoline purchased from third parties primarily due to a decline in product volume partially offset by an increase in average unit cost. This decrease in cost of products sold for ethanol and reformulated ethanol-blended gasoline was partially offset by an increase in product costs of farnesene-derived products of \$13.2 million compared to the prior year as we scale up our renewable operations.

We transitioned out of our ethanol and gasoline business in the quarter ended September 30, 2012, which resulted in a reduction of cost of products sold. As we are now operating our own large-scale Biofene production plant in Brotas, in the state of São Paulo, Brazil as of December 2012, we will have a scale-up of production from this facility and the associated manufacturing costs. As we develop cost efficient manufacturing in our first production facility, we expect to seek to work selectively with other Brazilian sugar and ethanol producers to build additional facilities adjacent to their existing mills, thereby reducing the capital required to establish and scale our production operations.

We expect our cost per unit of products sold associated with farnesene-derived products to decline if and when we achieve full-scale commercial production at our large-scale manufacturing facility. We are not able to predict when or if this will occur.

Cost of Products Sold Associated with Loss on Purchase Commitments and Write-Off of Production Assets

Beginning in March 2012, we initiated a plan to shift a portion of our production capacity from contract manufacturing facilities to Amyris-owned plants that were then under construction. As a result, we evaluated our contract manufacturing agreements and, in the first quarter of 2012, recorded a loss of \$31.2 million related to facility modification costs and fixed purchase commitments. We also recorded an impairment charge of \$5.5 million in the three months ended March 31, 2012 related to Amyris-owned equipment at contract manufacturing facilities, based on the excess of the carrying value of the assets over their fair value. We recognized additional charges of \$1.4 million and \$7.8 million, respectively, in the third and fourth quarter of 2012 associated with losses on fixed purchase commitments. We computed the loss on facility modification costs and fixed purchase commitments using the same approach that is used to value inventory-the lower of cost or market value. The computation of the loss on firm purchase commitments is subject to several estimates, including the ultimate selling price of any of our products manufactured at the relevant production facilities, and is therefore inherently uncertain.

Research and Development Expenses

Our research and development expenses decreased by \$13.7 million in 2012 over the prior year, primarily as a result of overall lower spending. The decreases were attributable to a \$5.7 million reduction in expenses associated with completions of certain outsourced process development projects, a \$2.5 million decrease in outsourced services resulting from completion of certain phases of our government grants project, \$2.2 million reduction in outside consulting expenses, a \$1.9 million decrease in personnel-related expenses associated with lower headcount, and a \$0.9 million decrease in travel-related expenses and other overhead expenses. Research and development expenses included stock-based compensation expense of \$6.5 million in 2012 compared to \$6.3 million in 2011.

Sales, General and Administrative Expenses

Our sales, general and administrative expenses decreased by \$4.5 million in 2012 compared to the same period of the prior year. The decrease is attributed primarily to a \$7.3 million reduction in spend for consulting and professional service fees and a \$0.9 million decrease in travel-related expenses partially offset by a \$3.6 million increase in personnel-related expenses associated with severance and transition costs and higher stock-based compensation. Sales,

general and administrative expenses included stock-based compensation expense of \$21.0 million and \$19.1 million during 2012 and 2011, respectively.

Other Income (Expense)

	Years Ended December 31, 2012 2011 (Dollars in thousands)		Year-to Year Change	Percentage Change	
Other income (expense):					
Interest income	\$ 1,472	\$ 1,542	\$ (70	) (5)%
Interest expense	(4,926	) (1,543	) (3,383	) 219	%
Other income, net	224	214	10	5	%
Total other income (expense)	\$(3,230	) \$ 213	\$(3,443	) (1,616)%

Total other expense increased by approximately \$3.4 million to \$3.2 million in 2012 compared to the prior year. The increase in total other expense was related primarily to higher interest expense of \$3.4 million associated with increased borrowings to fund our operations including capital expenditures for the coming year. Other income, net for the year ended December 31, 2012 included a gain of \$3.1 million attributable to the change in fair value of a compound embedded derivative liability associated with our senior unsecured convertible promissory notes issued to Total which was partially offset by a \$1.4 million expense recognized for the fair market value of a currency interest swap derivative liability, a \$0.9 million loss on the extinguishment of the \$5.0 million debt associated with the December 2012 private placement and a \$0.5 million realized loss on foreign currency transactions. No corresponding amounts related to these transactions were recognized during the year ended December 31, 2011.

Comparison of Year Ended December 31, 2011 to Year Ended December 31, 2010

Revenues

	Years Ended December 31, 2011 2010 (Dollars in thousands)		Year-to Year Change	Percentage Change	
Revenues					
Product sales	\$ 129,837	\$ 68,664	\$ 61,173	89	%
Grants and collaborations revenue	17,154	11,647	5,507	47	%
Total revenues	\$ 146,991	\$ 80,311	\$ 66,680	83	%

Our total revenue increased by \$66.7 million to \$147.0 million in 2011 from \$80.3 million in 2010 primarily as a result of increases in product sales. Revenue from product sales increased by \$61.2 million to \$129.8 million primarily from sales of ethanol and reformulated ethanol-blended gasoline purchased from third parties in 2011, resulting primarily from an increase in average selling price per gallon and an increase in gallons sold over 2010 due primarily to an increase in demand from existing customers. We sold 10.1 million gallons of ethanol and 36.4 million gallons of reformulated ethanol-blended gasoline in the 2011 compared to 20.6 million gallons of ethanol and 12.4 million gallons of reformulated ethanol-blended gasoline sales in the prior year. We recognized product sales from farnesene-derived products for the first time in the quarter ended June 30, 2011, which have not been significant to date. The increase of \$5.5 million in grants and collaborations revenue was primarily the result of higher revenue generated from collaborative research offset in part by lower grant revenue in 2011 compared to the prior year.

Cost and Operating Expenses

	Years Ended December 31, 2011 2010 (Dollars in thousands)		Year-to Year Change	Percentage Change
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Cost of products sold	\$ 155,615	\$ 70,515	\$ 85,100	121	%
Research and development	87,317	55,249	32,068	58	%
Sales, general and administrative	83,231	40,393	42,838	106	%
Restructuring and asset impairment (income) charges	—	(2,061	) 2,061	(100)%
Total cost and operating expenses	\$ 326,163	\$ 164,096	\$ 162,067	99	%

Cost of Products Sold

Our cost of products sold increased by \$85.1 million to \$155.6 million in 2011 compared to the prior year. The increase was primarily the result of an increase of \$59.6 million in costs of ethanol and reformulated ethanol-blended gasoline purchased from third parties, which was based on an increase in product cost per gallon and higher product volume. We also incurred \$25.5 million of cost of renewable products, of which \$15.4 million is associated with inventory write downs resulting from applying the lower-of-cost-or-market inventory valuation. Cost of renewable products also included some costs related to the scale-up in production of such products and had no corresponding charge in the prior year.

Research and Development Expenses

Our research and development expenses increased by \$32.1 million in 2011 over the prior year, primarily as a result of an \$11.3 million increase in personnel-related expenses associated with headcount growth and higher stock-based compensation, a \$10.0 million increase in outside consulting expenses associated with increased development activities and \$5.8 million in higher overhead costs associated with increased headcount and development activities. Research and development expenses included stock-based compensation expense of \$6.3 million in 2011 compared to \$2.2 million in 2010.

Sales, General and Administrative Expenses

Our sales, general and administrative expenses increased by \$42.8 million in 2011 over the prior year, primarily as a result of increased personnel-related expenses of \$24.1 million, higher consulting fees of \$8.4 million and higher professional fees of \$2.0 million associated with higher legal and auditing fees. The increase in consulting and professional fees was due primarily to a success fee of \$5.0 million owed to a chemical conversion contract manufacturer and a termination penalty of \$1.0 million owed to terminate a research and development contract related to production development. Sales, general and administrative expenses included stock-based compensation expense of \$19.1 million and \$8.3 million during 2011 and 2010, respectively.

Restructuring and Asset Impairment Charges (Income)

In June 2009, we initiated a restructuring plan to reduce our cost structure. The restructuring plan resulted in the consolidation of our headquarter facility located in Emeryville, California, which is under an operating lease. We ceased using a certain part of our headquarter facility in August 2009. We recorded approximately \$5.4 million of restructuring charges associated with the facility lease costs after the operations ceased. In addition, as a result of the consolidation of the headquarter facility, we recorded approximately \$3.1 million related to asset impairments and reversed \$2.7 million related to deferred rent associated with the leased facility.

In September 2010, our Board of Directors approved our plan to reoccupy the part of our headquarter facility that previously was the subject of the 2009 restructuring. This reoccupied space was used to meet our expansion requirements. As a result, we reversed approximately \$4.6 million of our restructuring liability that had been accrued in connection with the 2009 restructuring and recognized income from restructuring of \$2.1 million during the year ended December 31, 2010.

Other Income (Expense)

Years Ended December 31, 2011	2010	Year-to Year Change	Percentage Change
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(Dollars in thousands)

Other income (expense):

Interest income	\$1,542	\$1,540	\$2	—	%
Interest expense	(1,543) (1,443) (100) 7	%
Other income, net	214	898	(684	) (76)%
Total other income	\$213	\$995	\$(782	) (79)%

Total other income decreased by approximately \$0.8 million to \$0.2 million in 2011 compared to the prior year. The decrease is related primarily to a decline in other income, net of approximately \$0.7 million and to higher interest expense of \$0.1 million associated with higher debt balances. The \$0.7 million decrease in other income, net is primarily the result of our having recorded \$0.9 million in income for the change in fair value of our convertible preferred stock warrants in 2010. These warrants converted into warrants to purchase our common stock upon completion of our initial public offering, or IPO, in September 2010.

Deemed Dividend

We recognized a deemed dividend in 2010 related to the charges incurred with the one-time beneficial conversion feature of the Series D convertible preferred stock of \$39.3 million and to the one-time beneficial conversion feature related to the conversion of Amyris Brasil S.A. shares of \$2.7 million, each of which converted into Amyris Inc. common stock upon the consummation of our IPO. The deemed dividend was recorded at the closing of the IPO and impacted earnings and earnings per share in 2010.

Liquidity and Capital Resources

	December 31,		
	2012	2011	
	(Dollars in thousands)		
Working capital	\$3,668	\$47,205	
Cash and cash equivalents and short-term investments	\$30,689	\$103,592	
Debt and capital lease obligations	\$106,774	\$47,660	
Accumulated deficit	\$(586,327)	) \$(381,188)

	Years Ended December 31,		
	2012	2011	2010
Net cash used in operating activities	\$(150,872	) \$(92,496	) \$(64,577
Net cash provided by (used in) investing activities	(49,644	) 5,853	(79,405
Net cash provided by financing activities	138,117	41,052	266,687

Working Capital. Working capital was \$3.7 million at December 31, 2012, a decrease of \$43.5 million from working capital as of December 31, 2011. This decrease was principally attributable to a reduction in net cash and investment balances of \$72.9 million due primarily to our investment in large scale production plants, and a decline of \$10.9 million in other current assets largely related to the write off of facility modification costs at one of our contract manufacturing facilities. This decrease was offset in part by a reduction of \$24.7 million in short term debt balances and a reduction of \$17.6 million in accounts payable and accrued and other current liabilities.

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 financing from U.S. and Brazilian sources to help fund our investment in these contract manufacturing and dedicated production facilities.

We expect to fund our operations for the foreseeable future with cash and investments currently on hand, with cash inflows from collaboration and grant funding, cash contributions from product sales, and with new debt and equity financing. Our planned 2013 working capital needs and our planned operating and capital expenditures for 2013 are dependent on significant inflows of cash from existing collaboration partners, as well as additional funding from new collaborations, equity or debt offerings, credit facilities or loans, or combinations of these sources. 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 its business. Our operating plan contemplates capital expenditures of approximately \$10.0 million in 2013 and we expect to continue to incur costs in connection with our existing contract

manufacturing arrangements.

Liquidity. 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 2014. As of December 31, 2012, we had an accumulated deficit of \$586.3 million and had cash, cash equivalents and short term investments of \$30.7 million. We have significant outstanding debt and contractual obligations related to purchase commitments, as well as capital and operating leases. As of December 31, 2012, our debt totaled \$104.2 million, of which \$3.3 million matures within the next twelve months. In addition, our debt agreements contain various covenants, including restrictions on business that could cause us to be at risk of defaults. In March 2013, we signed

a collaboration agreement that included a funding component, and obtained a commitment letter from Total with respect to additional convertible note funding (as described above under "Overview-Total Relationship"), and we expect to use amounts received under these arrangements to fund our operations. Furthermore, we are expecting additional funding in 2013 from collaborations, equity or debt offerings, or combinations of these sources. Our operating plan contemplates securing a portion of this additional funding in the second quarter of 2013. However, as of the date of this filing, we have not yet secured this additional funding. There can be no assurance that financing will be available on commercially acceptable terms or at all.

If we are unable to raise additional financing, or if other expected sources of funding are delayed or not received, we would take the following actions as early as the second quarter of 2013 to support our liquidity needs through the remainder of 2013 and into 2014:

- Effect significant headcount reductions in the U.S. and in Brazil, particularly with respect to both general and administrative employees and other employees not connected to critical or contracted activities.

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

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

- Suspend operations at our pilot plants and demonstration facilities.

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

The contingency cash plan contemplating these actions is designed to save us an estimated \$35 million to \$40 million over the next twelve months. Implementing this plan could have a material 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 a material adverse effect on our ability to meet contractual requirements, including obligations to maintain manufacturing operations, and increase the severity of the consequences described above.

Convertible Note Offering. In February 2012, we sold \$25.0 million in principal amount of senior unsecured convertible promissory notes due March 1, 2017. The notes have a 3.0% annual interest rate and are convertible into shares of our common stock at a conversion price of \$7.0682 per share, subject to adjustment for proportional adjustments to outstanding common stock and anti-dilution provisions in case of dividends and distributions. The note holders have a right to require repayment of 101% of the principal amount of the notes in an acquisition of Amyris, and the notes provide for payment of unpaid interest on conversion following such an acquisition if the note holders do not require such repayment. The securities purchase agreement and notes include covenants regarding payment of interest, maintaining our listing status, limitations on debt, maintenance of corporate existence, and filing of SEC reports. The notes include standard events of default resulting in acceleration of indebtedness, including

failure to pay, bankruptcy and insolvency, cross-defaults, and breaches of the covenants in the securities purchase agreement and notes, with default interest rates and associated cure periods applicable to the covenant regarding SEC reporting.

In July and September of 2012, we issued \$53.3 million worth of senior unsecured convertible notes to Total for an aggregate of \$30.0 million in cash proceeds and our repayment of \$23.3 million in previously-provided research and development funds as described in more detail under "Overview - Total Relationship" above. As part of the December 2012 private placement, 1,677,852 shares of the Company's common stock were issued in exchange for the cancellation of \$5.0 million worth of an outstanding senior unsecured convertible promissory note held by Total.

Common Stock Offerings. In February 2012, we sold 10,160,325 shares of our common stock in a private placement for aggregate offering proceeds of \$58.7 million.

In May 2012, we completed a private placement of 1,736,100 shares of our common stock for aggregate cash proceeds of \$4.1 million.

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

Banco Pine Loans. In December 2011, we received a loan of R\$35.0 million (approximately US\$17.1 million based on the exchange rate as of December 31, 2012) from Banco Pine. Such loan was an advance on an anticipated 2012 financing from Nossa Caixa, the Sao Paulo State development bank, and Banco Pine, under which Banco Pine and Nossa Caixa would provide us with loans of up to approximately R\$52.0 million (approximately \$25.4 million based on the exchange rate at December 31, 2012) as financing for capital expenditures relating to our manufacturing facility in Brotas. The maturity date for this loan was originally February 17, 2012; however, in February 2012, we entered into a supplemental agreement with Banco Pine under which the parties agreed to extend the maturity date for the repayment of the original loan from February 17, 2012 to May 17, 2012, and in May 2012, we entered into an additional supplemental extending the maturity date to August 15, 2012. This loan was repaid in July 2012.

In June 2012, we entered into a separate loan agreement with Banco Pine under which Banco Pine provided a bridge loan of R\$52.0 million (approximately US\$25.4 million based on the exchange rate as of December 31, 2012). The bridge loan was an additional advance on the anticipated Banco Pine and Nossa Caixa financing described above. The interest rate for the bridge loan was 0.4472% monthly (approximately 5.5% on an annualized basis). The principal and interest of this bridge loan matured and were required to be repaid on September 19, 2012, subject to extension by Banco Pine. This bridge loan was repaid in July 2012.

We secured these loans to allow us to continue construction and process development at our manufacturing facility in Brotas, and we expect to seek additional loans from this bank and others in order to be able to fund the establishment of other plants in Brazil and elsewhere.

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 such instruments, we borrowed an aggregate of R\$52.0 million (approximately US\$25.4 million based on the exchange rate as of December 31, 2012) as financing for capital expenditures relating to our manufacturing facility in Brotas. Under the loan agreements, Banco Pine agreed to lend R\$22.0 million and Nossa Caixa agreed to lend R\$30.0 million. The funds for these loans are provided by Banco Nacional de Desenvolvimento Econômico e Social, or BNDES, a government owned bank headquartered in Brazil, 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 secured by certain of our farnesene production assets at the manufacturing facility in Brotas, and we were required to provide parent guarantees to each of the lenders.

BNDES Credit Facility. In December 2011, we entered into a credit facility in the amount of R\$22.4 million (approximately US\$11.0 million based on the exchange rate as of December 31, 2012) with BNDES. This BNDES facility was extended as project financing for a production site in Brazil. The credit line is divided into an initial tranche for up to approximately R\$19.1 million and an additional tranche of approximately R\$3.3 million that becomes available upon delivery of additional guarantees. The credit line is available for 12 months from the date of the Credit Agreement, subject to extension by the lender.

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 will be due on a monthly basis together with principal payments. The loaned amounts carry interest of 7% per year. Additionally, 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 credit facility is collateralized by first priority security interest in certain of our equipment and other tangible assets with an original purchase price of R\$24.9 million. We are a parent guarantor for the payment of the outstanding balance under the BNDES credit facility. Additionally, we are required to provide a bank guarantee equal to 10% of the total approved amount (R\$22.4 million in total debt) available under the 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 credit agreement contains customary events of default, including payment failures, failure to satisfy other obligations under the credit agreement 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 under the credit agreement occurs, the lender may terminate its commitments and declare immediately due all borrowings under the facility. As of December 31, 2012 we had R\$19.1 million (approximately US\$9.3 million based on the exchange rate as of December 31, 2012) in outstanding advances under the BNDES credit facility.

FINEP Credit Facility. In November 2010, we entered into a credit facility with Financiadora de Estudos e Projetos, or FINEP, a state-owned company subordinated to the Brazilian Ministry of Science and Technology. This FINEP Credit Facility was extended to partially fund expenses related to our 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\$3.1 million based on the exchange rate at December 31, 2012) which are guaranteed by a chattel mortgage on certain of our equipment as well as bank letters of guarantee. The first disbursement of approximately R\$1.8 million (approximately US\$0.9 million based on the exchange rate at December 31, 2012) was received in February 2011 and an additional disbursement of approximately R\$4.6 million (approximately US\$2.2 million based on the exchange rate at December 31, 2012) was received in December 2012.

Interest on loans drawn under this 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, or TJLP. If the TJLP at the time of default is greater than 6%, then the interest will be 5.0% + a TJLP adjustment factor otherwise the interest will be at 11.0% per annum. In addition, a fine of up to 10.0% will apply to the amount of any obligation in default. Interest on late balances will be 1.0% interest per month, levied on the overdue amount. Payment of the outstanding loan balance will be made in 81 monthly installments, which commenced in July 2012 and extends through March 2019. Interest on loans drawn and other charges are paid on a monthly basis and commenced in March 2011. As of December 31, 2012, total outstanding loan balance under this credit facility was R\$6.4 million (approximately US\$3.1 million based on the exchange rate as of December 31, 2012).

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

We are required to share with FINEP the costs associated with the FINEP Project. At a minimum, we are required to contribute approximately R\$14.5 million (US\$7.1 million based on the exchange rate at December 31, 2012) of which R\$11.1 million was contributed prior to the release of the second disbursement;

After the release of the first disbursement, prior to any subsequent drawdown from the FINEP Credit Facility, we were required to provide bank letters of guarantee of up to R\$3.3 million in aggregate (approximately US\$1.6 million based on the exchange rate at December 31, 2012) before receiving the second installment in December 2012;

Amounts released from the FINEP Credit Facility must be completely used by us towards the FINEP Project within 30 months after the contract execution.

Revolving Credit Facility. In December 2010, we established a revolving credit facility with a financial institution that provided for loans and standby letters of credit of up to an aggregate principal amount of \$10.0 million, with a sublimit of \$5.0 million on standby letters of credit. Interest on loans drawn under this revolving credit facility was equal to, at our option, (i) the Eurodollar Rate plus 3.0%; or (ii) the Prime Rate plus 0.5%. In case of default or non-compliance with the terms of the agreement, the interest on loans was Prime Rate plus 2.0%. The credit facility was collateralized by a first priority security interest in certain of our present and future assets. In April 2012, we paid \$7.7 million of outstanding loans under this credit facility. In May 2012, we entered into a letter agreement with the bank amending the credit facility agreement to reduce the committed amount under the credit facility from \$10.0 million to approximately \$2.3 million, and the letters of credit sublimit from \$5.0 million to approximately \$2.3 million. The amendment also modified the current ratio covenant to require a ratio of current assets to current liabilities of at least 1.3:1 (as compared to 2:1 in the credit facility), and required us to maintain unrestricted cash of at least \$15.0 million in its account with the bank. In June 2012, the credit facility was terminated and, as of December 31, 2012, no loans or letters of credit were outstanding.

Amyris Fuels Credit Agreement. We had an uncommitted facility letter with a financial institution to finance the purchase and sale of fuel and for working capital requirements, as needed. We were a parent guarantor for the payment of the outstanding balance under the credit agreement. The agreement was collateralized by a first priority security interest in certain of our present and future assets. The agreement was terminated as of June 30, 2012 and, as of December 31, 2012, we had zero in outstanding letters of credit under the Credit Agreement.

The fair values of the notes payable, loan payable, convertible notes and credit facility are based on the present value of expected future cash flows and assumptions about current interest rates and the creditworthiness of the Company that market participants would use in pricing the debt.

Joint Venture Agreement. In 2010, we established SMA, a joint venture with Usina São Martinho. Under the terms of the agreement, if the SMA fails to commence operations by the end of 2013, Usina São Martinho has the right to terminate the joint venture and to require us to buy Usina São Martinho's equity in SMA at its acquisition cost and transfer SMA's assets at the Usina São Martinho site to another location. In that event, we would incur significant costs beginning in mid-2014 and be required to find alternative locations for the facility. In March 2013, we met with Usina São Martinho and the parties agreed in principle to a revised business plan for the joint venture with the plant becoming operational in 2016, and, while we are in the process of documenting that revised business plan as an amendment to the agreement, we may not be able to reach final agreement on the revised terms.

As of December 31, 2012, we delayed further construction of and commissioning of the SMA plant and we expect to continue to defer the project in the near term based on economic considerations and to allow us to focus on the successful implementation of our plant in Brotas.

Government Contracts. In 2010, we were awarded a \$24.3 million "Integrated Bio-Refinery" grant from the U.S. Department of Energy, or DOE. Under this grant, we are required to fund an additional \$10.6 million in cost sharing expenses. According to the terms of the DOE grant, we were required to maintain a cash balance of \$8.7 million, calculated as a percentage of the total project costs, to cover potential contingencies and cost overruns. As of December 31, 2012, the cash requirement is approximately \$0.4 million. These funds are not legally restricted but they must be available and unrestricted during the term of the project. Our obligation for this cost share is contingent on reimbursement for project costs incurred. Through December 31, 2012, we have recognized \$23.4 million in revenue under this grant, of which \$6.4 million was received in cash during the year ended December 31, 2012.

In August 2010, we were appointed as a subcontractor to National Renewable Energy Laboratory, or NREL, under a DOE grant awarded to NREL. We have the right to be reimbursed for up to \$3.6 million, and are required to fund an additional \$1.4 million, in cost sharing expenses. Through December 31, 2012, we had recognized \$1.5 million in revenue under this grant, of which \$0.8 million was received in cash during the year ended December 31, 2012.

In June 2012, we entered into a Technology Investment Agreement with The Defense Advanced Research Projects Agency (DARPA), under which we will perform certain research and development activities funded in part by DARPA. The work is to be performed on a cost-share basis, where DARPA funds 90% of the work and we fund the remaining 10% (primarily by providing specified labor). Under the agreement, we could receive funding of up to approximately \$8.0 million over two years based on achievement of program milestones, and, accordingly, would be responsible for contributions equivalent to approximately \$900,000. The agreement has an initial term of one year and, at DARPA's option, may be renewed for an additional year. Through December 31, 2012, we had recognized \$0.4 million in revenue under this agreement, of which \$0.4 million was received in cash during the year ended December 31, 2012.

Cash Flows during the Years Ended December 31, 2012, 2011, and 2010

Cash Flows from Operating Activities

Our primary uses of cash from operating activities are cost of products sold and personnel related expenditures offset by cash received from product sales. Cash used in operating activities was \$150.9 million, \$92.5 million and \$64.6 million for the years ended December 31, 2012, 2011 and 2010.

Net cash used in operating activities was \$150.9 million during the year ended December 31, 2012. The largest component of our cash used in operations during this period related to our net loss of \$206.0 million, which included non-cash charges of \$45.9 million related to losses from fixed purchase commitments and write-off of production

assets at contract manufacturers, \$27.5 million of stock-based compensation, and \$14.6 million of depreciation and amortization expenses. In addition, significant operating cash outflows were primarily related to a \$35.8 million decrease in accrued and other long term liabilities, an \$11.8 million decrease in accounts payable, a \$1.6 million decrease in deferred revenue and a \$1.3 million decrease in deferred rent. Accrued and other long term liabilities decreased primarily due to the release of the contingently repayable advance from related party collaborator (Total) of \$31.9 million as a result of the July 2012 amendment of the collaboration agreement with Total. Accounts payable decreased primarily due to payments for production and contract manufacturing costs that were accrued for in the prior year but paid in the current year.

Significant operating cash inflows during the year ended December 31, 2012 were derived primarily from sales of ethanol and reformulated ethanol-blended gasoline purchased from third parties and from collaborative research services. In addition, operating cash inflows were comprised primarily of an \$11.2 million decrease in prepaid expenses and other assets, a \$2.8 million

decrease in accounts receivable and a \$2.9 million decrease in net inventory. The decrease in prepaid expenses and other assets was primarily related to the reduction of \$18.8 million in deferred charge asset related to Total as a result of the July 2012 amendment of the collaboration agreement with Total. The decrease in accounts receivable was primarily due to our transition out of the ethanol and ethanol-blended gasoline business during the third quarter of 2012.

Cash used in operating activities of \$92.5 million in 2011 reflected a net loss of \$179.5 million partially offset by non-cash charges of \$37.5 million and a \$49.5 million net change in our operating assets and liabilities. Net change in operating assets and liabilities of \$49.5 million primarily consisted of a \$53.9 million increase in accrued and other long term liabilities of which \$31.9 million was due to the contingently repayable advance from Total, a \$15.6 million increase in accounts payable and a \$5.5 million increase in deferred revenue partially offset by a \$5.3 million increase in inventory, a \$17.3 million increase in prepaid expenses and other assets, a \$2.0 million increase in accounts receivable and a \$1.1 million reduction in deferred rent. Non-cash charges primarily included \$25.5 million of stock-based compensation and \$11.1 million of depreciation and amortization expenses.

Cash used in operating activities of \$64.6 million in 2010 reflected a net loss of \$82.8 million partially offset by non-cash charges of \$16.6 million and a \$1.6 million net change in our operating assets and liabilities. Non-cash charges primarily included \$10.4 million of stock-based compensation and \$7.3 million of depreciation and amortization.

Cash Flows from Investing Activities

Our investing activities consist primarily of capital expenditures, net investment purchases, maturities and sales.

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

For the year ended December 31, 2011, cash provided by investing activities was \$5.9 million\$ as a result of \$105.0 million in net investment securities maturities and \$0.3 million in acquisition of cash in noncontrolling interest offset by a \$97.0 million of capital expenditures and deposits on property, plant and equipment and a \$2.9 million payment to Draths Corporation in relation to a business acquisition.

For the year ended December 31, 2010, cash used in investing activities was \$79.4 million as a result of \$68.4 million in net investment purchases and \$15.5 million of capital expenditures and deposits on property, plant and equipment, offset by the release of \$4.5 million in restricted cash.

Cash Flows from Financing Activities

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

For the year ended December 31, 2011, cash provided by financing activities was \$41.1 million, as a result of the net receipt of \$38.0 million from debt financing, the receipt of \$8.4 million in proceeds from option exercises, and the receipt of \$3.0 million in equipment financing. These cash receipts were offset in part by principal payments on debt

of \$5.0 million, principal payments on capital leases of \$2.8 million, and \$0.5 million in costs related to the initial public offering of our common stock.

For the year ended December 31, 2010, cash provided by financing activities was \$266.7 million, primarily the result of the net receipt of \$132.9 million from our sale of Series D convertible preferred stock, the receipt of the net proceeds of \$86.0 million from the initial public offering of our common stock, the net receipt of \$47.8 million from our sale of Series C-1 convertible preferred stock, the net receipt of \$3.7 million from our sale of Series C convertible preferred stock, the receipt of \$7.1 million from investors in Amyris Brasil and \$1.4 million in proceeds from equipment financing. These cash receipts were offset in part by principal payments on debt of \$9.7 million and principal payments on capital leases of \$2.7 million.

Off-Balance Sheet Arrangements

We did not have during the periods presented, and we do not currently have, any material off-balance sheet arrangements, as defined under SEC rules, such as relationships with unconsolidated entities or financial partnerships, which are often referred

to as structured finance or special purpose entities, established for the purpose of facilitating financing transactions that are not required to be reflected on our consolidated financial statements.

Contractual Obligations

The following is a summary of our contractual obligations as of December 31, 2012 (in thousands):

	Total	2013	2014	2015	2016	2017	Thereafter
Principal payments on long-term debt	\$113,432	\$3,325	\$3,962	\$5,846	\$5,875	\$79,131	\$15,293
Interest payments on long-term debt, fixed rate ⁽¹⁾	17,102	2,919	3,073	2,528	2,175	4,508	1,899
Operating leases	38,289	6,624	6,772	6,900	6,891	6,760	4,342
Principal payments on capital leases	2,610	1,366	957	287	—	—	—
Interest payments on capital leases	175	123	50	2	—	—	—
Terminal storage costs	157	148	9	—	—	—	—
Purchase obligations ⁽²⁾	53,113	16,275	17,706	10,243	8,623	218	48
Total	\$224,878	\$30,780	\$32,529	\$25,806	\$23,564	\$90,617	\$21,582

⁽¹⁾ The fixed interest rates are more fully described in Note 6 of our consolidated financial statements.

⁽²⁾ Purchase obligations include non-cancelable contractual obligations and construction commitments of \$52.7 million, of which \$13.9 million have been accrued as loss on purchase commitments.

This table does not reflect non-reimbursable expenses that we expect to incur in 2013 in connection with research activities under the DOE Integrated Bio-Refinery grant and the NREL subcontract discussed above under the caption "Liquidity and Capital Resources - Government Contracts." We have the right to be reimbursed for up to \$24.3 million of a total of up to \$34.9 million of expenses for research activities that we undertake under the DOE Integrated Bio-Refinery grant. We have the right to be reimbursed for up to \$3.6 million of a total of \$5.0 million of expenses for research activities that we undertake under the NREL grant.

Additionally, this table does not reflect the expenses that we expect to incur in 2013 and 2014 in connection with research activities under DARPA under which we will perform certain research and development activities funded in part by DARPA. The work is to be performed on a cost-share basis, where DARPA funds 90% of the work and we fund the remaining 10% (primarily by providing specified labor). Under the agreement, we could receive funding of up to approximately \$8.0 million over two years based on achievement of program milestones, and, accordingly, we would be responsible for contributions equivalent to approximately \$900,000.

Recent Accounting Pronouncements

The information contained in Note 2 to the Consolidated Financial Statements under the heading "Recent Accounting Pronouncements" is hereby incorporated by reference into this Part II, Item 8.

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. 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, 2012, 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, our exposure to interest rate risk is minimal. Additionally, as of December 31, 2012, 100% of our outstanding debt is in fixed rate instruments.

Foreign Currency Risk

Most of our sales contracts are principally denominated in U.S. dollars and, therefore, our revenues are not currently subject to significant foreign currency risk. The functional currency of our wholly-owned consolidated subsidiary 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 subsidiary and translated into U.S. dollars using the year end exchange rate is \$76.7 million at December 31, 2012 and \$62.8 million at December 31, 2011. This increase between 2012 and 2011 is due to additional capital contributions made during 2012, which are partially offset by the depreciation of the Brazilian real versus the U.S. dollar and an increase in accumulated deficit of our wholly-owned consolidated subsidiary in Brazil. The potential loss in fair value, which would principally be recognized in Other Comprehensive Income (Loss), resulting from a hypothetical 10% adverse change in quoted Brazilian real exchange rates is \$7.7 million and \$6.3 million for 2012 and 2011, respectively. Actual results may differ.

We make limited use of derivative instruments, which includes currency interest swap agreements to manage the Company's exposure to foreign currency exchange rate and interest rate related to the Company's Banco Pine S.A. loan. In June 2012, we entered into a currency interest rate swap arrangement with Banco Pine for R\$22.0 million (approximately US\$10.8 million based on the exchange rate of December 31, 2012). The swap arrangement exchanges the principal and interest payments under the Banco Pine loan entered into in July 2012 for alternative principal and interest payments that are subject to adjustment based on fluctuations in the foreign exchange rate between the U.S. dollar and Brazilian real. The swap has a fixed interest rate of 3.94%. This arrangement hedges the fluctuations in the foreign exchange rate between the U.S. dollar and Brazilian real.

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 managed our exposure to this risk primarily through the use of supplier pricing agreements. Through the third quarter of 2012, we also had commodity market risk related to our purchases of ethanol and reformulated ethanol-blended gasoline in which we used standard derivative commodity instruments to hedge the price volatility of ethanol and reformulated ethanol-blended gasoline, principally through futures contracts. However, as of September 30, 2012, we transitioned out of that business and no longer purchase any ethanol and reformulated ethanol-blended gasoline or use standard derivative commodity instruments. The changes in fair value of these contracts are recorded on the balance sheet and recognized immediately in cost of products sold. We recognized a loss of \$0.3 million, \$2.4 million and \$2.2 million, as the change in fair value for the years ended December 31, 2012, 2011 and 2010, respectively (see Note 3 to our Consolidated Financial Statements).

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

AMYRIS, INC.

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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of
Amyris, Inc.:

In our opinion, the consolidated financial statements listed in the accompanying index present fairly, in all material respects, the financial position of Amyris, Inc and its subsidiaries at December 31, 2012 and December 31, 2011, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2012 in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedule listed in the accompanying index presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2012, based on criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements and financial statement schedule, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Annual Report on Internal Control over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on these financial statements, on the financial statement schedule, and on the Company's internal control over financial reporting based on our audits (which were integrated audits in 2012 and 2011). We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

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

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

PricewaterhouseCoopers LLP
San Jose, California
March 28, 2013

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Amyris, Inc.

Consolidated Balance Sheets

(In Thousands, Except Share and Per Share Amounts)

	December 31, 2012	2011
Assets		
Current assets:		
Cash and cash equivalents	\$30,592	\$95,703
Short-term investments	97	7,889
Accounts receivable, net of allowance of \$481 and \$245, respectively	3,846	6,936
Inventories, net	6,034	9,070
Prepaid expenses and other current assets	8,925	19,873
Total current assets	49,494	139,471
Property, plant and equipment, net	163,121	128,101
Restricted cash	955	—
Other assets	20,112	43,001
Goodwill and intangible assets	9,152	9,538
Total assets	\$242,834	\$320,111
Liabilities and Equity		
Current liabilities:		
Accounts payable	\$15,392	\$26,379
Deferred revenue	1,333	3,139
Accrued and other current liabilities	24,410	30,982
Capital lease obligation, current portion	1,366	3,717
Debt, current portion	3,325	28,049
Total current liabilities	45,826	92,266
Capital lease obligation, net of current portion	1,244	2,619
Long-term debt, net of current portion	61,806	13,275
Related party debt	39,033	—
Deferred rent, net of current portion	8,508	9,957
Deferred revenue, net of current portion	4,255	4,097
Other liabilities	15,933	37,085
Total liabilities	176,605	159,299
Commitments and contingencies (Note 5)		
Stockholders' equity:		
Preferred stock - \$0.0001 par value, 5,000,000 shares authorized, none issued and outstanding	—	—
Common stock - \$0.0001 par value, 100,000,000 shares authorized as of December 31, 2012 and 2011; 68,709,660 and 45,933,138 shares issued and outstanding as of December 31, 2012 and 2011, respectively	7	5
Additional paid-in capital	666,233	548,159
Accumulated other comprehensive loss	(12,807)	(5,924)
Accumulated deficit	(586,327)	(381,188)
Total Amyris, Inc. stockholders' equity	67,106	161,052
Noncontrolling interest	(877)	(240)
Total stockholders' equity	66,229	160,812
Total liabilities and stockholders' equity	\$242,834	\$320,111
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,		
	2012	2011	2010
Revenues			
Product sales	\$49,638	\$129,837	\$68,664
Grants and collaborations revenue	24,056	17,154	11,647
Total revenues	73,694	146,991	80,311
Cost and operating expenses			
Cost of products sold	77,314	155,615	70,515
Loss on purchase commitments and write off of production assets	45,854	—	—
Research and development	73,630	87,317	55,249
Sales, general and administrative	78,718	83,231	40,393
Restructuring and asset impairment (income) charges	—	—	(2,061)
Total cost and operating expenses	275,516	326,163	164,096
Loss from operations	(201,822)	(179,172)	(83,785)
Other income (expense):			
Interest income	1,472	1,542	1,540
Interest expense	(4,926)	(1,543)	(1,443)
Other income, net	224	214	898
Total other income (expense)	(3,230)	213	995
Loss before income taxes	(205,052)	(178,959)	(82,790)
Provision for income taxes	(981)	(552)	—
Net loss	\$(206,033)	\$(179,511)	\$(82,790)
Net loss attributable to noncontrolling interest	894	641	920
Net loss attributable to Amyris, Inc.	\$(205,139)	\$(178,870)	\$(81,870)
Deemed dividend related to a beneficial conversion feature	—	—	(42,009)
Net loss attributable to Amyris, Inc. common stockholders	\$(205,139)	\$(178,870)	\$(123,879)
Net loss per share attributable to common stockholders, basic and diluted	\$(3.62)	\$(3.99)	\$(8.35)
Weighted-average shares of common stock outstanding used in computing net loss per share of common stock, basic and diluted	56,717,869	44,799,056	14,840,253

See the accompanying notes to the consolidated financial statements.

Amyris, Inc.

Consolidated Statements of Comprehensive Loss

(In Thousands)

	Years Ended December 31,			
	2012	2011	2010	
Comprehensive loss:				
Net loss	\$(206,033	) \$(179,511	) \$(82,790)
Change in unrealized loss on investments	—	(5	) 2	
Foreign currency translation adjustment, net of tax	(6,626	) (8,761	) 1,751	
Total comprehensive loss	(212,659	) (188,277	) (81,037)
Loss attributable to noncontrolling interest	894	641	920	
Foreign currency translation adjustment attributable to noncontrolling interest	(257	) (30	) (217)
Comprehensive loss attributable to Amyris, Inc.	\$(212,022	) \$(187,666	) \$(80,334)

See the accompanying notes to the consolidated financial statements.

Amyris, Inc.

Consolidated Statements of Convertible Preferred Stock, Redeemable Noncontrolling Interest and Equity (Deficit)

(In Thousands, Except Share and Per Share Amounts)	Convertible Preferred Stock		Common Stock			Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Noncontrolling Interest	Total Equity (Deficit)
	Shares	Amount	Redeemable Noncontrolling Interest	Shares	Amount					
December 31, 2009	18,365,222	\$179,651	\$5,506	5,114,205	\$1	\$5,366	\$(120,448)	\$1,336	\$—	\$(113,745)
Issuance of Series C convertible preferred stock at \$12.46 per shares for cash, net of issuance costs of \$5	295,981	3,683	—	—	—	—	—	—	—	—
Issuance of Series C-1 convertible preferred stock at \$17.56 per shares for cash, net of issuance costs of \$68	2,724,766	47,779	—	—	—	—	—	—	—	—
Issuance of Series D convertible preferred stock at \$18.75 per shares for cash and deferred charge asset of \$27,909, net of issuance costs of \$258	7,101,548	160,805	—	—	—	—	—	—	—	—
Issuance of warrants in connection with issuance of Series C convertible preferred stock	—	(507)	—	—	—	—	—	—	—	—
Issuance of common stock upon exercise of stock	—	—	—	60,883	—	277	—	—	—	277

options, net of restricted stock									
Repurchase of common stock	—	—	—	(10,367)	—	—	—	—	—
Shares issued from restricted stock unit settlement	—	—	—	176,272	—	—	—	—	—
Stock-based compensation	—	—	—	—	—	10,432	—	—	10,432
Proceeds from noncontrolling interest	—	—	7,041	—	—	—	—	28	28
Common stock issuance in public offering, net of issuance costs (Note 11)	—	—	—	6,095,000	—	85,534	—	—	85,534
Conversion of convertible preferred stock (28,487,517) to common stock	(391,411)	—	—	31,550,277	3	391,408	—	—	391,411
Conversion of convertible preferred stock warrants to common stock warrants	—	—	—	—	—	2,318	—	—	2,318
Conversion of shares of Amyris Brasil S.A. shares into common stock	—	—	(11,870)	861,155	—	11,653	—	—	11,653
Beneficial conversion feature on issuance of Series D convertible preferred stock	—	—	—	—	—	39,292	—	—	39,292
Deemed dividend related to the beneficial conversion feature of Series D convertible preferred stock	—	—	—	—	—	(39,292)	—	—	(39,292)

Beneficial conversion feature on conversion of Amyris Brasil S.A. shares	—	—	—	—	—	2,717	—	—	—	2,717
Deemed dividend related to the beneficial conversion feature of Amyris Brasil S.A. shares	—	—	—	—	—	(2,717)	—	—	—	(2,717)
Change in unrealized loss on investments	—	—	—	—	—	—	—	2	—	2
Foreign currency translation adjustment, net of tax	—	—	217	—	—	—	—	1,534	—	1,534
Net loss	—	—	(894)	—	—	—	(81,870)	—	(26)	(81,896)
December 31, 2010	—	\$—	\$—	43,847,425	\$4	\$506,988	\$(202,318)	\$2,872	\$2	\$307,548

Amyris, Inc.

Consolidated Statements of Convertible Preferred Stock, Redeemable Noncontrolling Interest and Equity
(Deficit)—(Continued)

(In Thousands, Except Share and Per Share Amounts)	Convertible Preferred Stock, Amount	Convertible Preferred Stock, Interest	Common Stock Shares	Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Noncontrolling Interest	Total Equity (Deficit)		
December 31, 2010	—	\$—	\$—	43,847,425	\$4	\$506,988	\$(202,318)	\$2,872	\$2	\$307,548
Issuance of common stock upon exercise of stock options, net of restricted stock	—	—	—	1,641,439	1	8,491	—	—	—	8,492
Issuance of common stock upon net exercise of warrants	—	—	—	77,087	—	—	—	—	—	—
Issuance of common stock warrants in connection with equipment financing	—	—	—	—	—	193	—	—	—	193
Issuance of common stock in connection with Draths business acquisition	—	—	—	362,319	—	7,000	—	—	—	7,000
Shares issued from restricted stock unit settlement	—	—	—	6,005	—	—	—	—	—	—
Repurchase of common stock	—	—	—	(1,137)	—	(5)	—	—	—	(5)
Stock-based compensation	—	—	—	—	—	25,492	—	—	—	25,492
Fair value of assets and liabilities assigned to noncontrolling interest	—	—	—	—	—	—	—	—	369	369
Change in unrealized loss on investments	—	—	—	—	—	—	—	(5)	—	(5)
Foreign currency translation adjustment, net of tax	—	—	—	—	—	—	—	(8,791)	30	(8,761)
Net loss	—	—	—	—	—	—	(178,870)	—	(641)	(179,511)
December 31, 2011	—	\$—	\$—	45,933,138	\$5	\$548,159	\$(381,188)	\$(5,924)	\$(240)	\$160,812

Amyris, Inc.

Consolidated Statements of Convertible Preferred Stock, Redeemable Noncontrolling Interest and Equity (Deficit)—(Continued)

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

See the accompanying notes to the consolidated financial statements

Amyris, Inc.

Consolidated Statements of Cash Flows

(In Thousands)

	Years Ended December 31,		
	2012	2011	2010
Operating activities			
Net loss	\$(206,033	) \$(179,511	) \$(82,790
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	14,570	11,077	7,280
Loss on disposal of property, plant and equipment	370	52	205
Stock-based compensation	27,473	25,492	10,432
Amortization of premium on investments	—	630	1,557
Amortization of debt discount	1,758	—	—
Provision for doubtful accounts	236	245	—
Loss on purchase commitments and write-off of production assets	45,854	—	—
Change in fair value of convertible preferred stock warrant liability	—	—	(929
Change in fair value of derivative instruments	(1,764) —	—
Restructuring and asset impairment (income) charges	—	—	(2,061
Other noncash expenses	159	40	116
Changes in assets and liabilities:			
Accounts receivable	2,837	(1,975	) (3,565
Inventories, net	2,919	(5,327	) (1,708
Prepaid expenses and other assets	11,239	(17,250	) 1,133
Accounts payable	(11,811	) 15,648	3,478
Accrued and other long-term liabilities and restructuring	(35,754	) 53,894	664
Deferred revenue	(1,648	) 5,542	1,316
Deferred rent	(1,277	) (1,053	) 295
Net cash used in operating activities	(150,872	) (92,496	) (64,577
Investing activities			
Purchase of short-term investments	(8,334	) (67,556	) (189,486
Maturities of short-term investments	—	105,000	100,711
Sales of short-term investments	16,503	68,106	28,374
Purchases of long-term investments	—	—	(7,998
Change in restricted cash	(955	) —	4,506
Payments for business acquisitions	—	(2,934) —
Acquisition of cash in noncontrolling interest	—	344	—
Investment in unconsolidated joint venture	—	(83) —
Purchase of property, plant and equipment, net of disposals	(56,832	) (81,917	) (10,906
Deposits on property, plant and equipment	(26	) (15,107	) (4,606
Net cash provided by (used in) investing activities	(49,644	) 5,853	(79,405
Financing activities			
Proceeds from issuance of convertible preferred stock, net	—	—	184,360
Proceeds from issuance of common stock, net of repurchases	891	8,445	231
Proceeds from issuance of common stock in private placements, net of issuance costs	84,682	—	—
Proceeds from equipment financing	—	3,000	1,445

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Principal payments on capital leases	(3,727) (2,835) (2,728)
Proceeds from debt issued	78,904	37,957	—	
Proceeds from debt issued to related party	30,000	—	—	
Principal payments on debt	(52,633	) (5,018	) (9,722)
Proceeds from issuance of common stock in initial public offering, net	—	(497	) 86,032	
Proceeds from sale of noncontrolling interest	—	—	7,069	
Net cash provided by financing activities	138,117	41,052	266,687	
Effect of exchange rate changes on cash and cash equivalents	(2,712	) (1,766	) 1,167	
Net increase (decrease) in cash and cash equivalents	(65,111	) (47,357	) 123,872	
Cash and cash equivalents at beginning of period	95,703	143,060	19,188	
Cash and cash equivalents at end of period	\$ 30,592	\$ 95,703	\$ 143,060	

Amyris, Inc.

Consolidated Statements of Cash Flows—(Continued)

(In Thousands)

	Years Ended December 31,		
	2012	2011	2010
Supplemental disclosures of cash flow information:			
Cash paid for interest	\$3,399	\$1,412	\$1,378
Cash paid for income taxes, net of refunds	\$—	\$—	\$—
Supplemental disclosures of noncash investing and financing activities:			
Acquisitions of property, plant and equipment under accounts payable, accrued liabilities and notes payable	\$2,538	\$3,177	\$8,278
Financing of equipment	\$—	\$3,420	\$—
Warrants issued in connection with equipment financing	\$—	\$193	\$—
Financing of insurance premium under notes payable	\$—	\$—	\$101
Change in unrealized gain (loss) on investments	\$—	\$(5	) \$3
Change in unrealized gain (loss) on foreign currency	\$(6,366	) \$(7,905	) \$(623
Asset retirement obligation	\$—	\$174	\$115
Warrants issued in connection with the issuance of convertible preferred stock	\$—	\$—	\$507
Accrued deferred offering costs	\$—	\$—	\$496
Financing of rent payments under notes payable	\$—	\$—	\$239
Deferred charge asset related to the issuance of Series D preferred stock	\$—	\$—	\$27,909
Issuance of common stock upon exercise of warrants	\$—	\$3,554	\$—
Issuance of common stock related to business acquisition	\$—	\$7,000	\$—
Conversion of convertible preferred stock to common stock	\$—	\$—	\$391,411
Conversion of preferred stock warrants to common stock warrants	\$—	\$—	\$2,318
Conversion of shares of Amyris Brasil S.A. held by third parties into Amyris, Inc. common stock	\$—	\$—	\$11,653
Conversion of other liability to related party debt			