AMYRIS, INC.
Form S-1/A
August 17, 2010
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As filed with the Securities and Exchange Commission on August 17, 2010

Registration No. 333-166135

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Amendment No. 5 to

FORM S-1

REGISTRATION STATEMENT

UNDER

THE SECURITIES ACT OF 1933

Amyris, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**8731**	**55-0856151**
(State or other jurisdiction of incorporation or organization)	**(Primary Standard Industrial Classification Code Number)**	**(I.R.S. Employer Identification Number)**

5885 Hollis Street, Suite 100

Emeryville, CA 94608

(510) 450-0761

(Address, including zip code, and telephone number, including area code, of registrant s principal executive offices)

John G. Melo

President and Chief Executive Officer

Amyris, Inc.

5885 Hollis Street, Suite 100

Emeryville, CA 94608

(510) 450-0761

(Name, address, including zip code, and telephone number, including area code, of agent for service)

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Approximate date of commencement of proposed sale to the public: as soon as practicable after this registration statement is declared effective.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. ¨

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ¨

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ¨

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ¨

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

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

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities To Be Registered	**Proposed Maximum Aggregate Offering Price[(1)(2)]**	**Amount of Registration Fee**
Common Stock, $0.0001 par value per share	$100,000,000	$7,130[(3)]

(1) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(o) under the Securities Act of 1933, as amended.
(2) Includes shares which may be purchased by the underwriters pursuant to their option to purchase additional shares.
(3) Previously paid.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the Commission, acting pursuant to Section 8(a), may determine.

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The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and we are not soliciting offers to buy these securities in any state where the offer or sale is not permitted.

PROSPECTUS (Subject to Completion)

Issued August 17, 2010

Shares

COMMON STOCK

Amyris, Inc. is offering shares of its common stock. This is our initial public offering and no public market currently exists for our shares. We anticipate that the initial public offering price of our common stock will be between $ and $ per share.

We have applied to list our common stock on The Nasdaq Global Market under the symbol AMRS.

Investing in our common stock involves substantial risks. See Risk Factors beginning on page 13.

PRICE $ A SHARE

	Price to Public	***Underwriting Discounts and Commissions***	***Proceeds to Amyris***
Per Share	*$*	*$*	*$*
Total	*$*	*$*	*$*

We have granted the underwriters the right to purchase up to an additional shares of common stock.

The Securities and Exchange Commission and state securities regulators have not approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The underwriters expect to deliver the shares of common stock to purchasers on , 2010.

MORGAN STANLEY *GOLDMAN, SACHS & CO.*

J.P. MORGAN

BANCO ITAÚ *STIFEL NICOLAUS WEISEL*

, 2010

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You should rely only on the information contained in this prospectus or in any free-writing prospectus we may specifically authorize to be delivered or made available to you. We have not and the underwriters have not authorized anyone to provide you with additional or different information. We are offering to sell, and seeking offers to buy, shares of our common stock only in jurisdictions where offers and sales are permitted. The information in this prospectus or a free-writing prospectus is accurate only as of its date, regardless of its time of delivery or any sale of shares of our common stock. Our business, financial condition, results of operations and prospects may have changed since that date.

Until , 2010 (25 days after the commencement of this offering), all dealers that buy, sell or trade shares of our common stock, whether or not participating in this offering, may be required to deliver a prospectus. This delivery requirement is in addition to the obligation of dealers to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.

For investors outside the U.S.: We have not and the underwriters have not done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the U.S. Persons outside the U.S. who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the shares of common stock and the distribution of this prospectus outside of the U.S.

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PROSPECTUS SUMMARY

This summary highlights information appearing elsewhere in this prospectus and does not contain all of the information you should consider in making your investment decision. You should read this entire prospectus carefully, especially the Risk Factors section beginning on page 13 and our consolidated financial statements and the related notes appearing elsewhere in this prospectus, before making an investment decision.

AMYRIS, INC.

Business Overview

Our Company

We are building an integrated renewable products company by applying our industrial synthetic biology technology platform to provide alternatives to select petroleum-sourced products used in specialty chemical and transportation fuel markets worldwide. We genetically modify microorganisms, primarily yeast, and use them as living factories in established fermentation processes to convert plant-sourced sugars into potentially thousands of target molecules. Our first technology success has come through the development and application of our platform to create microbial strains that produce artemisinic acid, a precursor of artemisinin, an anti-malarial therapeutic. We have 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 2012. Our first proprietary commercialization efforts have been focused on a molecule called farnesene, which forms the basis for a wide range of products varying from specialty chemical applications such as detergents, cosmetics, perfumes and industrial lubricants, to transportation fuels such as diesel. We call these No Compromise® products because we design them to perform comparably to or better than currently available products. While our platform is able to utilize a wide variety of feedstocks, we have focused our initial research and development, business development and production operations on the use of Brazilian sugarcane as our primary feedstock because of its abundance, low cost and relative price stability. We intend to secure access to this feedstock and expand our production capacity in a capital light manner. Under this approach, we expect to work with Brazilian sugar and ethanol producers to build new, bolt-on facilities adjacent to their existing mills instead of building entirely new greenfield facilities, thereby reducing the capital required to establish and scale our production. Our first such arrangement is our joint venture with Usina São Martinho, a subsidiary of São Martinho S.A., one of the largest sugar and ethanol producers in Brazil.

Our intention is to create a new fene economy, in which farnesene serves as the base chemical building block for a wide range of renewable products to replace existing products that are derived from petroleum, plant or animal sources and that may be of lower quality or higher price. We have entered into an agreement and non-binding letters of intent with Brazilian sugar and ethanol producers which provide us with access to approximately 12 million tons of sugarcane crush capacity annually. As of the first quarter of 2010, this capacity represented approximately 10% of the total crush capacity of these sugar and ethanol producers. We believe that if we are successful in converting these arrangements into operating bolt-on production facilities and if we continue to execute successfully on our research and development and commercialization programs, we will have the development capability and production and distribution relationships necessary to achieve approximately 600 million liters of farnesene production and high value product sales annually. However, achieving this volume of production and sales will require us to achieve a substantially higher level of production process efficiencies than we have to date.

Technology

We have developed genetic engineering and screening technologies that enable us to modify the way microorganisms, or microbes, process sugar through their metabolic pathways. By controlling these metabolic

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pathways, we design microbes to serve as living factories, or biorefineries, to produce target molecules that we seek to commercialize. Our platform utilizes proprietary high-throughput processes to create and test as many as 1,000 yeast strains a day in order to select those yeast strains which are most efficient. We first developed and applied our technology to create the microbial strains that produce artemisinic acid for anti-malarial drugs through a project that was funded by a five year grant awarded by the Bill & Melinda Gates Foundation to the Institute for OneWorld Health.

Feedstock

We are focusing on Brazilian sugarcane as our primary feedstock. Brazil is the world s largest producer of sugarcane. In the 2009-2010 harvest, it is estimated that mills in Brazil crushed over 600 million tons of sugarcane to provide feedstock to approximately 400 sugar and ethanol mills. This represented an annual growth rate in Brazilian sugarcane crush of approximately 10% over the past five years. According to UNICA, the Brazilian Sugarcane Industry Association, sugarcane is the lowest cost feedstock to produce renewable products at scale and using it enables us to leverage the established Brazilian infrastructure. Common to both our process and the sugarcane-to-ethanol process is the use of fermentation, a well-established process that combines a sugar source and yeast to produce beer, wine and, more recently, ethanol fuels. We plan to establish production capacity taking as input the same sugar source that is routinely processed by existing sugar and ethanol mills and directing it to customized fermentors, where it will be combined with our genetically engineered yeast.

Scale-Up

We operate research and development laboratories in Emeryville, California, and have built an adjacent pilot facility that tests our yeast strains in 300 liter scale fermentors. We have an identical pilot plant in Campinas, Brazil, to facilitate the adaptation of our technology to the Brazilian production environment. We established a 5,000 liter demonstration facility in Brazil in September 2009 to further validate our processes and equipment as we move toward commercialization of our products. We have also completed production runs using our strains to produce farnesene in a 60,000 liter fermentor at a contract manufacturing facility in the U.S. We are in the process of establishing and implementing contract manufacturing capabilities in Brazil and North America to support our 2011 production and commercialization needs.

Commercial Production

We expect to access feedstock and expand our production through our capital light strategy. Our first such arrangement is our joint venture with Usina São Martinho, SMA Indústria Quimica S.A. This facility is located at Usina São Martinho, the world s largest sugarcane processing facility, which crushed 8.1 million tons of sugarcane during the 2009-2010 harvest. We have also provided Usina São Martinho with an option to produce our products at a second production facility under an arrangement in which Usina São Martinho would fund the necessary capital expenditures. We have non-binding letters of intent in place with Bunge Limited, Cosan S.A. and Açúcar Guarani, a subsidiary of Tereos, which are leading Brazilian sugar and ethanol producers, to build new, bolt-on facilities adjacent to specified existing mills to produce our products and a separate non-binding term sheet with Cosan S.A. for the formation of a joint venture to develop and commercialize farnesene-derived base oils for lubricant products. We expect that these mill owners will make a substantial capital or operating contribution to fund these facilities in return for a share of the higher gross margin we believe we will realize from the sale of our renewable products. We expect these arrangements to provide us with access to approximately 12 million tons of sugarcane crush capacity annually, which we intend to expand over time with these and other mills. As of the first quarter of 2010, this capacity represented approximately 10% of the total crush capacity of these sugar and ethanol producers.

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Commercialization and Distribution

We plan to commence commercialization of our products starting in 2011 using contract manufacturers, and to have our first capital light production facility, our joint venture with Usina São Martinho, operational in the second quarter of 2012. As we commence commercial production of our initial molecule, farnesene, we expect to target specialty chemical markets. We recently entered into the following agreements related to the development and initial commercialization of our products:

Cosan: a term sheet with Cosan S.A. for the formation of a joint venture to develop and commercialize farnesene-derived base oils for lubricant products.

M&G: a collaboration agreement with M&G Finanziaria S.R.L. that establishes the terms under which M&G may purchase our farnesene for use in M&G s polyethylene terephthalate, or PET, resins to be incorporated into containers for food, beverages and other products.

P&G: a supply agreement with The Procter & Gamble Company that establishes terms under which P&G may purchase our farnesene for use in its products.

Soliance: an agreement with Soliance for the development and commercialization of farnesene-based squalane for use as an emollient ingredient in cosmetics products.

Total: a collaboration agreement with Total Gas & Power USA Biotech, Inc., an affiliate of Total S.A., that covers the research, development and commercialization of chemical and fuel products.

Production and sale of our products pursuant to these relationships will depend on the achievement of contract-specific technical, development and commercial milestones.

For distribution of our diesel in the U.S., we expect to sell directly, primarily to corporations with large trucking fleets. For distribution of our diesel in other geographies, we expect to sell indirectly through third parties. We recently entered into an agreement with Shell Western Supply and Trading Limited, a subsidiary of Royal Dutch Shell plc, which establishes terms under which Shell may purchase our diesel fuel, commencing 18 months after we notify Shell that we intend to export diesel from Brazil. To build our U.S. distribution capabilities we established our subsidiary Amyris Fuels, LLC, which currently generates revenues through the sale of third party ethanol and ethanol-blended gasoline to wholesale customers through a network of terminals in the southeastern U.S.

Our Industry

Petroleum is a fundamental building block for products, such as consumer products, chemicals, plastics and transportation fuels, that are essential to modern economies. According to the U.S. Energy Information Administration, in 2008 the total worldwide demand for petroleum was over $3 trillion, or 5% of worldwide gross domestic product. Recently, however, the increased demand for petroleum in the face of limited supply, supply chain uncertainty and negative environmental impacts has 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. Many U.S. renewable fuels companies have focused on the conversion of commodity feedstocks, such as corn or vegetable oil, into ethanol or biodiesel. These companies were exposed to swings in the market prices for their feedstocks, which at times made production unprofitable for a number of producers in these industries.

Limited product portfolio. Companies engaging in early attempts to create renewable fuels typically focused on one end product, such as ethanol or biodiesel. These companies generally lacked product

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diversity and, therefore, were vulnerable to variability of market prices and the degree of government support for their primary product. Further, the products these companies made were imperfect substitutes for the products they were intended to replace, as neither ethanol nor biodiesel can be stored or transported conventionally and both are subject to blend limits.

Capital intensity. Many initial U.S. ethanol companies utilized a vertically integrated business model that required hundreds of millions of dollars to construct and own mills. This left them with limited ability to enter new geographies and to access new feedstock, as they were tied to their existing facilities.

Dependence on policy. The economic viability of many alternative fuels is based on government regulations and support, making it difficult to build a business with long term sustainability.

Other efforts to develop alternatives to petroleum-sourced products include the use of non-food-based feedstocks, such as cellulosic sugars sourced from wood chips, corn stalks and sugarcane bagasse. Some of these approaches have shown promise and may not be influenced by commodity markets and food versus fuel concerns. However, they are not complete solutions to the challenges above, and to date, these approaches have been limited by cost and technical considerations, among others.

Our Solution

Our proprietary technology enables us to engineer microbes, such as yeast, to produce target molecules. Our business model is designed to produce these products and bring them to market in a capital light manner and, for many of our products, without reliance on government subsidies. Our industrial synthetic biology platform is designed to produce competitive products from widely available plant-derived feedstocks using genetically modified yeast strains in a well-established fermentation process. We are focusing our initial production efforts in Brazil, positioning us to access sugarcane feedstock and to leverage the substantial infrastructure of existing sugar and ethanol mills.

Competitive Strengths

Our key competitive strengths are:

Abundant, low-cost and relatively price stable feedstock. Brazilian sugar and ethanol mills typically grow much of their own sugarcane, and sugarcane in Brazil does not compete as a food source. As a result, this industry enjoys a low production cost structure and is insulated from feedstock price volatility. In addition, our technology platform has the flexibility to utilize sugar derived from a wide variety of non-food based feedstocks.

Broad range of potential products. Our initial molecule, farnesene, can serve as the basis for a wide range of products, enabling us to optimize our product mix and reduce our exposure to any one end market. Our technology platform gives us the ability to produce potentially thousands of additional target molecules. Our focus is on large markets where we would have a competitive advantage and can deliver No Compromise alternatives to currently available products.

Scalable, capital light approach. Our technology platform enables us to leverage the large existing sugar and ethanol industry infrastructure in Brazil. We believe that if we are successful in converting our existing mill relationships into operating production facilities and if we continue to execute successfully on our research and development and commercialization programs, we will have

the development capability and production and distribution relationships necessary to achieve approximately 600 million liters of farnesene production and high value product sales annually. However, achieving this volume of production and sales will require us to achieve a substantially higher level of production process efficiencies than we have to date.

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Not policy dependent. While we benefit from regulations, such as the Renewable Fuels Standard provided for by the U.S. Energy Policy Act of 2005, that encourage the use of renewable products, we expect our products to be offered on a cost-competitive basis with existing products without reliance on subsidies.

Our Solution for our Customers

The key benefits we intend to provide to our customers include:

No Compromise product offerings. We refer to our products as No Compromise because we design them to perform comparably to or better than currently available products. For example, we expect that our diesel will not require engine or distribution infrastructure modifications, and will have better performance at low temperatures and will generally have a higher cetane number than biodiesel.

Greater pricing stability. We believe that our use of Brazilian sugarcane, and our ability over time to utilize a wide variety of other plant-based feedstocks, will enable us to offer our specialty chemical customers greater pricing protection from the level of price volatility generally associated with exposure to petroleum-sourced products.

Green alternative. Our products are derived from renewable sources, enabling our customers to reduce the environmental impact of their products and, in some cases, increase the loyalty consumers have for these products.

Our Value Proposition to Sugar and Ethanol Producers

The key benefits we intend to provide to sugar and ethanol producers that will work with us to produce our products include:

Product diversification. By producing our products, sugar and ethanol mills would be able to diversify their business beyond their current sugar or ethanol production and potentially mitigate volatility in their financial performance caused by changes in the market prices for sugar or ethanol.

Opportunity for growth. By diversifying their product base to address additional market opportunities, producers may be able to expand the amount of sugarcane grown and processed at their mills.

Potential for improved margins. We intend to offer these producers a share of the higher gross margin we believe we will realize from the sale of our renewable products relative to their existing products, potentially improving their gross margins and the return they realize on their feedstock.

Our Strategy

Our objective is to become the leading provider of renewable specialty chemicals and transportation fuels worldwide. Key elements of our strategy include:

Pursuing market opportunities that maximize our returns now and in the future. We intend to commercialize initially in select specialty chemical markets, where we believe we can earn positive gross margins with current yields and other production process efficiencies, and then as we lower our production costs through technical improvements, to expand into broader specialty chemical and transportation fuels markets. We also intend to enter into collaborative research, development and commercialization agreements to accelerate our entry into select new product opportunities such as the agreements we have entered into with Cosan, M&G, P&G, Soliance and Total.

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Leveraging our technology platform to improve efficiency. Our technology platform includes two pilot plant facilities, a demonstration facility, extensive access to our target feedstock and process technology and an industrial platform for strain development. We intend to continually apply our technology platform to lower the cost of production of our products through improvements in yields and other production process efficiencies. With this platform we successfully completed our first technology collaboration with the Institute for OneWorld Health and the University of California, Berkeley for our artemisinin project and are well positioned for continued technical scale-up success.

Focusing on Brazilian sugarcane. We are initially focusing on Brazilian sugarcane as our primary feedstock because of its abundance, low cost and relative price stability.

Advancing capital light production. We are partnering with leading sugar and ethanol mills in Brazil to establish and scale production at a lower cost than the cost of greenfield mill construction such as our joint venture with Usina São Martinho.

Continuing to develop our fuels distribution network. We will continue to expand the size and geographic scope of our Amyris Fuels distribution network in the U.S. and establish arrangements with third parties for distribution in other countries such as our supply agreement with Shell. Through these partnerships and our downstream capabilities we intend to access a portion or all of the value closest to the end customer and to participate in capturing value throughout the commercial value chain.

Our Risks

Our business is subject to numerous risks and uncertainties that you should understand before making an investment decision. These risks are discussed more fully in the section entitled Risk Factors beginning on page 13 of this prospectus. These include:

we have a limited operating history and have not generated revenues from the sale of any of our renewable products, and our business may fail if we are not able to successfully commercialize these products;

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

if we are unable to decrease our production costs, we may not be able to produce our products at competitive prices and our business may not achieve its full growth potential;

we have no experience producing our products at the commercial scale needed for the development of our business, and we will not succeed if we cannot effectively scale our technology and processes;

our ability to commence commercial sales of our products in 2011 is subject to a number of risks, any of which could delay our sales and adversely impact our customer relationships, business and results of operations;

the agreements for the development and initial commercialization of our products that we recently entered into are subject to technical, commercial and production milestones that we may fail to achieve, or our contract counterparties may choose not to purchase our products;

if our joint venture production facility with Usina São Martinho in Brazil does not successfully commence operations in the second quarter of 2012, our customer relationships, business and results of operations may be adversely affected;

our joint venture with Usina São Martinho contemplates that we will make significant capital expenditures and subjects us to certain legal and financial terms that could adversely affect us;

we plan to enter into additional arrangements with Brazilian sugar and ethanol producers to produce our products, and if we are not able to complete these arrangements in a timely manner and on terms favorable to us, our business will be adversely affected;

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our strategy of relying on existing Brazilian sugar and ethanol producers to produce our products will make us substantially dependent on these owners, and they may not perform their obligations under agreements with us or otherwise perform to our standards;

our reliance on contract manufacturers to produce our products during construction of our Usina São Martinho joint venture production facility and periodically for additional short-term production capacity exposes us to risks relating to the price and availability of that contract manufacturing and could adversely affect our growth;

the production of our products will require sugar feedstock, and the inability to obtain such feedstock in sufficient quantities or in a timely manner may limit our ability to produce our products;

an increase in the price and profitability of ethanol and sugar relative to our products could adversely affect our arrangements with sugar and ethanol producers;

the price of sugarcane feedstock can be volatile as a result of changes in industry policy and may increase the cost of production of our products;

most of our planned initial production capacity will be in Brazil, and our business will be adversely affected if we do not operate effectively in that country;

we may face risks relating to the use of our genetically modified yeast strains and if we are not able to secure regulatory approval for the use of our yeast strains or if we face public objection to our use of them, our business could be adversely affected;

we may not be able to obtain regulatory approval for the sale of our renewable products; and

we cannot assure you that our products will be approved or accepted by customers in specialty chemical markets.

Company Information

We were formed as a California corporation in 2003 under the name Amyris Biotechnologies, Inc. and have maintained our headquarters and research facilities in the San Francisco Bay Area since that time. In June 2010, we reincorporated in Delaware and changed our name to Amyris, Inc. We commenced research activities in 2005, focusing on the development of an alternative source of artemisinic acid for the treatment of malaria and launched research efforts for production of farnesene in 2006. In 2008, we began to sell third party ethanol to wholesale customers through our Amyris Fuels subsidiary. 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 on our website or that can be accessed through our website is not part of this prospectus, and investors should not rely on any such information in deciding whether to purchase our common stock.

Except where the context requires otherwise, in this prospectus, Amyris, our company, the Company, we, us and our refer to Amyris, Inc subsidiaries. These subsidiaries include Amyris Brasil S.A., a majority-owned Brazilian company through which we conduct our Brazilian operations, and Amyris Fuels, LLC, a wholly-owned subsidiary through which we are building our U.S. fuels distribution capabilities. In connection with the completion of this offering, Amyris Brasil S.A. will become a wholly-owned subsidiary through the conversion of third-party held stock in that subsidiary into our common stock. Amyris Brasil holds our equity interest in our joint venture with Usina São Martinho, SMA Indústria Química S.A.

Amyris® , No Compromise® and our logo are our trademarks. This prospectus also contains trademarks and trade names of other businesses that are the property of their respective holders.

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THE OFFERING

Common stock offered by us	shares
Common stock to be outstanding after this offering	shares
Overallotment option to be offered by us	shares
Use of proceeds	We intend to use the net proceeds from this offering for capital expenditures, working capital and other general corporate purposes, including for building engineering services capabilities and growing our chemistry capabilities. We may also use a portion of our proceeds to expand our current business through acquisitions of other companies, assets or technologies. See Use of Proceeds.
Risk factors	You should read the Risk Factors section of this prospectus beginning on page 13 for a discussion of factors to consider carefully before deciding to invest in shares of our common stock.
Proposed stock exchange trading symbol	AMRS

The number of shares of our common stock to be outstanding after this offering is based on 35,133,225 shares of our common stock outstanding as of June 30, 2010, after giving effect to the conversion of our outstanding convertible preferred stock into 29,000,821 shares of common stock and the conversion of shares of Amyris Brasil held by third party investors in this subsidiary into 861,155 shares of our common stock. In the event the actual initial public offering price is lower than $ per share, the shares of Series D preferred stock will convert into a larger number of shares of common stock; if the initial public offering price is equal to the midpoint of the range on the cover of this prospectus, the Series D preferred stock would convert into an additional shares of common stock. A $1.00 decrease in the initial public offering price would increase by , and a $1.00 increase in the initial public offering price would decrease by , the number of shares of common stock issuable upon conversion of the Series D preferred stock. The number of shares of our common stock to be outstanding after this offering excludes:

- 6,275,730 shares of common stock issuable upon the exercise of stock options outstanding as of June 30, 2010, at a weighted average exercise price of $5.90 per share;
- 195,604 shares of common stock issuable upon the exercise of outstanding warrants as of June 30, 2010, that will remain outstanding after the completion of this offering through various dates from one year from the effective date of this offering to January 2017, with a weighted average exercise price of $18.76 per share;
- 138,342 shares reserved for issuance under our 2005 Stock Option/Stock Issuance Plan that are not issued or subject to outstanding awards;
- 31,568 shares of common stock subject to restricted stock units outstanding as of June 30, 2010;
- 4,200,000 shares of common stock reserved for future issuance under our 2010 Equity Incentive Plan, which will become effective upon the completion of this offering and will also include the shares reserved for issuance under our 2005 Stock Option/Stock Issuance Plan that are not issued or subject to outstanding grants at the completion of this offering and which will also contain

provisions that will automatically increase its share reserve each year, as more fully described in Management Stock Option and Other Compensation Plans; and

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168,627 shares of common stock reserved for future issuance under our 2010 Employee Stock Purchase Plan, which will become effective upon the completion of this offering and will also contain provisions that will automatically increase its share reserve each year, as more fully described in Management Stock Option and Other Compensation Plans.

Unless otherwise indicated, the information in this prospectus assumes:

the filing of our restated certificate of incorporation and the adoption of our restated bylaws immediately prior to the completion of this offering; and

no exercise by the underwriters of their option to purchase additional shares.

All references in this prospectus to U.S. dollars, dollars, US$ or $ are to U.S. dollars. All references to the real, reais or BRL$ are to th Brazilian real, the official currency of Brazil. All conversions of Brazilian reais into U.S. dollars in this document are based on the BRL$/US$ exchange rate as of July 30, 2010, reported by *The Wall Street Journal* of BRL$1.7584 : US$1.0000.

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SUMMARY CONSOLIDATED FINANCIAL DATA

The following table summarizes our consolidated financial data. We have derived the following consolidated statement of operations data for the fiscal years ended December 31, 2007, 2008 and 2009 and the consolidated balance sheet data as of December 31, 2009 from our audited consolidated financial statements appearing elsewhere in this prospectus. We have derived the summary consolidated statement of operations data for the six months ended June 30, 2009 and 2010 and the summary consolidated balance sheet as of June 30, 2010 from our unaudited consolidated financial statements appearing elsewhere in this prospectus. You should read the summary of our consolidated financial data set forth below together with the more detailed information contained in Management s Discussion and Analysis of Financial Condition and Results of Operations and our consolidated financial statements and the related notes appearing elsewhere in this prospectus. Our historical results presented below are not necessarily indicative of financial results to be achieved in the future.

	Years Ended December 31,			Six Months Ended June 30,	
	2007	2008	2009	2009	2010
	(in thousands, except share and per share amounts)				
				(Unaudited)	
Consolidated Statement of Operations Data:					
Total revenues	$ 6,184	$ 13,892	$ 64,608	$ 22,894	$ 26,357
Cost and operating expenses					
Cost of product sales		10,364	60,428	20,875	20,132
Research and development[(1)]	8,662	30,306	38,263	17,510	23,591
Sales, general and administrative[(1)]	10,522	16,622	23,558	9,274	18,902
Restructuring and asset impairment charges			5,768		
Total cost and operating expenses	19,184	57,292	128,017	47,659	62,625
Loss from operations	(13,000)	(43,400)	(63,409)	(24,765)	(36,268)
Total other income (expense)	1,226	857	(1,391)	(13)	(258)
Loss before income taxes	(11,774)	(42,543)	(64,800)	(24,778)	(36,526)
Benefit from income taxes		(207)			
Net loss	(11,774)	(42,336)	(64,800)	(24,778)	(36,526)
Loss attributable to noncontrolling interest		(472)	(341)	(221)	(430)
Net loss attributable to Amyris, Inc. stockholders	$ (11,774)	$ (41,864)	$ (64,459)	$ (24,557)	$ (36,096)
Net loss per share of common stock attributable to Amyris, Inc. stockholders, basic and diluted[(2)]	$ (3.28)	$ (9.91)	$ (13.56)	$ (5.27)	$ (7.17)
Weighted-average shares of common stock outstanding used in computing net loss per share of common stock, basic and diluted[(2)]	3,592,932	4,223,533	4,753,085	4,661,704	5,034,163
Pro forma net loss per share of common stock attributable to Amyris, Inc. stockholders, basic and diluted (unaudited)[(2)]			$ (3.16)		$ (1.36)

Weighted-average shares of common stock outstanding used in computing pro forma net loss per share of common stock, basic and diluted (unaudited)[(2)]	20,279,433	26,583,633

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	As of June 30, 2010		
	Actual	Pro Forma [3]	Pro Forma as Adjusted [4]
	(Unaudited)	(in thousands) (Unaudited)	(Unaudited)
Consolidated Balance Sheet Data:			
Cash, cash equivalents, investments and restricted cash	$ 220,060	$ 220,060	$
Working capital	197,918	197,918	
Total assets	304,988	304,988	
Total indebtedness[5]	12,848	12,848	
Convertible preferred stock warrant liability	3,281		
Convertible preferred stock	391,411		
Redeemable noncontrolling interest	12,248		
Total equity (deficit)	$ (145,850)	$ 261,090	$

(1) Includes stock-based compensation expense as follows:

	Years Ended December 31,			Six Months Ended June 30,	
	2007	2008	2009	2009	2010
			(in thousands)	(Unaudited)	
Research and development	$ 117	$ 632	$ 773	$ 276	$ 876
Sales, general and administrative	429	1,395	2,526	901	3,426
Total stock-based compensation expense	$ 546	$ 2,027	$ 3,299	$ 1,177	$ 4,302

(2) See Note 2 to our Consolidated Financial Statements appearing elsewhere in this prospectus for an explanation of the method used to calculate basic and diluted net loss per share of common stock, the pro forma basic and diluted net loss per share of common stock and the weighted-average number of shares used in computation of the per share amounts.

(3) On a pro forma basis to reflect the conversion of all shares of our convertible preferred stock outstanding as of June 30, 2010 into common stock, the conversion of shares of Amyris Brasil outstanding as of June 30, 2010 held by investors in that subsidiary into shares of our common stock and the reclassification of the convertible preferred stock warrant liability to additional paid-in capital immediately prior to the completion of this offering. In the event the actual initial public offering price is lower than $ per share, the shares of Series D preferred stock will convert into a larger number of shares of common stock; if the initial public offering price is equal to the midpoint of the range on the cover of this prospectus, the Series D preferred stock would convert into an additional shares of common stock.

(4) On a pro forma as adjusted basis to reflect the sale of shares of our common stock by us in this offering at an assumed initial public offering price of $ per share (which is the midpoint of the price range set forth on the cover page of this prospectus), after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us in connection with this offering. A $1.00 increase (decrease) in the assumed initial public offering price of $ per share of common stock would increase (decrease) cash, cash equivalents and short-term investments by $ million, working capital by $ million, total assets by $ million and total stockholders equity (deficit) by $ million, assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us in connection with this offering. The pro forma as adjusted information discussed

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above is illustrative only and will adjust based on the actual public offering price and other terms of this offering determined at pricing.

(5) Total indebtedness includes $7.4 million in capital lease obligations, $4.1 million in notes payable, a $1.0 million loan payable and a $0.3 million credit facility (see Note 5 and Note 6 to our Consolidated Financial Statements).

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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 in this prospectus, including the consolidated financial statements and the related notes appearing elsewhere in this prospectus, before making an investment decision. 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 a limited operating history and have not generated revenues from the sale of any of our renewable products, and our business may fail if we are not able to successfully commercialize these products.

We are an early stage company with a limited operating history, and we have not yet commercialized any of our renewable products. To date, our revenues have consisted of sales of ethanol produced by third parties, funding from third party collaborative research services and government grants. We are subject to the substantial risk of failure facing businesses seeking to develop products based on a new technology. Certain factors that could, alone or in combination, prevent us from successfully commercializing our renewable products include:

- technical challenges with our production processes or with development of new products that we are not able to overcome;
- our ability to achieve commercial scale production of our specialty chemical and fuel products on a cost effective basis;
- our ability to secure access to low-cost feedstock;
- our ability to establish and maintain successful relationships for the production of our products with the owners of sugar and ethanol mills;
- our ability to secure and maintain all necessary regulatory approvals for the production, distribution and sale of our products and to comply with applicable laws and regulations;
- our ability to develop customer relationships and build a cost-effective distribution network for our products;
- actions of direct and indirect competitors that may seek to enter the renewable products markets in competition with us or that may seek to impose barriers to one or more aspects of the renewable products businesses that we intend to pursue; and
- public concerns about the ethical, legal, environmental and social ramifications of genetically engineered products and processes, use of land and renewable carbon sources for the production of renewable products and diversion of resources from food production.

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

We have incurred substantial net losses since our inception, including net losses of $11.8 million, $42.3 million, and $64.8 million for the years ended December 31, 2007, 2008 and 2009, respectively and $36.5 million for the six months ended June 30, 2010. We expect these losses to continue. As of June 30, 2010, we had an accumulated deficit of $156.5 million. We expect to incur additional costs and expenses related to the continued development and expansion of our business, including 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 the facility that we are developing with Usina São Martinho and adoption of our technology at other sugar and ethanol mills. There can be no assurance that we will ever achieve or sustain profitability on a quarterly or annual basis.

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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.

We have developed the ability to create yeast strains that are capable of converting feedstocks into desired target molecules that form the basis of our products. The successful development of our business depends on our ability to increase the efficiency with which we produce these target molecules from feedstock. Our production costs are primarily driven by our ability to increase the yield from our yeast strains and other production factors.

Yield refers to the amount of the desired molecule that can be produced from a fixed amount of feedstock. We believe that we will be able to enter certain specialty chemical markets with farnesene if we can attain at commercial production scale the yields and other production process efficiencies that we have achieved to date. While we believe that we will be able to attain this level of production process efficiencies in commercial production, we cannot assure you that we will do so on the timeline we have planned or at all. If we cannot, it is likely that we will not be able to commercialize farnesene in a timely manner, and in that event, our business would be materially and adversely affected.

In order to successfully enter transportation fuels and certain other specialty chemical markets, our yeast strains must produce those products at substantially higher yields than we have achieved to date. We have produced and screened over one million yeast strains to reach our current farnesene yield levels and anticipate having to produce and screen hundreds of thousands of additional strains as we seek to achieve the requisite yield levels to enter these larger markets. We may never achieve the yields needed for us to profitably enter these markets. Further, yield improvement is generally not achieved on a linear basis over time, which makes it difficult for us to predict with a high level of specificity when, if ever, new yield levels will be attained. If we are delayed, or are not successful, in improving the yield of farnesene with our yeast strains, our ability to enter a number of the markets that we are currently targeting will similarly be delayed or precluded and our ability to grow our business will be impaired.

Additional factors that impact our production cost include productivity, separation efficiency and chemical process efficiency. 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. Our ability to lower our production costs to enter and successfully compete in our target markets over time is contingent on efficiency gains of yield and these additional factors.

Our ability to commence commercial sales of our products in 2011 is subject to many risks, any of which could delay our sales and adversely impact our customer relationships, business and results of operations.

We are seeking to commence commercial sales of our initial products for specialty chemical applications in 2011. Our sales and marketing efforts are focused on a small number of target customers and we will need to convince them that our products are comparable to or better than the specialty chemicals they currently use that we seek to replace. In addition, these customers will need to complete product qualification procedures, which may not be achieved in a timely manner or at all.

In June 2010, we entered into an agreement with an entity that will provide us with capacity, at its manufacturing facilities in Brazil, to support a portion of our 2011 product commercialization goals, but we expect to need additional contract manufacturing capacity for 2011. In order for production to commence under our existing manufacturing arrangement, and perhaps under future contract manufacturing arrangements, we may 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 or at all. In addition, we will need to transfer our yeast strains and production processes to these facilities, which may pose

technical or operational challenges that delay production or increase our costs. The failure of these facilities to produce our initial products on a timely basis or at all, or with adequate quality or in volumes sufficient to meet our customer demand, could harm our relationships with our customers. Further, additional manufacturing capacity may not be available to us at prices

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or on terms acceptable to us, or at all. Additionally, we have not tested our yeast strains in a commercial process at commercial scale production levels. Our production costs will also depend on our ability to make progress in improving the yield, productivity, separation efficiency and chemical process efficiency of our production process before we commence 2011 production. If we are unable to make the necessary progress, we may nonetheless decide to commence sales of our products at a loss in order to establish demand for our products and develop customer relationships, which could adversely affect our results of operations.

We recently entered into several agreements and a term sheet for the development, initial commercialization and sale of our products that contain important technical, development and commercial milestones. If we do not meet those milestones our future revenue and financial results will be harmed.

In June 2010, we entered into several agreements and a term sheet regarding arrangements for the further development of our products and, in some cases, for ultimate sale 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 these agreements contain important conditions that must be satisfied before any such purchases may be made. These conditions include technical specifications that must be achieved to the satisfaction of our customers, which we cannot be certain we will be able to achieve. Some agreements provide that we will not seek to initiate sales until we achieve advances in yield and other production efficiencies to lower the cost of producing our products. In addition, these agreements contain exclusivity and other terms that may limit our ability to commercialize our products and technology in ways that we do not currently envision. If we do not achieve these contractual milestones, our revenues and financial results will be harmed.

We have also entered into a collaboration agreement for the development of future to be determined chemical and/or fuel products and for the eventual production and commercialization of these products. We cannot be certain that any products will be successfully developed under this collaboration or, even if developed, that they will be successfully produced or commercialized. If we are not able to negotiate and enter into a definitive agreement based on our term sheet for new product development, our future revenue and financial results may be harmed.

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

Because we have not yet completed development of our products, we have limited experience operating in our customers industries and interacting with the customers that we intend to target. Developing that expertise may take longer than we expect and will require that we expand and improve our sales and marketing infrastructure. These activities could delay our ability to capitalize on the opportunities that our technology and products present, and may prevent us from achieving commercialization of our initial products in 2011. The companies with which we expect to have customer arrangements are generally much larger than we are and have substantially longer operating histories and more experience in target industries than we have. As a result, we may not be effective in negotiating or managing the terms of our relationships with these companies, which could adversely affect our future results of operations.

We have no experience producing our products at the commercial scale needed for the development of our business, and we will not succeed if we cannot effectively scale our technology and processes.

In addition to developing our yeast strains further to lower our production costs, we must demonstrate the ability to utilize our yeast strains to produce desired products at the commercial scale and on an economically viable basis. Such production will require that our technology and processes be scalable from laboratory, pilot and demonstration projects to commercial-scale production. Our technology may not perform as expected when applied at commercial scale, or we may encounter operational challenges for which we are unable to devise a

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workable solution. For example, contamination in the production process could decrease process efficiency, create delays and increase our costs. We may not be able to scale up our production in a timely manner, if at all, even if we successfully complete product development in our laboratories and pilot and demonstration facilities. If this occurs, our ability to commercialize our technology will be adversely affected, and, with respect to any products that we do bring to market, we may not be able to lower the cost of production, which would adversely affect our ability to increase the future profitability of our business. Similarly, our ability to produce approximately 600 million liters of farnesene from the approximately 12 million tons of sugarcane crush capacity that is covered by our existing agreement and letters of intent is based on our achieving substantially higher yields and other production process efficiencies than we have to date. We may never achieve those yields or other production process efficiencies.

Our relationship with our strategic partner Total may have a substantial impact on our company.

We have entered into a strategic relationship with affiliates of Total S.A., a French oil and gas company. As part of this relationship, an affiliate of Total has made a significant equity investment in our company and has certain board membership rights, as well as certain first negotiation rights in the event of a sale of our company. As a result, Total will have access to a significant amount of information about our company and the ability to influence our management and affairs. Total s right of first negotiation may adversely affect our ability to complete a change in control transaction that our Board of Directors believes is in the best interests of stockholders other than Total.

We also entered into a license, development, research and collaboration agreement with an affiliate of Total, under which we may develop, produce and commercialize products with Total. The agreement provides for Total to pay up to the first $50.0 million in research costs for selected research and development projects, but we must agree with Total on the product development projects we wish to pursue and we have not yet agreed on any such projects. If we cannot agree on the projects to be pursued, then we would not receive the research and development funding we expect from Total, and this could adversely affect our product development plans. Our ability to successfully pursue product development under this agreement will depend, among other things, on our ability to work cooperatively with Total and to reach agreement with Total on the terms of future joint ventures for the commercialization of our products. We may not be able to do so. In addition, 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. Further, the agreement is complex and covers a range of future activities, and disputes may arise between us and Total that could delay the programs on which we are working or could prevent the commercialization of products developed under our collaboration agreement. 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.

If our joint venture production facility with Usina São Martinho in Brazil does not successfully commence operations in the second quarter of 2012, our customer relationships, business and results of operations may be adversely affected.

We have selected Brazil as the optimal geography for the initial commercial production of our products, largely because of the availability of sugarcane as a feedstock and the existing infrastructure for producing, gathering and processing this sugarcane. Our business plan envisions that we will develop our production capacity in Brazil by demonstrating to existing sugar and ethanol producers the economic advantages of producing our products in addition to, or in lieu of, their current products. In order to have control over the development of our first commercial production facility in Brazil, we entered into an agreement with Usina São Martinho, one of the largest sugar and ethanol producers in Brazil, for the joint ownership and development of a production facility at the Usina São Martinho mill.

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In order for our production facility at Usina São Martinho to meet our goal of commencing production in the second quarter of 2012, we must successfully complete the designs and other plans needed for the construction of this facility and secure in a timely manner the requisite permits, licenses and other governmental approvals in Brazil for doing so. Issuance of permits is subject to government review and may require, among other conditions, modification of plans or remediation of environmental impacts at the Usina São Martinho site. Construction of the facility must also be completed on a timely basis and within the budget. Once the facility is operational, it must perform as we have designed it. If we encounter significant delays, cost overruns, engineering problems, equipment supply constraints or other serious challenges in bringing this facility online, we may be unable to produce our initial renewable products in the time frame we have planned, or we may continue to use contract manufacturing sources, which would reduce our expected gross margins. Further, if our efforts to complete, and commence production at, this facility 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 joint venture with Usina São Martinho contemplates that we will make significant capital expenditures and subjects us to certain legal and financial terms that could adversely affect us.

The terms of our joint venture with Usina São Martinho are complex and are set forth in agreements that include several schedules that the parties anticipate will be converted into definitive agreements. If we and Usina São Martinho are unable to complete the agreements contemplated by these schedules, our ability to commence operations under the joint venture will be delayed and may never occur. Further, if we and Usina São Martinho disagree over the interpretation of the joint venture documents, the future success of the joint venture may be impaired and any amount that we have invested in it may be at risk.

The construction of the facility at Usina São Martinho will be the first project of this nature which we will design and manage. We expect the construction costs of the new facility to total between $80 million to $100 million. Under the terms of our joint venture agreements, construction of the production facility will take place in two phases. Phase I is designed to construct a facility capable of producing farnesene from up to one million tons of crushed sugarcane and Phase II will add capacity of up to a second million tons. Within one year of the commencement of Phase I commercial operations, Usina São Martinho will be required to reimburse us for half of the cost of Phase I, up to a cap of 30.9 million reais ($17.6 million based on the exchange rate at July 30, 2010). Thereafter, Usina São Martinho will co-fund the construction of Phase II and, as necessary, make a final payment at completion such that their total contribution will be 61.8 million reais ($35.1 million based on the exchange rate at July 30, 2010) or, if lower, an amount equal to one-half of the aggregate cost of construction of both phases.

The difference in the amounts and timing of our capital contributions relative to Usina São Martinho s could leave us vulnerable in the event we encounter challenges in building the facility or bringing it online, delays in achieving commercial viability with our farnesene production process, disputes with Usina São Martinho or other unanticipated events that may occur prior to the time Usina São Martinho makes its capital contribution. In addition, because Usina São Martinho s contribution is capped, we will bear the responsibility for construction costs in excess of those anticipated.

The joint venture is managed by a three member executive committee, to which we appoint two members, including the plant director who is the most senior executive. The executive committee is responsible for managing the construction and operation of the production facility. The joint venture is governed by a four member board of directors, to which we and Usina São Martinho each appointed two members. The board of directors has certain protective rights which include final approval of the engineering designs and project work plan developed and recommended by the executive committee. If our directors and the Usina São Martinho directors fail to reach agreement on approval of the engineering designs or project work plans, construction of the facility could be delayed or terminated. Further, Usina São Martinho has the right to terminate the joint venture under certain circumstances. If the joint venture is terminated, we would be required to buy the joint venture s

assets at fair value and transfer them to another location. In that event, we could incur significant unexpected costs and be required to find alternative locations for our facility, which would substantially delay the commencement of production.

Under the terms of the joint venture agreements, 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. 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 shall 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 would no longer be involved in the joint venture s management.

The joint venture has agreed to purchase, and Usina São Martinho has agreed to provide, feedstock for a price that is based on the average return that Usina São Martinho could receive from the production of its current products, sugar and ethanol. If the cost of these products increases relative to the price at which we can sell the output that we are required to purchase from the joint venture, our return on sales of products produced by the joint venture would be adversely affected. 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. Finally, 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.

We consolidate our joint venture with Usina São Martinho in accordance with the guidance for consolidation of variable interest entities, which requires an ongoing assessment of whether we have the power to direct the activities that most significantly impact the joint venture s economic performance. We may be unable to consolidate this joint venture in the future, if we no longer meet the requirements for consolidation as a variable interest entity.

We plan to enter into arrangements with Brazilian sugar and ethanol producers to produce our products, and if we are not able to complete these arrangements in a timely manner and on terms favorable to us, our business will be adversely affected.

To expand our production in Brazil beyond that of our initial production facility with Usina São Martinho, we intend to enter into agreements with sugar and ethanol producers in Brazil that require them to make a substantial capital or operating contribution to produce our renewable products. In return, we expect to provide them with a share of the higher gross margin we believe we will realize from the sale of these products relative to their existing products. There can be no assurance that a sufficient number of Brazilian sugar and ethanol mill owners will accept the opportunity to partner with us for the production of our products, whether on those terms or at all. Reluctance on the part of mill owners may be caused, for example, by their failure to understand our technology or product opportunities or agree with the greater economic benefits that we believe they can achieve from partnering with us. Mill owners may also be reluctant or unable to obtain needed capital, or they may be limited by existing contractual obligations with other third parties, liability, health and safety concerns, and additional maintenance, training, operating and other ongoing expenses. We have entered into letters of intent with three Brazilian sugar and ethanol producers to produce our products and Usina São Martinho has the option for production at a second mill, but these do not bind either the mill owner or us to enter into and proceed with a formal relationship. There are numerous issues regarding these mill relationships that must be successfully negotiated with each of the mill owners and we may not be successful in completing these negotiations. Even if sugar and ethanol producers are willing to build new facilities and produce our products, they may do so only on economic terms that place more of the cost, or confer less of the economic return, on us than we currently

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anticipate. If we are not successful in negotiations with sugar and ethanol mill owners, our cost of gaining this production capacity may be higher than we anticipate in terms of up-front costs, capital expenditure or lost future returns, and we may not gain the production base that we need in Brazil to allow us to grow our business.

Building new, bolt-on facilities adjacent to existing sugar and ethanol mills for production of our products requires significant capital, and if mill owners are unwilling to contribute capital, or do not have or have access to this capital, production of our products would be more limited or more expensive than expected and our business would be harmed.

We expect to expand our production capacity using a capital light approach, through which mill owners would invest a substantial portion or all of the capital needed to build our bolt-on production facilities, in exchange for a share of the higher gross margin from the sale of our renewable chemicals and fuels, as compared to their current products. Mill owners may perceive this construction as a costly process requiring substantial capital or operating contribution. Mill owners may not have sufficient capital of their own for this purpose or may not be willing or able to secure financing. As a result, they may choose not to contribute the amount of capital that we anticipate or may need to seek external sources of financing, which may not be available. If the mill owner needs to obtain financing through debt, we may be required to provide a guarantee.

Even if sugar and ethanol producers are attracted to the opportunity, they may not attract the credit that they need or want to do so. In the past, Brazil has experienced very high rates of inflation, and the government s measures to control inflation have often included maintaining a tight monetary policy with high interest rates, restricting the availability of credit. Limitations in the credit markets that would impede or prevent this kind of financing could adversely affect our ability to develop the production capacity needed to allow us to grow our business.

Our strategy of relying on existing Brazilian sugar and ethanol producers to produce our products will make us substantially dependent on these owners, and they may not perform their obligations under agreements with us or otherwise perform to our standards.

Even if we reach agreements with Brazilian sugar and ethanol producers to produce our products, initially the mill owners will be unfamiliar with our technology and production processes. We cannot be sure that the owners will have or develop the operational expertise needed to run the additional equipment and processes required to produce our products. Further, we may have limited control over the application of our specifications and quality requirements and the amount or timing of resources that any mill owner is able or willing to devote to production of our products. Mill owners may fail to perform their obligations as expected or may breach or terminate key terms of their agreements with us, such as the obligation to provide the agreed-upon amount of sugarcane feedstock for the production of our products. Moreover, disagreements with one or more mill owners could develop, and any conflict with a mill owner could negatively impact our relationship, and reduce our ability to enter into future agreements, with other sugar and ethanol mill owners. Furthermore, the sugar and ethanol mills may be subject to unanticipated disruptions to operations such as unscheduled down times, operational hazards, equipment failures, labor disruptions, land reform movements, political disruptions and natural disasters, thus preventing or delaying the production of our products. If our sugar and ethanol mill partners in Brazil fail to successfully operate the production facilities for our products, or terminate their relationships with us, such operational difficulties could adversely impact the timely and efficient production of our products. As a result, our business, results of operations and financial condition could be harmed.

Our reliance on contract manufacturers to produce our products during construction of our Usina São Martinho joint venture production facility and periodically for additional short-term production capacity exposes us to risks relating to the price and availability of that contract manufacturing and could adversely affect our growth.

We anticipate commencing production of certain of our products in 2011 through the use of contract manufacturers or collaboration partners prior to the time that our joint venture facility in Brazil is ready to

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commence production. Similarly, as we grow and look to bring new facilities on line, it is possible that there will be periods when the demand for our products exceeds our production capacity. We intend to seek to enter into relationships with contract manufacturers for these purposes. We cannot be sure that contract manufacturers with this capacity will be available when we need their services, that they will be willing to dedicate a portion of their production capacity to our products or that we will be able to reach acceptable price and other terms with them for the provision of their production services. If we are unable to secure the services of such third parties when and as needed, we may lose customer opportunities and the growth of our business may be impaired. In addition, we expect that our costs to produce products using contract manufacturers will be higher than the costs to produce our products in sugar and ethanol mills with which we have entered into long term relationships.

The production of our products will require sugar feedstock, and the inability to obtain such feedstock in sufficient quantities or in a timely manner may limit our ability to produce our products.

We anticipate that the production of our products will require large volumes of feedstock, initially Brazilian sugarcane. We cannot predict the future availability of such feedstock or be sure that our mill partners, which we expect to supply the sugarcane necessary to produce our products, will be able to supply it in sufficient quantities or in a timely manner. Crop yields and sugar content depend on weather conditions, such as rainfall and temperature, that vary. 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 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 sugarcane growth, potentially rendering useless or unusable all or a substantial portion of affected harvests. The limited amount of time during which sugarcane 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 Brazilian sugarcane production is adversely affected by these or other conditions, our ability to produce our products will be impaired, and our business will be adversely affected.

An increase in the price and profitability of ethanol and sugar relative to our products could adversely affect our arrangements with sugar and ethanol producers.

In order to induce owners of sugar and ethanol facilities to produce our products, we plan to compensate them for the feedstock consumed in the production of our products in an amount equal to the revenue they would have realized had they instead produced their traditional products, plus any incremental costs incurred in the production of our products over their usual production costs. Finally, as we sell our products, we expect to share a portion of the realized gross margin with these mill owners. An increase in the price of ethanol or sugar relative to the price at which we can sell our products could result in the cost of our products increasing without a corresponding increase in the price at which we can sell our products. In this event our results of operations would be adversely affected. If ethanol prices are sufficiently high so that the return from converting a given amount of sugarcane to ethanol exceeds the return from converting that amount of sugarcane into our products, then we will have to compensate the mill owner for that loss or risk the mill owner reverting to the production of ethanol and not produce our products at all.

Many factors could cause this unfavorable price dislocation. If sugar prices increase over a sustained period of time, this may encourage sugar production at the expense of ethanol in mills with flexibility to produce both products, which in turn could cause domestic prices in Brazilian reais for ethanol to increase. In addition, the Brazilian government currently requires the use of anhydrous ethanol as a gasoline additive. Any change in these government policies could affect ethanol demand in a way that discourages mill owners from producing our products.

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

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

Most of our planned initial production capacity will be 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. In the past, the Brazilian economy was characterized by frequent and occasionally extensive intervention by the Brazilian government and unstable economic cycles. 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. For example, the Brazilian government may take actions to support state-controlled entities in our industry that could adversely affect us. 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.

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

The upcoming Brazilian presidential and parliamentary elections in October 2010 and political and economic transition in Brazil may result in policy changes that could have a material adverse impact on our operations.

We cannot predict whether the current or future Brazilian government will implement changes to existing policies on taxation, exchange controls, monetary strategy and social security, among others. We cannot estimate the impact of any such changes on the Brazilian economy or our operations.

We may face risks relating to the use of our genetically modified yeast strains and if we are not able to secure regulatory approval for the use of our yeast strains or if we face public objection to our use of them, our business could be adversely affected.

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 from the GMMs. While the strain of genetically modified yeast that we currently use for the development and anticipate using for the commercial production of our target molecules, *S. cerevisiae*, is eligible for exemption from EPA review because it is recognized as posing a low risk, we must satisfy certain criteria to achieve this exemption, including but not limited to use of compliant containment structures and safety procedures, and we cannot be sure that we will meet such criteria in a timely manner, or at all. If exemption of *S. cerevisiae* is not obtained, our business may be substantially harmed.

In addition to *S. cerevisiae*, we may seek to use different GMMs in the future that will require EPA approval. If approval of different GMMs is not secured, our ability to grow our business could be adversely affected.

In Brazil, GMMs are regulated by the National Biosafety Technical Commission, or CTNBio. We have obtained approval from CTNBio to use GMMs in a contained environment in our Campinas facilities for research and development purposes. 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, 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.

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 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 a pre-manufacture notice must be filed with the

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EPA for a review period of up to 180 days including extensions. Some of the products we produce or plan to produce, such as farnesene and squalane, are already in the TSCA inventory. Others, such as our lubricants, diesel and jet fuel, 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). We similarly need to register our products 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 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 California Air Resources Board in the U.S. and Agencia Nacional do Petroleo, or ANP, in Brazil. To date, we have obtained registration with the EPA for the use of our diesel in the U.S. at a 20% blend rate with petroleum diesel. We are currently seeking supplemental EPA registration for a 35% blend rate and working to secure ANP approval for use of our diesel in Brazil at a 10% blend rate. We are currently in process of registration of our fuel with the California Air Resources Board and the European Commission. Registration with each of these bodies is required for the sale and use of our fuels within their respective jurisdictions.

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.

We cannot assure you that our products will be approved or accepted by customers in specialty chemical markets.

The markets we intend to enter first are 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 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.

If we are unable to satisfy the significant product certification requirements of equipment manufacturers, we may not be able to successfully enter markets for transportation fuels, and our business would be adversely affected.

In order for our diesel fuel product to be accepted in various countries around the world, diesel engine manufacturers must certify that the use of our fuels in their equipment will not invalidate product warranties and that they otherwise regard our diesel as an acceptable fuel. In addition, we must successfully demonstrate to these manufacturers that our fuel does do not degrade the performance or reduce the lifecycle 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 products have 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. Although our diesel fuel satisfies existing pipeline operator and fuel distributor

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requirements, such fuel has not been reviewed nor transported by such operators as of this date. 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 will be subject to the same types of qualification requirements as our diesel fuel, although we believe the qualification process will take longer and will be more expensive than the process for diesel.

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

We currently incur some costs and expenses in Brazilian 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 faced frequent and substantial exchange rate fluctuations in relation to the U.S. dollar and other foreign currencies. For example, the real appreciated 12.3%, 8.7% and 17.0% against the U.S. dollar in 2005, 2006, and 2007 respectively. As a result of the global financial crisis in mid-2008, the real depreciated 31.9% against the U.S. dollar. In 2009, due in part to the recovery of the Brazilian economy at a faster rate than the global economy, the real once again appreciated 25% against the U.S. dollar. In the first half of 2010, the real depreciated 4.4% against the U.S. dollar. There can be no assurance that the real will not significantly appreciate or depreciate against the U.S. dollar in the future.

We bear the risk that the rate of inflation in the foreign countries where we incur costs and expenses or the decline in value of the U.S. dollar compared to those foreign currencies will increase our costs as expressed in U.S. dollars. Future measures by the Central Bank of Brazil to control inflation, including interest rate adjustments, intervention in the foreign exchange market and changes to the fixed the value of the real, may trigger increases in inflation. Whether in Brazil or otherwise, we may not be able to adjust the prices of our products to offset the effects of inflation on our cost structure, which could increase our costs and reduce our net operating margins. If we do not successfully manage these risks through hedging or other mechanisms, our revenues and results of operations could be adversely affected.

We 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. Amyris Fuels competes with other distributors in buying and selling third party ethanol and ethanol-blended gasoline.

In the specialty chemical markets that we will seek to enter initially, 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 other 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. These 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

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expect to compete with companies which 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.

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 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.

Amyris Fuels currently competes with regional distributors in its purchase, distribution and sale of third party ethanol and ethanol-blended gasoline in the southeastern U.S. and competes with other suppliers based on price, convenience and reliability of supply.

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 their 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.

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

Our technology provides us with the capability to genetically engineer microbes to produce potentially thousands of molecules. In order to grow our business over time we will need to, and we intend to, commit substantial resources, alone or with collaboration partners, to the development and analysis of these new molecules and the new pathways, or microbial strains, required to produce them. There is no guarantee that we will be successful in creating microbial strains that are capable of producing each target molecule. For example, some target molecules may be toxic to the microbe, which means that the production of the molecule kills the microbe. Other molecules may be biologically producible in small amounts but cannot be produced in quantities adequate for commercial production. In addition, some of our microbes may have longer production cycles that may make production of the target molecules more costly. If we are unable to resolve issues of this nature, we may not be able to expand our product line to introduce new sources of future revenues.

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. For example, in 2007, the U.S. Congress passed an alternative fuels mandate that currently calls for 13 billion gallons of liquid transportation fuels sold in 2010 to come from alternative sources, including renewable fuels, a mandate that grows to 36 billion gallons by 2022. Of this amount, a minimum of 21 billion gallons must be advanced biofuels. In the U.S. and in a number of other countries, these regulations and policies 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 may cause demand for biofuels to decline and deter investment in the research and development of renewable fuels. In addition, the U.S. Congress has passed legislation that extends tax credits to blenders of certain renewable fuel products. However, there is no assurance that this or any other favorable legislation will remain in place. For example, the biodiesel tax credit expired in December 2009, and its extension was not approved until March 2010. Any reduction in, or phasing out or elimination of existing tax credits, subsidies and other incentives in the U.S. and foreign markets for renewable fuels, or any inability of our customers to access such credits, subsidies and incentives, may adversely affect demand for our products and increase the overall cost of commercialization of our renewable fuels, which would adversely affect our renewable fuels business. In addition, market uncertainty regarding future 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, are receiving legislative, industry and public attention. This 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 or the business of our partners or customers, 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 sugarcane, restrict our ability to use sugarcane to produce our products, and negatively impact our future revenues and results of operations.

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

We use hazardous chemicals and radioactive and biological materials in our business and 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 waste products in an effort to comply with these laws and regulations, we cannot be sure that our safety measures are compliant or capable of eliminating the risk of 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.

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

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

- achievement, or failure to achieve, technology or product development milestones needed to allow us to enter identified markets on a cost effective basis;
- delays or greater than anticipated expenses associated with the completion of new production facilities, and the time to complete scale-up of production following completion of a new production facility;
- disruptions in the production process at any facility where we produce our products;
- the timing, size and mix of sales to customers for our products;
- increases in price or decreases in availability of our feedstocks;
- the unavailability of contract manufacturing capacity altogether or at anticipated cost;
- fluctuations in foreign currency exchange rates;
- gains or losses associated with our hedging activities, especially in Amyris Fuels;

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

seasonal production and sale of our products;

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

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

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

departure of executives or other key management employees;

our ability to use our net operating loss carry forwards to offset future taxable income;

business interruptions such as earthquakes and other natural disasters;

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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.

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

Disruption of transportation and logistics services or insufficient investment in public infrastructure could adversely affect our business.

We initially intend to manufacture most of our renewable products in Brazil, where existing transportation infrastructure is underdeveloped. Substantial investments required for infrastructure changes and expansions may not be made on a timely basis or at all. Any delay or failure in making the changes to or expansion of infrastructure could harm demand or prices for our renewable products and impose additional costs that would hinder their commercialization.

In Brazil, a substantial portion of commercial transportation is by truck, which is significantly more expensive than the rail transportation available to U.S. and certain other international producers. Our dependence on truck transport may affect our production cost and, consequently, impair our ability to compete with petroleum-sourced products in local and world markets.

We may require additional financing for future growth and may not be able to obtain such financing on favorable terms, if at all.

We will continue to fund our research and development and related activities and to provide working capital to fund production, storage, distribution and other aspects of our business. In addition, we plan to make significant capital expenditures in connection with our contract manufacturing arrangements and our joint venture with Usina São Martinho and other potential mill arrangements. While we plan to enter into relationships with sugar and ethanol producers for them to provide some portion or all of the capital needed to build the new, adjacent bolt-on production facility, we may determine that it is more advantageous for us to provide some portion or all of the financing that we currently expect to be provided by these owners.

If our capital resources are insufficient to meet our capital requirements, we will have to raise additional funds. If future financings involve the issuance of equity securities, our existing stockholders would suffer dilution. If we are able to raise additional debt financing, we may be subject to restrictive covenants that limit our ability to conduct our business. We may not be able to raise sufficient additional funds on terms that are favorable to us, if at all. If we fail to raise sufficient funds and continue to incur losses, our ability to fund our operations, take advantage of strategic opportunities, develop and commercialize products or technologies, or otherwise respond to competitive pressures could be significantly limited. If this happens, we may be forced to delay or terminate research and development programs or the commercialization of products resulting from our technologies, curtail or cease operations or obtain funds through collaborative and licensing arrangements that may require us to relinquish commercial rights, or grant licenses on terms that are not favorable to us. If adequate funds are not available, we will not be able to successfully execute our business plan or continue our business.

Our fuels marketing and distribution business depends, and will depend for the foreseeable future, on purchasing and reselling ethanol produced by third parties and ethanol-blended gasoline, which may not be available to us on favorable terms or at all and which we may be unable to resell.

Amyris Fuels currently purchases and sells ethanol and ethanol-blended gasoline under short-term agreements and in spot transactions. In the future, we plan to continue the purchase and sale of ethanol and ethanol-blended gasoline and to hedge the price volatility of ethanol and gasoline using futures contracts. We

cannot predict future market prices or other terms of any supply contracts that Amyris Fuels may enter into. We cannot assure you that Amyris Fuels will be able to purchase ethanol and gasoline at favorable prices, allowing our ethanol and ethanol-blended gasoline marketing activities to be profitable. In addition, there can be no guarantee that futures contracts to hedge the risks from the purchase and sale of ethanol and gasoline will effectively mitigate risk as intended, that such hedging instruments will always be available, or that counterparties to such hedging contracts will honor their obligations. As a result of these pricing and hedging uncertainties, Amyris Fuels may incur operating losses, harming our results of operations and financial condition. If Amyris Fuels is unable to conduct sales of ethanol and ethanol-blended gasoline on favorable volume, price and other terms, our results of operations and financial condition will be harmed.

The success of our fuels marketing and distribution business depends on our ability to expand our access to financial and infrastructure assets.

In June 2008, we began to distribute ethanol produced by third parties in the U.S. through our wholly-owned subsidiary, Amyris Fuels. In July 2010, Amyris Fuels also began to distribute ethanol-blended gasoline. Amyris Fuels currently has secured access to certain terminal and other storage capacity for ethanol and gasoline, and it engages providers of transportation and transloading services for the movement of ethanol and gasoline. If Amyris Fuels is unable to access sufficient terminal and other storage capacity and/or to obtain transportation and transloading services on favorable terms, its business will be substantially harmed, which will reduce our future revenues and adversely affect our results of operations and financial condition.

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

We have experienced, and may 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 221 employees at the end of 2009 and 278 at the end of July 2010. We work simultaneously on multiple projects to develop, produce and commercialize several types of renewable chemicals and fuels. 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:

- 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 harmed.

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 will require us and our independent registered public accounting firm to evaluate and report on our internal control over financial reporting beginning with our Annual Report on Form 10-K for the year ending December 31, 2011. The process of implementing our internal controls and complying with Section 404 will be expensive and time consuming, and will require significant attention of

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management. We cannot be certain that these measures will ensure that we implement and maintain adequate controls over our financial processes and reporting in the future. 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, a delay in compliance with Section 404 could subject us to a variety of administrative sanctions, including Securities and Exchange Commission, or SEC, action, ineligibility for short form resale registration, the suspension or delisting of our common stock from the stock exchange on which it is listed and the inability of registered broker-dealers to make a market in our common stock, which would further reduce our stock price and could harm our business.

Our 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. To date, we have 27 issued U.S. and foreign patents and 197 pending U.S. and foreign patent applications that are 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, certain key U.S. patents were obtained 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.

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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 scale-up of production would require us to share confidential information with our Brazilian business partners and other parties. Our product development collaborations with third parties, including with Total Gas & Power USA Biotech, Inc., require us to share confidential information, including with employees of Total who may be 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. We may employ approaches to trade secret protection that are 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.

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Third parties may misappropriate our yeast strains.

Third parties, including sugar and ethanol mill owners, contract manufacturers, 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 with limited intellectual property protection.

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

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

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 competitor 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, we may have 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 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. 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.

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. 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 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 fuels area, or due to the availability of personnel with the qualifications or experience necessary for our business. If we are not able to attract and retain 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. In particular, our product and process development programs are dependent on our ability to attract and retain highly skilled technical and operational personnel. Competition for such personnel from numerous companies and academic and other research institutions may limit our ability to do so on acceptable terms. All of our employees are at-will employees, which means that either the employee or we may terminate their employment at any time.

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As we expand our operations, we will need to hire additional qualified research and development and management personnel to succeed. The process of hiring, training and successfully integrating qualified personnel into our operation 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. 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.

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. 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 sugar and ethanol mills who produce our products in Brazil. Insurance coverage is expensive, may be difficult to obtain and may not be available in the future on acceptable terms. We cannot assure you that our contract manufacturers or the sugar and ethanol producers who produce our products will have adequate insurance coverage to cover against potential claims. This insurance may not provide adequate coverage against potential losses, and if claims or losses exceed our liability insurance coverage, we may go out of business. 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.

Our ability to use our net operating loss carry forwards 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 carry forwards, or NOLs, to offset future taxable income. If the Internal Revenue Service challenges our analysis that our existing NOLs are not subject to limitations arising from previous ownership changes, or if we undergo an ownership change in connection with or after this public offering, 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 reflected on our balance sheet, even if we attain profitability.

Loss of our government grant funding could impair our research and development efforts.

We have been awarded a $24.3 million Integrated Bio-Refinery grant from the U.S. Department of Energy, or DOE. The terms of this grant make the 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

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renewable fuels and chemicals derived from sweet sorghum. Generally, government grant agreements have fixed terms and may be terminated, modified or recovered by the granting agency under certain conditions. If the DOE later terminates its grant agreement with us, our U.S.-based research and development activities could be impaired, which could harm our business.

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

We conduct our primary research and development operations in the San Francisco Bay Area in an active earthquake 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 this Offering and Ownership of Our Common Stock

An active trading market for our common stock may not develop, and you may not be able to resell your shares at or above the initial public offering price.

Prior to this offering, there has been no public market for shares of our common stock. Although we will apply to have our common stock approved for quotation on a stock exchange, an active trading market for our shares may never develop or be sustained following this offering. The initial public offering price of our common stock will be determined through negotiations between us and the underwriters. This initial public offering price may not be indicative of the market price of our common stock after this offering. In the absence of an active trading market for our common stock, investors may not be able to sell their common stock at or above the initial public offering price or at the time that they would like to sell.

Our stock price may be volatile, and the market price of our common stock after this offering may drop below the price you pay.

The market price of our common stock could be subject to significant fluctuations after this offering and it may decline below the initial public offering price. Market prices for securities of early stage companies have historically been particularly volatile. As a result of this volatility, you may not be able to sell your common stock at or above the initial public offering price. Such fluctuations could be in response to, among other things, the factors described in this Risk Factors section or elsewhere in this registration statement, 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;

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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, the 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 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.

We will incur increased costs and demands upon management as a result of complying with the laws and regulations affecting public companies, which could harm our results of operations.

As a public company, we will incur significant additional accounting, legal and other expenses that we did not incur as a private company, including costs associated with public company reporting requirements. We also have incurred and will incur costs associated with corporate governance requirements, including requirements under Section 404 and other provisions of the Sarbanes-Oxley Act, as well as rules implemented by the SEC and the exchange on which we list our common stock. The expenses incurred by public companies for reporting and corporate governance purposes have increased dramatically in recent years. We expect these rules and regulations to substantially increase our financial and legal compliance costs. We also expect that as we become a public company it will be more difficult and more expensive for us to obtain director and officer liability insurance, and we may be required to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage previously available. As a result, it may be more difficult for us to attract and retain qualified individuals to serve on our Board of Directors or as our executive officers.

The concentration of our capital stock ownership with insiders upon the completion of this offering will limit your ability to influence corporate matters.

We anticipate that our executive officers, directors, current five percent or greater stockholders and entities affiliated with them will together beneficially own approximately % of our common stock outstanding after this offering. A single stockholder Total Gas & Power USA, SAS (Total) will hold approximately % of our common stock outstanding after this offering, assuming an initial public offering price of $, which is the midpoint of the price range set forth on the cover page of this prospectus. 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.

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A significant portion of our total outstanding shares may be sold into the public market in the near future, which could cause the market price of our common stock to drop significantly, even if our business is doing well.

Sales of a substantial number of shares of our common stock in the public market could occur at any time after the expiration of the lock-up agreements described in the Underwriters and Shares Eligible for Future Sale Lock-Up Agreements sections of this prospectus. These sales, or the market perception that the holders of a large number of shares intend to sell shares, could reduce the market price of our common stock. After this offering, we will have shares of common stock outstanding based on the number of shares outstanding as of June 30, 2010, including the shares of common stock issuable upon conversion of our Series D preferred stock sold after June 30, 2010 (assuming an initial offering price of $, which is the midpoint of the price range on the cover of this prospectus) and assuming the conversion of all shares of Amyris Brasil held by investors into shares of our common stock and no exercise of outstanding options or warrants after June 30, 2010. This includes the shares that we are selling in this offering, which may be resold in the public market immediately. The remaining 35,133,225 shares, or % of our outstanding shares after this offering, are currently restricted as a result of securities laws or lock-up agreements but will be able to be sold, subject to any applicable volume limitations under federal securities laws, in the near future as set forth below:

- 89,872 shares will be eligible for sale immediately upon completion of this offering;
- 35,043,353 shares will be eligible for sale upon the expiration of 180-day lock-up and/or market standoff agreements, subject in some cases to the volume and other restrictions of Rule 144 and Rule 701 promulgated under the Securities Act of 1933, as amended, or the Securities Act, and upon the lapse of our right of repurchase with respect to any unvested shares; and

The lock-up agreements expire 180 days after the date of this prospectus, except that the 180-day period may be extended in certain cases for up to 34 additional days under certain circumstances where we announce or pre-announce earnings or a material event occurs within approximately 17 days prior to, or approximately 16 days after, the termination of the 180-day period. The representatives of the underwriters may, in their sole discretion and at any time without notice, release all or any portion of the securities subject to lock-up agreements.

Following this offering, holders of 34,266,433 of the shares of our common stock (including shares issuable upon exercise of certain stock options) not sold in this offering and holders of warrants to purchase an aggregate of 24,101 shares of common stock not sold in this offering will be entitled to rights with respect to the registration of these shares under the Securities Act. See Description of Capital Stock Registration Rights. If we register their shares of common stock following the expiration of the lock-up agreements, these stockholders could sell those shares in the public market without being subject to the volume and other restrictions of Rule 144 and Rule 701.

After the closing of this offering, we intend to register approximately 11,711,327 shares of common stock that have been reserved for issuance under our stock incentive plans. Of these shares, approximately 3,435,220 shares will be eligible for sale upon the exercise of outstanding options that will be vested after the expiration of the lock-up agreements.

Purchasers in this offering will experience immediate and substantial dilution in the book value of their investment.

The assumed initial public offering price of our common stock is substantially higher than the net tangible book value per share of our outstanding common stock immediately after this offering. Therefore, if you purchase our common stock in this offering, you will incur immediate dilution of approximately $ in net tangible book value per share from the price you paid. In addition, investors purchasing common stock in this offering will own only approximately % of our shares outstanding after this offering even though they will have contributed % of the total consideration received by us in connection with our sales of common stock. Moreover, we issued options and

warrants in the past to acquire our stock at prices significantly below the

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assumed initial public offering price. As of July 30, 2010, 6,252,456 shares of common stock were issuable upon exercise of outstanding stock options with a weighted average exercise price of $5.90 per share. As of July 30, 2010, warrants to purchase 195,604 shares of common stock (assuming conversion of all shares of preferred stock into common stock as of July 30, 2010) were issuable upon exercise of outstanding warrants with a weighted average exercise price of $18.76 per share. To the extent that these outstanding options and warrants are ultimately exercised, you will incur further dilution. For a further description of the dilution that you will experience immediately after this offering, see the Dilution section of this prospectus.

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 may 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.

Our management will have broad discretion over the use of the proceeds we receive in this offering and might not apply the proceeds in ways that increase the value of your investment.

Our management will have broad discretion in the application of the net proceeds from this offering, and you will be relying on the judgment of our management regarding the application of these proceeds. Our management might not apply our net proceeds of this offering in ways that increase the value of your investment. We expect to use the net proceeds to us from this offering for working capital, and other general corporate purposes, which may in the future include expansion of production facilities, investments in, or acquisitions of, complementary businesses, joint ventures, partnerships, services or technologies. Our management might not be able to yield a significant return, if any, on any investment of these net proceeds. You will not have the opportunity to influence our decisions on how to use our net proceeds from this offering.

After the completion of this offering, we do not expect to declare any dividends in the foreseeable future.

After the completion of this offering, we do not anticipate declaring any cash dividends to holders of our common stock in the foreseeable future. In addition, our equipment lease with TriplePoint Capital LLC and our letter of credit facility 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 amended and restated certificate of incorporation and our amended and restated bylaws to be effective upon the completion of this offering will 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;

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prohibiting stockholder action by written consent;

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

not authorizing our stockholders to call a special stockholder meeting;

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 an amendment of our certificate of incorporation, but, following the amendment, our certificate of incorporation will contain 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 15 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 10 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 to be effective upon the completion of this 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. See Description of Capital Stock Preferred Stock and Description of Capital Stock Anti-Takeover Provisions.

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements. All statements, other than statements of historical facts contained in this prospectus, including statements regarding our future results of operations and financial position, business strategy and plans and objectives of management for future operations, are forward-looking statements. In many cases, you can identify forward-looking statements by terms such as may, will, should, expect, plan, anticipate, could, intend, target, project, contemplate, believe, estimate, predict, potential, con

These forward-looking statements are only predictions. These statements relate to future events or our future financial performance and involve known and unknown risks, uncertainties and other important factors that may cause our actual results, levels of activity, performance or achievements to materially differ from any future results, levels of activity, performance or achievements expressed or implied by these forward-looking statements. We have described in the Risk Factors section and elsewhere in this prospectus the principal risks and uncertainties that we believe could cause actual results to differ from these forward-looking statements. Because forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified, you should not rely on these forward-looking statements as guarantees of future events.

In particular, forward looking statements in this prospectus include statements about:

- achievement of advances in our technology platform, including yield;
- target molecules we intend to produce from our synthetic biology platform;
- the expected applications of our molecules and addressable markets;
- the expected cost-competitiveness and relative performance attributes of our products, including our ability to earn positive gross margins with current yields and other production process efficiencies;
- timing of commercial sales of our products;
- the acceptance and success of our capital light model for production of our products at sugar and ethanol mills;
- the timing and capacity of manufacturing available to us, including from contract manufacturing partners, our joint venture with Usina São Martinho and sugar and ethanol mill owners;
- our ability to achieve approximately 600 million liters of farnesene production and high value product sales;
- government regulatory and industry certification approval and acceptance of our products and GMMs;

the availability of suitable and cost-competitive feedstock;

the commercial scale-up of our production;

our access to distribution infrastructure and services and chemical processing;

government policymaking and incentives relating to renewable fuels;

the future price and volatility of petroleum; and

our ability to manage operations in Brazil.

The forward-looking statements in this prospectus represent our views as of the date of this prospectus. We anticipate that subsequent events and developments will cause our views to change. However, while we may elect to update these forward-looking statements at some point in the future or to conform these statements to actual results or revised expectations, we have no current intention of doing so except to the extent required by applicable law. You should, therefore, not rely on these forward-looking statements as representing our views as of any date subsequent to the date of this prospectus.

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USE OF PROCEEDS

We estimate that our net proceeds from the sale of the common stock that we are offering will be approximately $ million, assuming an initial public offering price of $ per share, which is the midpoint of the price range listed on the cover page of this prospectus, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. A $1.00 increase (decrease) in the assumed initial public offering price of $ per share would increase (decrease) our net proceeds from this offering by approximately $ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. If the underwriters exercise their option to purchase additional shares in full, we estimate that our net proceeds will be approximately $ million after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

We expect to use the net proceeds from this offering for capital expenditures, working capital and general corporate purposes, including building engineering services capabilities to support sugar and ethanol mill conversion to integrate our technology and growing our chemistry capabilities to accelerate development of our chemical products. With regard to capital expenditures, we will bear the construction costs of Phase I of the facility to be completed under our joint venture agreements with Usina São Martinho, and Usina São Martinho will be required to reimburse us for a portion of these costs after commencement of commercial operations. We and Usina São Martinho will jointly fund the construction of Phase II of this facility, subject to certain limitations on Usina São Martinho s funding requirements. See Management s Discussion and Analysis of Financial Condition and Results of Operations Recent Developments for a further description of the joint venture, and Management s Discussion and Analysis of Financial Condition and Results of Operations Liquidity and Capital Resources for a discussion of our expectation of the amount that we will invest in the construction of the joint venture facility and the time period over which we will do so and for additional information about our anticipated use of cash resources. We expect to enter into agreements with owners of other sugar and ethanol mills for the construction of bolt-on facilities for the production of our products, and we anticipate that we will agree to fund a portion of these construction costs. The amount of our capital expenditures for future production facilities will be a function of the number of such facilities that we undertake to develop and the terms of our agreements with the mill owners related to the financing of these construction costs. We also anticipate that our capital expenditures will include expenditures for capital equipment purchases associated with contract manufacturing arrangements. We may also use a portion of the net proceeds to expand our business through acquisitions of other companies, assets or technologies. However, at this time, we do not have any commitment to any specific acquisitions.

Some of the other principal purposes of this offering are to create a public market for our common stock, increase our visibility in the marketplace and provide liquidity to existing stockholders. A public market for our common stock will facilitate future access to public equity markets and enhance our ability to sell our common stock as a means of attracting and retaining key employees and as consideration for acquisitions.

We will have broad discretion in the way that we use the net proceeds of this offering. The amounts that we actually spend for the purposes described above may vary significantly and will depend, in part, on the timing and amount of our future revenues, our future expenses and any potential acquisitions that we may propose. Pending the uses of the net proceeds of this offering, as described above, we intend to invest the net proceeds in investment-grade, interest-bearing securities. See Risk Factors Risks Related to This Offering and Ownership of our Common Stock Our management will have broad discretion over the use of the proceeds we receive in this offering and might not apply the proceeds in ways that increase the value of your investment.

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 and our letter of credit facility currently restrict our ability to pay dividends.

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CAPITALIZATION

The following table sets forth our cash and cash equivalents and capitalization as of June 30, 2010:

- on an actual basis;
- on a pro forma basis to reflect:
  - the conversion of all of our outstanding shares of convertible preferred stock into 29,000,821 shares of common stock upon the completion of this offering;
  - the conversion of 3,075,555 shares of Amyris Brasil held by third party investors in this subsidiary into 861,155 shares of our common stock at the completion of this offering;
  - the reclassification of the preferred stock warrant liability to additional paid-in capital immediately prior to the completion of this offering; and
  - the reclassification of redeemable noncontrolling interest to common stock and additional paid-in capital immediately prior to the completion of this offering.
- on a pro forma as adjusted to reflect the pro forma adjustments described above and the sale by us of shares of our common stock that we are offering at an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

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Our capitalization following the closing of this offering will be adjusted based upon the actual initial public offering price and other terms of the offering determined at pricing. In the event the actual initial public offering price is lower than $ per share, the shares of Series D preferred stock will convert into a larger number of shares of common stock; if the initial public offering price is equal to the midpoint of the range on the cover of this prospectus, the Series D preferred stock would convert into an additional shares of common stock. A $1.00 decrease in the initial public offering price would increase by , and a $1.00 increase in the initial public offering price would decrease by , the number of shares of common stock issuable upon conversion of the Series D preferred stock. If the actual initial public offering price is greater than $18.75 per share, we will be entitled to a cash payment from the purchaser of our Series D preferred stock; for every $1.00 per share in excess of $18.75 per share we would receive approximately $ million, to a maximum of approximately $14.3 million at an initial public offering price of $28.84 per share or above. You should read the following table together with our Consolidated Financial Statements and Management s Discussion and Analysis of Financial Condition and Results of Operations appearing elsewhere in this prospectus.

	As of June 30, 2010		
	Actual	Pro Forma	Pro Forma as Adjusted
	(in thousands, except share and per share data)		
	(Unaudited)	(Unaudited)	(Unaudited)
Cash, cash equivalents, investments and restricted cash	$ 220,060	$ 220,060	
Total indebtedness[1]	$ 12,848	$ 12,848	
Convertible preferred stock warrant liability	3,281		
Convertible preferred stock $0.0001 par value: 30,963,903 shares authorized, 28,487,517 shares issued and outstanding, actual; 30,963,903 shares authorized, no shares issued and outstanding, pro forma and pro forma as adjusted	391,411		
Redeemable noncontrolling interest	12,248		
Stockholders Equity (Deficit):			
Preferred stock $0.0001 par value: no shares authorized, issued and outstanding, actual; 5,000,000 shares authorized, no shares issued and outstanding, pro forma and pro forma as adjusted			
Common stock $0.0001 par value: 70,000,000 shares authorized, 5,271,249 shares issued and outstanding, actual; 70,000,000 shares authorized, 35,133,225 shares issued and outstanding, pro forma; and 100,000,000 shares authorized, shares issued and outstanding pro forma as adjusted	1	4	
Additional paid-in capital	9,758	416,695	
Accumulated other comprehensive income	916	916	
Accumulated deficit	(156,544)	(156,544)	
Noncontrolling interest	19	19	
Total equity (deficit)	(145,850)	261,090	
Total capitalization	$ 273,938	$ 273,938	

(1) Total indebtedness includes $7.4 million in capital lease obligations, $4.1 million in notes payable, a $1.0 million loan payable and a $0.3 million credit facility (see Note 5 and Note 6 to our Consolidated Financial Statements).

A $1.00 increase (decrease) in the assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) each of cash and cash equivalents, working capital, total assets and total stockholders deficit by $ million, assuming

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that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. Each increase of 1.0 million shares in the number of shares of common stock offered by us would increase each of cash and cash equivalents, working capital, total assets and total stockholders equity (deficit) by approximately $ million. Similarly, each decrease of 1.0 million shares in the number of shares offered by us would decrease each of cash and cash equivalents, working capital, total assets and total stockholders equity by approximately $ million. The pro forma as adjusted information discussed above is illustrative only and will be adjusted based on the actual public offering price and other terms of this offering.

If the underwriters option to purchase additional shares were exercised in full, pro forma as adjusted cash, cash equivalents, common stock and additional paid-in capital, stockholders equity (deficit) and shares issued and outstanding as of June 30, 2010, would be $ million, $ million, $ million and $ million.

The table above does not include:

- 6,275,730 shares of common stock issuable upon the exercise of stock options outstanding as of June 30, 2010, at a weighted average exercise price of $5.90 per share;
- 195,604 shares of common stock issuable upon the exercise of outstanding warrants as of June 30, 2010, that will remain outstanding after the completion of this offering through various dates from one year from the effective date of this offering to January 2017, with a weighted average exercise price of $18.76 per share;
- 138,342 shares reserved for issuance under our 2005 Stock Option/Stock Issuance Plan that are not issued or subject to outstanding awards;
- 31,568 shares of common stock subject to restricted stock units outstanding as of June 30, 2010;
- 4,200,000 shares of common stock reserved for future issuance under our 2010 Equity Incentive Plan, which will become effective upon the completion of this offering and will also include the shares reserved for issuance under our 2005 Stock Option/Stock Issuance Plan that are not issued or subject to outstanding grants at the completion of this offering and which will also contain provisions that will automatically increase its share reserve each year, as more fully described in Management Stock Option and Other Compensation Plans ; and
- 168,627 shares of common stock reserved for future issuance under our 2010 Employee Stock Purchase Plan, which will become effective upon the completion of this offering and will contain provisions that will automatically increase its share reserve each year, as more fully described in Management Stock Option and Other Compensation Plans.

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DILUTION

If you invest in our common stock in this offering, your ownership interest will be immediately diluted to the extent of the difference between the initial public offering price per share and the net tangible book value per share of our common stock after this offering. As of June 30, 2010, our net tangible book value was $ million, or $ per share of common stock, and our pro forma net tangible book value was $ million, or $ per share of our common stock. Pro forma net tangible book value per share represents the amount of our total tangible assets less our total liabilities, divided by the total number of shares of our common stock outstanding, after giving effect to the conversion at the completion of this offering of shares of Amyris Brasil held by investors in that subsidiary, the automatic conversion of all of our outstanding convertible preferred stock into shares of common stock upon the completion of this offering and the reclassification of preferred stock warrant liability to additional paid-in capital immediately prior to the completion of this offering.

After giving effect to the sale by us of shares of our common stock in this offering at an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us, our pro forma as adjusted net tangible book value as of June 30, 2010, would have been approximately $ million, or $ per share of our common stock. This amount represents an immediate increase in our pro forma net tangible book value of $ per share to our existing stockholders and an immediate dilution in our pro forma net tangible book value of $ per share to new investors purchasing shares of our common stock in this offering at the initial public offering price.

The following table illustrates this dilution on a per share basis:

Assumed initial public offering price per share	$
Pro forma net tangible book value per share as of June 30, 2010, before giving effect to this offering	
Increase in pro forma net tangible book value per share attributable to new investors	
Pro forma as adjusted net tangible book value per share after this offering	
Dilution per share to investors in this offering	$

A $1.00 increase (decrease) in the initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) our pro forma as adjusted net tangible book value per share after this offering by approximately $ and would increase (decrease) dilution per share to new investors by approximately $, assuming that the number of shares offered by us, as listed on the cover page of this prospectus, remains the same. In addition, to the extent any outstanding options or warrants are exercised, new investors will experience further dilution.

If the underwriters exercise their over-allotment option in full, the pro forma as adjusted net tangible book value will increase to $ per share, representing an immediate increase to existing stockholders of $ per share and an immediate dilution of $ per share to new investors.

The following table summarizes, as of June 30, 2010, the number of shares purchased or to be purchased from us, the total consideration paid or to be paid to us, and the average price per share paid or to be paid to us by existing stockholders and new investors purchasing shares of our common stock in this offering at an assumed initial public offering price of $ per share before deducting estimated underwriting

discounts and commissions and estimated offering expenses payable by us. As the table below shows, new investors purchasing shares of our common stock in this offering will pay an average price per share substantially higher than our existing stockholders paid.

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	Shares Purchased		Total Consideration		Average Price Per Share
	Number	Percent	Amount	Percent	
	(In thousands other than percentages and per share data)				
Existing stockholders		%	$	%	$
New investors					
Total		100%	$	100%	

A $1.00 increase (decrease) in the assumed initial public offering price of $ per share would increase (decrease) the total consideration paid to us by new investors by $ million and increase (decrease) the percent of total consideration paid to us by new investors by % assuming that the number of shares offered by us, as listed on the cover page of this prospectus, remains the same.

The number of shares purchased from us by existing stockholders is based on our common stock outstanding as of June 30, 2010, after giving effect to the conversion of all of our convertible preferred stock outstanding as of June 30, 2010 into common stock and the conversion of shares of Amyris Brasil outstanding as of June 30, 2010 held by third party investors in this subsidiary into shares of our common stock upon the completion of this offering. This number excludes:

- 6,275,730 shares of common stock issuable upon the exercise of stock options outstanding as of June 30, 2010, at a weighted average exercise price of $5.90 per share;
- 195,604 shares of common stock issuable upon the exercise of outstanding warrants as of June 30, 2010, that will remain outstanding after the completion of this offering through various dates from one year from the effective date of this offering to January 2017, with a weighted average exercise price of $18.76 per share;
- 138,342 shares reserved for issuance under our 2005 Stock Option/Stock Issuance Plan that are not issued or subject to outstanding awards;
- 31,568 shares of common stock subject to restricted stock units outstanding as of June 30, 2010;
- 4,200,000 shares of common stock reserved for future issuance under our 2010 Equity Incentive Plan, which will become effective upon the completion of this offering and will also include the shares reserved for issuance under our 2005 Stock Option/Stock Issuance Plan that are not issued or subject to outstanding grants at the completion of this offering and which will also contain provisions that will automatically increase its share reserve each year, as more fully described in Management Stock Option and Other Compensation Plans; and
- 168,627 shares of common stock reserved for future issuance under our 2010 Employee Stock Purchase Plan, which will become effective upon the completion of this offering and will contain provisions that will automatically increase its share reserve each year, as more fully described in Management Stock Option and Other Compensation Plans.

If all our outstanding stock options and outstanding warrants had been exercised as of June 30, 2010, our pro forma net tangible book value as of June 30, 2010, would have been approximately $ million or $ per share of our common stock, and the pro forma net tangible book value after giving effect to this offering would have been $ per share, representing dilution in our pro forma net tangible book value per

share to new investors of $.

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SELECTED CONSOLIDATED FINANCIAL DATA

The selected consolidated statement of operations data for the years ended December 31, 2007, 2008 and 2009 and the selected consolidated balance sheet data as of December 31, 2008 and 2009 are derived from our audited Consolidated Financial Statements, appearing elsewhere in this prospectus. The selected consolidated statement of operations data for 2005 and 2006 and the selected consolidated balance sheet data as of December 31, 2005, 2006 and 2007 have been derived from our audited consolidated financial statements, which are not included in this prospectus. We derived the selected consolidated statement of operations data for the six months ended June 30, 2009 and 2010 and the selected consolidated balance sheet as of June 30, 2010 from our unaudited consolidated financial statements appearing elsewhere in this prospectus. The historical results presented below are not necessarily indicative of financial results to be achieved in future periods. You should read the following selected consolidated financial data in conjunction with Management s Discussion Analysis of Financial Condition and Results of Operations and our Consolidated Financial Statements appearing elsewhere in this prospectus.

	Years Ended December 31,					Six Months Ended June 30,	
	2005	2006	2007	2008	2009	2009	2010
	(in thousands, except share and per share amounts)						
						(Unaudited)	
Consolidated Statement of Operations Data:							
Revenues							
Product sales	$	$	$	$ 10,680	$ 61,689	$ 21,527	$ 19,982
Collaborative research services	2,235	3,804	6,046	3,008	2,919	1,367	1,401
Government grants	255	198	138	204			4,974
Total revenues	2,490	4,002	6,184	13,892	64,608	22,894	26,357
Cost and operating expenses							
Cost of product sales				10,364	60,428	20,875	20,132
Research and development[1]	1,866	3,633	8,662	30,306	38,263	17,510	23,591
Sales, general and administrative[1]	610	2,787	10,522	16,622	23,558	9,274	18,902
Restructuring and asset impairment charges					5,768		
Total cost and operating expenses	2,476	6,420	19,184	57,292	128,017	47,659	62,625
Income (loss) from operations	14	(2,418)	(13,000)	(43,400)	(63,409)	(24,765)	(36,268)
Other income (expense)							
Interest income	50	213	1,178	1,378	448	329	562
Interest expense			(28)	(377)	(1,218)	(563)	(760)
Other income (expense), net		36	76	(144)	(621)	221	(60)
Total other income (expense)	50	249	1,226	857	(1,391)	(13)	(258)
Income (loss) before income taxes	64	(2,169)	(11,774)	(42,543)	(64,800)	(24,778)	(36,526)
Provision for (benefit from) income taxes	556	(354)		(207)			
Net loss	$ (492)	$ (1,815)	$ (11,774)	$ (42,336)	$ (64,800)	$ (24,778)	$ (36,526)
Loss attributable to noncontrolling interest				(472)	(341)	(221)	(430)
Net loss attributable to Amyris, Inc. stockholders	$ (492)	$ (1,815)	$ (11,774)	$ (41,864)	$ (64,459)	$ (24,557)	$ (36,096)
Net loss per share of common stock attributable to Amyris, Inc. stockholders, basic and diluted[2]	$ (0.25)	$ (0.60)	$ (3.28)	$ (9.91)	$ (13.56)	$ (5.27)	$ (7.17)

Weighted-average shares of common stock outstanding used in computing net loss per share of common stock, basic and diluted[2]	1,954,900	3,049,761	3,592,932	4,223,533	4,753,085	4,661,704	5,034,163
Pro forma net loss per share of common stock attributable to Amyris, Inc. stockholders, basic and diluted (unaudited)[2]					$ (3.16)		$ (1.36)
Weighted-average shares of common stock outstanding used in computing pro forma net loss per share of common stock, basic and diluted (unaudited)[2]					20,279,433		26,583,633

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	As of December 31,					As of June 30,
	2005	2006	2007	2008	2009	2010
			(in thousands)			(Unaudited)
Consolidated Balance Sheet Data:						
Cash, cash equivalents, investments and restricted cash	$ 3,767	$ 6,706	$ 45,862	$ 52,888	$ 71,716	$ 220,060
Working capital (deficit)	(1,222)	2,287	31,045	32,356	51,062	197,918
Total assets	4,678	8,580	50,889	98,823	122,159	304,988
Total indebtedness[3]			655	6,747	20,608	12,848
Convertible preferred stock warrant liability				2,132	2,740	3,281
Convertible preferred stock		6,397	58,126	121,436	179,651	391,411
Redeemable noncontrolling interest					5,506	12,248
Total deficit	$ (521)	$ (2,301)	$ (13,301)	$ (52,143)	$ (113,745)	$ (145,850)

(1) Includes stock-based compensation expense.

(2) See Note 2 to our Consolidated Financial Statements for an explanation of the method used to calculate basic and diluted net loss per share of common stock, the pro forma basic and diluted net loss per share of common stock and the weighted-average number of shares used in computation of the per share amounts.

(3) Total indebtedness includes $7.4 million in capital lease obligations, $4.1 million in notes payable, a $1.0 million loan payable and a $0.3 million credit facility (see Note 5 and Note 6 to our Consolidated Financial Statements).

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MANAGEMENT S DISCUSSION AND ANALYSIS

OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis of our financial condition and results of operations should be read together with our consolidated financial statements and the other financial information appearing elsewhere in this prospectus. This discussion contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in the forward-looking statements as a result of various factors, including those discussed below and those discussed in the section entitled Risk Factors included elsewhere in this prospectus.

Overview

We are building an integrated renewable products company by applying our industrial synthetic biology technology platform to provide alternatives to select petroleum-sourced products used in specialty chemical and transportation fuel markets worldwide. We genetically modify microorganisms, primarily yeast, and use them as living factories in established fermentation processes to convert plant-sourced sugars into potentially thousands of molecules. Our first technology success has come through the development and application of our platform to create microbial strains that produce artemisinic acid, a precursor of artemisinin, an anti-malarial therapeutic. We have 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 2012. Our first proprietary commercialization efforts have been focused on a molecule called farnesene, which forms the basis for a wide range of products varying from specialty chemical applications such as detergents, cosmetics, perfumes and industrial lubricants, to transportation fuels such as diesel. We have focused our research and development, business development and production operations on the use of Brazilian sugarcane as our primary feedstock for the foreseeable future, because it is abundant, low cost and relatively price stable. We intend to secure access to this feedstock and expand our production capacity in a capital light manner. Under this approach, we expect to work with Brazilian sugar and ethanol producers to build a new, bolt-on facility adjacent to their existing mills instead of building new greenfield facilities, thereby reducing the capital required to establish and scale our production. Our first such arrangement is our joint venture with Usina São Martinho, one of the largest sugar and ethanol producers in Brazil.

We commenced research activities in January 2005 to build our platform, focusing on development of microbial strains to provide an alternative, lower cost source of artemisinic acid, a precursor of artemisinin, an anti-malarial therapeutic. This work was funded by a five-year grant awarded by the Bill & Melinda Gates Foundation to the Institute for OneWorld Health to support a research collaboration with Amyris and the University of California, Berkeley. In 2008, we entered into an agreement to license our artemisinic acid-producing yeast strains to sanofi-aventis on a royalty free basis for the purpose of manufacturing and commercializing artemisinin-based drugs for the treatment of malaria.

As we embark on new research programs, we first identify the molecule that we want to produce based on its market opportunity, and then engineer yeast strains capable of producing the target molecule. Thereafter, we focus on improving the yeast strains and other production process efficiencies to enable us to produce the desired end product at commercially viable levels. We gauge our production efficiency by measuring a number of production metrics, including yield, yeast strain productivity, separation efficiency and chemical process efficiency. Yield quantifies the amount of target molecule produced from a given amount of sugar. To improve yield, our strain development and screening technology utilize proprietary high-throughput processes to create and test as many as 1,000 yeast strains a day in order to select those yeast strains which are most efficient. Productivity represents the rate at which our product is produced by a given yeast strain. The higher productivity a strain has, the more product can be produced in the same size fermentor in a given period of time. 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.

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In 2006, leveraging our research on artemisinin, we launched formal research programs to produce farnesene, a molecule which can be used as a renewable chemical ingredient for consumer and industrial products and as a fuel. We believe that we will be able to enter certain specialty chemical markets with farnesene if we can attain at commercial production scale the yields and other production process efficiencies that we have achieved to date. We will continue to seek to improve our yields and other production process efficiencies in order to enter additional markets profitably and improve our production economics.

One of our priorities is to evolve our production processes to transition from laboratory to commercial scale. To do this, we expect to initiate commercial production through the use of contract manufacturing as we complete our joint venture facility with Usina São Martinho which will be located in Brazil. While our yeast strains can use a wide variety of feedstocks, we are focusing on the use of sugarcane as our predominant feedstock and seeking to leverage Brazil s existing sugar and ethanol infrastructure. In 2008, we established a base of operations in Brazil to move our strains from the laboratory toward commercial production and to oversee Brazilian commercialization of our products. Key milestones to date include:

- In March 2008, we established our subsidiary Amyris Brasil S.A. in Campinas, Brazil, and opened laboratories at this site in August 2008.

- In November 2008, we began operation of our first 300 liter scale pilot plant, in Emeryville, California. This facility enables us to test our strains at a significantly larger volume than the two liter scale we use in our laboratories, which is the first step in our scale-up process.

- In June 2009, we began operation of our second 300 liter scale pilot plant in Campinas, Brazil. This pilot plant is a replica of our plant in Emeryville, which enables us to control transfer of our strains and processes to Brazil, where we can test them with commercial production feedstock.

- In June 2009, through the use of a contract manufacturer, we completed our first initial production runs in 60,000 liter scale fermentors to evaluate results at a larger scale and to produce renewable diesel fuel to support our certification efforts.

- In September 2009, we began operation of our 5,000 liter scale demonstration facility in Campinas, Brazil. We refine large scale equipment design and processes at this scale, the final step before transitioning to a full commercial facility.

- In January 2010, we ordered four 600,000 liter commercial plant fermentors for the purpose of commencing commercial production in the second quarter of 2012 in our Usina São Martinho joint venture facility.

- In February 2010, we received approval from the Brazilian government to use one of our current yeast strains in broad commercial production and we will seek to amend this approval from time to time as we develop new strains.

- In April 2010, we signed a definitive agreement with Usina São Martinho to establish a joint venture for our first production facility in Brazil.

- In June 2010, we entered into an agreement with Biomin do Brasil Nutrição Animal Ltda. to utilize a portion of their Brazilian manufacturing facilities to produce farnesene commencing in 2011.

We expect to require additional contract manufacturing capacity starting in 2011. Starting in the second quarter of 2012, we intend to transition this production to our joint venture with Usina São Martinho. We have also provided Usina São Martinho with an option to produce our products

at a second production facility, and we have non-binding letters of intent in place with three leading Brazilian sugar and ethanol producers, Bunge Limited, Cosan S.A. and Açúcar Guarani, a subsidiary of Tereos, to establish production at certain of their existing mills.

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We intend to work with Brazilian sugar and ethanol producers to increase our production on a capital light basis as follows:

- We would provide mill owners with design and engineering services to build the facility and with access to our yeast strains and processes;
- The mill owners would make a substantial contribution of capital to enable construction of our bolt-on facility or make other substantial operating contributions;
- We would enter into agreements to purchase the products produced and retain exclusive distribution and sales rights; and
- We plan to compensate the mill owner for the feedstock consumed in the production of our products in an amount equal to the revenue they would have realized had they instead produced their traditional products, plus any incremental costs incurred in the production of our products over their usual production costs. Further, as we sell our products, we expect to share a portion of the higher gross margin we expect to realize from the sale of our renewable products with these mill owners.

We believe that our capital light approach should enable us to increase production capacity without needing to invest the amount of upfront capital that would be required for the construction of new greenfield facilities.

To build the capabilities we will need to distribute our renewable fuels products in the U.S., we have established our subsidiary Amyris Fuels, LLC. Amyris Fuels currently generates revenues by selling third party ethanol and ethanol-blended gasoline to wholesale customers through a network of 15 storage terminals in the southeastern U.S., including in Georgia, North Carolina, South Carolina, Virginia and Tennessee.

To date we have not generated any revenues from the commercialization of our own products. Our revenues through June 30, 2010 have come from ethanol sales by Amyris Fuels, which accounted for 77%, 95% and 76% of our total revenues in 2008, 2009 and the six months ended June 30, 2010, respectively, and from collaborative research services and grants. Amyris Fuels began to distribute ethanol-blended gasoline in July 2010.

We continue to experience significant losses as we invest in research and development, commercial facility design, sales and marketing and administrative infrastructure. As of June 30, 2010, we had an accumulated deficit of $156.5 million**.** We incurred net losses attributable to Amyris stockholders of $11.8 million, $41.9 million and $64.5 million in 2007, 2008 and 2009, respectively and $36.1 million for the six months ended June 30, 2010.

Recent Developments

Usina São Martinho

On April 14, 2010, we entered into a joint venture with Usina São Martinho to build a new production facility for the production of our products at the Usina São Martinho sugar and ethanol mill located in São Paulo state. The joint venture, SMA Indústria Química S.A., was created to build the first facility in Brazil fully dedicated to the production of Amyris renewable products. The new company is located at Usina São Martinho in Pradópolis, São Paulo state.

The joint venture is managed by a three-member executive committee, to which we appoint two members, including the plant director who is the most senior executive. The executive committee is responsible for managing the construction and operation of the production facility. The joint venture is governed by a four-member board of directors, to which we and Usina São Martinho each have appointed two members. The board of directors has certain protective rights which include final approval of the engineering designs and project work plan developed and recommended by the executive committee.

The construction of the facility at Usina São Martinho will be the first project of this nature that we will design and manage. We expect the construction costs of the new facility to total between $80 million to $100

million. Under the terms of our joint venture agreements, construction of the production facility will take place in two phases. Phase I is designed to construct a facility capable of producing farnesene from one million tons of crushed sugarcane annually, and Phase II will expand that capacity to two million tons annually. We will provide the initial funding for Phase I and within one year of the commencement of Phase I commercial operations, Usina São Martinho will be required to reimburse us for half of the cost of Phase I, up to a cap of 30.9 million reais ($17.6 million based on the exchange rate on July 30, 2010). Thereafter, Usina São Martinho will co-fund the construction of Phase II and, as necessary, make a final payment at completion such that their total contribution will be 61.8 million reais ($35.1 million based on the exchange rate on July 30, 2010), or, if lower, an amount equal to one-half of the aggregate cost of construction of both phases.

Post commercialization, Amyris will market and distribute the Amyris renewable products. São Martinho will sell feedstock and provide certain other services to the joint venture. The cost of the feedstock to the joint venture is a price that is based on the average return that Usina São Martinho could receive from the production of its current products, sugar and ethanol. 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.

Under the terms of the joint venture agreements, 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. 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 shall 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 would no longer be involved in the joint venture s management.

Total

On June 21, 2010, we entered into an agreement with Total Gas & Power USA, SAS (Total), pursuant to which we sold 7,101,548 shares of our Series D preferred stock to Total for an aggregate of $133.2 million. The shares of Series D preferred stock are convertible into shares of our common stock on a one-for-one basis, representing approximately 20.8% of our common stock after giving effect to the conversion of all of our preferred stock prior to this offering (and representing approximately 17% of our outstanding capital stock when calculated on a fully diluted basis which gives effect to (i) all outstanding shares of common stock, (ii) all shares of common stock into which our outstanding securities are convertible (excluding the conversion of shares of Amyris Brasil held by third party investors in the subsidiary into shares of our common stock), and (iii) the total number of shares remaining available for issuance under our 2005 Stock Option/Stock Issuance Plan). If the initial public offering price is above $18.75, then Total will make an additional payment to us. See Capitalization. The Series D preferred stock has a contingently adjustable conversion price such that: (i) in the event of a qualified initial public offering, or qualified IPO, on or before September 30, 2010 with an offering price less than $21.75, the conversion price will be reduced to the offering price divided by 1.16, and (ii) in the event of a qualified IPO after September 30, 2010 with an offering price less than $24.38, the conversion price will be reduced to the offering price divided by 1.30.

In connection with Total s equity investment, we agreed to appoint a person designated by Total to serve as a member of our Board of Directors in the class subject to the latest reelection date, and to use our reasonable efforts, consistent with the Board of Directors fiduciary duties, to cause the director designated by Total to be re-nominated by the Board of Directors in the future. These membership rights terminate upon the earlier of Total holding less than half of the shares of common stock originally issuable upon conversion of the Series D preferred stock or a sale of our company.

We also agreed with Total that, so long as Total holds at least 10% of our voting securities, we will notify Total if our Board of Directors seeks to cause the sale of our company or if we receive an offer to be acquired. In the event of such decision or offer, we must provide Total with all information given to an offering party and certain other information, and Total will have an exclusive negotiating period of 15 business days in

the event the

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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 be acquired. This exclusive negotiation period will be followed by an additional restricted negotiation period of 10 business days, during which we will be obligated to negotiate with Total and will be prohibited from entering into an agreement with any other potential acquirer. Total has also entered into a standstill agreement pursuant to which it agreed for a period of three years not to acquire in excess of the greater of 20% or the number of shares of Series D preferred stock purchased by Total (during the initial two years) or 30% (during the third year) of our common stock without the prior consent of our Board of Directors, except that, among other things, if another person acquires more than Total s then current holdings of our common stock, then Total may acquire up to that amount plus one share.

We also entered into a technology license, development, research and collaboration agreement with Total Gas & Power USA Biotech, Inc., an affiliate of Total S.A. The agreement sets forth the terms for the research, development, production and commercialization of certain to be determined chemical and/or fuel products made through the use of our synthetic biology platform. The agreement establishes a multi-phased process through which projects are identified, screened, studied for feasibility, and ultimately selected as a project for development of an identified lead compound using an identified microbial strain. The agreement also contemplates that we and Total would work together on projects making microbial strains using pathways not currently under development by Amyris. Subject to agreement between Total and Amyris on the initial projects and associated expenses, Total has agreed to pay up to the first $50.0 million in research and development costs for the selected projects; thereafter the parties will share such costs equally. Amyris has agreed to dedicate the laboratory resources needed for collaboration projects. Total also plans to second employees at Amyris to work on the projects. Once a development project has commenced, the parties are obliged to work together exclusively to develop the lead compound during the project development phase. After a development project is completed, Amyris and Total expect to form one or more joint ventures to commercialize any products that are developed, with costs and profits to be shared on an equal basis unless otherwise agreed. Each party has certain rights to independently produce commercial quantities of these products under certain circumstances, subject to paying royalties to the other party. In addition, Amyris has retained rights to produce and commercialize products in the following markets: flavors and fragrances; cosmetics; pharmaceuticals; consumer packaged goods; food additives; and pesticides. Total has the right of first negotiation with respect to exclusive commercialization arrangements we would propose to enter into with certain third parties. In the event that Amyris declines to participate on a project presented by Total, then Total has certain rights to require Amyris to work on that project. In that case, Total would pay all development costs, and Amyris would be entitled to certain royalties from any resulting products. The collaboration agreement has an initial term of 12 years.

We assessed the accounting impact of the sale of Series D preferred stock and concurrent entry into the collaboration agreement. Based on this analysis, we determined that the per share consideration for the preferred stock was below its fair value at the time of issuance, and we measured the preferred stock initially at its fair value with a corresponding reduction in the consideration for the services under the collaboration agreement. As revenue from the collaboration agreement will be generated over a period of time based on the performance requirements, we recorded $27.9 million, the difference between the fair value and consideration received for the Series D preferred stock, as a deferred charge asset within other assets at the time of issuance, which will be recognized as a reduction to revenue in proportion to the total estimated revenue under the collaboration agreement.

As a result of recording Series D preferred stock at its fair value, the effective conversion price was greater than the fair value of common stock as determined by management and the Board of Directors. Therefore, no beneficial conversion feature was recorded at the time of issuance. We further determined that the conversion option with a contingent reduction in the conversion price upon a qualified IPO is a potential contingent beneficial feature and, as a result, we will calculate the intrinsic value of such conversion option upon occurrence of the qualified IPO. If we determine that a contingent beneficial conversion feature exists, we will record a charge within the equity section of our balance sheet, which will impact earnings per share, in the quarterly financial statements for the quarter during which we complete this offering, depending upon the price at which shares are offered to the public in relation to the adjustment provisions provided for the Series D preferred stock.

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Financial Operations Overview

Revenues

To date, our revenues have consisted of sales of ethanol, collaborative research services and government grants.

Product sales. Product sales are derived from sales of ethanol purchased from third parties under short-term agreements at prevailing market prices.

Collaborative research services. Collaborative research service revenues generally consist of payments for research and development activities for specific projects. These payments may include a combination of cost plus reimbursement, up-front payments or milestone payments.

Government grants. Government grant revenues consist of payments from government entities. The terms of these grants generally provide us with reimbursement for research and development services and certain types of capital expenditures over a contractually defined period.

Ethanol sales by Amyris Fuels accounted for 77%, 95% and 76% of our total revenues in 2008, 2009 and the six months ended June 30, 2010, respectively. The balance of our revenues has come from collaborative research services and grants. Prior to commercialization of our products, we expect to increase revenues from grants and collaborations. We expect to receive approximately $24.3 million in funding for 2010 through 2012 under a grant from the DOE. Under this grant, we would be required to fund an additional $10.6 million in cost sharing expenses. We expect revenues from the sale of our renewable products to comprise an increasing portion of our total revenues.

We expect to commercialize our renewable products starting in 2011. We anticipate that our revenues from sales of our renewable products may be significantly lower in the first quarter of each year, as we expect to produce and sell the majority of our products during the sugarcane harvesting period, which typically begins in April or May and ends in November or December in the region of Brazil where we intend to locate the majority of our production capacity.

Cost and Operating Expenses

Cost and operating expenses consist of cost of product sales, research and development expenses, sales, general and administrative expenses and restructuring and asset impairment charges. Cost of product sales and personnel-related expenses comprise the most significant components of these expenses. We expect to continue to hire new employees, particularly in process development and manufacturing and general and administration in order to support our anticipated growth.

Cost of Product Sales. Our cost of product sales consists primarily of cost of purchased ethanol products, terminal fees paid for storage and handling, transportation costs between terminals, product losses and changes in the fair value of the derivative contracts used for hedging the price volatility of ethanol. To date gross margins on product sales have been nominal given the relatively high cost of ethanol compared to the price at which ethanol is sold. We expect gross margins to improve once we are producing through the joint venture with Usina São Martinho

and additional sugar and ethanol mills. We expect lower margins on products produced by contract manufacturers than on products produced by our joint venture or by sugar and ethanol mills with whom we are partnering, due primarily to the fees we pay to the contract manufacturer and, as applicable, to the extent we use feedstock with such contract manufacturers that is more expensive to us than the sugarcane we expect to use in our joint venture mill or in other mills with whom we are partnering. In the future, gross margins may vary depending on the mix of specialty chemicals and renewable fuels that we produce. We expect that the cost of our products will be comprised primarily of the cost of the products paid to the mill owners or the contract manufacturer and, if applicable, chemical finishing and distribution costs.

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Research and Development. Research and development expenses consist primarily of expenses for personnel engaged in the development of new products, the expansion of product applications and the improvement in yield. These expenses also consist of facilities costs and other related overhead and lab materials. We expense all of our research and development costs as they are incurred. In the near term, we expect to hire additional employees, as well as incur contract-related expenses as we continue to invest in the development of our products. Accordingly, we expect that our research and development expenses will continue to increase.

Sales, General and Administrative. Sales, general and administrative expenses consist primarily of personnel-related expenses related to our executive, legal, finance, human resource and information technology functions, as well as fees for professional services and allocated facility overhead expenses. These expenses also include costs related to our sales function, including marketing programs and other allocated costs. Professional services consist principally of external legal, accounting, tax, audit and other consulting services. We expect sales, general and administrative expenses to increase as we incur additional costs related to operating as a publicly-traded company, including increased legal fees, accounting, costs of compliance with securities, corporate governance and other regulations, investor relations expenses and higher insurance premiums, particularly those related to director and officer insurance. In addition, we expect to incur additional costs as we hire personnel and enhance our infrastructure to support the anticipated growth of our business.

Restructuring and Asset Impairment Charges. Restructuring and asset impairment charges consist primarily of non-cash charges relating to the consolidation of our headquarters in a single facility in Emeryville, California, and asset impairment charges related to the vacated facility.

Other Income (Expense), Net

Interest Income. Interest income consists primarily of interest income earned on investments and cash balances. Our interest income will vary each reporting period depending on our average investment balances during the period and market interest rates. We expect interest income to fluctuate in the future with changes in average investment balances and market interest rates.

Interest Expense. We recognize interest expense on all of our capital leases, loans payable and debt obligations. We expect interest expense to fluctuate in the future with changes in our debt obligations.

Other Income (Expense), Net. Other income (expense), net consists primarily of the change in the fair value of our convertible preferred stock warrants, change in the fair value of our auction rate securities (ARS) and our rights to sell our ARS. Our outstanding convertible preferred stock warrants are classified as a liability and the change in the fair value of these warrants will vary based on multiple factors, but will generally increase if the fair value of underlying stock increases. We will continue to record adjustments to the fair value of the warrants until they are exercised, converted into warrants to purchase common stock or expire, at which time the warrants will no longer be remeasured at each balance sheet date and the then-current aggregate fair value of these warrants will be reclassified from liabilities to common stock and we will cease to record any related periodic fair value adjustments.

Income Taxes

Provision for (Benefit from) Income Taxes. Since inception, we have incurred net losses and have not recorded any U.S. federal and state and non-U.S. income tax provisions, with limited exceptions in several years, since the tax benefits of our net losses have been offset by valuation allowances.

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

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accepted in the U.S. 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 ethanol, the delivery of collaborative research services and from government grants. 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 collectability is reasonably assured.

If sales arrangements contain multiple elements, we evaluate whether the components of each arrangement represent separate units of accounting. We have determined that all of our revenue arrangements should be accounted for as a single unit 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

We sell ethanol 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 product revenues. Such charges were not significant in any of the periods presented.

Collaborative Research Services

Revenues from collaborative research services are recognized as the services are performed consistent with the performance requirements of the contract. In cases where the planned levels of research services fluctuate over the research term, we recognize revenues using the proportionate performance method based upon actual efforts to date relative to the amount of expected effort to be incurred by us. When up-front payments are

received and the planned levels of research services do not fluctuate over the research term, revenues are recorded on a ratable basis over the arrangement term, up to the amount of cash received. When up-front payments are received and the planned levels of research services fluctuate over the research term, revenues are recorded using the proportionate performance method, up to the amount of cash received. Where arrangements include milestones that are determined to be substantive and at risk at the inception of the arrangement, revenues are recognized upon achievement of the milestone and is limited to those amounts whereby collectability is reasonably assured.

Government Grants

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.

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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.

Impairment of Long-Lived Assets

We assess impairment of long-lived assets, which include property and equipment, on at least an annual basis 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 to be not 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.

Convertible Preferred Stock Warrants

Freestanding warrants to purchase shares of our convertible preferred stock are classified as liabilities on our consolidated balance sheets at fair value because the warrants may conditionally obligate us to redeem the underlying convertible preferred stock at some point in the future. The warrants are subject to remeasurement at each balance sheet date, and any change in fair value is recognized as a component of other income (expense), net in the consolidated statements of operations. We estimated the fair value of these warrants at the respective balance sheet dates using the Black-Scholes option pricing model. We use a number of assumptions to estimate the fair value including the remaining contractual terms of the warrant, risk-free interest rates and expected dividend yield and expected volatility of the price of the underlying common stock. These assumptions are highly judgmental and could differ significantly in the future.

For 2007, 2008 and 2009, we recorded charges of $0, $0.1 million and $0.4 million through other income (expense), net to reflect the change in the fair value of the warrants. During the six months ended June 30, 2009, the reduction in the expected term and in the estimated per share fair value of the underlying preferred stock, offset by the increase in expected volatility, resulted in an estimated fair value of the warrants based on the Black-Scholes valuation model that was less than the valuation in prior periods. As a result, we recorded a gain of $0.3 million in other income (expense), net to reflect the change in fair value of the warrants.

During the six months ended June 30, 2010, the increase in the estimated per share fair value of the underlying preferred stock, offset by the reduction in the expected term, resulted in an estimated fair value of the warrants based on the Black-Scholes valuation model that was greater than the valuation in prior periods. As a result, we recorded a loss of $34,000 during the six months ended June 30, 2010, in other income

(expense), net to reflect the change in fair value of the warrants.

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We will continue to record adjustments to the fair value of the warrants until they are exercised, converted into warrants to purchase common stock or expire, at which time the warrants will no longer be remeasured at each balance sheet date. At that time, the then-current aggregate fair value of these warrants will be reclassified from liabilities to common stock and we will cease to record any related periodic fair value adjustments.

Stock-Based Compensation

Our stock-based compensation expense is as follows:

	Years Ended December 31,			Six Months Ended June 30,	
	2007	2008	2009	2009	2010
	(Dollars in thousands)				
				(Unaudited)	
Research and development	$ 117	$ 632	$ 773	$ 276	$ 876
Sales, general and administrative	429	1,395	2,526	901	3,426
Total stock-based compensation expense	$ 546	$ 2,027	$ 3,299	$ 1,177	$ 4,302

We recognize compensation expense related to share-based transactions, including the awarding of employee stock options, based on the grant date estimated fair value. 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.

In future periods, our stock-based compensation expense is expected to increase 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 share-based payment 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,			Six Months Ended June 30,	
	2007	2008	2009	2009	2010
				(Unaudited)	
Expected dividend yield	0%	0%	0%	*	0%
Risk-free interest rate	3.9%-4.7%	3.2%	2.8%	*	2.8%-2.9%
Expected term (in years)	6.0	6.0	6.0	*	6.0
Expected volatility	70%	70%	97%	*	98%

* No options were granted during the six months ended June 30, 2009.

Our expected term is derived from a comparable group of publicly listed companies that has a similar industry, life cycle, revenue and market capitalization.

Our expected volatility is derived from the historical volatilities of several unrelated public companies within our industry over a period equal to the expected term of our options because we do not have any trading history to use for calculating the volatility of our own common stock.

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Our risk-free interest rate is based on the U.S. Treasury yield curve in effect at the time of grant for zero coupon U.S. Treasury notes with maturities approximately equal to each option s expected term.

Our expected dividend yield was assumed to be zero as we have not paid, and do not anticipate paying, cash dividends on our shares of common stock.

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 and director 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.

The following table summarizes the options granted from January 1, 2008, through the date of this prospectus:

Grant Date	Number of Options Granted	Exercise Price Per Share	Estimated Fair Value Per Share	Intrinsic Value Per Share
January 2, 2008	51,700	$ 3.93	$ 4.26*	$ 0.33
February 1, 2008	103,900	3.93	4.35*	0.42
February 27, 2008	210,000	3.93	4.43*	0.50
March 7, 2008	49,000	3.93	4.58*	0.65
April 1, 2008	285,970	3.93	5.08*	1.15
May 7, 2008	113,500	3.93	5.80*	1.87
June 2, 2008	135,500	3.93	6.33*	2.40
August 25, 2008	279,979	3.93	7.95*	4.02
September 15, 2008	60,000	3.93	8.36*	4.43
September 14, 2009	965,153	4.31	4.31	
October 27, 2009	144,400	4.31	4.31	
January 7, 2010	1,178,810	9.32	9.32	
March 19, 2010	236,500	14.28	14.28	
April 20, 2010	509,454	20.41	20.40*	

* We reassessed the fair value of our common stock subsequent to the grant date of these options.

The intrinsic value of the options outstanding as of June 30, 2010 was $ million, of which $ million related to vested options, based on an assumed initial public offering price of $ per share, the midpoint of the range set forth on the cover page of the prospectus.

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All options granted by our Board of Directors on the dates noted above were intended to be exercisable at the fair value of our stock based on information known at that time. For the purposes of recording stock-based compensation expense, we reviewed the historical pattern of our common stock, and subsequently reassessed the fair value of our stock for the options granted from January 2, 2008 through September 15, 2008.

The fair values of the common stock underlying our stock options have historically been determined by our Board of Directors with input from management. In the absence of a public trading market for our common stock, our Board of Directors has determined the fair value of the common stock utilizing methodologies, approaches and assumptions consistent with the American Institute of Certified Public Accountants Practice Guide, *Valuation of Privately-Held-Company Equity Securities Issued as Compensation*, (referred to herein as the AICPA Practice Guide). In addition, our Board of Directors considered numerous objective and subjective factors including:

- the prices for our convertible preferred stock sold to outside investors in arm s-length transactions;
- the prices of our common stock sold to investors in arm s-length transactions;
- rights, preferences and privileges of that convertible preferred stock relative to those of our common stock;
- valuations using the methodologies described below;
- actual operating and financial performance based on management s estimates;
- the execution of strategic and development agreements;
- the hiring of key personnel;
- status of product development;
- the risks inherent in the development and expansion of our products and services;
- our stage of development and revenue growth;
- achievement of various product certifications;
- the lack of an active public market for our common and convertible preferred stock;
- the likelihood of achieving a liquidity event, such as an initial public offering or a sale of our company given prevailing market conditions and the nature and history of our business;

the performance of similarly-situated companies in our industry;

trends in the renewable chemicals and fuels industries;

industry information such as market growth and volume; and

macro-economic events.

Our Board of Directors considered common stock valuations performed as of September 16, 2008, August 7, 2009, December 29, 2009, March 9, 2010 and April 16, 2010, in determining or confirming the grant date fair value of common stock. Using these valuations, and the other factors described above, our Board of Directors made the following estimates of fair value of our common stock.

Valuation Date	Fair Value Per Share
September 16, 2008	$ 8.38
August 7, 2009	4.31
December 29, 2009	9.32
March 9, 2010	14.28
April 16, 2010	20.40

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The valuations that our Board of Directors considered in determining the fair value of our common stock from September 2008 through October 2009 were based on the estimated aggregate enterprise value at the valuation date using the implied equity value from our convertible preferred stock financings, as the probability of a sale or merger occurring in the foreseeable future were deemed to be highly uncertain. In order to arrive at the fair value of our common stock, the indicated enterprise value of our company calculated at the valuation date was allocated to the shares of convertible preferred stock and the warrants to purchase convertible preferred stock, and shares of common stock and the options to purchase common stock using an option pricing methodology. The option pricing method treats common stock and preferred stock as call options on the total equity value of a company, with exercise prices based on the value thresholds at which the allocation among the various holders of a company s securities changes. Under this method, the common stock has value only if the funds available for distribution to stockholders exceed the value of the liquidation preference at the time of a liquidity event, such as a strategic sale, merger or initial public offering, assuming the enterprise has funds available to make a liquidation preference meaningful and collectible by the holders of preferred stock. The common stock is modeled as a call option on the underlying equity value at a predetermined exercise price. In the model, the exercise price is based on a comparison with the total equity value rather than, as in the case of a regular call option, a comparison with a per share stock price. Thus, common stock is considered to be a call option with a claim on the enterprise at an exercise price equal to the remaining value immediately after the preferred stock is liquidated. The option pricing method uses the Black-Scholes option pricing model to price the call options. This model defines the securities fair values as functions of the current fair value of a company and uses assumptions such as the anticipated timing of a potential liquidity event and the estimated volatility of the equity securities. The anticipated timing of a liquidity event utilized in these valuations was based on then-current plans and estimates of our Board of Directors and management regarding a liquidity event. The aggregate value of the common stock derived from the option pricing method was then divided by the number of shares of common stock outstanding to arrive at the per share value. A discount for lack of marketability was applied to reflect the increased risk arising from the inability to readily sell the shares. This approach is consistent with the methods outlined in the AICPA Practice Guide.

The common stock valuation as of September 16, 2008, was performed following the commencement of sale of shares of our Series B-1 preferred stock sold during the period from February 2008 to January 2009 at a price of $25.26 per share to several venture capital and private equity firms. The price per share for the Series B-1 shares and the terms of the transactions were the result of negotiations between us and the Series B-1 investors.

The common stock valuation as of August 7, 2009, was performed following the commencement of our sale of shares of our Series C preferred stock in July 2009 at a price of $12.46 per share to several venture capital and private equity firms. The price per share for the Series C shares and the terms of the transactions were the result of negotiations between us and the Series C investors.

Commencing in December 2009, the valuations that our Board of Directors considered in determining the fair value of our common stock were based on the market approach and the income approach to estimate our aggregate enterprise value at each valuation date. The market approach measures the value of a company through the analysis of recent sales of comparable companies. Consideration is given to the financial condition and operating performance of the company being valued relative to those of publicly traded companies operating in the same or similar lines of business. When choosing the comparable companies to be used for the market approach, we focused on companies in our industry. Some of the specific criteria used to select comparable companies within this industry include the business description, business size, projected growth, financial condition and historical earnings. The income approach measures the value of a company as the present value of its future economic benefits by applying an appropriate risk-adjusted discount rate to expected cash flows, based on forecasted revenues and costs. We prepared a financial forecast for each valuation to be used in the computation of the enterprise value for both the market approach and the income approach. The financial forecasts took into account our past experience and future expectations. The risks associated with achieving these forecasts were assessed in selecting the appropriate discount rate.

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These contemporaneous valuations used two equity allocation scenarios to derive our common stock fair value as follows: (i) a sale or merger scenario and (ii) an initial public offering scenario. Under both scenarios, we used an options-based methodology for allocating the estimated aggregate value to each of our securities using the Black-Scholes option-pricing model. We also considered the price per share of common stock established in recent transactions among our stockholders. Each of the aggregate values of the common stock derived from the two option pricing models was then divided by the number of shares of common stock outstanding to arrive at a per share value. A discount for lack of marketability was applied to reflect the increased risk arising from the inability to readily sell the shares.

There is inherent uncertainty in these estimates and if we had made different assumptions than those described above, the amount of our stock-based compensation expense, net loss and net loss per share amounts could have been significantly different.

Discussion of Specific Valuation Inputs

We granted stock options in 2008, 2009 and 2010 with exercise prices between $3.93 and $20.41 per share. No single event caused the valuation of our common stock to increase or decrease from January 2008 to April 2010; rather, it has been a combination of the following factors that led to the changes in the fair value of the underlying common stock:

January to March 2008: In January 2008, we appointed a Chief Financial Officer. In February 2008, we closed the first round of our Series B-1 convertible preferred stock financing, at a price of $25.26 per share. In March 2008, we announced a development agreement for artemisinin with One World Health and sanofi-aventis. In March 2008 we also established our subsidiary Amyris Brasil S.A. in Campinas, Brazil. For option grants from January to March 2008, the Board of Directors deemed the fair market value of the common stock to be $3.93. However, for purposes of computing the related stock compensation expense the fair value of our common stock was subsequently reassessed at $4.26-$4.58 per share for options granted from January 2008 to March 2008.

April to September 2008: During this period, we completed subsequent rounds of our Series B-1 convertible preferred stock financing at a price of $25.26 per share. In June 2008, we began generating revenues through our Amyris Fuels, LLC subsidiary. For option grants from April to September 2008, the Board of Directors deemed the fair market value of the option grants to be $3.93. However, for purpose of computing the related stock compensation expense the fair value of our common stock was subsequently reassessed at $5.08-$8.36 per share for options granted from April 2008 to September 2008.

October 2008 to June 2009: In November 2008, we completed our first test runs at our pilot plant in Emeryville, California, to produce renewable products. In November 2008, we appointed a Senior Vice President of Research Programs and Operations. In December 2008, we determined market conditions had deteriorated and reduced our workforce by 12%. In January 2009, we closed the final round of our Series B-1 convertible preferred stock financing at a price of $25.26 per share. In April 2009, we received EPA registration for our renewable diesel fuel. In June 2009, we completed our initial production runs at our 300 liter scale fermentors in our pilot plant in Campinas, Brazil, to transition our yeast and processes into Brazil. Additionally in June 2009, through the use of a contract manufacturer, we completed our first initial production runs in 60,000 liter scale fermentors to evaluate results at a larger scale and to produce renewable diesel fuel to support our certification efforts. No options were granted during the period from October 2008 to August 2009.

July to October 2009: In July 2009, we closed the first round of our Series C convertible preferred stock financing at a price of $12.46 per share, which was 51% lower than the price per share we received from our Series B-1 convertible preferred stock financing in 2008 resulting from unfavorable market conditions related to the availability of private funding at the time. In September 2009, we began operations of our 5,000 liter scale demonstration facility in Campinas, Brazil. As a result of these transactions, and applying the common stock valuation methodology

described above, we estimated the fair value of our common stock to be $4.31 per share as of August 7, 2009, and it remained at that price through the end of October 2009 because there were no significant developments in our business.

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November to December 2009: In November 2009, we secured a patent covering our second potential jet fuel product and another patent covering our lubricant products. We also signed a memorandum of understanding with two international corporations to evaluate the technical and sustainability aspects of our renewable jet fuel. In addition, we signed a binding letter of intent related to the construction and launch of our first commercial facility at an ethanol mill owned by Usina São Martinho in Brazil. In December 2009, we received notification of a conditional award from the DOE, authorizing a grant for $24.3 million. Further, we announced letters of intent with Bunge Limited, Cosan and Açúcar Guarani for the purpose of partnering for the production of renewable chemicals and fuels. We also appointed a Chief Commercial Officer and a Chief Operating Officer. In December, three of our founders and our CEO sold to four existing investors shares of common stock representing in each case less than 10% of their overall common stock and options holdings at a price of $7.00 per share. Due to the change in the equity markets, in December we also deemed the probability of completing an initial public offering to be probable in the next eighteen months. As a result of these transactions, and applying the common stock valuation methodology described above, we estimated the fair value of our common stock to be $9.32 per share as of December 31, 2009. No options were granted during the period from November to December 2009.

January 2010 to February 2010: From December 29, 2009, to January 10, 2010, our valuation remained at $9.32 per share because there were no significant developments in our business. In January 2010, we ordered four 600,000 liter commercial fermentors for the purpose of commencing commercial production in our Usina São Martinho joint venture facility. Also in January 2010, we commenced negotiations to receive $3.9 million from a DOE grant, which is being made to the NREL, and under which we would be a subcontractor. Additionally, in January we closed the final round of our Series C convertible preferred stock financing at a price of $12.46 per share. In February 2010, we received approval from the Brazilian government to use our current yeast strain in commercial production. During this period we began discussions with investment banks regarding an initial public offering.

March 2010 to April 2010: In March 2010, we received an additional $1.7 million investment from an investor in Amyris Brasil and we completed our $47.8 million Series C-1 preferred stock financing at a price of $17.56 per share. In April 2010, we entered into a joint venture with Usina São Martinho. Also in April 2010, we filed a registration statement on Form S-1 with the SEC for a potential initial public offering. As a result of these events and applying the common stock valuation methodology described above, we estimated the fair value of our common stock to be $20.40 per share as of April 16, 2010.

May 2010 to June 2010: In May 2010, we received a $5.4 million investment from an investor in Amyris Brasil. In June 2010, we sold 7,101,548 shares of our Series D preferred stock, at $18.75 per share for an aggregate purchase price of approximately $133.2 million, to Total Gas & Power USA, SAS, or Total. We also entered into a technology license, development, research and collaboration agreement with Total. In June 2010, we entered into agreements with The Procter & Gamble Company and M&G Finanziaria S.R.L. that establish terms under which they may purchase our farnesene for use in their products. In June 2010, we also entered into an agreement with Soliance for the development and commercialization of farnesene-based ingredients for cosmetics products and into a term sheet with Cosan for the formation of a joint venture to develop and commercialize farnesene-based specialty chemicals for industrial and automotive applications. In June 2010, we entered into an agreement with Shell Western Supply and Trading Limited, a subsidiary of Royal Dutch Shell plc, that establishes terms under which Shell may purchase our diesel fuel. In June 2010, we also entered into an agreement with Biomin for contract manufacturing to produce farnesene. No options were granted during the period from May to June 2010.

Nonemployee Stock-Based Compensation

We account for stock options issued to nonemployees based on the estimated fair value of the awards using the Black-Scholes option pricing model. We account for restricted stock units issued to nonemployees based on the estimated fair value of our common stock. The measurement of stock based compensation is subject to

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periodic adjustments as the underlying equity instruments vest, and the resulting change in value, if any, is recognized in our consolidated statement of operations during the period the related services are rendered.

Stock-based compensation expense for options and restricted stock units granted to nonemployees for 2007, 2008 and 2009 was $0.2 million, $0.7 million and $0.7 million, respectively, and for the six months ended June 30, 2009 and 2010, was $0.2 million and $1.5 million, respectively.

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.

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, 2009, we had a full valuation allowance against all of our deferred tax assets.

Effective January 1, 2007, we adopted ASC 740-10 to account for uncertain tax positions. As of December 31, 2007, 2008 and 2009, our total unrecognized tax benefits were $0.1 million, $0.6 million and $1.0 million, of which none of the tax benefits, if recognized, would affect the effective income tax rate due to the valuation allowance that currently offsets deferred tax assets. We do not anticipate the total amounts of unrecognized income tax benefits will significantly increase or decrease in the next 12 months.

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 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.

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Results of Operations

The following table sets forth our consolidated results of operations for the periods shown:

	Years Ended December 31,			Six Months Ended June 30,	
	2007	2008	2009	2009	2010
	(Dollars in thousands)				
				(Unaudited)	
Consolidated Statements of Operations Data:					
Revenues					
Product sales	$	$ 10,680	$ 61,689	$ 21,527	$ 19,982
Collaborative research services	6,046	3,008	2,919	1,367	1,401
Government grants	138	204			4,974
Total revenues	6,184	13,892	64,608	22,894	26,357
Cost and operating expenses					
Cost of product sales		10,364	60,428	20,875	20,132
Research and development	8,662	30,306	38,263	17,510	23,591
Sales, general and administrative	10,522	16,622	23,558	9,274	18,902
Restructuring and asset impairment charges			5,768		
Total cost and operating expenses	19,184	57,292	128,017	47,659	62,625
Loss from operations	(13,000)	(43,400)	(63,409)	(24,765)	(36,268)
Other income (expense)					
Interest income	1,178	1,378	448	329	562
Interest expense	(28)	(377)	(1,218)	(563)	(760