

AMYRIS BIOTECHNOLOGIES INC

Form S-1/A

May 25, 2010

Table of Contents

As filed with the Securities and Exchange Commission on May 25, 2010

Registration No. 333-166135

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**Amendment No. 1 to  
FORM S-1  
REGISTRATION STATEMENT**

*UNDER*

*THE SECURITIES ACT OF 1933*

**Amyris Biotechnologies, Inc.**

(Exact name of registrant as specified in its charter)

Delaware  
(State or other jurisdiction of  
incorporation or organization)

8731  
(Primary Standard Industrial  
Classification Code Number)

55-0856151  
(I.R.S. Employer  
Identification Number)

Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

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 Biotechnologies, 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)

*Copies to:*

Gordon K. Davidson, Esq.  
Daniel J. Winnike, Esq.  
Sayre E. Stevick, Esq.  
Fenwick & West LLP  
801 California Street  
Mountain View, California 94041  
(650) 988-8500

Jeffrey D. Saper, Esq.  
Allison B. Spinner, Esq.  
Wilson Sonsini Goodrich & Rosati, P.C.  
650 Page Mill Road  
Palo Alto, California 84304  
(650) 493-9300

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



**Table of Contents**

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 May 25, 2010*

*Shares*

*COMMON STOCK*

*Amyris Biotechnologies, 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 10.*

Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

PRICE \$ A SHARE

	<i>Price to</i>	<i>Underwriting</i>	<i>Proceeds to</i>
	<i>Public</i>	<i>Discounts and</i>	<i>Amyris</i>
	\$	\$	\$
<i>Per Share</i>			
<i>Total</i>	\$	\$	\$

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**

**J.P. MORGAN**

**GOLDMAN, SACHS & CO.**

**BANCO ITAÚ**

**THOMAS WEISEL PARTNERS LLC**

, 2010

**Table of Contents**

**Table of Contents****TABLE OF CONTENTS**

	<b>Page</b>
<u>Prospectus Summary</u>	1
<u>The Offering</u>	7
<u>Summary Consolidated Financial Data</u>	8
<u>Risk Factors</u>	10
<u>Special Note Regarding Forward-Looking Statements</u>	35
<u>Use of Proceeds</u>	36
<u>Dividend Policy</u>	36
<u>Capitalization</u>	37
<u>Dilution</u>	39
<u>Selected Consolidated Financial Data</u>	41
<u>Management's Discussion and Analysis of Financial Condition and Results of Operations</u>	43
<u>Business</u>	68
	<b>Page</b>
<u>Management</u>	88
<u>Certain Relationships and Related Party Transactions</u>	112
<u>Principal Stockholders</u>	115
<u>Description of Capital Stock</u>	119
<u>Shares Eligible for Future Sale</u>	123
<u>Material U.S. Federal Income Tax Considerations for Non-U.S. Holders of Common Stock</u>	126
<u>Underwriters</u>	130
<u>Legal Matters</u>	135
<u>Experts</u>	135
<u>Where You Can Find Additional Information</u>	135
<u>Index to Consolidated Financial Statements</u>	F-1

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.





**Table of Contents**

**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 10 and our consolidated financial statements and the related notes appearing elsewhere in this prospectus, before making an investment decision.*

**AMYRIS BIOTECHNOLOGIES, INC.**

**Business Overview**

*Our Company*

We are building an integrated renewable products company by applying our industrial synthetic biology 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 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.

*Technology*

We have developed genetic engineering and screening technologies that enable us to modify the way microorganisms, or microbes, process sugar. By controlling these metabolic 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 microbial strains to produce 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. We have granted a royalty-free license to this technology to sanofi-aventis for the commercialization of artemisinin-based drugs.

*Feedstock*

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

We are focusing on Brazilian sugarcane as our primary feedstock. Brazil is the world's largest producer of sugarcane, crushing over 600 million tons of sugarcane annually to provide feedstock to approximately 400 sugar and ethanol mills. 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.

**Table of Contents**

*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.

*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 Química 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. We have non-binding letters of intent in place with three leading Brazilian sugar and ethanol producers, Bunge Limited, Cosan and Açúcar Guarani, a subsidiary of Tereos, to build new, bolt-on facilities adjacent to specified existing mills to produce our 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. In addition, we expect these arrangements to provide us with access to over 10 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 represents approximately 10% of the total crush capacity of these sugar and ethanol producers.

*Commercialization*

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. Further, we are seeking to improve our strain performance to expand our addressable markets, including additional specialty chemical applications and renewable diesel. For most specialty chemical applications, we intend to sell directly to industrial customers. 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. To build the capabilities we will need to import and distribute our renewable fuels products in the U.S., we have established our subsidiary Amyris Fuels, LLC. Amyris Fuels currently generates revenues through the sale of third party ethanol 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 (EIA), 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.

## **Table of Contents**

*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 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, and our business model is designed to produce these products and bring them to market in a capital light manner. 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.

*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.

*Scalable, capital light approach.* Our technology platform enables us to leverage the large existing sugar and ethanol industry infrastructure in Brazil.

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

*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.

## **Table of Contents**

### ***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, 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:

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

*Pursuing market opportunities that maximize our returns.* We intend to commercialize initially in select specialty chemical markets and then as we lower our production costs, to expand into broader specialty chemical markets and transportation fuels. We also intend to enter into collaborative research, development and commercialization agreements to accelerate our entry into select new product opportunities.

*Leveraging our technology platform to improve efficiency.* We intend to continually apply our technology platform to lower the cost of production of our products through yield improvements and other efficiencies.

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

*Advancing capital light production.* We expect to partner with existing sugar and ethanol mills to establish and scale production at a lower cost than the cost of greenfield mill construction.

*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.



## Table of Contents

### **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 10 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 produce our products at competitive prices and our business will not succeed;

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;

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 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;

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, or do not have or have access to this capital, production of our products would be more limited or expensive than expected and our business would be harmed;

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;

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

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;

## **Table of Contents**

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 and have maintained our headquarters and research facilities in the San Francisco Bay Area since that time. 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. We plan to reincorporate in Delaware prior to the completion of this offering.

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](http://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 Biotechnologies, Inc. and its 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<sup>®</sup>, No Compromise<sup>®</sup> 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.

**Table of Contents**

**THE OFFERING**

Common stock offered by us	shares
Common stock to be outstanding after this offering	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 10 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 27,570,029 shares of our common stock outstanding as of March 31, 2010, after giving effect to the conversion of our outstanding convertible preferred stock into 21,899,273 shares of common stock and the conversion of shares of Amyris Brasil held by third party investors in this subsidiary into 550,044 shares of our common stock and excludes:

5,819,455 shares of common stock issuable upon the exercise of stock options outstanding as of March 31, 2010, at a weighted average exercise price of \$4.62 per share;

195,604 shares of common stock issuable upon the exercise of outstanding warrants as of March 31, 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;

176,272 shares of common stock subject to restricted stock units outstanding as of March 31, 2010;

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

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.

Unless otherwise indicated, the information in this prospectus assumes:

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

our reincorporation into Delaware and the filing of our amended and restated certificate of incorporation and the adoption of our amended and 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 the 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 April 2, 2010, reported by *The Wall Street Journal* of BRL\$1.7649: US\$1.0000.

**Table of Contents****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 three months ended March 31, 2009 and 2010 and the summary consolidated balance sheet as of March 31, 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.

	2007	Years Ended December 31, 2008	2009	Three Months Ended March 31, 2009	2010
	(in thousands, except share and per share amounts)				
	(Unaudited)				
<b>Consolidated Statement of Operations Data:</b>					
Total revenues	\$ 6,184	\$ 13,892	\$ 64,608	\$ 2,091	\$ 13,655
<b>Cost and operating expenses</b>					
Cost of product sales		10,364	60,428	1,424	10,003
Research and development <sup>(1)</sup>	8,662	30,306	38,263	8,603	11,178
Sales, general and administrative <sup>(1)</sup>	10,522	16,622	23,558	4,402	9,216
Restructuring and asset impairment charges			5,768		
Total cost and operating expenses	19,184	57,292	128,017	14,429	30,397
Loss from operations	(13,000)	(43,400)	(63,409)	(12,338)	(16,742)
Total other income (expense)	1,226	857	(1,391)	(55)	407
Loss before income taxes	(11,774)	(42,543)	(64,800)	(12,393)	(16,335)
Benefit from income taxes		(207)			
Net loss	(11,774)	(42,336)	(64,800)	(12,393)	(16,335)
Loss attributable to noncontrolling interest		(472)	(341)	(221)	(183)
Net loss attributable to Amyris Biotechnologies, Inc. stockholders	\$ (11,774)	\$ (41,864)	\$ (64,459)	\$ (12,172)	\$ (16,152)
Net loss per share of common stock attributable to Amyris Biotechnologies, Inc. stockholders, basic and diluted <sup>(2)</sup>	\$ (3.28)	\$ (9.91)	\$ (13.56)	\$ (2.65)	\$ (3.22)
Weighted-average shares of common stock outstanding used in computing net loss per share of common stock, basic and diluted <sup>(2)</sup>	3,592,932	4,223,533	4,753,085	4,592,400	5,010,569
Pro forma net loss per share of common stock attributable to Amyris Biotechnologies, Inc. stockholders, basic and diluted (unaudited) <sup>(2)</sup>			\$ (3.16)		\$ (0.67)

Weighted-average shares of common stock outstanding used in computing pro forma net loss per share of common stock, basic and diluted (unaudited) <sup>(2)</sup>	20,279,433	24,794,446
--	------------	------------

**Table of Contents**

	As of March 31, 2010		
	Actual	Pro Forma <sup>(3)</sup>	Pro Forma as Adjusted <sup>(4)</sup>
	(Unaudited)	(Unaudited)	(Unaudited)
<b>Consolidated Balance Sheet Data:</b>			
Cash, cash equivalents, short term investments and restricted cash	\$ 105,256	\$ 105,256	\$
Working capital	85,994	85,994	
Total assets	158,182	158,182	
Total indebtedness <sup>(5)</sup>	20,307	20,307	
Convertible preferred stock warrant liability	2,705		
Convertible preferred stock	230,606		
Redeemable noncontrolling interest	7,094		
Total equity (deficit)	\$ (128,690)	\$ 111,715	\$

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

	Years Ended December 31,			Three Months Ended March 31,	
	2007	2008	2009	2009	2010
	(in thousands)			(Unaudited)	
Research and development	\$ 117	\$ 632	\$ 773	\$ 136	\$ 453
Sales, general and administrative	429	1,395	2,526	466	1,346
Total stock-based compensation expense	\$ 546	\$ 2,027	\$ 3,299	\$ 602	\$ 1,799

- (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 outstanding shares of our convertible preferred stock into common stock, the conversion of shares of Amyris Brasil held by investors in that subsidiary into shares of our common stock and the reclassification of the convertible preferred stock warrant liability to common stock immediately prior to the completion of this offering.
- (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 the 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 the offering. The pro forma as adjusted information discussed 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 a \$7.6 million credit facility associated with our student loan auction rate securities holdings, \$7.5 million in capital lease obligations, a \$4.1 million note payable and a \$1.0 million loan payable (See Note 5 and Note 6 to our Consolidated Financial Statements).



**Table of Contents**

**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 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 \$16.3 million for the three months ended March 31, 2010. We expect these losses to continue. As of March 31, 2010, we had an accumulated deficit of \$136.6 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.

## **Table of Contents**

*If we are unable to decrease our production costs, we may not be able to produce our products at competitive prices and our business will not succeed.*

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 15% yield that we have achieved at two liter scale. While we believe that we will be able to attain this level of yield of farnesene 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 several hundred thousand 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.

*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 further developing our yeast strains to achieve acceptable production costs, we must demonstrate the ability to utilize our yeast strains to produce the desired products at commercial scale 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 a commercial production level, or we may encounter operational challenges for which we are unable to devise a workable solution. For example, contamination in the production process could decrease process efficiency, create delays or 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.

*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.*

We are seeking to commence commercial sales of our initial products for specialty chemical applications in 2011. We do not currently have definitive agreements with customers and may not be able to enter into supply

## Table of Contents

agreements on terms acceptable to us or at all. We are focusing our sales and marketing efforts on working with a small number of target customers and will need to convince them that our products are comparable to or better than the specialty chemicals they currently use and 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 order to commence sales in 2011, we must secure production capacity with contract manufacturers. Such capacity may not be available to us at prices or on terms acceptable to us, or at all. While we are in active discussions with several contract manufacturers, we do not currently have definitive agreements with contract manufacturers that would provide the production capacity required to achieve commercialization of our products in 2011 at the volumes we intend, or at all. In addition, certain contract manufacturers may not have the equipment required 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 each of our contract manufacturing facilities, and we may face technical or operational challenges that delay the start-up of production or increase our costs. The failure of our contract manufacturers to produce our initial products on a timely basis or at all, or to produce our products in accordance with quality specifications or in volumes sufficient to meet our customer demand, could harm our relationships with our customers. Additionally, we have not tested our current yeast strains at commercial scale production levels, and our production costs will be impacted by the progress we make 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.

*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.

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.

## **Table of Contents**

*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.*

In April 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 terms of this joint venture 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 capacities 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 (\$17.5 million based on exchange rate at April 2, 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 (\$35.0 million based on exchange rate at April 2, 2010).

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 will be managed by a three member executive committee, of which we appoint two members, including the plant director who is the most senior executive. The executive committee will be responsible for managing the construction and operation of the production facility. The joint venture will be governed by a four member board of directors, of which we and Usina São Martinho will each appoint 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



## **Table of Contents**

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 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 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, 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





## **Table of Contents**

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 prior to the time that our joint venture facility in Brazil is ready to 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 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

## **Table of Contents**

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.

*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, sugarcane prices may increase due, among other things, to changes in the criteria set by the *Conselho dos Produtores de Cana, Açúcar e Alcool* (Council of Sugarcane, Sugar and Ethanol Producers), or Consecana. Consecana is an industry association of producers of sugarcane, sugar and ethanol that sets market terms and prices for general supply, lease and partnership agreements and may change such prices and terms. Such changes could result in higher sugarcane prices and/or a significant decrease in the volume of sugarcane available for the production of our products, which 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;

**Table of Contents**

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.

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

In addition, Brazilian presidential and parliamentary elections will take place in October 2010. The Brazilian president has significant power to determine public policies and introduce measures affecting the Brazilian economy and companies such as ours. The new government, whether or not controlled by the current president's political party, may seek to implement changes to existing public policies. For example, the current or future government may face pressure to reduce public investments (including investments in infrastructure), due to increasing inflation and public debt. This 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 ( 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 ( 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.

## **Table of Contents**

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 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

## **Table of Contents**

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 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 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 quarter of 2010, the real depreciated 2.6% 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 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



## Table of Contents

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 ethanol distributors in buying and selling third party ethanol.

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 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.

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

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.

## **Table of Contents**

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 ethanol distributors in its purchase, distribution and sale of third party ethanol in the southeastern U.S. and competes with other suppliers based on price, convenience and reliability of supply.

*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.*

We expect that the customers for our products will be large companies currently selling chemical products for various consumer and other applications and large users of diesel fuel. As a company that has not yet completed the development of our products, we have limited experience operating in the industries or interacting with the customers we intend to target. The development of expertise in these markets may take a longer period of time than we expect and will require that we expand our sales and marketing infrastructure. These events could delay our ability to capitalize on the opportunities presented to us by our technology and products, including preventing us from achieving commercialization of our initial products in 2011. Further, we expect to sell large amounts of our products to specific customers, and this will require that we effectively negotiate contracts for these purchase and sale relationships. The companies with which we expect to have customer arrangements are, in general, much larger and have substantially greater operating histories and experience in target industries than we have. As a result, we may not be effective in negotiating the terms of our relationships with these companies, which could adversely affect our future results of operations.

*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 a 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 our products, which could materially and adversely affect our operating results.

*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 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 revenues.

## **Table of Contents**

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

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 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 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 revenues and results of operations.

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

We use hazardous chemicals and radioactive and biological materials in our business and 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





**Table of Contents**

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;

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

## **Table of Contents**

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 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 in the future 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 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, 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 under short-term agreements and in spot transactions. In the future, we plan to continue the purchase and sale of ethanol and to hedge the price volatility of ethanol using futures contracts. We cannot predict the future market price of ethanol or the price 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 at favorable prices, allowing our ethanol 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 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 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.***

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

In June 2008, we began to distribute ethanol produced by third parties in the U.S. through our wholly-owned subsidiary, Amyris Fuels. Amyris Fuels currently has secured access to certain terminal and other storage capacity for ethanol, and it engages providers of transportation and transloading services for the movement of

## Table of Contents

ethanol. 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 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 257 at the end of April 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 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

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

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 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 24

**Table of Contents**

issued U.S. and foreign patents and 195 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, 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 U.S. Patent and Trademark Office ( USPTO ) which requires special activities and disclosures that may create additional risks related to the validity or enforceability of the U.S. patents so obtained. The patent situation outside of the U.S. is even less predictable. As a result, the validity and enforceability of patents cannot be predicted with certainty. Moreover, we cannot be certain whether:

we or our licensors were the first to make the inventions covered by each of our issued patents and pending patent applications;

we or our licensors were the first to file patent applications for these inventions;

others will independently develop similar or alternative technologies or duplicate any of our technologies;

any of our or our licensors patents will be valid or enforceable;

any patents issued to us or our licensors will provide us with any competitive advantages, or will be challenged by third parties;

we will develop additional proprietary products or technologies that are patentable; or

the patents of others will have an adverse effect on our business.

We do not know whether any of our patent applications or those patent applications that we license will result in the issuance of any patents. Even if patents are issued, they may not be sufficient to protect our technology or product candidates. The patents we own or license and those that may be issued in the future may be challenged, invalidated, rendered unenforceable, or circumvented, and the rights granted under any issued patents may not provide us with proprietary protection or competitive advantages. In particular, U.S. patents we obtained using the USPTO accelerated examination program may introduce additional risks to the validity or enforceability of some or all of these specially-obtained U.S. patents if validity or enforceability are challenged. Moreover, third parties could practice our inventions in territories where we do not have patent protection or in territories where they could obtain a compulsory license to our technology where patented. Such third parties may then try to import products made using our inventions into the U.S. or other territories. Additional uncertainty may result from potential passage of patent reform legislation by the U.S. Congress, legal precedent by the U.S. Federal Circuit and Supreme Court as they determine legal issues concerning the scope and construction of patent claims and inconsistent interpretation of patent laws by the lower courts. Accordingly, we cannot ensure that any of our pending patent applications will result in issued patents, or even if issued, predict the breadth, validity and enforceability of the claims upheld in our and other companies patents.



## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

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

## **Table of Contents**

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. 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.

***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



## Table of Contents

meaningful patent protection. If we wish to make, use, sell, offer to sell, or import the technology or compound claimed in issued and unexpired patents owned by others, we will need to obtain a license from the owner, enter into litigation to challenge the validity of the patents or incur the risk of litigation in the event that the owner asserts that we infringe its patents. If patents containing competitive or conflicting claims are issued to third parties and these claims are ultimately determined to be valid, we may be enjoined from pursuing research, development, or commercialization of products, or be required to obtain licenses to these patents, or to develop or obtain alternative 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.***

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

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.

## **Table of Contents**

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.

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.

## **Table of Contents**

***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, 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 Internal Revenue 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 Internal Revenue 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 (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 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.





## **Table of Contents**

### **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 the 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;

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.

## **Table of Contents**

***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 Securities and Exchange Commission 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. 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.

***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 March 31, 2010, and assuming the conversion of shares of Amyris Brasil held by investors into shares of our common stock and no exercise of outstanding options or warrants after March 31, 2010. This includes the shares that we are selling in this offering, which may be resold in the public market immediately. The remaining 27,570,029 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:

shares will be eligible for sale immediately upon completion of this offering; and

shares will be eligible for sale upon the expiration of lock-up agreements, subject in some cases to volume and other restrictions of Rule 144 and Rule 701 under the Securities Act of 1933, as amended, or the Securities Act.

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

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

## **Table of Contents**

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 26,866,881 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 \_\_\_\_\_ shares of common stock that have been reserved for future issuance under our stock incentive plans. Of these shares, \_\_\_\_\_ 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 the 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 assumed initial public offering price. As of March 31, 2010, 5,819,455 shares of common stock were issuable upon exercise of outstanding stock options with a weighted average exercise price of \$4.62 per share. As of March 31, 2010, warrants to purchase 195,604 shares of common stock (assuming conversion of all shares of preferred stock into common stock as of March 31, 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.***

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

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

## **Table of Contents**

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;

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.

As a Delaware corporation, we are subject to Section 203 of the Delaware General Corporation Law, which, subject to some exceptions, prohibits business combinations between a Delaware corporation and an interested stockholder, which is generally defined as a stockholder who

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

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.

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 and under Delaware law 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](#).



**Table of Contents**

**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, com

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;

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;

government regulatory and industry certification approval and acceptance of our products and genetically modified microorganisms;

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.

---

**Table of Contents**

**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 adoption of our technology and growing our chemistry capabilities to accelerate customer use 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 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.

**Table of Contents****CAPITALIZATION**

The following table sets forth our cash and cash equivalents and capitalization as of March 31, 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 21,899,273 shares of common stock upon the completion of this offering;

the conversion of 1,964,444 shares of Amyris Brasil held by third party investors in this subsidiary into 550,044 shares of our common stock at the completion of this offering;

the reclassification of the preferred stock warrant liability to common stock immediately prior to the completion of this offering; and

the reclassification of redeemable noncontrolling interest to common stock immediately prior to the completion of this offering;

on a pro forma basis 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.

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. 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 March 31, 2010		
	Actual	Pro Forma	Pro Forma as Adjusted
	(in thousands, except share and per share data)		
	(Unaudited)		
Cash, cash equivalents, short term investments and restricted cash	\$ 105,256	\$ 105,256	\$
Total indebtedness <sup>(1)</sup>	\$ 20,307	\$ 20,307	\$
Convertible preferred stock warrant liability	\$ 2,705	\$	\$
Convertible preferred stock no par value: 23,862,355 shares authorized, 21,385,969 shares issued and outstanding, actual; shares authorized, issued and outstanding pro forma and pro	\$ 230,606	\$	\$

Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

forma as adjusted

Redeemable noncontrolling interest	7,094
------------------------------------	-------

Stockholders' Equity (Deficit):

Common stock no par value: 38,000,000 shares authorized, 5,120,712 shares issued and outstanding actual; 38,000,000 authorized, 27,570,029 shares issued and outstanding pro forma; authorized, shares issued and outstanding pro forma as adjusted	873	241,278	
Additional paid-in capital	6,308	6,308	
Accumulated other comprehensive income	729	729	
Accumulated deficit	(136,600)	(136,600)	
Total equity (deficit)	(128,690)	111,715	
Total capitalization	\$ 132,022	\$ 132,022	\$

**Table of Contents**

- (1) Total indebtedness includes a \$7.6 million credit facility associated with our student loan auction rate securities holdings, \$7.5 million in capital lease obligations, a \$4.1 million note payable and a \$1.0 million loan payable (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 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 December 31, 2009, would be \$ \_\_\_\_\_ million, \$ \_\_\_\_\_ million, \$ \_\_\_\_\_ million and \$ \_\_\_\_\_ million.

The table above does not include:

5,819,455 shares of common stock issuable upon the exercise of stock options outstanding as of March 31, 2010, at a weighted average exercise price of \$4.62 per share;

195,604 shares of common stock issuable upon the exercise of outstanding warrants as of March 31, 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;

176,272 shares of common stock subject to restricted stock units outstanding as of March 31, 2010;

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

\_\_\_\_\_ 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.

**Table of Contents****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 March 31, 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 common stock 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 March 31, 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 March 31, 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.



**Table of Contents**

The following table summarizes, as of March 31, 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.

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

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 March 31, 2010, after giving effect to the conversion of all of our outstanding convertible preferred stock into common stock and the conversion of shares of Amyris Brasil held by third party investors in this subsidiary into shares of our common stock upon the completion of this offering. This number excludes:

5,819,455 shares of common stock issuable upon the exercise of stock options outstanding as of March 31, 2010, at a weighted average exercise price of \$4.62 per share;

195,604 shares of common stock issuable upon the exercise of outstanding warrants as of March 31, 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;

176,272 shares of common stock subject to restricted stock units outstanding as of March 31, 2010;

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

\_\_\_\_\_ 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.

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

If all our outstanding stock options and outstanding warrants had been exercised as of March 31, 2010, our pro forma net tangible book value as of March 31, 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 \$            .

**Table of Contents****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 three months ended March 31, 2009 and 2010 and the selected consolidated balance sheet as of March 31, 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.

	2005	Years Ended December 31,				Three Months Ended		
		2006	2007	2008	2009	2009	2010	
		(in thousands, except share and per share amounts)						
		(Unaudited)						
<b>Consolidated Statement of Operations</b>								
<b>Data:</b>								
Revenues								
Product sales	\$	\$	\$	\$ 10,680	\$ 61,689	\$ 1,534	\$ 9,954	
Collaborative research services		2,235	3,804	6,046	3,008	2,919	1,378	
Government grants		255	198	138	204		2,323	
Total revenues		2,490	4,002	6,184	13,892	64,608	2,091	13,655
Cost and operating expenses								
Cost of product sales				10,364	60,428	1,424	10,003	
Research and development <sup>(1)</sup>		1,866	3,633	8,662	30,306	38,263	8,603	11,178
Sales, general and administrative <sup>(1)</sup>		610	2,787	10,522	16,622	23,558	4,402	9,216
Restructuring and asset impairment charges					5,768			
Total cost and operating expenses		2,476	6,420	19,184	57,292	128,017	14,429	30,397
Income (loss) from operations		14	(2,418)	(13,000)	(43,400)	(63,409)	(12,338)	(16,742)
Other income (expense)								
Interest income		50	213	1,178	1,378	448	237	276
Interest expense				(28)	(377)	(1,218)	(234)	(384)
Other income (expense), net			36	76	(144)	(621)	(58)	515
Total other income (expense)		50	249	1,226	857	(1,391)	(55)	407
Income (loss) before income taxes		64	(2,169)	(11,774)	(42,543)	(64,800)	(12,393)	(16,335)
Provision for (benefit from) income taxes		556	(354)		(207)			
Net loss		(492)	(1,815)	(11,774)	(42,336)	(64,800)	(12,393)	(16,335)
Loss attributable to noncontrolling interest					(472)	(341)	(221)	(183)
Net loss attributable to Amyris Biotechnologies, Inc. stockholders	\$	(492)	(1,815)	(11,774)	(41,864)	(64,459)	(12,172)	(16,152)
Net loss per share of common stock attributable to Amyris Biotechnologies, Inc. stockholders, basic and diluted <sup>(2)</sup>								
	\$	(0.25)	(0.60)	(3.28)	(9.91)	(13.56)	(2.65)	(3.22)

Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

Weighted-average shares of common stock outstanding used in computing net loss per share of common stock, basic and diluted <sup>(2)</sup>	1,954,900	3,049,761	3,592,932	4,223,533	4,753,085	4,592,400	5,010,569
Pro forma net loss per share of common stock attributable to Amyris Biotechnologies, Inc. stockholders, basic and diluted (unaudited) <sup>(2)</sup>					\$ (3.16)		\$ (0.67)
Weighted-average shares of common stock outstanding used in computing pro forma net loss per share of common stock, basic and diluted (unaudited) <sup>(2)</sup>					20,279,433		24,794,446

**Table of Contents**

	2005	2006	As of December 31, 2007      2008 (in thousands)		2009	As of March 31, 2010  (Unaudited)
<b>Consolidated Balance Sheet Data:</b>						
Cash, cash equivalents, investments and restricted cash	\$ 3,767	\$ 6,706	\$ 45,862	\$ 52,888	\$ 71,716	\$ 105,256
Working capital (deficit)	(1,222)	2,287	31,045	32,356	51,062	85,994
Total assets	4,678	8,580	50,889	98,823	122,159	158,182
Total indebtedness <sup>(3)</sup>			655	6,747	20,608	20,307
Convertible preferred stock warrant liability				2,132	2,740	2,705
Convertible preferred stock		6,397	58,126	121,436	179,651	230,606
Redeemable noncontrolling interest					5,506	7,094
Total deficit	\$ (521)	\$ (2,301)	\$ (13,301)	\$ (52,143)	\$ (113,745)	\$ (128,690)

- (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 a \$7.6 million credit facility associated with our student loan auction rate securities holdings, \$7.5 million in capital lease obligations, a \$4.1 million note payable and a \$1.0 million loan payable (See Note 5 and Note 6 to our Consolidated Financial Statements).

**Table of Contents**

**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 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 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 so they can produce the desired end product at commercially viable levels. We gauge our production efficiency by measuring a number of production metrics, of which yield is the primary metric. Yield quantifies the amount of target molecule produced from a given amount of sugar. To improve yield, our strain development and screening technology 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.

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 15% yield that we have achieved at two liter scale. We will continue to seek to improve our yield of farnesene and other molecules 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

## **Table of Contents**

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.

We expect to commercialize our products through the use of contract manufacturing 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 and Açúcar Guarani, a subsidiary of Tereos, to establish production at certain of their existing mills.

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;



## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

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.

## **Table of Contents**

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 to wholesale customers through a network of 13 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 have come from ethanol sales by Amyris Fuels, which accounted for 77%, 95% and 73% of our total revenues in 2008, 2009 and the three months ended March 31, 2010, respectively, and from collaborative research services and grants.

We continue to experience significant losses as we invest in research and development, commercial facility design, sales and marketing and administrative infrastructure. As of March 31, 2010, we had an accumulated deficit of \$136.6 million. We incurred net losses attributable to Amyris shareholders of \$11.8 million, \$41.9 million and \$64.5 million in 2007, 2008 and 2009, respectively and \$16.2 million for the three months ended March 31, 2010.

## **Recent Developments**

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 will be located at Usina São Martinho in Pradópolis, São Paulo state.

The joint venture will be managed by a three-member executive committee, of which we appoint two members, including the plant director who is the most senior executive. The executive committee will be responsible for managing the construction and operation of the production facility. The joint venture will be governed by a four-member board of directors, of which we and Usina São Martinho will each appoint 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 (\$17.5 million based on exchange rate on April 2, 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 (\$35.0 million based on exchange rate on April 2, 2010).

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

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

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

## **Table of Contents**

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.

## **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 73% of our total revenues in 2008, 2009 and the three months ended March 31, 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, of which we received payment of \$2.3 million in May 2010. 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. In the future, gross margins may vary depending on the mix of specialty chemicals and renewable

## **Table of Contents**

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.

*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.

## **Table of Contents**

### **Critical Accounting Policies and Estimates**

Our discussion and analysis of our financial condition and results of operations is based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the 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.

## **Table of Contents**

### *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. 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 three months ended March 31, 2009 and 2010, we recorded a gain of \$138,000 and \$542,000, respectively, in other income (expense), net to reflect the change in fair value of the warrants.

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

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.

**Table of Contents****Stock-Based Compensation**

Our stock-based compensation expense is as follows:

	Years Ended December 31,			Three Months Ended March 31,	
	2007	2008	2009	2009	2010
	(Dollars in thousands)				
	(Unaudited)				
Research and development	\$ 117	\$ 632	\$ 773	\$ 136	\$ 453
Sales, general and administrative	429	1,395	2,526	466	1,346
<b>Total stock-based compensation expense</b>	<b>\$ 546</b>	<b>\$ 2,027</b>	<b>\$ 3,299</b>	<b>\$ 602</b>	<b>\$ 1,799</b>

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,			Three Months Ended March 31,	
	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%
Expected term (in years)	6.0	6.0	6.0	*	6.0
Expected volatility	70%	70%	97%	*	98%

\* No options were granted during the quarter ended March 31, 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.

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.

**Table of Contents**

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:

<b>Grant Date</b>	<b>Number of Options Granted</b>	<b>Exercise Price Per Share</b>	<b>Estimated Fair Value Per Share</b>	<b>Intrinsic Value Per Share</b>
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

The intrinsic value of the options outstanding as of March 31, 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.

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.

**Table of Contents**

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 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;



## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

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.

<b>Valuation Date</b>	<b>Fair Value Per Share</b>
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

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

## **Table of Contents**

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 shareholders 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.

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 shareholders. 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

## **Table of Contents**

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 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.

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

*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

## **Table of Contents**

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 IPO.

*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.

### ***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 ( RSUs ) issued to nonemployees based on the estimated fair value of our common stock. The measurement of stock based compensation is subject to periodic adjustments as the underlying equity instruments vest, and the resulting change in value, if any, is recognized in our consolidated statement of operations during the period the related services are rendered.

Stock-based compensation expense for options and RSUs granted to nonemployees for 2007, 2008 and 2009 was \$0.2 million, \$0.7 million and \$0.7 million, respectively, and for the three months ended March 31, 2009 and 2010, was \$0.1 million and \$0.5 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

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

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.

**Table of Contents**

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, \$0.6 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.

**Results of Operations**

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

	Years Ended December 31,			Three Months Ended March 31,	
	2007	2008	2009	2009	2010
	(Dollars in thousands)				
	(Unaudited)				
<b>Consolidated Statements of Operations Data:</b>					
Revenues					
Product sales	\$	\$ 10,680	\$ 61,689	\$ 1,534	\$ 9,954
Collaborative research services	6,046	3,008	2,919	557	1,378
Government grants	138	204			2,323
Total revenues	6,184	13,892	64,608	2,091	13,655
Cost and operating expenses					
Cost of product sales		10,364	60,428	1,424	10,003
Research and development	8,662	30,306	38,263	8,603	11,178
Sales, general and administrative	10,522	16,622	23,558	4,402	9,216
Restructuring and asset impairment charges			5,768		
Total cost and operating expenses	19,184	57,292	128,017	14,429	30,397
Loss from operations	(13,000)	(43,400)	(63,409)	(12,338)	(16,742)
Other income (expense)					
Interest income	1,178	1,378	448	237	276
Interest expense	(28)	(377)	(1,218)	(234)	(384)
Other income (expense), net	76	(144)	(621)	(58)	515
Total other income (expense)	1,226	857	(1,391)	(55)	407
Loss before income taxes	(11,774)	(42,543)	(64,800)	(12,393)	(16,335)
Benefit from income taxes		(207)			

Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

Net loss	(11,774)	(42,336)	(64,800)	(12,393)	(16,335)
Net loss attributable to noncontrolling interest		(472)	(341)	(221)	(183)
Net loss attributable to Amyris Biotechnologies, Inc. shareholders	\$ (11,774)	\$ (41,864)	\$ (64,459)	\$ (12,172)	\$ (16,152)



**Table of Contents****Comparison of Three Months Ended March 31, 2010 and 2009***Revenues*

	Three Months Ended March 31, 2009	Three Months Ended March 31, 2010 (Unaudited)	Change in 2010 \$
Product sales	\$ 1,534	\$ 9,954	\$ 8,420
Collaborative research services	557	1,378	821
Government Grants		2,323	2,323
Total revenue	\$ 2,091	\$ 13,655	\$ 11,564

Our total revenue increased \$11.6 million to \$13.7 million in the three months ended March 31, 2010 compared to the comparable period the prior year. The increase was primarily the result of the increase of \$8.4 million in sales of third party ethanol. We sold 4.9 million gallons of ethanol in the first quarter of fiscal 2010 compared to 0.7 million gallons in the first quarter of fiscal 2009, as we had an increase in the number of customers and accessed additional terminal space in 2010. We also had an increase of \$2.3 million resulting from revenue recognized from our DOE grant in the three months ended March 31, 2010 compared to zero revenue from government grants in the same period the prior year.

*Cost and Operating Expenses*

	Three Months Ended March 31, 2009	Three Months Ended March 31, 2010 (Unaudited)	Change in 2010 \$
Cost of product sales	\$ 1,424	\$ 10,003	\$ 8,579
Research and development	8,603	11,178	2,575
Sales, general and administrative	4,402	9,216	4,814
Total costs and operating expenses	\$ 14,429	\$ 30,397	\$ 15,968

*Cost of Product Sales*

Our cost of product sales increased by \$8.6 million to \$10.0 million in the three months ended March 31, 2010 primarily due to higher volumes of ethanol sales.

*Research and Development Expenses*

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

Our research and development expenses increased by \$2.6 million to \$11.2 million in the three months ended March 31, 2010, primarily the result of increased personnel-related expenses of \$1.3 million and higher depreciation costs of \$0.6 million. Research and development expense included stock-based compensation expense of \$0.5 million compared to \$0.1 million in the three months ended March 31, 2010 and 2009, respectively.

### *Sales, General and Administrative Expenses*

Our sales, general and administrative expenses increased by \$4.8 million to \$9.2 million in three months ended March 31, 2010, primarily the result of higher personnel-related costs of \$2.7 million and higher consulting expenses of \$1.3 million related primarily to the initial engineering design work for a commercial production facility in Brazil. Sales, general and administrative expenses included stock-based compensation of \$1.3 million compared to \$0.5 million in the three months ended March 31, 2010 and 2009, respectively.

**Table of Contents***Other Income (Expense)*

	Three Months Ended March 31, 2009		2010 (Dollars in thousands) (Unaudited)	Change in 2010 \$
Other income (expense)				
Interest income	\$ 237		\$ 276	\$ 39
Interest expense	(234)		(384)	(150)
Other income (expense), net	(58)		515	573
<b>Total other income (expense)</b>	<b>\$ (55)</b>		<b>\$ 407</b>	<b>\$ 462</b>

Total other interest income (expense) increased by \$0.5 million to \$0.4 million in the three months ended March 31, 2010 primarily the result of \$0.5 million change in fair value of preferred stock warrants.

**Comparison of Years Ended December 31, 2008 and 2009***Revenues*

	Years Ended December 31, 2008		2009 (Dollars in thousands)	Change in 2009 \$
Revenues				
Product sales	\$ 10,680		\$ 61,689	\$ 51,009
Collaborative research services	3,008		2,919	(89)
Government grants	204			(204)
<b>Total revenues</b>	<b>\$ 13,892</b>		<b>\$ 64,608</b>	<b>\$ 50,716</b>

Our total revenues increased by \$50.7 million to \$64.6 million in 2009 from \$13.9 million in 2008. The increase was primarily the result of the \$51.0 million increase in sales of ethanol purchased from third parties to \$61.7 million in 2009 from \$10.7 million in 2008, as we commenced our ethanol trading business in the second half of 2008. We sold 29.9 million gallons of ethanol in 2009 compared to 4.7 million gallons in 2008, as we had an increase in the number of customers and accessed additional terminal space in 2009.

Revenues from collaborative research services were relatively flat in 2009 compared to 2008. Collaborative research service revenues in 2009 included \$1.6 million for contracted research services focused on strain improvement performed on behalf of Sanofi Chimie. Additionally, 2009 collaborative research services included \$1.3 million related to the completion of our work under an agreement with One World Health and sanofi-aventis related to the anti-malaria product. Collaborative research service revenues in 2008 included \$3.0 million associated with the same agreement.

*Cost and Operating Expenses*

	Years Ended December 31,		Change in 2009
	2008	2009	\$
	(Dollars in thousands)		
Cost and operating expenses			
Cost of product sales	\$ 10,364	\$ 60,428	\$ 50,064
Research and development	30,306	38,263	7,957
Sales, general and administrative	16,622	23,558	6,936
Restructuring and asset impairment charges		5,768	5,768
Total cost and operating expenses	\$ 57,292	\$ 128,017	\$ 70,725

**Table of Contents***Cost of Product Sales*

Our cost of product sales increased by \$50.1 million in 2009, primarily due to higher volumes of ethanol sales.

*Research and Development Expenses*

Our research and development expenses increased by \$8.0 million in 2009 over 2008, primarily the result of \$5.0 million in additional expenses from a full year of facility-related expenses and depreciation costs for our headquarters, that includes lab and office space, and our pilot plant in Emeryville, California, both of which we occupied in the second and third quarter of 2008, respectively, and the growth of our operations in Brazil. Our 2009 research and development expenses also included facility-related expenses and depreciation costs relating to our pilot plant and demonstration facility in Campinas, Brazil, that opened in 2009. The increase was also attributable to increased personnel-related expenses of \$4.3 million, due in part to an increase in research and development personnel in Brazil associated with the expansion of the Brazil operations. These increases were offset in part by lower professional services fees of \$1.5 million incurred in 2009 compared to 2008 when we used consultants to facilitate our research efforts. Research and development expenses included stock-based compensation expense of \$0.6 million and \$0.8 million during 2008 and 2009.

*Sales, General and Administrative Expenses*

Our sales, general and administrative expenses increased by \$6.9 million in 2009 primarily as a result of increased personnel-related expenses of \$3.0 million, and higher consulting and professional fees of \$3.1 million. The increase in consulting and professional fees was due to the expansion of our Brazilian operations and the use of consultants to negotiate other contracts during the year in addition to consulting costs associated with the initial design work for a commercial production facility in Brazil. To a lesser extent, the increase was due to an increase in depreciation costs due to leasehold improvements associated with a full year of depreciation for our headquarters in Emeryville, California. Sales, general and administrative expenses included stock-based compensation expense of \$1.4 million and \$2.5 million during 2008 and 2009.

*Restructuring and Asset Impairment Charges*

Restructuring and asset impairment charges were \$5.8 million and consisted primarily of non-cash charges related to consolidation of our headquarters in a single facility in Emeryville, California, and asset impairment charges related to the vacated facility in 2009. These costs represent future rent expense, write off of leasehold improvements and the reversal of deferred rent associated with the leased facility.

*Other Income (Expense)*

	Years Ended December 31, 2008	2009 (Dollars in thousands)	Change in 2009 \$
Other income (expense)			
Interest income	\$ 1,378	\$ 448	\$ (930)

Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

Interest expense	(377)	(1,218)	(841)
Other income (expense), net	(144)	(621)	(477)
Total other income (expense)	\$ 857	\$ (1,391)	\$ (2,248)

*Interest Income*

Interest income decreased by \$0.9 million in 2009. The decrease was a result of lower interest rates, partially offset by higher average investment balances.

**Table of Contents***Interest Expense*

Interest expense increased by \$0.8 million in 2009. The increase resulted primarily from higher outstanding principal balances on our capital leases in 2009 compared to 2008.

*Other Income (Expense), Net*

Other income (expense), net increased by \$0.5 million in 2009 primarily due to higher expense related to the increase in the fair value of our convertible preferred stock warrants.

**Comparison of Years Ended December 31, 2007 and 2008***Revenues*

	Years Ended December 31, 2007	2008 (Dollars in thousands)	Change in 2008 \$
<b>Revenues</b>			
Product sales	\$	\$ 10,680	\$ 10,680
Collaborative research services	6,046	3,008	(3,038)
Government grants	138	204	66
<b>Total revenues</b>	<b>\$ 6,184</b>	<b>\$ 13,892</b>	<b>\$ 7,708</b>

Our total revenues increased \$7.7 million to \$13.9 million in 2008 from \$6.2 million in 2007. The increase was primarily the result of the \$10.7 million in sales of third party ethanol in 2008 for 4.7 million gallons of ethanol sold compared to zero in 2007.

Revenues from government grants increased by \$0.1 million in 2008 primarily as a result of a professional services contract with a research institution compared to a lower level of grant funding from Small Business Innovation Research in 2007.

Revenues from collaborative research services decreased by \$3.0 million in 2008 primarily as a result of the substantial completion of the anti-malaria product development, which was completed in 2009.

*Cost and Operating Expenses*

	Years Ended December 31,		Change in 2008
	2007	2008	\$
	(Dollars in thousands)		
Cost and operating expenses			
Cost of product sales	\$	\$ 10,364	\$ 10,364
Research and development	8,662	30,306	21,644
Sales, general and administrative	10,522	16,622	6,100
Total cost and operating expenses	\$ 19,184	\$ 57,292	\$ 38,108

*Cost of Product Sales*

Our cost of product sales increased to \$10.4 million in 2008 from zero in 2007 as a result of the commencement of ethanol sales in 2008.



**Table of Contents***Research and Development Expenses*

Our research and development expenses increased by \$21.6 million in 2008, primarily as a result of higher facility-related expenses and depreciation costs of \$9.4 million. In May 2008, we entered into an operating lease for our facility in Campinas, Brazil. Also contributing to this increase was higher facility-related expenses and depreciation costs for our new headquarters in Emeryville, California, which includes lab and office space, and costs associated with the pilot plant also in located in Emeryville. Additionally, we incurred higher personnel-related expenses of \$6.8 million attributable to a 91% increase in employee headcount in our research and development functions over the prior year. We also incurred higher professional fees of \$3.0 million as we leveraged consultants during this expansion phase as well as \$1.9 million in higher expenses associated with lab supplies. Research and development expenses included stock-based compensation expense of \$0.1 million and \$0.6 million during 2007 and 2008.

*Sales, General and Administrative Expenses*

Our sales, general and administrative expenses increased by \$6.1 million in 2008 primarily as a result of \$5.4 million in increased personnel-related expenses attributable to higher sales and general and administrative headcount, which increased 48% over the prior year. We increased our headcount in Emeryville and in Chicago, where we established Amyris Fuels, LLC. We also had an increase of \$1.8 million in higher professional and consulting fees. Sales, general and administrative expenses included stock-based compensation expense of \$0.4 million and \$1.4 million during 2007 and 2008.

*Other Income (Expense)*

	Years Ended December 31,		Change in 2008
	2007	2008	\$
	(Dollars in thousands)		
Other income (expense)			
Interest income	\$ 1,178	\$ 1,378	\$ 200
Interest expense	(28)	(377)	(349)
Other income (expense), net	76	(144)	(220)
Total other income (expense)	\$ 1,226	\$ 857	\$ (369)

*Interest Income*

Interest income increased by \$0.2 million in 2008. The increase resulted from our higher average investment balances and higher interest rates in 2008 compared to 2007.

*Interest Expense*

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

Interest expense increased by \$0.3 million in 2008 due primarily to higher outstanding principal balances on our capital leases in 2008 compared to 2007.

### *Other Income (Expense), Net*

Other income (expense), net decreased by \$0.2 million. Other income (expense), net in 2008 included \$0.1 million expense related to the increase in the fair value of our convertible preferred stock warrants.

**Table of Contents****Liquidity and Capital Resources**

	December 31, 2008	December 31, 2009	March 31, 2010 (Unaudited)
	(Dollars in thousands)		
Working capital	\$ 32,356	\$ 51,062	\$ 85,994
Cash and cash equivalents and short-term investments	\$ 37,190	\$ 67,210	\$ 100,741

	Years Ended December 31,			Three Months Ended March 31,	
	2007	2008	2009	2009	2010
	(Dollars in thousands)				
	(Unaudited)				
Net cash used in operating activities	\$ (9,526)	\$ (38,879)	\$ (45,718)	\$ (12,762)	\$ (15,177)
Net cash used in investing activities	\$ (41,643)	\$ (14,660)	\$ (25,422)	\$ 13,559	\$ (29,243)
Net cash provided by financing activities	\$ 51,539	\$ 67,979	\$ 71,473	\$ 13,814	\$ 52,358

Since our inception, we have financed our operations primarily through an aggregate of \$244.3 million from private placements of equity securities, \$19.6 million of collaborative research services revenues and \$14.4 million of equipment financing.

As of March 31, 2010, we had cash, cash equivalents and short-term investments of \$100.7 million compared to \$67.2 million and \$37.2 million as of December 31, 2009 and December 31, 2008, respectively. As of March 31, 2010, we had total debt, including capital lease obligations of \$20.3 million. In addition, we had total borrowing capacity of \$2.4 million under our Credit Agreement, which we currently utilize in connection with our Amyris Fuels business.

During the years ended December 31, 2007, 2008 and 2009 and in the three months ended March 31, 2010 we used cash of \$2.5 million, \$22.0 million, \$7.6 million and \$3.1 million, respectively, to fund capital expenditures. We currently anticipate making aggregate capital expenditures of between 140 million Brazilian reais and 180 million Brazilian reais for the Usina São Martinho joint venture facility, of which we expect São Martinho to reimburse us for 61.8 million Brazilian reais. Of this expenditure, we expect to incur approximately 50 to 60 million Brazilian reais in 2010 (approximately \$28 million to \$34 million), approximately 80 to 110 million Brazilian reais in 2011 (approximately \$45 million to \$62 million) and approximately 10 million Brazilian reais in 2012 (approximately \$6 million). During 2010 and 2011 we expect to incur \$15 million to \$20 million in fees associated with engineering design plans that we expect to use for our joint venture and other capital light mill construction. Additionally, we anticipate making approximately \$6.0 million in capital expenditures for research and scale-up equipment and tenant improvements in 2010.

Beyond our investment in Usina São Martinho, we expect to invest capital in additional production arrangements as we seek to add capacity for the production of our products. The timing and amount of capital expenditures for additional production facilities will depend on our business and financial outlook and the specifics of the opportunity. For example, we believe that the amount of financing that we agree to provide for the construction of bolt-on, or other, production facilities may influence the other terms of the arrangements that we establish with the facility owner, and, accordingly, expect to evaluate the optimal amount of capital expenditures that we agree to fund on a case-by-case basis. As such, we believe that having, or having access to, capital to fund capital expenditures will better position us to realize the value of our technology as we seek to add additional production capacity. We may also consider additional strategic investments or acquisitions. These events may require us to access additional capital through equity or debt offerings. If we are unable to access additional capital, our growth will be limited due to the inability to invest in additional production facilities.

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

We believe that our existing cash, cash equivalents, and short term investments, the net proceeds of this offering and funding under the two grants from the DOE will be sufficient to fund our operations and other capital expenditures for at least the next 12 months.

---

## **Table of Contents**

*Credit Agreement.* In November 2008, we entered into an uncommitted facility letter (the *Credit Agreement*) with a financial institution to secure letters of credit and to finance short term advances for the purchase of ethanol and associated margin requirements as needed. In October 2009, the agreement was amended to decrease the maximum amount that we may borrow under such facility. The *Credit Agreement*, as amended, provides an aggregate maximum availability up to the lower of \$20.0 million or the borrowing base as defined in the agreement. We may use this line to secure letters of credit for product purchases in an aggregate amount up to \$5.7 million. In addition, we may borrow cash for the purchase of product, which is determined by our borrowing base. As of April 2, 2010 we had sufficient borrowing base levels to draw up to a total of \$2.4 million in short-term cash advances and had \$1.7 million available for letters of credit in addition to those outstanding at year end. As of December 31, 2008 and 2009 and March 31, 2010, we had no outstanding advances and had \$0.7 million, \$1.1 million and \$4.0 million, respectively in outstanding letters of credit under the *Credit Agreement* which are guaranteed by Amyris Biotechnologies, Inc. and payable on demand. The *Credit Agreement* is collateralized by a first priority security interest in certain of our present and future assets. (See Note 6 to the Consolidated Financial Statements).

*Auction Rate Securities.* Our investment portfolio includes auction rate securities (*ARS*), which are issued principally by student loan entities and rated AAA by a major credit rating agency. In February 2008, auctions failed for \$12.95 million in par value of *ARS* that we held because sell orders exceeded buy orders. During the year ended December 31, 2009, a total of \$250,000 of the *ARS* held by us were called at par by the issuer. As of December 31, 2009 and March 31, 2010, we owned \$12.7 million and \$12.1 million par value of these securities, respectively.

In October 2008, UBS AG (*UBS*) offered to repurchase all of the *ARS* that we purchased from them. We formally accepted the settlement offer and entered into a repurchase agreement with UBS in November 2008. By accepting the agreement, we received the right (*Put Option*) to sell our *ARS* at par value to UBS between June 30, 2010, and July 2, 2012. We expect to sell the *ARS* under the *Put Option*. However, if the *Put Option* is not exercised before July 2, 2012, it will expire and UBS will have no further rights or obligation to buy the *ARS*. (See Note 3 to the Consolidated Financial Statements.)

### **Three Months Ended March 31, 2010 and 2009**

#### ***Cash Flows from Operating Activities***

Net cash used in operating activities of \$15.2 million in the three months ended March 31, 2010 reflected a net loss of \$16.3 million and a \$1.9 million net change in our operating assets and liabilities partially offset by non-cash-charges of \$3.1 million. Non-cash charges primarily included \$1.8 million of stock-based compensation and \$1.6 million of depreciation and amortization.

Net cash used in operating activities of \$12.8 million in the three months ended March 31, 2009 reflected a net loss of \$12.4 million and a \$2.3 million net change in our operating assets and liabilities partially offset by non-cash charges of \$1.9 million. Non-cash charges primarily included \$1.4 million of depreciation and amortization.

#### ***Cash Flows from Investing Activities***

For the three months ended March 31, 2010 cash used in investing activities was \$29.2 million as a result of \$26.1 million in net investment purchases and \$3.1 million of capital expenditures. This compares to cash provided by investing activities of \$13.6 million in the three months ended March 31, 2009 as the result of \$16.5 million in net investment sales offset by \$2.8 million of capital expenditures.

*Cash Flows from Financing Activities*

In the three months ended March 31, 2010 cash provided by financing activities was \$52.4 million, primarily the result of a net receipt of \$47.8 million from our sale of Series C-1 convertible preferred stock, net

## **Table of Contents**

receipt of \$3.7 million from our sale of Series C convertible preferred stock and the receipt of \$1.7 million from investors for the sale of a noncontrolling interest in Amyris Brasil.

In the three months ended March 31, 2009 cash provided by financing activities was \$13.8 million, primarily the result of the receipt of \$8.1 million from debt from an advance on student loan auction rate securities held at UBS, \$4.3 million from proceeds from equipment financing and \$1.8 million proceeds from the sale of Series B-1 convertible preferred stock.

## **Years Ended December 31, 2007, 2008 and 2009**

### ***Cash Flows from Operating Activities***

Our primary uses of cash from operating activities are for cost of product sales and personnel-related expenditures offset by cash received from product sales. Cash used in operating activities was \$9.5 million, \$38.9 million and \$45.7 million for the years ended December 31, 2007, 2008 and 2009.

Cash used in operating activities of \$45.7 million in 2009 reflected a net loss of \$64.8 million, partially offset by aggregate non-cash charges of \$10.4 million and a net change of \$8.7 million in our net operating assets and liabilities. Non-cash charges primarily included \$5.8 million of depreciation and amortization and \$3.3 million of stock-based compensation. The net change in our operating assets and liabilities was primarily a result of our restructuring activity of \$5.1 million, the increase in accrued and other liabilities of \$4.5 million and the decrease in prepaid and other assets of \$1.0 million, partially offset by the increase in inventory of \$0.9 million and the decrease in accounts payable of \$1.0 million.

Cash used in operating activities of \$38.9 million in 2008 reflected a net loss of \$42.3 million, partially offset by aggregate non-cash charges of \$4.8 million, and net change of \$1.3 million in our net operating assets and liabilities. Non-cash charges primarily included \$2.6 million of depreciation and amortization and \$2.0 million of stock-based compensation. The net change in our operating assets and liabilities was primarily a result of the increase in prepaid expenses and other assets of \$1.9 million, the increase in inventory of \$1.4 million and the decrease in deferred revenue of \$1.4 million, partially offset by the increase in accrued and other liabilities of \$2.1 million and the increase in accounts payable of \$1.3 million.

Cash used in operating activities of \$9.5 million in 2007 reflected a net loss of \$11.8 million, partially offset by aggregate non-cash charges of \$1.8 million and a net change of \$0.4 million in our net operating assets and liabilities. Non-cash charges primarily included \$0.6 million of depreciation and amortization and \$0.5 million of stock-based compensation. The net change in our operating assets and liabilities was primarily a result of the increase in accrued and other liabilities of \$2.3 million, partially offset by the decrease in deferred revenue of \$1.9 million.

### ***Cash Flows from Investing Activities***

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

In 2009, cash used in investing activities was \$25.4 million as a result of \$16.0 million in net investment purchases and \$7.6 million of capital expenditures, and a \$1.8 million increase in restricted cash.

In 2008, cash used in investing activities was \$14.7 million as a result of \$22.0 million of capital expenditures and \$2.0 million increase in restricted cash, partially offset by \$9.3 million in net investment sales and maturities.

In 2007, cash used in investing activities was \$41.6 million as a result of \$38.4 million in net investment purchases, \$2.5 million of capital expenditures and \$0.7 million increase in restricted cash.



**Table of Contents****Cash Flows from Financing Activities**

In 2009, cash provided by financing activities was \$71.5 million, primarily as a result of the net receipt of \$56.5 million from our sale of Series C convertible preferred stock, the net receipt of \$1.8 million from our sale of Series B-1 convertible preferred stock, the receipt of \$9.6 million from debt, primarily from an advance on student loan auction rate securities held at UBS, \$4.8 million in proceeds from equipment financing and the receipt of \$3.1 million from investors for their noncontrolling interest in Amyris Brasil, partially offset by our purchase of the noncontrolling interest in Amyris Brasil for \$2.3 million, our principal payments on our equipment financing facilities of \$1.1 million and principal repayments on our debt of \$1.0 million.

In 2008, cash provided by financing activities was \$68.0 million, primarily as a result of the receipt of \$61.4 million from our sale of Series B-1 convertible preferred stock, the receipt of \$3.7 million from our sale of Series B convertible preferred stock, the receipt of \$1.6 million from the sale of the noncontrolling interest in Amyris Brasil and \$1.2 million in proceeds from equipment financing.

In 2007, cash provided by financing activities was \$51.5 million, primarily as a result of the receipt of \$13.9 million from our sale of Series A convertible preferred stock and the receipt of \$37.6 million from our sale of Series B convertible preferred stock.

**Contractual Obligations**

The following is a summary of our contractual obligations as of December 31, 2009 and March 31, 2010:

	Total	2010	2011	2012	2013	2014 and beyond
	(Dollars in thousands)					
<b>As of December 31, 2009</b>						
Principal payments on long term debt	\$ 13,380	\$ 9,018	\$ 1,348	\$ 655	\$ 533	\$ 1,826
Interest payments on long-term debt, fixed rate <sup>(1)</sup>	1,618	442	381	251	193	351
Interest payments on long-term debt, variable rate <sup>(2)</sup>	55	55				
Operating leases	34,747	3,161	4,021	4,669	4,328	18,568
Principal payments on capital leases	7,228	2,251	2,469	2,241	267	
Interest payments and executor costs on capital leases	1,303	710	436	153	4	
Terminal storage costs	2,059	934	805	320		
<b>Total</b>	<b>\$ 60,390</b>	<b>\$ 16,571</b>	<b>\$ 9,460</b>	<b>\$ 8,289</b>	<b>\$ 5,325</b>	<b>\$ 20,745</b>
<b>As of March 31, 2010</b>						
Principal payments on long term debt	\$ 12,775	\$ 8,356	\$ 1,384	\$ 660	\$ 538	\$ 1,837
Interest payments on long-term debt, fixed rate <sup>(1)</sup>	1,525	343	383	253	195	351
Interest payments on long-term debt, variable rate <sup>(2)</sup>	24	24				
Operating leases	34,551	2,446	4,091	4,742	4,402	18,870
Principal payments on capital leases	7,531	1,946	2,724	2,525	336	
Interest payments and executor costs on capital leases	1,280	583	506	185	6	
Terminal storage costs	2,537	889	1,216	432		
Purchase obligations	2,856	2,856				
<b>Total</b>	<b>\$ 63,079</b>	<b>\$ 17,443</b>	<b>\$ 10,304</b>	<b>\$ 8,797</b>	<b>\$ 5,477</b>	<b>\$ 21,058</b>

- (1) For fixed rate facilities, the interest rates are more fully described in Note 6 of our consolidated financial statements.
- (2) For variable rate facilities, amounts are based on weighted average interest rate which was 1.32% and 1.28% as of December 31, 2009 and March 31, 2010, respectively.

This table does not reflect that portion of the expenses that we expect to incur from 2010 through 2012 in connection with research activities under the DOE Integrated Bio-Refinery grant for which we will not be reimbursed. We have the right to be reimbursed for up to \$24.3 million of a total of up to \$34.9 million of expenses for research activities that we undertake under this grant.

## **Table of Contents**

### ***Amyris Brasil S.A. Transactions***

Between December 2009 and March 2010, we entered into agreements with certain investors to sell a noncontrolling equity interest in Amyris Brasil S.A. (See Note 16 to our Consolidated Financial Statements included elsewhere in this prospectus for a description of these transactions.) Under the terms of these agreements, we have the right to require the investors to convert their shares of Amyris Brasil into shares of our common stock. We intend to exercise this right prior to the completion of this offering, and as a result we will issue 550,044 shares of our common stock to these investors.

### **Off-Balance Sheet Arrangements**

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

### **Quantitative and Qualitative Disclosures about Market Risk**

We are exposed to financial market risks, primarily changes in interest rates, currency exchange rates and commodity prices. On a limited basis we use derivative financial instruments primarily to manage commodity price risk. All of the potential changes noted below are based on sensitivity analyses performed on our financial positions as of March 31, 2010. Actual results may differ materially.

#### ***Interest Rate Risk***

Our exposure to market risk for changes in interest rates relates primarily to our investment portfolio and our outstanding debt obligations. We generally invest our cash in investments with short maturities or with frequent interest reset terms. Accordingly, our interest income fluctuates with short-term market conditions. As of March 31, 2010, our investment portfolio consisted primarily of money market funds, government bonds and notes and ARS. With the exception of our ARS, these were highly liquid investments. Due to the short-term nature of our investment portfolio, our exposure to interest rate risk is minimal.

Interest rate risk is present with both fixed- and variable-rate debt. As of March 31, 2010, approximately 38 percent of our debt portfolio was comprised of variable-rate debt and 62 percent was fixed-rate debt. If interest rates had increased by 100 basis points related to the outstanding amounts as of March 31, 2010, our interest expense would have changed by \$19,000 on an annual basis.

#### ***Foreign Currency Risk***

Most of our sales contracts are principally denominated in U.S. dollars and, therefore, our revenues are not currently subject to significant foreign currency risk. We do incur certain operating expenses in currencies other than the U.S. dollar in relation to Amyris Brasil and, therefore, are subject to volatility in cash flows due to fluctuations in foreign currency exchange rates, particularly changes in the Brazilian reais. To date, we have not entered into any hedging contracts since exchange rate fluctuations have had minimal impact on our results of operations and cash flows.

*Commodity Price Risk*

Our exposure to market risk for changes in commodity prices currently relates primarily to our purchases of ethanol. When possible, we manage our exposure to this risk primarily through the use of supplier pricing agreements. We also, at times, use standard derivative commodity instruments to hedge the price volatility of

## **Table of Contents**

ethanol, principally through ethanol futures contracts. The changes in fair value of these contracts are recorded on the balance sheet and recognized immediately in cost of product sales. We recognized (losses) gains of \$0, \$752,000 and (\$1,910,000) as the change in fair value for the years ended December 31, 2007, 2008 and 2009, and we recognized gains of \$647,000 as the change in fair value for the three months ended March 31, 2010, respectively. (See Note 3 to the Consolidated Financial Statements).

## **Recent Accounting Pronouncements**

In June 2009, the FASB issued a new accounting standard that requires a qualitative approach to identifying a controlling financial interest in a variable interest entity ( VIE ), and requires ongoing assessment of whether an interest in a VIE makes the holder the primary beneficiary of the VIE. The new accounting standard became effective for us on January 1, 2010. The adoption of the standard had no impact on the Company's consolidated financial position, results of operations or cash flows.

In October 2009, the FASB issued a new accounting standard that changes the accounting for arrangements with multiple deliverables. Specifically, the new accounting standard requires an entity to allocate arrangement consideration at the inception of an arrangement to all of its deliverables based on their relative selling prices. In addition, the new standard eliminates the use of the residual method of allocation and requires the relative- selling-price method in all circumstances in which an entity recognizes revenue for an arrangement with multiple deliverables. In October 2009, the FASB also issued new accounting standard that changes revenue recognition for tangible products containing software and hardware elements. Specifically, if certain requirements are met, revenue arrangements that contain tangible products with software elements that are essential to the functionality of the products are scoped out of the existing software revenue recognition accounting guidance and will be accounted for under these new accounting standards. Both standards will be effective for us in the first quarter of 2011. Early adoption is permitted. We are currently assessing the impact that the adoption of these standards will have on our consolidated financial statements.

In January 2010, the FASB issued an amendment to an accounting standard which requires new disclosures for fair value measures and provides clarification for existing disclosure requirements. Specifically, this amendment requires an entity to disclose separately the amounts of significant transfers in and out of Level 1 and Level 2 fair value measurements and to describe the reasons for the transfers; and to disclose separately information about purchases, sales, issuances and settlements in the reconciliation for fair value measurements using significant unobservable inputs, or Level 3 inputs. This amendment clarifies existing disclosure requirements for the level of disaggregation used for classes of assets and liabilities measured at fair value and requires disclosure about the valuation techniques and inputs used to measure fair value for both recurring and nonrecurring fair value measurements using Level 2 and Level 3 inputs. The adoption of this amendment will not impact the Company's consolidated financial statements.

## **Table of Contents**

### **BUSINESS**

#### **Business Overview**

##### *Our Company*

We are building an integrated renewable products company by applying our industrial synthetic biology 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 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 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 new, bolt-on facilities 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, a subsidiary of São Martinho S.A., one of the largest sugar and ethanol producers in Brazil.

##### *Technology*

We have developed genetic engineering and screening technologies which enable us to modify the way microbes process sugar. By controlling these metabolic 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 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 for the commercialization of artemisinin-based drugs.

##### *Feedstock*

We are focusing on Brazilian sugarcane as our primary feedstock given its abundance, low cost and relative price stability. Brazil is the world's largest producer of sugarcane, crushing over 600 million tons of sugarcane annually to provide feedstock to approximately 400 sugar and ethanol mills. 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 and wine and, more recently, ethanol fuels. We plan to establish production capacity by partnering with sugar and ethanol producers, and then taking as input the same sugar source that is routinely processed by these mills and directing it to customized fermentors, where it would 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 at a contract manufacturing facility in a 60,000 liter fermentor in the U.S.

## **Table of Contents**

### ***Commercial Production***

We expect to access feedstock and scale our production through our capital light strategy. Our first such arrangement is our joint venture with Usina São Martinho, SMA Industrio Quimico 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 in the 2009-2010 harvest. We have also provided Usina São Martinho with an option to produce our products at a second production facility. We have non-binding letters of intent in place with three leading Brazilian sugar and ethanol producers, Bunge Limited, Cosan and Açúcar Guarani, a subsidiary of Tereos, to build new, bolt-on facilities adjacent to specified existing mills to produce our products. We expect that these mill owners will make a substantial contribution of 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. In addition, we expect these arrangements to provide us with access to over 10 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 represents approximately 10% of the total crush capacity of these producers.

### ***Products and Distribution***

As we commence commercial production of our initial molecule, farnesene, we expect to target specialty chemical markets. Further, we are seeking to improve our strain performance to expand our addressable markets, including additional chemical applications and renewable diesel. For most specialty chemical applications, we intend to sell directly to industrial customers. For distribution of our fuel products in the U.S., we expect to sell directly, primarily to corporations with large trucking fleets. For distribution of our fuel products in other geographies, we expect to sell indirectly through third parties. To build the capabilities we will need to import and distribute our products into the U.S., we have established our subsidiary Amyris Fuels, LLC. Amyris Fuels currently generates revenues through the sale of ethanol to wholesale customers through a network of terminals in the southeastern U.S.



## **Table of Contents**

### **Industry Background**

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 EIA, in 2008 the total worldwide demand for petroleum was over \$3 trillion, or 5% of worldwide gross domestic product. The graphic below outlines some of the markets that currently rely on petroleum as a precursor:

Historically, the abundance of petroleum has made it a convenient and inexpensive source of many chemicals and transportation fuels. Recently, however, changes in the economics of petroleum production and consumer preferences have created challenges for the current infrastructure, such as:

*Increased demand for petroleum but limited supply.* Petroleum is a finite resource, and locating and extracting new petroleum resources is becoming more challenging and expensive. At the same time, population growth, economic development and urbanization in emerging countries such as Brazil, Russia, India and China are significantly increasing the demand for petroleum.

*Volatility of petroleum prices.* Petroleum prices are highly volatile, which reduces petroleum's attractiveness as a building block for products. For instance, the price per barrel of petroleum ranged from \$145.66 in July 2008 to \$30.81 in December 2008. This variability adds a level of price uncertainty to providers and customers of goods that rely on petroleum.

*Supply chain uncertainty and inconsistency.* Secure and stable access to petroleum is increasingly threatened by a variety of factors, including the political instability of several large oil producing countries, competition over energy sources and attacks on supply infrastructure, as well as accidents and natural disasters. Concerns with dependence on current petroleum producing countries are spurring private and public initiatives to reduce petroleum use and develop effective alternatives.

**Table of Contents**

*Negative environmental impact and changing consumer sentiment.* The production of petroleum and its use as a fossil fuel create emissions that are harmful to the environment. This has led to changes in consumer attitudes towards consumption and raised the likelihood of regulatory frameworks that will continue to challenge the economics of petroleum-based products.

To address the foregoing challenges, countries have taken various actions to promote environmentally-friendly alternatives to petroleum. The U.S. Energy Policy Act of 2005 mandated that 7.5 billion gallons of renewable fuels be produced in the U.S. by 2012 as part of the Renewable Fuels Standard ( RFS ). The RFS was amended by the Energy Independence and Security Act of 2007, which calls for 36 billion gallons of renewable fuels including 21 billion gallons from cellulosic ethanol and other advanced biofuels by 2022. According to EIA, this is approximately 11% of the 2022 forecast for total U.S. petroleum demand. Similar mandates have been enacted in Europe, where the Renewable Energy Directive calls for 20% of energy to come from renewable sources by 2020. These and other policies, such as tariffs on petroleum inputs and subsidies for renewable energy research, provide meaningful incentives for the development and acceptance of alternative sources for petroleum and petroleum derivatives.

***Petroleum Alternatives***

There have been many attempts to create equivalent products to petroleum-based products that avoid the difficulties listed above. However, these initial approaches have faced challenges that have limited, or may limit, their success:

*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 potential swings in the market prices for their feedstocks. According to The World Bank, the price of maize rose over 60% from 2005 to 2007, due largely to the U.S. ethanol program combined with reduced stocks in major exporting countries. In addition to significantly impacting food prices and availability, we believe such increases reduced or eliminated the profitability of these businesses, and at various times have 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 diversity and therefore were vulnerable to variability of market prices and the degree of government support for their primary products. Further, these companies' products were imperfect substitutes for the transportation fuels they were intended to replace. For example, neither ethanol nor biodiesel can be transported in conventional petroleum pipelines or stored in blended form with petroleum-sourced fuels for any significant time due to their corrosive and viscous properties. In addition, ethanol has a lower energy content than petroleum-sourced fuels, resulting in reduced fuel economy. In many countries, ethanol and biodiesel can be blended with petroleum-based fuels only in limited quantities without requiring engine modifications or risking invalidation of engine or vehicle warranties. In the U.S., current blend limits set by the EPA restrict ethanol blending to 10% or less of gasoline.

*Capital intensity.* Many initial U.S. ethanol companies utilized a business model that included the construction and ownership of mills to control their production process. A new ethanol mill requires capital outlays of hundreds of millions of dollars. These significant capital outlays tied ethanol producers to their existing facilities and construction plans, which we believe limited their ability to opportunistically and rapidly enter new geographies and access new feedstock.

*Dependence on policy.* The economic viability of many alternative fuel and energy resources is based on government regulations and support. For instance, corn based ethanol and biodiesel are both heavily dependent on government subsidies to blenders and refineries. For example, in response to the U.S. Senate's delay in extending a biodiesel tax credit beyond its expiration in December 2009, many biodiesel producers laid off workers and suspended operations until the extension was approved in March 2010.

## **Table of Contents**

As a result of these challenges, many corn ethanol and biodiesel solutions have not been successful. 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.

## **The Amyris Solution**

We are building an integrated renewable products company by applying our industrial synthetic biology platform to provide alternatives to select petroleum-based products used in specialty chemical and transportation fuel markets worldwide. Our proprietary technology enables us to engineer microbes, such as yeast, to produce target molecules, and our business model is designed to produce these products and bring them to market in a capital light manner. Our technology 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 abundant, low-cost and relatively price stable sugarcane feedstock sources 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.* The Brazilian sugarcane industry enjoys a low production cost structure and is insulated from feedstock price volatility. The sugar and ethanol industries are vertically integrated with most mills growing much or all of their own sugarcane. Hence, they are generally exposed only to these agricultural production costs, rather than the market price of a volatile, traded commodity feedstock. Even when cane is procured from third-party growers the contract price is a formula derived from the selling price of the resultant sugar or ethanol production, insulating the mill from any substantial disconnect between its feedstock price and ultimate product selling price. Furthermore, Brazilian sugarcane does not compete for use as a food source. According to the U.S. Department of Agriculture, roughly 50% of Brazilian sugarcane is used for sugar production, and the production of cane is expected to substantially increase over the next 10 years.

*Broad range of potential products.* Our technology platform gives us the ability to produce potentially thousands of target molecules. This capability enables us to focus on the development of promising, high-value products, optimizing our overall mix of products and mitigating our exposure to any one end market. Our farnesene molecule, on which we are initially focusing, forms the basis for a wide range of chemical and fuels applications.

*Scalable, capital light approach.* We are developing production capacity by entering into agreements with sugar and ethanol producers to build new, bolt-on facilities adjacent to their existing mills to produce our products. Under these agreements, the producers will make a substantial capital or operating contribution in return for a share in the higher gross margin that we believe we will realize from the sale of our products. With approximately 400 sugar and ethanol mills operating in Brazil, we believe that this model will allow us to take advantage of the large infrastructure that is already in place. While we and/or the mill owner will be required to make a substantial capital investment to complete the new facility under these arrangements, we refer to these arrangements as capital light because we believe that the cost of constructing a bolt-on facility will be substantially less than the construction cost of an entirely new, or greenfield, facility.

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

*Not policy dependent.* We do not intend to rely on subsidies, mandates or tariffs to make our products commercially viable. While we benefit from policies such as the Renewable Fuels Standard that encourage the use of renewable products, and while we will seek to access incentives available for the production of our products, we expect our products to be offered on a cost-competitive basis with existing products without reliance on subsidies.

## **Table of Contents**

### ***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, in initial testing our squalane, a natural emollient used in high-end cosmetics, has exhibited characteristics comparable to currently available squalane. In addition, our diesel will not require engine or distribution infrastructure modifications, will have better performance at low temperatures and generally will have a higher cetane number than biodiesel.

*Greater pricing stability.* We expect that our use of Brazilian sugarcane will make our products less susceptible to price volatility than petroleum-sourced, corn-based ethanol and biodiesel products. Our yeast strains are designed to utilize a wide variety of feedstocks, which will allow us to seek other low-cost sugar sources for our process over time. We believe that this will help protect our customers from the level of volatility generally associated with exposure to petroleum and other commodities.

*Green alternative.* Our products are derived from renewable sources, enabling our customers to reduce the environmental impact of their products. For example, we believe we can provide our prospective customers in the specialty chemical market with a competitive advantage by offering greener products than those that are based on petroleum. We also believe that our diesel offers a number of environmental benefits, including the elimination of sulfur and greatly reduced nitrogen oxides, particulate matter, carbon monoxide and hydrocarbon exhaust emissions.

### ***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 expanded 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. These specialty chemical and transportation fuels markets are some of the largest addressable markets in the world, aggregating to well above \$1 trillion annually.

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

However, for decades there has been little success in developing alternatives to the petroleum-sourced products that serve these markets. We believe this to be the case because incumbents have significant advantages in the form of established production processes, access to historically low cost and plentiful petroleum feedstock and significant financial resources, which together form high barriers to entry. As a result, we believe that in order for a new company to offer products that effectively compete with petroleum-based products for these end markets, it is important to build a company that can fundamentally innovate and differentiate to achieve a long-term sustainable competitive advantage.

Since inception we focused our company on achieving a sustainable competitive advantage by abiding by three strategic principles. First, we select target markets where we can deliver products that perform comparably to existing offerings on a cost-competitive basis. Second, we will continue to advance our technology such that we can

## **Table of Contents**

scale our business using a wide variety of feedstocks in a capital light fashion. Finally, we intend to participate in the distribution and sale of our products, either directly or with partners, to maximize the value we can capture from sales of our products. By selectively participating in the supply chain for each of our end markets, we intend to position our company to capture the greatest value across each end market.

Activities that we are pursuing to support these elements of our strategy include:

*Pursuing market opportunities that maximize our returns.* We expect to be able to produce numerous specialty chemicals as well as renewable diesel from our farnesene molecule and other molecules that we can produce. We intend to expand our chemistry capabilities in order to expand market applications and support customer adoption of our products. We are currently in active discussions with various consumer products and oil companies for their purchase of our products. We will focus our initial sales and marketing efforts on a small number of high value specialty chemicals applications, such as detergents, cosmetics, perfumes and industrial lubricants, for which there exists an attractive business case for our products. We intend initially to sell and market these products in the U.S., Europe and, potentially, Brazil. As we further lower our production costs and increase our production capacity, we believe our ability to address a wide range of target markets will provide us with significant flexibility in adjusting product mix in order to maximize our returns. We also intend to enter into collaborative research, development and commercialization agreements to accelerate our entry into select new product opportunities.

*Leveraging our technology platform to improve efficiency.* We intend to continually leverage our technology platform to lower the cost of production of our products through continued strain improvement and gains in other production process efficiencies. For example, since we first engineered a yeast strain capable of producing farnesene in 2006, we have substantially increased our yield and have achieved a 15% yield at two liter scale which we believe, if replicated at commercial production scale, will enable us to enter certain specialty chemical markets. We intend to further develop our strains to enable us to address transportation fuels markets.

*Focusing on Brazilian sugarcane.* We are focusing on Brazilian sugarcane as our primary feedstock given its abundance, low cost and relative price stability. We formed Amyris Brasil in March 2008 to establish local visibility to enhance our ability to access sugarcane. We have entered into non-binding letters of intent for production relationships with three sugar and ethanol producers in Brazil, Bunge Limited, Cosan and Açúcar Guarani. If successfully consummated, we believe these production relationships, together with the Usina São Martinho mill, would provide us with access to over ten million tons of annual crushing capacity. We will continue to develop relationships to secure additional feedstock sources.

*Advancing capital light production.* We expect to partner with existing sugar and ethanol mills to establish and scale production at a lower cost than the cost of greenfield mill construction. While we are constructing our first capital light facility in Brazil, our joint venture with Usina São Martinho, we expect to initiate commercial production starting in 2011 through the use of contract manufacturing. We then expect to begin to operate the joint venture facility starting in the second quarter of 2012. We also intend to build engineering services capabilities to support sugar and ethanol mill adoption of our technology.

*Continuing to develop our fuels distribution network.* We will continue to invest in our Amyris Fuels distribution network, expanding our footprint in the U.S. We believe this strategy builds capabilities for future distribution and sales of our renewable products in the U.S. We will seek to establish arrangements with large oil companies for distribution of our renewable fuels in other countries.

## **Table of Contents**

### **Technology**

We believe that our technology enables us to genetically engineer microorganisms that will perform as effectively in commercial manufacturing conditions as they perform in the laboratory. We accomplish this by maintaining a constant feedback loop between our laboratory, where strains are initially created and modified, and our two pilot plants, where we expose those strains to conditions that simulate a commercial production environment. This allows us to focus our microbe development resources on those strains that demonstrate the potential to scale effectively. The key components of our industrial synthetic biology platform are strain engineering, process development and scale-up and chemical finishing.

### ***Strain Engineering***

The process by which a living organism converts sugar to molecules is comprised of many individual steps that together form a pathway. We focus on engineering microorganisms to build pathways that are specifically designed to produce target molecules for which we believe there may be significant market opportunities. The primary biological pathway within the microbe that we currently use to produce our target molecules is the isoprenoid pathway. Isoprenoids constitute a large, diverse class of molecules with current product applications in a wide range of industries, including specialty chemicals and fuels. The microorganisms we currently use are strains of yeast, although we have demonstrated that our technology can be applied in *E. coli* bacteria and we believe it can also be used in other microbes.

The following chart illustrates the use of our engineered yeast cells to produce target molecules in a variety of applications:



## **Table of Contents**

The key steps in our strain engineering process are:

*Identifying target molecules.* We start our process by identifying the commercial application that we want to pursue. We identify the key molecular properties that are essential to product performance in a specific commercial application and then analyze the chemical structures that drive those key performance characteristics. Finally, we identify target molecules or simple derivatives of molecules that are comprised of these key chemical structures and that may be produced by our yeast strains.

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

*Improving strain performance to achieve commercial viability.* After we have established a pathway and verified that it can produce the target molecule, the yeast strain must be improved to increase the level of efficiency of production. The two key measures of yeast strain efficiency are yield and productivity. Our focus to date has been on maximizing yield, which is the measurement of the amount of a specified molecule that is produced by our yeast from a given amount of sugar. Yield is measured both at laboratory scale, where production occurs in a controlled environment with highly uniform feedstock, and at commercial scale where products are produced on-site using commercially available feedstock, such as sugarcane juice. Yield is expressed as a percentage, with, for example, a yield of 10% indicating that of one gram of product is produced from ten grams of sugar input. Yeast strain 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.

We seek to achieve yield gains primarily by means of two different scientific approaches—random mutagenesis and rational design. In random mutagenesis, a mutagen, such as ultraviolet light, is applied to a strain that already produces some amount of a target molecule. The goal is to mutagenize, or genetically change, the strain so it will produce a greater amount of that target molecule. In order to identify strains that are more productive than the parent, or starting strain, large numbers of mutagenized strains must be screened. We have developed assays for screening tens of thousands of strains per week, and we frequently evolve the assays we use for this rapid, or high-throughput, analysis of production.

We augment our efforts to identify improved yeast strains via random mutagenesis by employing a process we refer to as rational design, in which we specifically design strains to achieve a desired effect. Through the use of techniques like genomics, which is the analysis of nucleic acids within the cell, metabolomics, which is the analysis of reaction intermediates inside the cell, and proteomics, which is the analysis of enzymes inside the cell, we can identify potential bottlenecks in the flow of the sugar feedstock to the target molecules. We can then explore solutions to those bottlenecks and test them by making targeted, or rational, genetic changes to the pathway. In order to increase the efficiency of these rational design efforts, we have developed and implemented a series of automated processes:

*Rapid strain engineering.* This is a method of engineering strains in which we break the strain engineering process into a series of modular steps, which allows for more rapid construction of strains than do conventional methods.

*Automated strain engineering.* We are able to take the strain engineering processes normally undertaken by people and implement them on standard molecular biology and liquid handling robotics equipment.

*High-throughput assays.* We implement the previous two steps in conjunction with the same high-throughput assays used to screen mutagenized strains in order to identify those strains with improved production capabilities.



## **Table of Contents**

Our two primary strain engineering approaches, random mutagenesis and rational design, also intersect in a way that enables us to leverage both. In addition to using random mutagenesis to generate strains, we also use it to identify hypotheses about further improvements that can be implemented through rational design techniques. By comparing the DNA sequence of a newly identified, improved microorganism to the DNA sequence of its parent strain, we can identify the specific mutations in the improved strain that we believe led to the improvements, and then rationally design them into other strains. Additionally, we can use these identified mutations to generate new hypotheses for rational design.

Our progress to date with farnesene demonstrates results obtained from the application of our technology platform. After identifying farnesene as a molecule with commercial potential, we developed a farnesene producing yeast strain and began to apply our strain improvement processes. We increased the peak yield for farnesene from approximately 6% to 15% in 2009 at the two liter laboratory scale.

We have selectively transitioned from our laboratories to our pilot plants several strains that we believe have the potential to scale effectively. In doing so, we have demonstrated the ability of certain strains to achieve farnesene yields at the 300 liter pilot scale that are comparable to those achieved at the two liter laboratory scale. Similarly, we have selectively transitioned two of these strains to the 5,000 liter demonstration scale, and these strains have demonstrated yields comparable to those achieved at the two liter and 300 liter scales. We plan to continue to transition our most promising strains to demonstration scale, with the goal of achieving no, or minimal, drop-off in yield levels.

The two graphs below show, on the left, our progress in improving farnesene yield at laboratory scale with our increasingly productive yeast strains over the course of 2009 and, on the right, the yields obtained at each of the two liter and 300 liter scales in Emeryville for three of our strains and also at the 300 liter and 5,000 liter scales in Campinas for the two strains that have been further tested there.

We believe that we will be able to enter certain specialty chemical markets with farnesene if we can attain at commercial production scale the 15% yield that we have achieved at two liter scale. Based on our success in matching at the 5,000 liter scale the yields achieved by earlier generation strains at the two liter and 300 liter scales, we believe we can achieve the 15% yield at commercial scale, although we cannot be assured that we will do so until we have fully transitioned to that scale. In order to enter substantially larger markets such as those for diesel and certain specialty chemical products, we must achieve substantially higher farnesene yields than we have achieved to date. We may never achieve the yields needed to address these larger markets.

## **Table of Contents**

### ***Process Development and Scale-up***

The basis of our production process is a well established fermentation process that uses our genetically engineered yeast strains to convert the sugar source into target molecules like farnesene. We employ a multi-stage scale-up approach, to progress from laboratory scale to commercial production scale. This approach is depicted in the diagram below.

*Laboratory scale.* This first stage of scale-up evaluates the performance of promising new strains in a fermentation process under conditions approximating our pilot plant conditions. A limited number of strains are selected for further scale-up, and the fermentation process is further optimized to improve performance of each selected strain.

*U.S. pilot plant.* Our 300 liter U.S. pilot plant is located in Emeryville, California, adjacent to our laboratories. At this facility, we develop and test complete production processes that will eventually form the basis of processes used for commercial production. The activities we conduct at this pilot plant include feedstock preparation, fermentation runs and product separation. At the Emeryville pilot plant, we use commercially available sucrose as the feedstock.

*Brazil pilot plant.* We have a second 300 liter pilot plant located in Campinas, Brazil, which is substantially identical to our pilot plant in Emeryville. Using an identical design and process between the Emeryville and Campinas pilot plants allows us to replicate our processes while incorporating Brazilian sugarcane as our feedstock.

*Brazil demonstration plant.* In addition to our two pilot facilities, we have a demonstration facility in Campinas, Brazil, which contains two 5,000 liter fermentors. Here, the production process we developed at the 300 liter scale is further adapted to perform at the 5,000 liter scale, allowing for additional validation of production processes and equipment as we move toward full scale commercial

## **Table of Contents**

production. This facility will provide technology support for development and continuous improvement of our commercial facilities.

*Contract manufacturing.* We have also run certain of our strains for farnesene production at contract manufacturing facilities in 60,000 liter fermentors. Thus far, the primary purpose of these operations has been the production of sufficient volumes for product testing. To date, we have produced approximately 50 barrels (or approximately 10,000 liters) of our renewable diesel for testing and certification purposes. However, production at this scale also serves as an indication of the performance of our strains at scales that are larger than that of our demonstration plant, and we anticipate using contract manufacturers for this purpose in the future. We intend to use larger fermentors on a contract manufacturing basis to initiate commercial production and in the future as needed to meet demand.

### ***Chemical Finishing Steps***

Although our product development process starts with identification and development of a target molecule for a specific product application, we also enhance the value of our biologically-derived molecules by finding multiple uses for them. In certain cases, the biologically-derived molecule will itself be the end product and in others it serves as an intermediary molecule that can then be converted into other products by means of simple chemistry steps such as hydrogenation and polymerization. For example, our diesel molecule farnesane is derived by hydrogenating the biologically derived farnesene. However, farnesene can also be converted into other applications such as lubricants, surfactants and squalane by one or more other simple chemistry steps.

### **Production**

#### ***Commercial Production***

We expect to initiate commercial production through the use of contract manufacturing as we complete our facility at our planned joint venture facility with Usina São Martinho. Following completion of the facility, we will seek to expand our production capacity by entering into agreements with owners of additional sugar and ethanol mills in Brazil. We may also use alternative production resources in other geographies. We anticipate that for many applications chemical finishing processes will be applied to the molecules that we produce in order to create desired products.

We are currently developing the engineering designs and technical capabilities to build out facilities at existing sugar and ethanol mills to produce our products. Because the bulk of our production process leverages the same equipment and process steps used to produce ethanol, we will be able to utilize much of the existing infrastructure. We expect this capital light approach will allow us to scale production at a lower cost than the cost of greenfield mill construction. The mill operator will retain the ability to direct the crushed sugarcane to produce either their current products or our products.

The manner in which we intend to develop our manufacturing capacity is as follows:

*Contract manufacturing.* To date, we have used contract manufacturing facilities to produce quantities of farnesene needed for certification and fleet testing. We are currently seeking to enter relationships with additional contract manufacturers that will enable us to commercialize our products beginning in 2011. Depending primarily on the manufacturer's location and preferences, the most likely feedstocks to be used are corn

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

based dextrose, sugarcane syrup or sugar beets. In addition, we may use contract manufacturing to supplement our production capacity as new facilities are coming online and as otherwise needed to help us meet demand for our products.

*First production in Brazil through joint venture with Usina São Martinho.* We have formed a joint venture with Usina São Martinho, a subsidiary of a leading sugar and ethanol company in Brazil, São Martinho S.A., to

## **Table of Contents**

establish our first commercial-scale production facility at Usina São Martinho, located in São Paulo state, Brazil, which crushed 8.1 million tons of sugarcane in the 2009-2010 harvest season. We expect that production of our products will commence at the facility in the second quarter of 2012.

*Increasing production in Brazil through arrangements with sugar and ethanol mill owners.* We anticipate increasing our commercial production through arrangements with other ethanol and sugar producers in Brazil. We have entered into non-binding letters of intent for production relationships with three sugar and ethanol producers in Brazil, Bunge Limited, Cosan and Açúcar Guarani. If successfully consummated, we believe these production relationships together with the Usina São Martinho mill would provide us with access to over ten million tons of annual crushing capacity, which we expect to expand over time with these and other mills. As of the first quarter of 2010, this capacity represents approximately 10% of the total crush capacity of these producers.

*Alternative geographies for production.* Although we have identified the use of new bolt-on facilities adjacent to existing sugar and ethanol mills in Brazil as the optimal source for our primary production efforts, we may use facilities in alternative geographies for certain products. We are also exploring production options in the U.S. Through our Integrated Biorefinery Grant from the DOE, which we were awarded in early April 2010, we are evaluating the potential for the production of our renewable products from sweet sorghum grown in Florida, Louisiana, Alabama, Texas and Hawaii.

*Chemical finishing steps.* For each product requiring additional chemical finishing steps, we will evaluate the optimal geographies and facilities for the completion of these steps. These chemical finishing steps may be performed either by our customers or outsourced by us.

## ***Cost of Production***

The primary focus of our research and development efforts at this time is on the refinement of our production processes, particularly the yield level of our farnesene strains, so that we are able to produce our products economically at commercial scale. Other important measures of production efficiency include yeast strain productivity, separation efficiency and chemical process efficiency. 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 yield 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 Products**

We are focused on bringing a broad range of products to market, including specialty chemicals and renewable transportation fuels. Our current product development efforts focus on the development and production of a limited number of chemical products and on diesel as our initial transportation fuel. Over time we plan to develop additional chemical and fuel products, and have already begun initial product development and testing efforts with regard to several of these products.

For the foreseeable future, the products that we develop will seek to replace petroleum-sourced, or other biological or chemical-derived, components of existing consumer and commercial products in target markets. Our No Compromise commitment is based on the premise that while our customers will value products made from renewable resources, each product must be economically viable and competitive in terms of

product quality relative to the existing product that it is seeking to replace. We believe that this philosophy of targeting existing attractive markets with a green alternative that is cost-competitive with the current product components and provides comparable or better performance will position our products to achieve acceptance as they become available.



## **Table of Contents**

A common characteristic of many of the products on which we are initially concentrating is that they are derived from farnesene, which is a 15-carbon molecule produced in our fermentation process. We have the ability to perform finishing processes to chemically convert farnesene into a variety of products, providing significant end market flexibility to our process. Since we first produced farnesene in a microbial system we have been concentrating on decreasing the production costs primarily by increasing the yield. We believe that we will be able to enter certain specialty chemical markets with farnesene if we can attain at commercial production scale the 15% yield that we have achieved at two liter scale. Our ability to enter other specialty chemical markets and the diesel market will depend on our continuing to reduce the production cost of the farnesene molecule.

### ***Chemical Products***

Our first commercialization efforts have been focused on the molecule farnesene, which forms the basis for a wide range of products including specialty chemical applications such as emollients, flavors and fragrances, surfactants for various consumer and commercial purposes, isoprene, industrial and automotive oils and lubricants. We continue to seek to identify additional uses of farnesene and to select those uses that enhance our ability to optimize the return on our technology and our production capacity.

In addition to farnesene-derived chemicals, we are seeking to develop additional chemical products through modifications to our engineered yeast strains to produce different molecules. These include flavors and fragrances chemicals, such as patchouli oil and sandalwood oil, used widely in perfumery and household products. We are also investigating the production of molecules such as isoprene, which is used extensively for the production of tires, among other uses.

While we currently expect to initially pursue the markets described above in the order that we have indicated, we may slow or accelerate the development of one or more of our products based on a variety of factors. Among these will be our ability to continue to lower the production costs of our products. Other contributing factors may include our ability to complete product qualification processes required by our customers and to satisfy any applicable regulatory requirements. Product qualification processes for our chemical products will vary from product to product, but generally will include one or more of the following steps: testing the basic chemical properties to confirm properties or substitutability; testing the formulation to ensure compatibility, performance or effectiveness; and sampling and testing by end users to demonstrate acceptability. We may also elect to change or redirect the pace of development of our chemical products as we continue to evaluate opportunities available to us in the chemical and fuels markets.

## **Table of Contents**

### ***Transportation Fuels***

We have selected diesel as our primary area of focus within the transportation fuels market because of its projected global demand growth, the lack of a scalable, competitive renewable product and our belief that our fuel product has properties superior to those of existing renewable alternatives. Testing to date indicates that our diesel will not require engine or distribution infrastructure modifications. An independent third party that we engaged has tested certain critical ASTM International (formerly known as the American Society for Testing and Materials, or ASTM) certification metrics of our diesel fuel, the results of which are shown in the following chart along with corresponding metrics for petroleum diesel and a current biodiesel formulation:

We will produce our renewable diesel by the simple chemical step of hydrogenating our farnesene. Hydrogenation is a common chemical process currently used in the production of liquid transportation fuels, margarine and numerous other products. We plan to complete this process in one or more locations to be determined based on a variety of factors, including cost, reliability and proximity to the production site and end customer.

We have completed significant steps to validate our ability to produce a market-accepted diesel product. By design, our product is a hydrocarbon of similar size to many of the hydrocarbons in petroleum-sourced diesel fuel. Due to the similarity of its chemical composition to that of existing petroleum-sourced diesel, our product has the properties required of diesel fuel and thereby satisfies the ASTM D975 Table 1 specifications for petroleum-derived diesel fuel oils. The EPA has registered our diesel for use as a 20% blend with petroleum diesel in standard engines and we are working to obtain registration for a higher blend with petroleum diesel. Our blend ratio compares, by way of example, with the typical 3-5% blend of other bio-diesel products with petroleum diesel. We have completed successful engine testing of our diesel fuel with Cummins and Mercedes-Benz Brasil at a blend of up to 10%, and we continue to work with other diesel engine manufacturers to qualify our product for use in their engines.

The prices at which we expect to be able to sell our diesel fuel are lower than those of many of the chemical products that we may sell. Consequently, our ability to successfully enter the diesel fuels market is particularly dependent upon our ability to continue to lower our production costs. Our ability to enter the diesel market is also dependent on our continuing to achieve the required regulatory approvals in the global markets in which we will seek to sell our diesel products. These approvals primarily involve clearance by the relevant environmental agencies in the particular jurisdiction. We must also be certified by a sufficient number of diesel engine manufacturers, vehicle manufacturers or operators of large trucking fleets so that our diesel will have an appropriately large and accessible addressable market. These certification processes include fuel analysis

## **Table of Contents**

modeling and the testing of engines and their components to ensure that the use of our diesel fuel does not degrade performance or reduce the lifecycle of the engine or cause it to fail to meet emissions standards. Our experience with Cummins and Mercedes-Benz Brasil supports our belief that because our fuel is substantially similar to petroleum diesel fuel, OEMs are receptive to investing the time and resources needed for the certification process.

We believe that we will also have the capacity to produce a jet fuel that is competitive with existing petroleum-sourced jet fuel. Through a different combination of fermentation and chemical finishing steps, we have produced fuels that have the chemical properties required of jet fuel. We have begun testing a series of jet fuels that we have produced through this process with major engine and aircraft manufacturers.

### ***Ethanol Sales and Collaborative Research Services***

Since the second quarter of 2008 we have generated revenues from the purchase and sale of third party ethanol in the U.S. We expect to continue to engage in these purchases and sales to further develop our fuel distribution capabilities in the U.S. We have also derived revenues from providing collaborative research services under agreements with the Bill and Melinda Gates Foundation and sanofi-aventis.

### **Product Distribution and Sales**

We intend to distribute and sell our products either directly or with partners, depending on the market. For most chemical applications, we intend to sell directly to specialty chemical and consumer products companies. We have entered into discussions with several of these companies, based on our ability to offer an attractive alternative to petroleum-based products by reducing their exposure to commodity price volatility and by providing the benefits of using a renewable ingredient.

Our approach to the diesel market will vary by the different regions in which we intend to market our renewable diesel. For Brazil and other markets outside the U.S., we intend to sell indirectly through third parties. In the U.S., we expect that our customers will be large purchasers of diesel transportation fuels, including corporations with large trucking fleets. We plan to vertically integrate our commercialization efforts in the U.S. by retaining ownership and control of the diesel product from production through sale to customers. Vertical integration will involve transportation of our diesel from the manufacturing site in Brazil to a port terminal in the U.S., storage in Brazil and the U.S. pending further transport, and delivery to terminals located more closely to customers within the U.S. We anticipate leveraging the experience, capabilities and relationships established by our subsidiary, Amyris Fuels, to help us to achieve this vertical integration. We believe that our maintaining control of the diesel product in the U.S. in this manner may make us eligible to receive certain blend credits in the U.S. Blend credits are federal subsidies made available to an entity that purchases both the renewable fuel and equivalent petroleum product, blends them in prescribed ratios and sells the blended product to end customers.

Since 2008, we have been developing a fuels distribution network and capabilities in the U.S. through Amyris Fuels, through which we currently purchase ethanol produced by third parties and sell it to wholesale customers. For 2009, Murphy Oil USA, Inc. and The Pantry, Inc. each accounted for more than 10% of our reported revenues by virtue of their purchases of ethanol from Amyris Fuels. Our customers purchase ethanol from us under short term agreements and spot transactions, and we currently do not have any contractual commitments from customers to purchase ethanol from us over a period of time.

### **Intellectual Property**

Our success depends in large part upon our ability to obtain and maintain proprietary protection for our products and technologies, and to operate without infringing the proprietary rights of others. We seek to avoid the latter by monitoring patents and publications in our product areas and technologies to be aware of

## **Table of Contents**

developments that may affect our business, and to the extent we identify such developments, evaluate and take appropriate courses of action. With respect to the former, our policy is to protect our proprietary position by, among other methods, filing for patent applications on inventions that are important to the development and conduct of our business with the U.S. Patent and Trademark Office ( USPTO ) and its foreign counterparts.

To date, we have 24 issued U.S. and foreign patents and 195 pending U.S. and foreign patent applications that are owned by or licensed to us. We also use other forms of protection (such as trademarks, copyrights, and trade secrets) to protect our intellectual property, particularly where we do not believe patent protection is appropriate or obtainable. We aim to take advantage of all of the intellectual property rights that are available to us and believe that this comprehensive approach provides us with a strong proprietary position.

Notwithstanding the increasing backlog and patent pendency at the USPTO, we have obtained U.S. patents for many of our potential products through the use of a recently introduced accelerated examination program by the USPTO. Using this procedure, we have obtained patents for various fuel products: U.S. Patent No. 7,399,323 directed to our renewable diesel fuel composition; U.S. Patent No. 7,540,888 directed to our renewable gasoline fuel composition; and U.S. Patents No. 7,589,243 and No. 7,671,245, which are directed to our renewable jet products. Since obtaining our fuels patents, we have expanded the use of this program to our chemicals portfolio and have recently obtained U.S. Patent Nos. 7,592,295 and 7,691,792 for our lubricant products, and U.S. Patent No. 7,655,739, for our adhesive products.

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

## **Competition**

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

## ***Chemical Products***

The chemical products that we initially plan to produce include emollients, flavors and fragrances, surfactants, for various consumer and commercial purposes, isoprene, industrial and automotive oils and lubricants. In these markets, and other chemical markets that we may seek to enter in the future, we will compete with the established providers of components 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.

## ***Transportation Fuel Products***

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

*Independent and Integrated oil refiners.* Our competitors with respect to traditional fuel products are independent and integrated oil refiners. These companies are also our primary competitors with respect to fuels, including jet fuel currently in use in other transportation markets. We compete with these companies because an increasing penetration of renewable fuels reduces the need for fuels derived from traditional petroleum sources.

Many of these companies are seeking to provide alternative transportation fuel products through investing in internal research and development programs or in emerging technology companies. These efforts include

## Table of Contents

processes that use non-renewable feedstocks, such as natural gas and coal, and renewable feedstocks, such as vegetable oil and biomass. These technologies are in varying states of development, the most advanced of which are those using non-renewable feedstocks, such as coal. The application of refining technologies to renewable feedstocks is less developed, with demonstration units in operation using vegetable oil or animal fats at a number of oil companies and active research on refining of biomass at other companies.

*Advanced biofuels.* Many other companies are exploring options for the production of diesel and other transportation fuels from renewable resources in other ways. These include companies using enzymes to convert cellulosic biomass, which is non-food plant material such as wood chips, corn stalks and sugarcane bagasse, into fermentable sugars to be converted into renewable fuels.

*Biodiesel.* Another source of renewable fuels products is the biodiesel industry, which is served by large, well-established agricultural products companies that convert vegetable oils, and in some cases animal oils, into diesel fuel. Other companies 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 chemical and fuel 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 which we compete are much larger than we are, in many cases have well developed distribution systems and networks for their products, have historical relationships with the potential customers we are seeking to serve and have 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 products we are seeking to replace and we must provide our products on a cost-competitive basis. 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 they are comparable to both existing products and other 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 the petroleum-sourced fuel and be available on a cost-competitive basis. Given the size of the traditional transportation fuels markets and the developing stage of alternatives fuels markets, we do not believe that our success will necessarily prevent other renewable diesel or other fuels products from achieving commercial success, or that the success of other renewable products will prevent our fuels products from being successful. However, 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*

Amyris Fuels competes with regional ethanol distributors in the southeastern U.S. The primary competitive factors in the Amyris Fuels business are price, convenience, and reliability of supply.



---

**Table of Contents**

**Environmental and Other Regulatory Matters**

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

The use of GMMs like our yeast strains, is subject to laws and regulations in many countries. In the U.S., the EPA regulates the commercial use of GMMs as well as potential products from the GMMs. The strain of genetically modified yeast that we use, *S. cerevisiae*, is eligible for exemption from EPA review because the EPA recognizes it as posing a low risk given its long history of safe use and will qualify for such exemption provided that it meets certain criteria, including but not limited to use of compliant containment structures and safety procedures. In Brazil, GMMs are regulated by CTNBio under its Biosafety Law No. 11.105-2005. We have obtained approval from CTNBio to use GMMs 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. We expect to encounter GMM regulations in most if not all of the countries in which we may seek to make our products, however, the scope and nature of these regulations will likely be different from country to country. If we cannot meet the applicable requirements in countries in which we intend to use produce our products using our yeast strains, then our business will be adversely affected. See Risk Factors Risks Relating to Our Business 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.

Our renewable chemical products may be subject to regulation by government agencies in our target markets. The EPA administers the requirements of the TSCA, which regulates the commercial use of chemicals. Before an entity can manufacture a chemical, it needs to determine whether that chemical is listed in the TSCA inventory. If the substance is listed, then manufacture can commence immediately. If not, then a pre-manufacture notice must be filed with the EPA which has 90 days to review.

Our diesel fuel is subject to regulation by various government agencies. In the U.S., this includes the EPA and the California Air Resources Board. In Brazil, this includes Agencia Nacional do Petroleo, or ANP. To date we have obtained registration with the EPA for the use of our diesel in the U.S. at a 20% blend rate. 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 exploring 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. Risk Factors Risks Relating to Our Business We may not be able to obtain regulatory approval for the sale of our renewable products.

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



## **Table of Contents**

### **Research and Development**

We devote substantial resources to our research and development efforts. Our research and development organization is comprised of approximately 190 employees, 60 of whom hold Ph.D.s. Our technology development is currently focused primarily on improving the performance of our production strains and on developing strains that produce new molecules. To facilitate the transfer of our fermentation technology to production, we operate pilot-scale fermentation facilities in both Emeryville, California, and Campinas, Brazil, and transfer strains on a regular basis through this process. Our process consists of a number of discrete steps including:

identifying new target molecules

creating new microbial strains capable of producing the target molecule

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

increasing efficiency of product separation and purification

continuous translation of these steps from lab to commercial scale production.

Our research and development expenditures were approximately \$8.7 million, \$30.3 million and \$38.3 million for the fiscal years ended December 31, 2007, 2008 and 2009, respectively and \$8.6 million and \$11.2 million for the three months ended March 31, 2009 and 2010, respectively.

### **Employees**

As of April 30, 2010, we had 257 full-time employees. Of these employees, 194 were in the U.S. and 63 were in Brazil. None of our employees is represented by a labor union or is covered by a collective bargaining agreement. We have never experienced any employment-related work stoppages and consider relations with our employees to be good.

### **Facilities**

We lease approximately 114,000 square feet of space in two adjacent buildings in Emeryville, California, pursuant to two leases. Of this, we use approximately 91,000 square feet for general office purposes and lab space, and approximately 23,000 square feet comprise our pilot plant. Approximately 20,000 square feet of office space was vacated in the restructuring that we completed in August 2009. The leases expire in May 2018. We have an option to extend these leases for five years.

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

Amyris Brasil leases approximately 13,000 square feet of space in Campinas, Brazil, pursuant to a lease that will expire in May 2013. Of this, approximately 9,000 square feet comprise a pilot plant and demonstration facility, and the remainder is general office and lab space. Amyris Brasil has a right of first refusal to purchase the space if the landlord elects to sell it and an option to extend the lease for five additional years.

Amyris Fuels has secured the use of ethanol storage tanks with an aggregate capacity of 32,500 barrels at various locations in Virginia, North Carolina, South Carolina, Georgia and Tennessee. The agreements have initial terms of approximately three years, which begin expiring in 2011. Upon expiration of the respective initial term, each agreement will continue for successive one-year terms until terminated by one of the parties.

We also use a small amount of office space in Oakbrook Terrace, Illinois.

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

**Table of Contents****MANAGEMENT****Executive Officers and Directors**

The following table sets forth information regarding our executive officers, directors and key employees as of May 21, 2010.

<b>Name</b>	<b>Age</b>	<b>Position</b>
<b>Directors:</b>		
John Melo	44	Director, President and Chief Executive Officer
Ralph Alexander <sup>(1)</sup>	55	Director
John Doerr <sup>(2)</sup>	58	Director
Geoffrey Duyk, M.D., Ph.D. <sup>(1) (2)</sup>	51	Director
Samir Kaul <sup>(2)</sup>	36	Director
Arthur Levinson, Ph.D.	60	Director
Patrick Pichette <sup>(1)</sup>	47	Director
Carole Piwnica	52	Director
Keith Kinkead Reiling, Ph.D.	36	Director, Senior Vice President of Corporate Development
Fernando de Castro Reinach, Ph.D.	54	Director
<b>Other Executive Officers:</b>		
Jeryl Hilleman	52	Chief Financial Officer
Peter Boynton	55	Chief Commercial Officer
Joel Cherry, Ph.D.	49	Senior Vice President, Research Programs and Operations
Jefferson Lievens, Ph.D.	55	Senior Vice President, Process Development and Manufacturing
Mario Portela	49	Chief Operating Officer
Neil Renninger, Ph.D.	35	Chief Technical Officer
Tamara Tompkins	45	Senior Vice President, General Counsel and Secretary
<b>Key Employees:</b>		
Jack Newman, Ph.D.	43	Senior Vice President, Research

(1) Member of Audit Committee

(2) Member of Compensation Committee

**Directors****John Melo**

John Melo has served as our President and Chief Executive Officer and a director since January 2007 and our President since January 2008. Before joining Amyris, Mr. Melo served in various senior management positions at BP Plc (formerly British Petroleum), one of the world's largest energy firms, from 1997 to 2006, most recently as President of U.S. Fuels Operations from 2004 until December 2006, and previously as Chief Information Officer of the refining and marketing segment from 2001 to 2003, Senior Advisor for e-business strategy to Lord Browne, BP Chief Executive, from 2000 to 2001, and Director of Global Brand Development from 1999 to 2000. Before joining BP, Mr. Melo was with Ernst & Young, an accounting firm, from 1996 to 1997, and a member of the management teams of several startup companies, including Computer Aided Services, a management systems integration company, and Alldata Corporation, a provider of automobile repair software to the

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

automotive service industry. Mr. Melo currently serves on the board of directors of U.S. Oil Company. Mr. Melo's experience as a senior executive at one of the world's largest energy companies provides critical leadership in designing the fuels value chain, shaping strategic direction and business transactions, and in building teams to drive innovation.

## **Table of Contents**

### ***Ralph Alexander***

Ralph Alexander has been a member of our Board of Directors since May 2007. Mr. Alexander has been a Managing Director at Riverstone Holdings, LLC, an energy and power-focused private equity firm, since September 2007. Previously, he served in various senior management positions with affiliates and subsidiaries of BP Plc (formerly British Petroleum), most recently as Chief Executive Officer of Innovene, BP's olefins and derivatives subsidiary, from 2004 to December 2005, as Chief Executive Officer of BP's Gas, Power and Renewables and Solar segment from 2001 to 2004, and as a Group Vice President in BP's Exploration and Production segment and BP's Refinery and Marketing segment. Mr. Alexander has served on the board of directors of Stein Mart, Inc. since August 2007. Mr. Alexander previously served on the boards of directors Anglo-American Plc from April 2005 to October 2007 and of Foster Wheeler from May 2006 to February 2007. He is currently deputy-chairman of the board of Polytechnic University. Mr. Alexander holds a Bachelor of Science degree and a Master of Science degree in Nuclear Engineering from Brooklyn Polytech (now Polytechnic University), and a Master of Science degree in Management Science from Stanford University. Mr. Alexander's extensive experience with the energy industry generally and renewable fuels in particular enables him to provide important insight and guidance to our management team and Board of Directors.

### ***John Doerr***

John Doerr has been a member of our Board of Directors since May 2006. Mr. Doerr has been a Partner at Kleiner Perkins Caufield & Byers, a venture capital firm, since 1980. Mr. Doerr currently serves on the board of directors of Google Inc., as well as on the boards of directors of several private companies. Previously, Mr. Doerr served on the boards of directors of Amazon.com, Inc., Move, Inc., drugstore.com, Inc., Homestore.com, Inc., palmOne, Inc. and Sun Microsystems, Inc. Mr. Doerr holds a Bachelor of Science and a Master of Science in Electrical Engineering and Computer Science degrees from Rice University and a Master of Business Administration degree from Harvard University. Mr. Doerr's global business leadership as general partner of Kleiner Perkins Caufield & Byers, as well as his outside board experience as director of several public companies enable him to provide valuable insight and guidance to our management team and Board of Directors.

### ***Geoffrey Duyk, M.D., Ph.D.***

Dr. Geoffrey Duyk has been a member of our Board of Directors since May 2006. Dr. Duyk is a partner of TPG Growth, LLC, an affiliate of TPG Biotechnology Partners II, L.P. Previously, he served on the board of directors and was President of Research and Development at Exelixis, Inc., a biopharmaceutical company focusing on drug discovery, from 1996 to 2003. Prior to Exelixis, Dr. Duyk was Vice President of Genomics and one of the founding scientific staff at Millennium Pharmaceuticals, from 1993 to 1996. Before that, Dr. Duyk was an Assistant Professor at Harvard Medical School in the Department of Genetics and Assistant Investigator of the Howard Hughes Medical Institute. Dr. Duyk currently serves on the boards of directors of several private companies and the non-profit Wesleyan University Board of Trustees. He served on the board of directors of Agria Corporation from August 2007 to May 2009, Cardiovascular Systems, Inc. (formerly Replidyne, Inc.) from 2004 to February 2009, Exelixis, Inc. from 1996 to 2003, and several private companies. Dr. Duyk holds a Bachelor of Arts degree in Biology from Wesleyan University and Doctor of Philosophy and Medicine degrees from Case Western Reserve University. Mr. Duyk's experience with the biotechnology industry enables him to provide insight and guidance to our management team and Board of Directors.

### ***Samir Kaul***

Samir Kaul has been a member of our Board of Directors since May 2006. Mr. Kaul has been a General Partner at Khosla Ventures, a venture capital firm focusing on clean technologies, since February 2006. Previously, Mr. Kaul was a member of Flagship Ventures, a venture capital firm, from 2002 to May 2006. Prior to Flagship, Mr. Kaul worked at The Institute for Genomic Research (TIGR). Mr. Kaul currently serves on

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

the boards of directors of several private companies. Mr. Kaul holds a Bachelor of Science degree in Biology from the University of Michigan, a Master of Science degree in Biochemistry from the University of Maryland and a



## **Table of Contents**

Master of Business Administration degree from Harvard University. Mr. Kaul provides our Board of Directors with wide-ranging experience in synthetic biology and high throughput system development and insight in the management of startup companies.

### ***Arthur Levinson, Ph.D.***

Dr. Arthur Levinson has been a member of our Board of Directors since April 2010. Dr. Levinson has been an advisor to the Research and Early Development Center and a member of the Scientific Resource Board of Genentech, Inc., a biotechnology company, since May 2009. Previously, he served as Chief Executive Officer of Genentech, Inc. from 1995 to April 2009. Dr. Levinson has served as Chairman of the board of directors of Genentech, Inc. since 1999, and as a member of the boards of directors of Apple, Inc. since 2000, Hoffman La Roche, Inc. since March 2010 and NGM Biopharmaceutical, Inc. since October 2009. Dr. Levinson previously served on the board of directors of Google, Inc. from 2004 to October 2009. He holds a Bachelor of Arts degree in Biology from the University of Washington, Seattle and a Doctor of Philosophy degree in Biochemical Sciences from Princeton University. Dr. Levinson's experience with the biotechnology industry enables him to provide insight and guidance to our management team and Board of Directors.

### ***Patrick Pichette***

Patrick Pichette has been a member of our Board of Directors since March 2010. Mr. Pichette has been a Senior Vice President and the Chief Financial Officer of Google Inc., an internet search company, since August 2008. Previously, he served in various senior financial management positions at Bell Canada, a telecommunications firm, from 2001 to July 2008, most recently as President, Operations from 2004 to July 2008 and, from 2002 to 2003, as Chief Financial Officer. Mr. Pichette was a partner at McKinsey & Company, a consulting firm, from 1996 to 2000, and served as Vice President and Chief Financial Officer of Call-Net Enterprises, a Canadian telecommunications company, from 1994 to 1996. Mr. Pichette served on the board of directors of Alaska Communication Systems, Inc. from 2004 to August 2008 and Aliant Communications Systems Group, Inc. from 2006 to August 2008. He currently serves on the boards of the non-profit organizations Engineers Without Borders and the Trudeau Foundation. Mr. Pichette holds a Bachelor of Arts degree in Business Administration from Université du Québec à Montréal and a Master of Arts degree in Philosophy, Politics and Economics from Oxford University, where he attended as a Rhodes Scholar. Mr. Pichette's expertise in accounting, finance, international financial operations and management enables him to provide important insight and guidance to our management team and Board of Directors and to serve as a member of our Audit Committee.

### ***Carole Piwnica***

Carole Piwnica has been a member of our Board of Directors since September 2009. Ms. Piwnica has been Director of NAXOS UK, a consulting firm advising private equity, since January 2008. Previously, Ms. Piwnica served as a director, from 1996 to July 2006, and Vice-Chairman of Governmental Affairs, from 2000 to 2006, of Tate & Lyle Plc, a European food and agricultural ingredients company. She was a director of S.A. Spadel N.V., a European soft drink company, from 1998 to 2004, and a chairman of Amylum Group, a European food ingredient company and subsidiary of Tate & Lyle Plc, from 1996 to 2000. From 1992 to 1996, Ms. Piwnica held general management positions and board memberships in various other European food companies, including Cacao Barry and Vital Sogéviandes. Ms. Piwnica currently serves on the boards of directors of Dairy Crest Group Plc, Aviva Plc and Toepfer International GmbH. She was a member of the Biotech Advisory Council of Monsanto from May 2006 to October 2009. Ms. Piwnica holds a Law degree from the Université Libre de Bruxelles and a Master of Laws degree from New York University. Ms. Piwnica provides the Board of Directors and management with significant experience in corporate leadership in multinational firms.

### ***Keith Kinkead Reiling, Ph.D.***

Dr. Reiling is a co-founder of Amyris and has been a member of our Board of Directors since July 2008 and from 2003 to May 2006. Dr. Reiling has served as our Senior Vice President, Corporate Development since

## **Table of Contents**

January 2008 and also served as our President from 2003 to January 2008. He holds a Bachelor of Science degree in Physics from the University of California, Los Angeles, a Master of Science degree in Applied Physics from Columbia University and a Doctor of Philosophy degree in Biophysics from the University of California, San Francisco. Dr. Reiling provides our Board of Directors with insight into the fundamental science behind Amyris technology and the application of that technology in the chemicals and fuels sectors.

### ***Fernando de Castro Reinach, Ph.D.***

Dr. Fernando de Castro Reinach has been a member of our Board of Directors since September 2008. Dr. Reinach has been a General Partner at Votorantim Novos Negócios Ltda., the private equity arm of Votorantim Group, a large Brazilian industrial group, since 2001. Before joining Votorantim, he was involved in the creation of two companies, Genomic Engenharia Molecular Ltda., a molecular diagnostic laboratory, and .ComDominio S/A, a datacenter company. Dr. Reinach currently serves on the board of directors of Tivit Terceirização de Processos, Serviços e Tecnologia S/A, a Brazilian IT company which is publicly traded in Brazil. Dr. Reinach holds Bachelor of Science degree in biology from the University of São Paulo and a Doctor of Philosophy degree in Cell and Molecular Biology from Cornell University Medical College. Dr. Reinach's experience with Brazilian business practices and startup companies enable him to provide important insight and guidance to our management team and Board of Directors and to assist management with establishing and developing operations in Brazil.

### **Other Executive Officers**

#### ***Jeryl Hilleman***

Jeryl Hilleman has served as our Chief Financial Officer since January 2008. Before joining Amyris, from 1997 to June 2007, she was Executive Vice President and Chief Financial Officer of Symyx Technologies, Inc., a research and development infrastructure company providing scientific software and research services to technology companies. Before Symyx, Ms. Hilleman worked with two biotechnology companies, Geron Corporation, a biopharmaceutical company, as Vice President, Finance from 1992 to 1997, and Cytel Corporation, a provider of clinical trial design tools, services and statistics applications, as Chief Financial Officer from 1987 to 1992. Ms. Hilleman holds a Bachelor of Arts degree in History from Brown University and a Master of Business Administration degree from the Wharton Graduate School of Business.

#### ***Peter Boynton***

Peter P. Boynton has served as our Chief Commercial Officer since December 2009. Mr. Boynton joined Amyris from Tate & Lyle Plc, a global food and agricultural ingredients company, where he served in various positions from 1999 to December 2009, most recently as Senior Vice President, Bio-products and Fermentation. Previously, he held multiple positions at Cargill, Inc., a privately held food and agriculture company, from 1980 to 1998, lastly as Vice President NACM. Mr. Boynton holds a Bachelor of Science degree in Economics from the University of Georgia.

#### ***Joel Cherry, Ph.D.***

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

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

## **Table of Contents**

### ***Jefferson Lievense, Ph.D.***

Dr. Jefferson Lievense has served as our Senior Vice President of Process Development and Manufacturing since December 2007. Before joining Amyris, he was the Vice President of Technology and Process Development and served in other technology management positions for the Research and Development organization of Tate & Lyle Plc, a European food and agricultural ingredients company, from 1994 to November 2007. Prior to that, he was Vice President of Research and Operations and President of the Bio-Business Incubator of Michigan for Michigan Biotechnology Institute from 1993 to 1994, Director of Chemical Programs and Pathway Engineering for Genencor International from 1990 to 1993, and held various process engineering, research scientist and product management positions at Eastman Kodak Company from 1982 to 1989. Dr. Lievense holds a Bachelor of Science degree in Chemical Engineering from The University of Michigan and a Doctor of Philosophy degree in Chemical Engineering from Purdue University.

### ***Mario Portela***

Mario Portela joined us as our Chief Operating Officer in December 2009. He also serves as Chair of the Board of Directors of Amyris Brasil. He has also worked since December 2008 as an advisor to TPG Capital on strategy, mergers and acquisitions. From December 2007 to December 2008, Mr. Portela was Vice President and Officer, Corporate Development, with LyondellBasell Industries, a leading manufacturer of polymers, petrochemicals, fuels and technology licensing. He held a similar position with Lyondell Chemical Company from 2003 until its merger with Basell in December 2007. Mr. Portela holds a degree in Mechanical Engineering from the IMPE Institute in Lisbon, Portugal.

### ***Neil Renninger, Ph.D.***

Dr. Neil Renninger is a co-founder of Amyris and has served as our Chief Technical Officer since January 2008, and has also served as our Vice President of Development from 2003 to March 2007 and as our Senior Vice President of Development from March 2007 to January 2008. Dr. Renninger holds a Bachelor of Science degree in Chemical Engineering from the Massachusetts Institute of Technology, a Master of Science degree in Environmental Engineering and a Doctor of Philosophy degree in Chemical Engineering from the University of California, Berkeley.

### ***Tamara Tompkins***

Tamara Tompkins has served as our General Counsel since February 2005, Secretary since November 2005 and Senior Vice President since July 2007. Before joining Amyris, she practiced as an attorney at Morgan, Lewis & Bockius LLP, a law firm, from 2003 to February 2005. Previously, Ms. Tompkins worked as an attorney at Brobeck, Phleger & Harrison LLP, a law firm, from 1996 to 1999 and from 2000 to 2003, and Shearman & Stearling LLP, a law firm, from 1994 to 1996. From 1999 to 2000, she was the Director of the Berkeley Center for Law and Technology at the Boalt Hall School of Law. Ms. Tompkins holds a Bachelor of Arts degree in History from Middlebury College and a Juris Doctor degree from Georgetown University Law Center.

### **Key Employee**

*Jack Newman, Ph.D.*

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

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

---

## **Table of Contents**

### **Board of Directors**

Under our amended and restated certificate of incorporation that will become effective immediately prior to the closing of this offering, our Board of Directors may set the authorized number of directors. Each director currently serves until our next annual meeting or until his or her successor is duly elected and qualified. Upon the completion of this offering, our common stock will be listed on The Nasdaq Stock Market. The rules of The Nasdaq Stock Market require that a majority of the members of our Board of Directors be independent within specified periods following the closing of this offering. We believe that seven of our directors are independent as determined under these rules: Ralph Alexander, John Doerr, Dr. Geoffrey Duyk, Samir Kaul, Dr. Arthur Levinson, Patrick Pichette, Carole Piwnica and Dr. Fernando de Castro Reinach.

Pursuant to a voting agreement as most recently amended and restated on March 12, 2010, Messrs. Kaul and Doerr and Dr. Duyk were appointed to our Board of Directors by certain of our investors. As of the date of this prospectus, Messrs. Kaul and Doerr and Dr. Duyk continue to serve on our Board of Directors and will continue to serve as directors until their resignation or until their successors are duly elected by the holders of our common stock, despite the fact that the voting agreement will terminate upon the completion of this offering.

Immediately prior to the completion of this offering, we will file our amended and restated certificate of incorporation. We anticipate that the amended and restated certificate of incorporation will divide our Board of Directors into three classes, with staggered three-year terms:

Class I directors, whose initial term will expire at the annual meeting of stockholders to be held in 2011;

Class II directors, whose initial term will expire at the annual meeting of stockholders to be held in 2012; and

Class III directors, whose initial term will expire at the annual meeting of stockholders to be held in 2013.

At each annual meeting of stockholders after the initial classification, the successors to directors whose terms have expired will be elected to serve from the time of election and qualification until the third annual meeting following such election. Upon the completion of this offering, the Class I directors will consist of \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_; the Class II directors will consist of \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_; and the Class III directors will consist of \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_. As a result, only one class of directors will be elected at each annual meeting of our stockholders, with the other classes continuing for the remainder of their respective three-year terms.

In addition, we intend to amend and restate our certificate of incorporation and bylaws immediately prior to the completion of this offering to provide that only our Board of Directors may fill vacancies on our Board of Directors until the next annual meeting of stockholders. Any additional directorships resulting from an increase in the number of directors will be distributed among the three classes so that, as nearly as possible, each class will consist of one-third of the total number of directors.

The classification of our Board of Directors and provisions described above may have the effect of delaying or preventing changes in our control or management. See [Description of Capital Stock](#) [Anti-Takeover Provisions](#) [Restated Certificate of Incorporation and Restated Bylaw Provisions](#).

### **Board Committees**

Our Board of Directors has an Audit Committee and a Compensation Committee and will have a Nominating and Governance Committee, each of which has the composition and responsibilities described below as of the closing of this offering. Members serve on these committees until their resignations or until otherwise determined by our Board of Directors.



## **Table of Contents**

### ***Audit Committee***

Our Audit Committee is comprised of Mr. Alexander, Dr. Duyk and Mr. Pichette, who is the chair of the Audit Committee. The composition of our Audit Committee meets the requirements for independence under the current Nasdaq Stock Market and SEC rules and regulations. Each member of our Audit Committee is financially literate. In addition, we believe that Mr. Pichette is an audit committee financial expert as defined in Item 407(d)(5)(ii) of Regulation S-K promulgated under the Securities Act of 1933, as amended, or the Securities Act. Being an audit committee financial expert does not impose on Mr. Pichette any duties, obligations or liabilities that are greater than are generally imposed on him as a member of our Audit Committee and our Board of Directors. Our Board of Directors adopted a charter for our Audit Committee. Our Audit Committee, among other things, will:

oversee our accounting and financial reporting processes and audits of our consolidated financial statements;

oversee our relationship with our independent auditors, including appointing and changing our independent auditors and ensuring their independence;

review and approve the audit and permissible non-audit services to be provided to us by our independent auditors;

facilitate communication among the independent auditors, our financial and senior management and the Board of Directors; and

monitor the periodic reviews of the adequacy of the accounting and financial reporting processes and systems of internal control.

### ***Compensation Committee***

Our Compensation Committee is comprised of Messrs. Doerr and Kaul and Dr. Duyk. The composition of our Compensation Committee meets the requirements for independence under the current Nasdaq Stock Market and SEC rules and regulations. The purpose of our Compensation Committee is to provide guidance and periodic monitoring for all of our compensation, benefit, perquisite and employee equity programs. We anticipate that our Compensation Committee will recommend, and our Board of Directors will adopt, a new charter for our Compensation Committee. Our Compensation Committee will discharge the responsibilities of our Board of Directors relating to compensation of our executive officers, and will, among other things:

review and approve, or recommend that our Board of Directors approve, the compensation of our executive officers;

review and recommend to our Board of Directors the compensation of our directors;

review and approve the terms of any material agreements with our executive officers;

administer our stock and equity incentive plans;

review and make recommendations to our Board of Directors with respect to incentive compensation and equity plans; and  
  
establish and review our overall compensation philosophy.

*Nominating and Governance Committee*

We intend to establish a Nominating and Governance Committee by the time we complete this offering.

We intend to post the charters of our audit, compensation, and nominating and governance committees, and any amendments that may be adopted from time to time, on our website.

**Table of Contents****Compensation Committee Interlocks and Insider Participation**

During fiscal 2009, our Compensation Committee consisted of Messrs. Doerr and Kaul and Dr. Duyk. None of them has at any time in the last fiscal year been one of our officers or employees, and none has had any relationships with our company of the type that is required to be disclosed under Item 404 of Regulation S-K. None of our executive officers has served as a member of the Board of Directors, or as a member of the compensation or similar committee, of any entity that has one or more executive officers who served on our Board of Directors or Compensation Committee during fiscal 2009. Messrs. Doerr and Kaul have pecuniary interests in their respective affiliated venture funds and may be deemed to have an interest in certain transactions with us, as more fully described in Certain Relationships and Related Party Transactions below.

**Code of Business Ethics and Conduct**

Our Board of Directors will adopt a code of business conduct by the time we complete this offering. The code of business conduct will apply to all of our employees, officers and directors. The full text of our code of business conduct will be posted on our website. We intend to disclose future amendments to certain provisions of our code of business conduct, or waivers of these provisions, on our website and also in public filings.

**Director Compensation**

Our employee directors, Messrs. Melo and Reiling, have not received any compensation in connection with their service as directors. The compensation that we pay to Mr. Melo is discussed in the Executive Compensation section of this prospectus. As described under Management Executive Officers and Directors, Mr. Reiling is employed in the capacity of Senior Vice President of Corporate Development and receives cash compensation and equity awards in such capacity, as determined by our Compensation Committee.

We pay our non-employee directors who are not affiliated with any of our stockholders a \$5,000 fee for each meeting attended by them. This policy currently applies to Mr. Ralph Alexander, Dr. Arthur Levinson and Ms. Carole Piwnica. In fiscal year 2009, pursuant to this policy, Mr. Alexander and Ms. Piwnica earned the fees described in the table below.

<b>Name</b>	<b>Fees Earned or Paid in Cash (\$)</b>	
Ralph Alexander	\$	10,000
Carole Piwnica	\$	5,000

Except for meeting attendance fees in accordance with the policy described above, since our incorporation we have not paid any cash compensation to any of our directors for their service on the Board of Directors or on committees of the Board of Directors.

Certain of our non-employee directors were granted options to purchase shares of our common stock, as follows:

Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

Name	Date of Grant	Number of Shares Underlying Unexercised Option <sup>(1)</sup>	Exercise Price Per Share(\$)	Vesting Start Date	Grant Date Fair Value of Option Awards (\$) <sup>(2)</sup>
Ralph Alexander	9/27/2007	45,000 <sup>(3)</sup>	3.93	7/20/2007 <sup>(4)</sup>	116,649
Patrick Pichette	3/19/2010	100,000 <sup>(3)</sup>	14.28	3/4/2010 <sup>(5)</sup>	1,126,040
Dr. Fernando de Castro Reinach <sup>(6)</sup>	9/15/2008	60,000 <sup>(7)</sup>	3.93	9/15/2008 <sup>(8)</sup>	387,906

- (1) None of the options reported in this table have been exercised as of the date of this prospectus.
- (2) The amount in this column reflects the aggregate grant date fair value computed in accordance with ASC Topic 718. The assumptions used by us in determining the grant date fair value of option awards are set forth in Note 13 to our Consolidated Financial Statements included elsewhere in this

---

## **Table of Contents**

- prospectus. These amounts do not correspond to the actual value that will be recognized by the directors. The assumptions used in the valuation of these awards are consistent with the valuation methodologies specified in the notes to our Consolidated Financial Statements.
- (3) These options are immediately exercisable without regard to vesting schedule. We retain a right of repurchase of unvested shares resulting from exercise of such options.
  - (4) This option vested over two years from the vesting start date.
  - (5) This option will vest in quarterly increments over three years from the vesting start date at a rate of 1/12 per quarter.
  - (6) This option was granted in consideration for Dr. Reinach's service on the Board of Directors and was issued in the name of Lit Tele LLC whose parent is an affiliate of Dr. Reinach, as more fully described in the Certain Relationships and Related Party Transactions section below.
  - (7) These options are not immediately exercisable and can be exercised only with respect to vested underlying shares.
  - (8) This option will vest in equal quarterly increments over three years from the vesting start date at a rate of 1/12th per quarter.

John Doerr, Dr. Geoffrey Duyk, Samir Kaul and Carole Piwnica have not to date received any options to purchase shares of our common stock or other equity awards in connection with their service on our Board of Directors.

## **Executive Compensation**

### *Compensation Discussion and Analysis*

The following discussion describes and analyzes our compensation for our named executive officers for 2009, which include our President and Chief Executive Officer ( CEO ), our Chief Financial Officer ( CFO ) and the three most highly compensated executive officers other than the CEO and CFO as set forth in the *Summary Compensation Table* below (our named executive officers ).

We are building an integrated renewable products company by applying our industrial synthetic biology platform to provide alternatives to select petroleum-sourced products used in specialty chemical and transportation fuel markets worldwide. Since our formation we have conducted substantial efforts to, and we continue to, further develop our technology platform. We have also engaged in extensive discussions and negotiations with third parties that we expect will provide facilities and feedstock for the production of our products and other third parties that we expect will purchase products that we produce. We have raised a substantial amount of capital from investors to support our growth as we seek to bring our products to market as well as from research institutions and other entities for the provision of collaborative research services and from government grants. Our success depends, among other things, on attracting and retaining executive officers with experience and skills in a number of different areas as we continue to further develop our products and seek to commercialize them.

We were formed in 2003. While our founders continue to serve us in key capacities, we have added a number of executive officers since our formation, including our CEO, CFO and other executives. These additional officers have joined us at various times from 2005 through December 2009.

### *Compensation Philosophy and Objectives and Elements of Compensation*

Our intent and philosophy in designing compensation packages at the time of hiring new executives has been based in part on providing compensation that we thought was sufficient to enable us to attract the talent necessary to further develop our business while at the same time

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

being prudent in the management of our cash and equity in light of the early stage of the development of our company. Compensation of our executive officers after the initial period following their hiring has been influenced by the amounts of compensation that we initially agreed to pay them as well as by our evaluation of their subsequent performance, changes in their levels

## **Table of Contents**

of responsibility, prevailing market conditions, the financial condition and prospects of our company and our attempt to maintain some level of internal equity in the compensation of existing executives relative to the compensation paid to more recently hired executives.

We have compensated our executives with a combination of salaries, cash bonuses and stock option awards. We think this combination of cash and equity is largely consistent with the forms of compensation provided by other companies with which we compete for executive talent, and as such is a package that matches the expectations of our executives and of the market for executive talent. We also believe that it provides an appropriate blend of compensation to retain our executives, reward them for performance in the short term and induce them to contribute to the creation of value in the Company over the long term.

We view the different components of our executive compensation as distinct. We believe we must maintain a salary that is sufficiently competitive to position us to attract the executives that we need and that it is important that our executives perceive that over time they will continue to have the opportunity to earn a salary that they regard as competitive.

The ability to earn cash bonuses should incentivize executives to effectively pursue goals established by our Board of Directors and should be regarded by executives as appropriately rewarding effective performance against these goals. We have in the past sought to establish target bonus levels and performance goals for executives at the beginning of the year to help ensure that our performance goals, and the bonus attainable for achieving these goals, were well understood by executives.

Our equity awards are also designed to be sufficiently competitive to allow us to attract executives. We have used stock options as the form of equity award for executives. Because our executive officers are awarded stock options with an exercise price equal to the fair market value of our common stock on the date of grant, these options will have value to our named executive officers only if the market price of our common stock increases after the date of grant. Typically, since November 2007 our stock option awards to executive officers vested and became exercisable at a rate of 20% upon the one-year anniversary of grant and then monthly over the following four years. Our Board of Directors believes that these stock option awards align the interests of our named executive officers with those of the stockholders, because they create the incentive to build stockholder value over the long-term. In addition, our Board of Directors believes the five-year vesting provision of our equity awards improves our ability to retain our executives. We have also determined that in order to attract qualified executives in our market it is highly desirable to provide equity compensation that is regarded as competitive relative to the compensation provided by other privately held, venture-backed companies.

We grant stock options to executive officers in connection with their hiring. The size of the initial stock option award is determined based on the executive's position with us and takes into consideration the executive's base salary and other compensation as well as an analysis of the grant and compensation practices of the companies that participate in the survey that we have reviewed in the past in connection with establishing our overall compensation policies. The initial stock option awards are intended to provide the executive with an incentive to build value in the organization over an extended period of time, while remaining consistent with our overall compensation philosophy. Insofar as we have to date incurred operating losses and consumed substantial amounts of cash in our operations, we have sought to attract executives to join us by compensating for cash salaries and cash bonus opportunities that were, in certain cases, lower than the salaries and bonuses they earned in their prior positions with stock options having the potential to provide significant value if we were successful.

We may also grant additional stock option grants in recognition of a commendable performance and in connection with a significant change in responsibilities. Typically, our Board of Directors determines to make equity awards upon the recommendation of the Compensation Committee. In making its recommendation or determination, the Committee or Board takes into account various factors. These factors include the responsibilities, past performance and anticipated future contribution of the executive officer, the executive's overall compensation package and the executive's existing equity holdings.





## **Table of Contents**

Stock options are granted with an exercise price equal to the fair value of our stock on the applicable date of grant. Upon completion of this offering, we expect to determine fair value for purposes of stock option pricing based on the most recent closing price of our common stock on the stock exchange on which our common stock is listed.

As further discussed below, our compensation philosophy for 2009 was significantly influenced by the deteriorating global economic circumstances that began to materialize in late 2008.

### *Compensation Decision Process*

*Historic.* Since our formation, our Board of Directors has overseen the compensation of our executive officers and our executive compensation programs and initiatives. While we have had a Compensation Committee of the Board, this committee has acted in an advisory role, assisting the Board of Directors in compensation matters. The Board of Directors has also sought, and received, significant input from our CEO with regard to the performance and compensation of executives other than himself.

In making compensation decisions for executive officers, we have referred to compensation survey data of competitive conditions in our market. With regard to annual base salaries and annual cash incentive bonus opportunity targets for fiscal year 2009, our Board of Directors reviewed comprehensive compensation data from the Radford Global Life Sciences Survey, which aggregated survey results from 130 biotechnology, pharmaceutical and medical device companies in Northern California with revenues of less than \$1 billion. In addition, certain of our directors have significant experience with privately held venture-backed companies such as our and the executive compensation practices of such companies, and have applied this knowledge and experience to their judgments regarding our compensation decisions.

*Post-offering.* Prior to the completion of this offering, we anticipate that our Compensation Committee will recommend, and our Board of Directors will adopt, a new charter for our Compensation Committee which will expand the committee's responsibilities. Currently, our Compensation Committee is comprised of Messrs. Doerr and Kaul and Dr. Duyk. In accordance with the amended charter, the Committee will determine the annual compensation of our CEO and other executive officers and will regularly report its compensation decisions to the full Board of Directors. The Committee will also administer our equity compensation plans, including our 2010 Equity Incentive Plan and 2010 Employee Stock Purchase Plan, which will become effective on or shortly after the date of this prospectus.

The Committee has not yet made significant decisions about the process that it will employ in performing these functions. All of our named executive officers continue to be paid the same salary that was in place at the end of 2009. We have retained Compensia, a compensation advisory firm, to support the Compensation Committee in developing our compensation structure as a publicly-held company. We expect that the Compensation Committee, with assistance from Compensia, will develop a peer group of companies to which it will refer in making compensation decisions regarding executive compensation.

### *2009 Compensation*

In the final months of 2008, our Board of Directors recognized that the dramatically deteriorating condition of the global economy was likely to have an adverse affect on our business and prospects, at least in the near term. In the face of the challenging conditions of the financial markets at that time, our ability to continue to fund our operations through private placements of equity securities was uncertain.

In light of these conditions, in late 2008 our Board of Directors elected to forego our customary year-end process of considering changes in salaries for executive officers. Instead, the Board of Directors froze salaries at the time for all executive officers, as salaries were frozen for virtually all our employees. As a result, Mr. Melo s and Ms. Tompkins salaries remained at the same level as had been in place since January 2008, the last previous

## Table of Contents

time that their salaries were increased. The salaries of Ms. Hilleman and Messrs. Cherry and Lievens remained at the same levels as had been established at the times that they were hired by us, between December 2007 and November 2008.

The Board of Directors also elected at this time not to put in place a cash bonus program for executives as it had in 2007-2008. In addition, the Board of Directors determined not to pay any cash bonuses to executives for services rendered in 2008.

Later in 2009, it appeared that the deterioration in global economic conditions had slowed, if not ceased. Activity in the public equity markets in the U.S. and in venture capital financings began to suggest that the ability for privately held companies to raise capital, while still challenging, was improving from the conditions existing in late 2008 and most of 2009. Recognizing this improvement, the Board approved an increase in the annual salary of our CEO by \$100,000, to \$500,000, effective December 1, 2009. This salary increase was made in recognition of raising private equity through the sale of our Series C convertible preferred stock, progress that was made with sugar and ethanol producers for securing production capacity in Brazil and expansion of the management team through the hiring of a chief operating officer and chief commercial officer. In addition, the Board of Directors approved, also effective December 1, 2009, an increase in the annual salary of our General Counsel of \$29,500, to \$300,000, recognizing that Ms. Tompkins' responsibilities had increased substantially as we continued to increase the size and scope of our operations and that her salary was lower than that of the other named executive officers by approximately this amount. The Board of Directors also took into account that each of these officers last received a salary increase effective January 1, 2008.

In the second half of 2009, the Board of Directors also approved a bonus payment to Mr. Melo of \$200,000 in recognition of the factors described above that were considered in approving Mr. Melo's salary increase. Mr. Melo and the Board of Directors approved the amounts of cash bonus payments to each of the other named executive officers as are set forth in the *Summary Compensation Table* appearing below. The bonuses were made in recognition of the support of these executives in the achievement of the factors considered by the Board in approving Mr. Melo's salary increase. In awarding these bonuses, the Board of Directors also took account of the fact that, other than Ms. Tompkins, none of these executive officers had received a salary increase or bonus since joining us.

In 2009, we granted stock options to three of our named executive officers. In September 2009, we granted options for the purchase of 210,000 shares to Mr. Cherry pursuant to the commitment we made at the time of hiring Mr. Cherry to grant him this number of stock options. Options for the purchase of 50,000 shares were granted to Mr. Lievens in recognition of the substantial and effective efforts made to oversee the development of our pilot and demonstration facilities in Brazil in 2009. Options for the purchase of 10,000 shares were granted to Ms. Tompkins in order to bring her aggregate option position closer in line with the option holdings of more recently hired executives and in recognition of efforts made in connection with the further development of Amyris Brasil and the joint venture with Usina São Martinho.

### *Severance and Change of Control Agreements*

We have entered into offer letters, or amendments to offer letters, with each of our named executive officers providing for certain payments upon termination of their employment with us without cause and upon termination without cause following a change of control. These payments, and the definition for this purpose of change of control, are described in detail below under *Potential Severance Payments upon Termination and upon Termination Following a Change in Control*.

We believe that these agreements appropriately balance our needs to offer a competitive level of severance protection to our executives and to induce our executives to remain in our employ through the potentially disruptive conditions that may exist around the time of a change in control, while not unduly rewarding executives for a termination of their employment. We note that our change in control terms include so-called "double trigger"



## **Table of Contents**

provisions, so that the executive is not entitled to the severance payment by the mere occurrence of the change in control. We believe this feature, will be an incentive to the executive to remain in the employ of the company if such continuation is required by our partner in a change in control transaction. We also believe that it is appropriate that our executives' equity awards be treated, in the event of a change of control, like those of other employees and not accelerated if the executive's employment continues following the change in control event.

### ***Other Executive Benefits and Perquisites***

We provide the following benefits to our executive officers on the same basis as other eligible employees:

health insurance;

vacation, personal holidays and sick days;

life insurance and supplemental life insurance;

short-term and long-term disability; and

a 401(k) plan.

We believe these benefits are generally consistent with those offered by other companies with which we compete for executive talent.

Some of the executives whom we have hired, including Mr. Melo, held positions in locations outside of Northern California at the time that they agreed to join us. We have agreed in these instances to pay relocation expenses to these executives, including costs associated with commuting from our facilities to their family's home outside of Northern California. The amounts paid in 2009 to named executive officers are included in the "All Other Compensation" column in the *Summary Compensation Table* below. Given the cost of living in the San Francisco Bay Area relative to most other metropolitan areas in the U.S., we believe that in order for us not to be limited to hiring executives located near our headquarters in Emeryville, California, that we must be willing to offer to pay an agreed upon amount of relocation costs.

### ***Other Compensation Practices and Policies***

*Tax Considerations.* Section 162(m) of the Internal Revenue Code disallows a tax deduction for any publicly held corporation for individual compensation exceeding \$1.0 million in any taxable year for our president and chief executive officer and each of the other named executive officers (other than our chief financial officer), unless compensation is performance based. As we are not currently publicly-traded, our board of directors has not previously taken the deductibility limit imposed by Section 162(m) into consideration in setting compensation. We expect that our Compensation Committee will adopt a policy at some point in the future that, where reasonably practicable, we will seek to qualify the variable compensation paid to our executive officers for an exemption from the deductibility limitations of Section 162(m). Until such policy is implemented, our Compensation Committee may, in its judgment, authorize compensation payments that do not consider the deductibility limit imposed by Section 162(m) when it believes that such payments are appropriate to attract and retain executive talent.

*Policy regarding the timing of equity awards.* As a privately-owned company, there has been no market for our common stock. Accordingly, in fiscal 2009, we had no program, plan or practice pertaining to the timing of stock option grants to executive officers coinciding with the release of material non-public information. We do not, as of yet, have any plans to implement such a program, plan or practice after becoming a public company. However, we intend to implement policies to ensure that equity awards are granted at fair market value on the date that the grant action occurs.

*Policy regarding restatements.* We do not have a formal policy regarding adjustment or recovery of awards or payments if the relevant performance measures upon which they are based are restated or otherwise adjusted

**Table of Contents**

in a manner that would reduce the size of the award or payment. Under those circumstances, our Board of Directors or the Compensation Committee would evaluate whether adjustments or recoveries of awards were appropriate based upon the facts and circumstances surrounding the restatement.

*Stock Ownership Policies.* We have not established stock ownership or similar guidelines with regards to our executive officers. All of our executive officers currently have a direct or indirect, through their stock option holdings, equity interest in our company, and we believe that they regard the potential returns from these interests as a significant element of their potential compensation for services to us.

**Summary Compensation Table**

The following table sets forth information regarding compensation earned by our chief executive officer, our chief financial officer and each of our three other most highly compensated executive officers during 2009. We refer to these executive officers as our named executive officers elsewhere in this prospectus:

<b>Name and Principal Position</b>	<b>Year</b>	<b>Salary(\$)</b>	<b>Bonus(\$)<sup>(1)</sup></b>	<b>Option Awards(\$)<sup>(2)</sup></b>	<b>All Other Compensation(\$)</b>	<b>Total(\$)</b>
John Melo <i>President and Chief Executive Officer</i>	2009	408,333	200,000		\$ 221,617 <sup>(3)</sup>	829,950
Joel Cherry, Ph.D. <i>Senior Vice President, Research Programs and Operations</i>	2009	310,000	74,683	709,737		1,094,420
Jeryl Hilleman <i>Chief Financial Officer</i>	2009	300,000	149,365		18,833 <sup>(4)</sup>	468,198
Jefferson Lievens, Ph.D. <i>Senior Vice President, Process Development and Manufacturing</i>	2009	300,000	44,810	168,985	76,048 <sup>(5)</sup>	589,843
Tamara Tompkins <i>Senior Vice President and General Counsel</i>	2009	272,867	37,341	33,797	18,743 <sup>(6)</sup>	362,748

- (1) The amounts reported in this column represent discretionary bonuses determined by the Board of Directors.
- (2) The amounts in the Option Awards column reflect the aggregate grant date fair value computed in accordance with ASC Topic 718. The assumptions used by us in determining the grant date fair value of option awards are set forth in Note 13 to our Consolidated Financial Statements included elsewhere in this prospectus. See the Grants of Plan-Based Awards table for information on stock option grants made in fiscal 2009. These amounts do not correspond to the actual value that may be recognized by the named executive officers.
- (3) Includes \$145,907 for reimbursement for temporary housing and relocation expenses, \$56,877 gross-up to pay associated taxes and \$18,833 of health and life insurance premiums paid on behalf of Mr. Melo.
- (4) Represents health and life insurance premiums paid on behalf of Ms. Hilleman.
- (5) Includes \$38,390 for reimbursement for temporary housing and relocation expenses, \$18,825 gross-up to pay associated taxes and \$18,833 of health and life insurance premiums paid on behalf of Mr. Lievens.
- (6) Represents health and life insurance premiums paid on behalf of Ms. Tompkins.

**Table of Contents****Grants of Plan-Based Awards**

The following table sets forth information regarding grants of compensation in the form of plan-based awards made during 2009 to our named executive officers.

Name	Grant Date	All Other	Exercise or Base Price of Option Awards (\$/Sh) <sup>(2)</sup>	Grant Date Fair Value of Option Awards (\$) <sup>(3)</sup>
		Option Awards: Number of Securities Underlying Options (#) <sup>(1)</sup>		
John Melo				
Joel Cherry, Ph.D.	09/14/2009	210,000	4.31	709,737
Jeryl Hilleman				
Jefferson Lievens, Ph.D.	09/14/2009	50,000	4.31	168,985
Tamara Tompkins	09/14/2009	10,000	4.31	33,797

- (1) Grants vest as to 20% of the original number of shares on the first anniversary of the vesting commencement date, which is a date fixed by our Board of Directors when granting options, and as to an additional 1/60th of the original number of shares each month thereafter until the fifth anniversary of the vesting commencement date, subject to continued service through each relevant vesting date. Notwithstanding, grants are subject to certain rights to acceleration of vesting upon a change in control of our company and termination of employment following a change in control, as further described below in Executive Compensation Potential Payments upon Termination and upon Termination Following a Change in Control. All options were granted under our 2005 Stock Option/Stock Issuance Plan, which is described below under Executive Compensation Stock Option and Other Compensation Plans.
- (2) Represents the fair market value of a share of our common stock, as determined by our Board of Directors, on the respective option grant date. For a discussion of our methodology for determining the fair value of our common stock, see the Management's Discussion and Analysis of Financial Condition and Results of Operations Critical Accounting Policies and Estimates section of this prospectus.
- (3) Reflects the grant date fair value of each award computed in accordance with FASB ASC Topic 718. These amounts do not correspond to the actual value that will be recognized by the named executive officers. Our assumptions with respect to the calculation of stock-based compensation expenses are set forth above in Management's Discussion and Analysis of Financial Condition and Results of Operations Critical Accounting Policies and Estimates Stock-Based Compensation. The assumptions used in the valuation of these awards are consistent with the valuation methodologies specified in the notes to our Consolidated Financial Statements included elsewhere in this prospectus.



**Table of Contents****Outstanding Equity Awards at Fiscal Year End**

The following table sets forth information regarding outstanding equity awards held as of December 31, 2009 by our named executive officers.

Name	Number of Securities Underlying Unexercised Options that are Exercisable (#) <sup>(1)(2)</sup>	Number of Securities Underlying Unexercised Options that are Unexercisable (#)	Option Exercise Price (\$/Sh)	Option Expiration Date
John Melo	279,979 <sup>(3)</sup>		3.93	8/26/2018
	925,000 <sup>(4)</sup>		0.28	1/18/2017
Joel Cherry, Ph.D.	210,000 <sup>(5)</sup>		4.31	9/13/2019
Jeryl Hilleman	184,555 <sup>(6)</sup>		3.93	2/26/2018
Jefferson Lievens, Ph.D.	50,000 <sup>(7)</sup>		4.31	9/13/2019
	200,000 <sup>(8)</sup>		3.93	12/12/2017
Tamara Tompkins	10,000 <sup>(9)</sup>		4.31	9/13/2019
	100,000 <sup>(10)</sup>		0.28	5/8/2017

- (1) All options granted to our named executive officers are immediately exercisable, regardless of vesting schedule.
- (2) All options vest as to 20% of the original number of shares on the first anniversary of the vesting commencement date, which is a date fixed by our Board of Directors when granting options, and as to an additional 1/60th of the original number of shares each month thereafter until the fifth anniversary of the vesting commencement date.
- (3) The vesting commencement date of this grant is 6/3/2008.
- (4) The vesting commencement date of this grant is 10/23/2006.
- (5) The vesting commencement date of this grant is 11/3/2008.
- (6) The vesting commencement date of this grant is 1/28/2008.
- (7) The vesting commencement date of this grant is 10/1/2008.
- (8) The vesting commencement date of this grant is 12/3/2007.
- (9) The vesting commencement date of this grant is 10/1/2008.
- (10) The vesting commencement date of this grant is 11/6/2006.

**Stock Option Exercises During Fiscal Year 2009**

The following table shows information regarding option exercises by our named executive officers during fiscal year 2009.

Name	Option Awards	
	Number of Shares Acquired on Exercise (#)	Value Realized on Exercise (\$) <sup>(1)</sup>
John Melo	75,000	302,250

- (1) The aggregate dollar value realized upon exercise of an option represents the difference between the aggregate fair market value of our common stock underlying the option on the date of exercise, which was determined by our Board of Directors to

Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

be approximately \$4.31 per share, and the aggregate exercise price of the option, which was \$21,000, based on a \$0.28 exercise price per share.

## **Table of Contents**

### **Pension Benefits**

None of our named executive officers participates in, or has an account balance in, a qualified or non-qualified defined benefit plan sponsored by us.

### **Non-Qualified Deferred Compensation**

None of our named executive officers participates in, or has account balances in, a traditional non-qualified deferred compensation plan or other deferred compensation plans maintained by us.

### **Potential Severance Payments upon Termination and upon Termination Following a Change in Control**

The initial offer letters and amendments of the offer letters of Messrs. Melo, Cherry and Lievens, Ms. Hilleman and Ms. Tompkins provide that, if we terminate the employment of the respective named executive officer for any reason other than for cause, he or she will receive severance equal to 12 months of base salary, payable in accordance with our regular payroll practices. These payments will be terminated as of the date of commencement of employment with another employer. In addition, in the event of such termination, the respective named executive officer will receive COBRA benefits until the earlier of (i) 12 months from termination and (ii) commencement of employment with another employer.

We have also agreed that in the event we terminate any of our named executive officers without cause or constructively terminate the employment of any of our named executive officers, in either case within six months of a change of control of Amyris, the terminated individual will receive the benefits described in the preceding paragraph and accelerated vesting of 50% of any of his or her unvested options as of the date of termination.

As a condition to receipt of any of the benefits set forth in the preceding two paragraphs, the respective named executive officer must execute a release of claims in our favor and return to us any of our property and confidential information in his or her possession. In addition, to receive his severance and change of control benefits, Mr. Melo must resign from our Board of Directors.

For purposes of the above benefits, a change of control includes (i) any transaction after which our then current stockholders own less than 50% of the voting power of the surviving entity or its parent; (ii) a merger, reorganization or consolidation or other acquisition of Amyris after which our then-current stockholders transfer more than a majority of the voting power of the Company; and (iii) a sale of all or substantially all of our assets. Constructive termination means resignation of employment within 120 days after any of the following events, each of which must occur within five months of our change of control with respect to Jeryl Hilleman and John Melo and within six months of our change of control with respect to Joel Cherry, Tamara Tompkins and Jeff Lievens: a material reduction in responsibilities or base salary (unless the reduction is comparable to and part of a reduction of all executive officers) or a relocation of principal office more than 50 miles from the location of the named executive officer's office immediately before a change of control. If an event constituting grounds for constructive termination occurs, the respective named executive officer must give us notice of it within 90 days and we have 30 days to remedy the condition caused by that event. Cause is determined by our Board of Directors and includes any of the following: (i) failure or refusal to comply in any material respect with any of our policies; (ii) a violation of law or regulation applicable to our business; (iii) conviction or plea of no contest to a felony and in addition, in some instances a misdemeanor involving moral turpitude under the laws of the United States or any state; (iv) fraud or misappropriation of our

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

property; (v) non-performance, non-compliance or interference with the other party's performance under the terms of any confidentiality, invention assignment or proprietary information agreement with us or with a former employer, (vi) failure to satisfactorily perform duties after having received written notice of such failure and at least 30 days to cure such failure, or (vii) misconduct or gross negligence in connection with the performance of employment duties to us.

To the extent any severance benefits to a named executive officer constitute deferred compensation subject to Section 409A of the Internal Revenue Code of 1986, as amended, and that officer is deemed a specified

**Table of Contents**

employee under Section 409A, then we will defer payment of these benefits to the extent necessary to avoid adverse tax treatment.

The following table summarizes the potential payments and benefits payable to each of our named executive officers upon (i) termination of employment other than for cause and (ii) termination without cause or constructive termination following a change in our control, modeling, in each situation, that termination and change of control, where applicable, occurred on December 31, 2009.

Name	Qualifying Termination Other Than for Cause not in Connection with a Change of Control			Qualifying Change of Control and Termination Without Cause or Constructive Termination Within 6 Months Following a Change of Control		
	Base Salary(\$) <sup>(1)</sup>	COBRA Benefits(\$) <sup>(1)</sup>	Value of Accelerated Options or Shares(\$)	Base Salary(\$) <sup>(1)</sup>	COBRA Benefits(\$) <sup>(1)</sup>	Value of Accelerated Options or Shares(\$) <sup>(2)</sup>
John Melo	408,333	24,608		408,333	24,608	4,371,034
Joel Cherry, Ph.D.	310,000	275		310,000	275	824,145
Jeryl Hilleman	300,000	24,608		300,000	24,608	613,431
Jefferson Lievens, Ph.D.	300,000	24,608		300,000	24,608	838,853
Tamara Tompkins	272,867	24,608		272,867	24,608	384,951

- (1) The amounts in this column assume that the respective named executive officer has not started employment with another company before the expiration of 12 months from termination of his or her employment with us.
- (2) With respect to outstanding options as of December 31, 2009, this amount is equal to (a) the number of shares underlying unexercised options that would vest as a direct result of employment termination without cause or constructive termination following a change of control, assuming a December 31, 2009, change of control and employment termination, multiplied by (b) the excess of \$9.32, which represents our Board of Directors' determination of the fair market value of our common stock as of December 31, 2009, over the exercise price of the option. With respect to unvested shares held by the named executive officer, this amount is equal to (a) the number of unvested shares that would vest as a direct result of employment termination without cause or constructive termination following a change of control, assuming a December 31, 2009, change of control and employment termination, multiplied by (b) \$9.32.

**Agreements with Executives**

We do not have formal employment agreements with any of our named executive officers. The initial compensation of each named executive officer was set forth in an offer letter that we executed with him or her at the time his or her employment with us commenced and that was later amended. Each offer letter provides that the named executive officer's employment is at will.

As a condition to their employment, our named executive officers entered into non-competition, non-solicitation and proprietary information and inventions assignment agreements. Under these agreements, each named executive officer has agreed (i) not to solicit our employees during his or her employment and for a period of 12 months after the termination of his or her employment, (ii) not to compete with us or assist any other person to compete with us during the officer's employment with us and (iii) to protect our confidential and proprietary information and to assign to us intellectual property developed during the course of his or her employment.

See above Executive Compensation Potential Payments upon Termination and upon Termination Following a Change in Control for a description of potential payments to our named executive officers on a change of control.



## **Table of Contents**

### **Stock Option and Other Compensation Plans**

#### ***2005 Stock Option/Stock Issuance Plan***

*Background.* Our Board of Directors adopted, and our stockholders approved, our 2005 Stock Option/Stock Issuance Plan in September 2005. We reserved a pool of shares of our common stock for issuance to employees and other service providers pursuant to awards granted under our 2005 Stock Option/Stock Issuance Plan, as amended. It provides for awards under two separate equity programs: (i) the Option Grant Program, under which eligible persons may be granted options, and (ii) the Stock Issuance Program, under which eligible persons may be granted stock purchase rights, awards of shares as a bonus for services rendered, or restricted stock units or other share awards which vest upon completion of a service period or performance milestones. The 2005 Stock Option/Stock Issuance Plan is administered by our Board of Directors, which may delegate administrative responsibilities to a committee.

*Option Grant Program.* Our 2005 Stock Option/Stock Issuance Plan provides for the grant of both incentive stock options, or ISOs, that qualify for favorable tax treatment under Section 422 of the Internal Revenue Code for their recipients and nonqualified stock options, or NSOs. ISOs may be granted only to our employees or employees of any of our subsidiaries. NSOs may be granted to employees, officers, non-employee directors, consultants and other independent advisors who provide services to us or any of our subsidiaries. The options' exercise price must be at least equal to the fair market value of our common stock on the date of grant. The exercise price of options granted to 10% stockholders must be at least equal to 110% of the fair market value of our common stock on the date of grant. Payment of the option exercise price may be made in cash (including by check), with a full-recourse promissory note if authorized by the plan administrator, or following the registration of our common stock under the Securities Exchange Act, by surrender of shares or through a broker-assisted cashless exercise program. The maximum permitted term of options granted under our 2005 Stock Option/Stock Issuance Plan is ten years from the date of grant (five years for incentive stock options granted to 10% stockholders). The plan administrator may grant options subject to vesting restrictions but options granted to individuals who are not officers, non-employee directors or independent contractors cannot vest less than 20% per year. In the event of a change in control, the 2005 Stock Option/Stock Issuance Plan provides that unvested options that are not assumed or replaced by the successor corporation will vest in full immediately prior to such change in control and all options will expire on the consummation of the change in control or subject to other treatment imposed by the Board of Directors or the committee administering the 2005 Stock Option/Stock Issuance Plan in connection with a change in control. Our Board of Directors or Compensation Committee has authority to grant additional acceleration rights upon change of control to holders of options issued pursuant to the 2005 Stock Option/Stock Issuance Plan.

As of March 31, 2010, options to purchase 5,759,455 shares of our common stock granted from the 2005 Stock Option/Stock Issuance Plan remained outstanding and 100,450 shares of our common stock remained available for issuance upon the exercise of awards that may be granted from the 2005 Stock Option/Stock Issuance Plan. The options outstanding as of March 31, 2010, had a weighted-average exercise price of approximately \$4.63 per share.

*Stock Issuance Program.* Our 2005 Stock Option/Stock Issuance Plan provides for direct issuances of shares of our common stock and issuances of share right awards or restricted stock units which entitle the recipients to receive the underlying shares upon completion of specified service periods or performance goals. We may issue stock, share right awards and restricted stock units to employees, officers, directors, consultants and other independent advisors who provide services to us or any of our subsidiaries. The issue price per share must be equal to at least the fair market value per share of our common stock on the issue date. The recipient may pay the purchase price of the shares in cash (including by check), in past services rendered to us or any of our subsidiaries, or by tendering any other valid consideration under the California Corporations Code. The shares that we issue pursuant to the Stock Issuance Program may be subject to vesting restrictions based on length of service or attainment of specified performance goals, as determined by our Board of Directors or Compensation Committee, but no awards made to individuals who are not officers, non-employee directors, or independent consultants may vest less than 20% per year. In the event of a change in control, the 2005 Stock Option/Stock Issuance Plan provides that unvested shares issued pursuant to the plan will vest in full immediately prior to such change in control unless the repurchase rights underlying such awards are assigned to the successor corporation, continued, or unless accelerated vesting is





## **Table of Contents**

precluded by the documents evidencing the award. As of March 31, 2010, we had issued 10,000 shares of our common stock pursuant to the Stock Issuance Program of our 2005 Stock Option/Stock Issuance Plan.

Our 2010 Equity Incentive Plan will be effective upon the completion of this offering. As a result, no awards will be granted from the 2005 Stock Option/Stock Issuance Plan after the date of this prospectus and the 2005 Stock Option/Stock Issuance Plan will terminate. However, any outstanding awards granted from the 2005 Stock Option/Stock Issuance Plan will remain outstanding, subject to the terms of our 2005 Stock Option/Stock Issuance Plan and the applicable award agreements, until the awards are exercised or until they terminate or expire by their terms.

### ***2010 Equity Incentive Plan***

*Background.* We anticipate that we will adopt a 2010 Equity Incentive Plan that will become effective on the date of this prospectus and will serve as the successor equity compensation plan to our 2005 Stock Option/Stock Issuance Plan. We anticipate that we will reserve \_\_\_\_\_ shares of our common stock to be issued under our 2010 Equity Incentive Plan. Our 2010 Equity Incentive Plan will become effective on the date of our initial public offering and will terminate in 2020. Our 2010 Equity Incentive Plan will provide for the grant of incentive stock options, nonqualified stock options, restricted stock awards, stock bonuses, stock appreciation rights, restricted stock units and awards of performance shares.

*Administration.* Our 2010 Equity Incentive Plan will be administered by our Compensation Committee, all of the members of which are non-employee directors under applicable federal securities laws and outside directors as defined under applicable federal tax laws. This Compensation Committee will act as the plan administrator and will have the authority to construe and interpret the plan, grant awards, determine the terms and conditions of awards and make all other determinations necessary or advisable for the administration of the plan (subject to the limitations set forth in our 2010 Equity Incentive Plan).

*Share Reserve.* We anticipate that we will reserve \_\_\_\_\_ shares of our common stock for issuance under our 2010 Equity Incentive Plan plus:

all shares of our common stock reserved under our 2005 Stock Option/Stock Issuance Plan that are not issued or subject to outstanding grants as of the completion of this offering;

any shares issuable upon exercise of options granted under our 2005 Stock Option/Stock Issuance Plan that cease to be subject to such stock options; and

any shares of our common stock issued under our 2005 Stock Option/Stock Issuance Plan that are forfeited or repurchased by us at the original purchase price.

The number of shares available for grant and issuance under the 2010 Equity Incentive Plan will be increased on January 1 of each of 2011 through \_\_\_\_\_ by an amount equal to the lesser of (1) \_\_\_\_\_ % of our shares outstanding on the immediately preceding December 31 and (2) a number of shares as may be determined by our Board of Directors in its discretion. In addition, shares will again be available for grant and issuance under our 2010 Equity Incentive Plan that are:

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

subject to issuance upon exercise of an option or stock appreciation right granted under our 2010 Equity Incentive Plan and that cease to be subject to such award for any reason other than the award's exercise;

subject to an award granted under our 2006 Equity Incentive Plan and that are subsequently forfeited or repurchased by us at the original issue price;

surrendered pursuant to an exchange program; or

subject to an award granted under our 2010 Equity Incentive Plan that otherwise terminates without shares being issued.

## **Table of Contents**

*Equity Awards.* Our 2010 Equity Incentive Plan will permit us to grant the following types of awards:

*Stock Options.* Our 2010 Equity Incentive Plan will provide for the grant of incentive stock options, or ISOs, to employees, and nonqualified stock options, or NSOs, to employees, non-employee directors and consultants. We will be able to issue no more than \_\_\_\_\_ shares pursuant to the grant of ISOs under the 2010 Equity Incentive Plan. The Compensation Committee will determine the terms of each option award, provided that ISOs will be subject to statutory limitations. The Compensation Committee will determine the exercise price for a stock option, provided that the exercise price of an option may not be less than 100% (or 110% in the case of recipients of ISOs who hold more than 10% of our stock on the option grant date) of the fair market value of our common stock on the date of grant. Options granted under our 2010 Equity Incentive Plan will vest at the rate specified by the Compensation Committee and such vesting schedule will be set forth in the stock option agreement to which such stock option grant relates. Generally, the Compensation Committee will determine the term of stock options granted under our 2010 Equity Incentive Plan, up to a term of ten years (or five years in the case of ISOs granted to 10% stockholders).

After termination of an optionee, he or she will be able to exercise his or her vested option for the period of time stated in the stock option agreement to which such option relates, up to a maximum of five years from the date of termination. Generally, if termination is due to death or disability, the vested option will remain exercisable for 12 months. If an optionee is terminated for cause (as defined in our 2010 Equity Incentive Plan), then the optionee's options will expire on the optionee's termination date or at such later time and on such conditions as determined by our Compensation Committee. In all other cases, the vested option will generally remain exercisable for three months. However, an option may not be exercised later than its expiration date.

*Restricted Stock Awards.* A restricted stock award is an offer by us to sell shares of our common stock subject to restrictions that the Compensation Committee may impose. These restrictions may be based on completion of a specified period of service with us or upon the completion of performance goals during a performance period. The Compensation Committee will determine the price of a restricted stock award. Unless otherwise set forth in the award agreement, vesting will cease on the date the participant no longer provides services to us, and at that time unvested shares are forfeited to us or subject to repurchase by us.

*Stock Bonus Awards.* A stock bonus is an award of shares of our stock for past or future services to us. Stock bonuses will be granted as additional compensation for performance and, therefore, will not be issued in exchange for cash. The Compensation Committee will determine the number of shares to be issued as stock bonus and any restrictions on those shares. These restrictions may be based on completion of a specified period of service with us or upon the completion of performance goals during a performance period. Unless otherwise set forth in the award agreement, vesting will cease on the date the participant no longer provides services to us, and at that time unvested shares will be forfeited to us or will be subject to repurchase by us.

*Stock Appreciation Rights.* Stock appreciation rights provide for a payment, or payments, in cash or shares of our common stock to the holder based upon the difference between the fair market value of our common stock on the date of exercise and the stated exercise price. Stock appreciation rights may vest based on time or achievement of performance conditions.

*Restricted Stock Units.* Restricted stock units represent the right to receive shares of our common stock at a specified date in the future, subject to forfeiture of such right due to termination of employment or failure to achieve specified performance conditions. If the restricted stock unit has not been forfeited, then on the date specified in the restricted stock unit agreement we will deliver to the holder of the restricted stock unit shares of our common stock, cash or a combination of our common stock and cash.

*Performance Shares.* A performance share award is an award denominated in shares that are subject to performance factors. The award may be settled in cash or by issuance of those shares (which may consist of restricted stock).

## **Table of Contents**

*Change in Control.* If we undergo a corporate transaction (as defined in our 2010 Equity Incentive Plan), we expect that our 2010 Equity Incentive Plan will provide that the successor company (if any) may assume, convert, replace or substitute outstanding awards. Outstanding awards that are not so assumed, converted, replaced or substituted will have their vesting accelerate and become exercisable in full.

*Transferability of Awards.* Unless the Compensation Committee provides otherwise, our 2010 Equity Incentive Plan does not allow for the transfer of awards, other than by will or the laws of descent and distribution, and generally only the recipient of an award may exercise it during his or her lifetime. The Compensation Committee will have discretion to determine and implement award transfer programs to give participants the opportunity to transfer any outstanding awards to a financial institution or other person or entity approved by the Compensation Committee. As part of such a program, the Compensation Committee will have the authority to amend any terms of awards included in the program, including expiration date, post-expiration exercise period, vesting and forfeiture conditions, permitted payment methods, and adjustments in the event of capitalization changes and other similar events.

*Eligibility.* The individuals eligible to participate in our 2010 Equity Incentive Plan will include our employees, officers, directors, consultants, independent contractors and advisors or any parent or subsidiary of ours, provided the consultants, independent contractors and advisors render services not in connection with the offer and sale of securities in a capital-raising transaction.

*Payment for Purchase of Shares of our Common Stock.* Payment for shares of our common stock purchased pursuant to our 2010 Equity Incentive Plan may be made by any of the following methods (provided such method is permitted in the applicable award agreement to which such shares relate): (1) cash (including by check); (2) cancellation of indebtedness; (3) surrender of shares; (4) waiver of compensation due or accrued for services rendered; (5) through a broker-assisted sale or other cashless exercise program, or (6) by any other method approved by our Board of Directors.

*Limit on Awards.* Under our 2010 Equity Incentive Plan, during any calendar year, no person will be eligible to receive more than \_\_\_\_\_ shares of our common stock, and in the case of new employees during their first fiscal year of employment with us, \_\_\_\_\_ shares of our common stock.

*Amendment and Termination.* Our Board of Directors will be able to amend or terminate our 2010 Equity Incentive Plan at any time, subject to stockholder approval where required. In addition, we cannot make an amendment that is detrimental to an outstanding award without the consent of the affected participant.

### ***2010 Employee Stock Purchase Plan***

*Background.* We expect that we will adopt a 2010 employee stock purchase plan designed to enable eligible employees to periodically purchase shares of our common stock at a discount. Purchases will be accomplished through participation in discrete offering periods. Our 2010 employee stock purchase plan will be intended to qualify as an employee stock purchase plan under Section 423 of the Internal Revenue Code of 1986, as amended.

*Share Reserve.* We expect that we will initially reserve \_\_\_\_\_ shares of our common stock for issuance under our 2010 Employee Stock Purchase Plan. During the first eight years of the life of the plan, the number of shares reserved for issuance will increase automatically on the first day of each January, starting with January 1, 2011, by the number of shares equal to \_\_\_\_\_ % of our total outstanding shares as of the

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

immediately preceding December 31st. Our Board of Directors or Compensation Committee will be able to reduce the amount of the increase in any particular year. No more than \_\_\_\_\_ shares of our common stock may be issued under our 2010 Employee Stock Purchase Plan and no other shares may be added to this plan without the approval of our stockholders.

## **Table of Contents**

*Administration.* Our Compensation Committee will administer our 2010 Employee Stock Purchase Plan. Employees who are five percent stockholders, or would become five percent stockholders as a result of their participation in our 2010 Employee Stock Purchase Plan, are ineligible to participate in our 2010 Employee Stock Purchase Plan. We may impose additional restrictions on eligibility as well. Under our 2010 Employee Stock Purchase Plan, eligible employees will be able to acquire shares of our common stock by accumulating funds through payroll deductions. Our eligible employees will be able to select a rate of payroll deduction between one percent and 15% of their cash compensation. We will also have the right to amend or terminate our 2010 Employee Stock Purchase Plan, except that, subject to certain exceptions, no such action may adversely affect any outstanding rights to purchase stock under the plan. Our 2010 Employee Stock Purchase Plan will terminate on the tenth anniversary of the first offering date, unless it is terminated earlier by our Board of Directors.

*Purchase Rights.* When an offering period commences, our employees who meet the eligibility requirements for participation in that offering period will be automatically granted a non-transferable option to purchase shares in that offering period. Each offering period may run for no more than 24 months and consist of no more than five purchase periods. An employee's participation will automatically end upon termination of employment for any reason.

No participant will have the right to purchase our shares at a rate which, when aggregated with purchase rights under all our employee stock purchase plans that are also outstanding in the same calendar year(s), have a fair market value of more than \$25,000, determined as of the first day of the applicable offering period, for each calendar year in which such right is outstanding. The purchase price for shares of our common stock purchased under our 2010 Employee Stock Purchase Plan will be 85% of the lesser of the fair market value of our common stock on (1) the first trading day of the applicable offering period and (2) the last trading day of each purchase period in the applicable offering period.

*Change in Control.* In the event of a corporate transaction (as defined in our 2010 Employee Stock Purchase Plan), the successor company may assume or substitute the outstanding rights to purchase shares under our 2010 Employee Stock Purchase Plan. If the successor company refuses to assume or substitute the outstanding rights, the offering period for such purchase rights will be shortened and end on a new purchase date on or prior to the consummation of the corporate transaction and no new offering period will commence.

## ***401(k) Plan***

We maintain a deferred savings retirement plan for our U.S. employees. The deferred savings retirement plan is intended to qualify as a tax-qualified plan under Section 401 of the Internal Revenue Code. Contributions to the deferred savings retirement plan are not taxable to employees until withdrawn from the plan. The deferred savings retirement plan provides that each participant may contribute his or her pre-tax compensation (up to a statutory limit, which is \$16,500 in 2010). For employees 50 years of age or older, an additional catch-up contribution of \$5,500 is allowable. Under the plan, each employee is fully vested in his or her deferred salary contributions. The deferred savings retirement plan also permits us to make additional discretionary contributions, subject to established limits and a vesting schedule.

## **Limitation of Liability and Indemnification**

Our certificate of incorporation, which will become effective immediately prior to the completion of this offering, limits the personal liability of directors for breach of fiduciary duty to the maximum extent permitted by the Delaware General Corporation Law and provides that no director will have personal liability to us or to our stockholders for monetary damages for breach of fiduciary duty or other duty as a director. However, these provisions do not eliminate or limit the liability of any of our directors:

Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

for any breach of the director's duty of loyalty to us or our stockholders;

for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law;



**Table of Contents**

for voting or assenting to unlawful payments of dividends, stock repurchases or other distributions; or

for any transaction from which the director derived an improper personal benefit.

Any amendment to or repeal of these provisions will not eliminate or reduce the effect of these provisions in respect of any act, omission or claim that occurred or arose prior to such amendment or repeal. If the Delaware General Corporation Law is amended to provide for further limitations on the personal liability of directors of corporations, then the personal liability of our directors will be further limited to the greatest extent permitted by the Delaware General Corporation Law.

In addition, our amended and restated bylaws, which will become effective immediately prior to the completion of this offering, provide that we must indemnify our directors and officers and we must advance expenses, including attorneys' fees, to our directors and officers in connection with legal proceedings, subject to very limited exceptions.

We maintain an insurance policy that covers certain liabilities of our directors and officers arising out of claims based on acts or omissions in their capacities as directors or officers.

Certain of our non-employee directors may, through their relationships with their employers, be insured and/or indemnified against certain liabilities incurred in their capacity as members of our Board of Directors.

Prior to completion of this offering, we intend to enter into indemnification agreements with each of our directors and executive officers that may be broader than the specific indemnification provisions contained in the Delaware General Corporation Law. These indemnification agreements may require us, among other things, to indemnify our directors and executive officers against liabilities that may arise by reason of their status or service. These indemnification agreements may also require us to advance all expenses incurred by the directors and executive officers in investigating or defending any such action, suit or proceeding. We believe that these agreements are necessary to attract and retain qualified individuals to serve as directors and executive officers.

At present, we are not aware of any pending litigation or proceeding involving any person who is or was one of our directors, officers, employees or other agents or is or was serving at our request as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, for which indemnification is sought, and we are not aware of any threatened litigation that may result in claims for indemnification.

The underwriting agreement provides for indemnification by the underwriters of us and our officers, directors and employees for certain liabilities arising under the Securities Act or otherwise.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers or persons controlling our company pursuant to the foregoing provisions, we have been informed that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable.

**Rule 10b5-1 Sales Plans**

Our directors and executive officers may adopt written plans, known as Rule 10b5-1 plans, in which they will contract with a broker to buy or sell shares of our common stock on a periodic basis. Under a Rule 10b5-1 plan, a broker executes trades pursuant to parameters established by the director or officer when entering into the plan, without further direction from them. The director or officer may amend or terminate the plan in some circumstances. Our directors and executive officers may also buy or sell additional shares outside of a Rule 10b5-1 plan when they are not in possession of material, nonpublic information.

**Table of Contents****CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS**

In addition to the compensation arrangements, including employment, termination of employment and change-in-control and indemnification arrangements, discussed, when required, above under Management, and the registration rights described below under Description of Capital Stock Registration Rights, the following is a description of each transaction since January 1, 2007, and each currently proposed transaction in which:

we have been or are to be a participant;

the amount involved exceeds \$120,000; and

any of our directors, executive officers or holders of more than 5% of any class of our capital stock at the time of the transactions in issue, or any immediate family member of or person sharing the household with any of these individuals, had or will have a direct or indirect material interest.

**Warrants**

From March 2008 through March 2009, we issued warrants to purchase an aggregate of 104,558 shares of our Series B-1 preferred stock at an exercise price of \$25.26 per share.

In January 2010, we issued warrants to purchase an aggregate of 49,157 shares of our Series C preferred stock at an exercise price of \$12.46 per share.

The holders of our warrants are entitled to specified registration rights. The following table summarizes the warrants issued in connection with the transactions described in this section, all of which were issued to holders of more than 5% of any class of our capital stock at the time of the transactions in issue.

<b>Investor</b>	<b>Warrants to Purchase Shares of Series B-1 Preferred Stock (#)</b>	<b>Warrants to Purchase Shares of Series C Preferred Stock (#)</b>
Entities associated with Advanced Equities Financial Corp.	104,558	49,157

**Preferred Stock Financings**

In April and May 2007, we sold an aggregate of 6,482,824 shares of our Series A preferred stock at \$2.174 per share for an aggregate purchase price of approximately \$14.1 million. In September 2007 and April 2008, we sold an aggregate of 1,667,817 shares of our Series B preferred stock at \$24.88 per share for an aggregate purchase price of approximately \$41.5 million. In February 2008, April 2008, May 2008, July

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

2008, September 2008, November 2008, December 2008 and January 2009, we sold an aggregate of 2,615,721 shares of our Series B-1 preferred stock at \$25.26 per share for an aggregate purchase price of approximately \$66.1 million. In July 2009, September 2009, October 2009, November 2009, December 2009 and January 2010, we sold an aggregate of 4,902,665 shares of our Series C preferred stock at \$12.46 per share for an aggregate purchase price of approximately \$61.1 million. In March 2010, we sold an aggregate of 2,724,766 shares of our Series C-1 preferred stock at \$17.56 per share for an aggregate purchase price of approximately \$47.8 million.

Although none of our executive officers or directors purchased Series A, B, B-1, C or C-1 preferred stock, pursuant to a voting agreement last amended and restated on March 12, 2010, (i) KPCB Holdings, Inc., as nominee, TPG Biotechnology Partners II, L.P. and entities affiliated with Khosla Ventures had representatives serving on our Board of Directors at the time the Series B, B-1 or C preferred stock were purchased, and these directors may have been considered to beneficially own any Series B, B-1 or C preferred stock purchased by the entities with which they were affiliated, and (ii) Lit Tele LLC had a representative serving on our Board of Directors at the time the Series C preferred stock was purchased, and this director may have been considered to beneficially own any Series C preferred stock purchased by the entity with which he is affiliated. These directors disclaim beneficial ownership of these securities. The terms of these purchases were the same as those made available to unaffiliated purchasers.

**Table of Contents**

The purchasers of these shares of our preferred stock are entitled to specified registration rights. See Description of Capital Stock Registration Rights. The following table summarizes the Series A, B, B-1, C and C-1 preferred stock, reflected on an as-issued and as-converted to common stock basis, assuming conversion occurred on March 31, 2010, purchased by our executive officers, directors and holders of more than 5% of any class of our capital stock at the time of the transactions in issue, since January 1, 2007, in connection with the transactions described above in this section. The terms of these purchases were the same as those made available to unaffiliated purchasers.

Name	Shares of Series A Preferred		Shares of Series B Preferred		Shares of Series B-1 Preferred		Shares of Series C Preferred		Shares of Series C-1 Preferred	
	Shares of Series A Preferred Stock (#)	an as-converted basis) (#)	Shares of Series B Preferred Stock (#)	an as-converted basis) (#)	Shares of Series B-1 Preferred Stock (#)	an as-converted basis) (#)	Shares of Series C Preferred Stock (#)	an as-converted basis) (#)	Shares of Series C-1 Preferred Stock (#)	an as-converted basis) (#)
KPCB Holdings, Inc., as nominee <sup>(1)(5)</sup>	3,449,861	3,449,861	150,723	168,508			419,688	419,688		
TPG Biotechnology Partners II, L.P. <sup>(2)(5)</sup>	2,299,907	2,299,907	401,929	449,357			419,687	419,687		
Entities affiliated with Khosla Ventures II, L.P. <sup>(3)(5)</sup>	3,449,861	3,449,861	150,723	168,508			419,687	419,687		
Entities associated with Advanced Equities Financial Corp.					1,301,312	1,458,771	174,675	174,675		
Lit Tele LLC <sup>(4)(5)</sup>					395,883	443,785	802,568	802,568		
Maxwell (Mauritius) Pte Ltd.									2,724,766	2,724,766
Entities associated with DAG Ventures II, L.P.			803,859	898,714			220,707	220,707		

- (1) John Doerr, one of our directors, is a manager of the general partners of entities affiliated with KPCB Holdings, Inc.
- (2) Dr. Geoffrey Duyk, one of our directors, is a partner of TPG Growth, LLC, an affiliate of TPG Biotechnology Partners II, L.P.
- (3) Samir Kaul, one of our directors, is a member of Khosla Ventures II, L.P.
- (4) Dr. Fernando de Castro Reinach, one of our directors, is an affiliate of the parent company of Lit Tele LLC.
- (5) The directors listed in the notes above disclaim beneficial ownership of these securities.

**Stockholder Agreements**

In connection with the sale of our Series A, B, B-1, C and C-1 preferred stock, we entered into agreements that grant customary preferred stock rights to all of our major preferred stock investors, including holders of more than 5% of our preferred stock at the time of the transactions in issue. The rights include registration rights, rights of first refusal, co-sale rights with respect to stock transfers, a voting agreement providing for the election of investor designees to our Board of Directors, information rights and other similar rights. The Amended and Restated Investors Rights Agreement dated March 12, 2010, which contains the registration rights and many of the other rights described above, is filed as an exhibit to the registration statement of which this prospectus is a part. All of these rights, other than the registration rights, will terminate upon the completion of this offering.

Upon the completion of this offering, holders of 26,866,881 shares of our common stock (including shares issuable upon exercise of certain stock options) and holders of warrants to purchase an aggregate of 24,101 shares of common stock, or their permitted transferees, will be entitled to rights with respect to the registration of these shares under the Securities Act. For more detailed description of these registration rights, see Description of Capital Stock Registration Rights.

**Other Transactions**

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

On September 15, 2008, we entered into a Stock Option Agreement with Lit Tele LLC, whereby Lit Tele LLC received an option to purchase up to 60,000 shares of our common stock at an exercise price of \$3.93 per share, outside the terms of our 2005 Stock Option/Stock Issuance Plan.

On April 9, 2008 and November 25, 2008, we entered into Placement Agent Agreements with Advanced Equities, Inc., pursuant to which Advanced Equities acted as our exclusive placement agent in obtaining financing through a

## **Table of Contents**

private placement of our Series B-1 preferred stock. Under the terms of these agreements, as compensation for its placement services, Advanced Equities received: (i) \$2,641,149 in cash, and (ii) warrants to purchase 104,558 shares of our Series B-1 preferred stock as discussed in Warrants above. In addition, under the terms of these agreements, we are required to indemnify Advanced Equities and its affiliates for (a) any misrepresentations or untrue statements made by us to Advanced Equities, (b) any breach or alleged breach of any representation, warranty or covenant made by us in these agreements, and (c) any misrepresentations or untrue statements made by us in any document furnished to the investors placed by Advanced Equities. Furthermore, Advanced Equities is required to indemnify us for (a) any misrepresentations or untrue statements made by Advanced Equities to the investors it placed with us (except to the extent such misrepresentations or untrue statements are based on information provided to Advanced Equities by us), (b) any breach or alleged breach of any representation, warranty or covenant made by Advanced Equities in these agreements, and (c) Advanced Equities' bad faith, gross negligence or willful misconduct in performing its services.

On September 28, 2009, we entered into a Placement Agent Agreement with Advanced Equities pursuant to which Advanced Equities acted as our exclusive placement agent in obtaining financing through a private placement of our Series C preferred stock. Under the terms of this agreement, as compensation for its placement services Advanced Equities received: (i) \$619,965 in cash, and (ii) a warrant to purchase 49,157 shares of our Series C preferred stock as discussed in Warrants above. This agreement contains mutual indemnification obligations similar to the indemnification obligations contained in our Series B-1 placement agent agreements with Advanced Equities described above.

On July 31, 2009, we entered into an Amended and Restated Restricted Stock Issuance Agreement with Lit Tele LLC, which amended and restated the Restricted Stock Issuance Agreement between the parties dated September 15, 2008. Pursuant to this agreement, Lit Tele LLC was awarded 50,000 restricted stock units outside the terms of our 2005 Stock Option/Stock Issuance Plan, and each unit entitles Lit Tele LLC to receive one share of our common stock. These restricted stock units granted to Lit Tele LLC were in exchange for advisory services provided to us pursuant to the Amended and Restated Advisory Services Agreement dated July 31, 2009, between us and Lit Tele LLC, as amended by Amendment No. 1 dated February 11, 2010. Under the terms of Amendment No. 1, we issued to Lit Tele LLC additional 126,272 restricted stock units outside the terms of our 2005 Stock Option/Stock Issuance Plan, and each unit entitles Lit Tele LLC to receive one share of our common stock.

Dr. Fernando de Castro Reinach, one of our directors, is an affiliate of the parent company of Lit Tele LLC.

## **Indemnification Arrangements**

Please see Management Limitation of Liability and Indemnification for information on our indemnification arrangements with our directors and executive officers.

## **Executive Compensation and Employment Arrangements**

Please see Management Executive Compensation and Management Agreements with Executives for information on compensation arrangements with our executive officers, including option grants and agreements with executive officers.

## **Related Person Transaction Policy**

We anticipate that our policy, the charter of our Audit Committee and the charter of our Nominating and Governance Committee to be adopted by our Board of Directors will require that any transaction with a related party that must be reported under applicable SEC rules, other than compensation related matters, must be reviewed and approved or ratified by our Nominating and Governance Committee. The Audit Committee must provide such approval or ratification if the related party is, or is associated with, a member of the Nominating and Governance committee. These committees have not adopted policies or procedures for review of, or standards for approval of, these transactions.



**Table of Contents****PRINCIPAL STOCKHOLDERS**

The following table sets forth information with respect to the beneficial ownership of our common stock, as of May 21, 2010, by:

each person, or group of affiliated persons, who is known by us to beneficially own more than 5% of our voting securities;

each of our directors;

each of our named executive officers; and

all of our directors and executive officers as a group.

Beneficial ownership is determined in accordance with the rules of the SEC and generally includes any shares over which the individual or entity has sole or shared voting power or investment power. The information does not necessarily indicate beneficial ownership for any other purpose. Except as indicated in the footnotes to this table and pursuant to applicable community property laws, to our knowledge the persons named in the table below have sole voting and investment power with respect to all shares of common stock beneficially owned. The number of shares beneficially owned by each person or group as of May 21, 2010, includes shares of common stock that such person or group had the right to acquire on or within 60 days after May 21, 2010, upon the exercise of options and warrants or the settling of restricted stock units. References to options and warrants in the footnotes of the table below include only options and warrants outstanding as of May 21, 2010, that were exercisable on or within 60 days after May 21, 2010, and references to restricted stock units in the footnotes of the table below include only restricted stock units outstanding as of May 21, 2010, that would vest and could settle on or within 60 days after May 21, 2010. For the purposes of calculating each person's or group's percentage ownership, stock options and warrants exercisable and restricted stock units that would vest within 60 days after May 21, 2010, are included for that person or group but not the stock options, warrants or restricted stock units of any other person or group.

Percentage ownership of our common stock in the table before the offering is based on 27,019,818 shares of our common stock outstanding on May 21, 2010. This number and the numbers of beneficially owned shares reported in the table below assume the automatic conversion of all outstanding shares of our preferred stock into 21,899,273 shares of common stock in connection with the completion of this offering. Percentage ownership of our common stock after this offering also assumes our sale of the \_\_\_\_\_ shares in this offering. Except as otherwise set forth below, the address of the beneficial owner is c/o Amyris Biotechnologies, Inc., 5885 Hollis Street, Suite 100, Emeryville, CA 94608.

Name and address of beneficial owner	Shares beneficially owned prior to offering		Shares beneficially owned after offering	
	Number (#)	Percentage (%)	Number (#)	Percentage (%)
<b>5% Stockholders</b>				
Entities affiliated with Advanced Equities Financial Corp. <sup>(1)</sup>	1,799,813	6.7		
Entities affiliated with Khosla Ventures <sup>(2)</sup>	4,158,222	15.4		
Entities affiliated with Kleiner Perkins Caufield & Byers <sup>(3)</sup>	4,158,224	15.4		
Lit Tele LLC <sup>(4)</sup>	1,457,850	5.4		
TPG Biotechnology Partners II, L.P. <sup>(5)</sup>	3,262,450	12.1		
Maxwell (Mauritius) Pte Ltd. <sup>(6)</sup>	2,724,766	10.1		

**Directors and Named Executive Officers**

Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

John Melo <sup>(7)</sup>	1,502,983	5.3
Ralph Alexander <sup>(8)</sup>	45,000	*
John Doerr <sup>(3) (9)</sup>	3,913,688	14.5
Geoffrey Duyk, M.D., Ph.D. <sup>(5)(10)</sup>		

**Table of Contents**

Name and address of beneficial owner	Shares beneficially owned prior to offering		Shares beneficially owned after offering	
	Number (#)	Percentage (%)	Number (#)	Percentage (%)
Samir Kaul <sup>(2)</sup>	4,158,222	15.4		
Arthur Levinson, Ph.D. <sup>(11)</sup>	100,000	*		
Patrick Pichette <sup>(12)</sup>	100,000	*		
Carole Piwnica				
Kinkead Reiling <sup>(13)</sup>	985,000	3.6		
Fernando de Castro Reinach, Ph.D. <sup>(4)</sup>	1,457,850	5.4		
Jeryl Hilleman <sup>(14)</sup>	250,000	*		
Joel Cherry, Ph.D. <sup>(15)</sup>	230,000	*		
Jefferson Lievens, Ph.D. <sup>(16)</sup>	280,000	1.0		
Tamara Tompkins <sup>(17)</sup>	240,000	*		
<b>All directors and executive officers as a group (16 persons)<sup>(18)</sup></b>	<b>14,707,743</b>	<b>48.3</b>		

\* Represents beneficial ownership of less than 1%.

- (1) Entities affiliated with Advanced Equities Financial Corp. ( AEFC ) beneficially own the following numbers of shares of common stock and shares of common stock issuable upon the exercise of warrants.

Entity	Common Stock	Warrants
Advanced Equities Amyris Investments I, LLC	289,074	
Advanced Equities Amyris Investments II, LLC	844,112	
Advanced Equities Amyris Investments III, LLC	38,753	
Advanced Equities Amyris Investments IV, LLC	81,403	
AEI 2008 CleanTech Investments I, LLC	120,299	
AEI 2008 CleanTech Investments II, LLC	259,805	
Advanced Equities Financial Corp.		166,367

All of the above entities other than AEFC (collectively, the AEI Funds ) are controlled by managing members that are wholly-owned subsidiaries of AEFC. AEFC exercises voting and dispositive control over all of the AEI Funds. AEFC disclaims beneficial ownership of all of these shares, except to the extent of its pecuniary interest therein. The business address for AEFC and all of the AEI Funds is 311 S. Wacker Drive, Suite 1650, Chicago, IL 60606.

- (2) Includes 3,618,369 shares of common stock held by Khosla Ventures II, L.P. and 539,853 shares of common stock held by Khosla Ventures III, L.P. Mr. Kaul, one of our directors, is the general partner of the general partners of these entities and as such may be deemed to have voting and investment power with respect to shares held by these entities. Mr. Kaul disclaims beneficial ownership of these shares except to the extent of his individual pecuniary interest in these entities. The address for Mr. Kaul and these entities is 3000 Sand Hill Road, Building 3, Suite 170, Menlo Park, CA 94025.
- (3) Includes 3,702,178 shares of common stock held by KPCB XII, LLC and 67,666 shares held by KPCB XII Founders Fund, LLC, 143,844 shares beneficially held by Clarus, LLC, whose manager is L. John Doerr, and 244,536 shares held by other individual managers. Mr. Doerr is a manager of the general partners of these entities and has shared voting and investment authority over these shares. Mr. Doerr disclaims beneficial ownership of these shares except to the extent of his pecuniary interest arising therein. The shares are held for convenience in the name of KPCB Holdings, Inc. as nominee for the account of entities affiliated with Kleiner Perkins Caufield & Byers and others. KPCB Holdings, Inc. has no voting, dispositive or pecuniary interest in any such shares. The address for Mr. Doerr and these entities is 2750 Sand Hill Road, Menlo Park, CA 94025.

**Table of Contents**

- (4) Includes (i) 1,287,521 shares of common stock (ii) 35,000 shares issuable upon exercise of options exercisable within 60 days of May 21, 2010, and (iii) 135,329 restricted stock units that would settle within 60 days of May 21, 2010, assuming no acceleration of the settlement of the restricted stock units. Lit Tele LLC's sole indirect member is Votorantim Novos Negocios. Dr. Reinach, one of our directors, is a General Partner of Votorantim Novos Negocios and in such capacity has shared voting power with respect to such shares. Dr. Reinach disclaims beneficial ownership with respect to such shares except to the extent of his pecuniary interest therein. The address for Dr. Reinach and these entities is Rua Jeronimo da Veiga, 384-12° andar, São Paulo, Brazil.
- (5) Includes 3,262,450 shares of common stock (the TPG Stock) held by TPG Biotechnology Partners II, L.P. (Partners II), a Delaware limited partnership, whose general partner is TPG Biotechnology GenPar II, L.P., a Delaware limited partnership (GenPar II), whose general partner is TPG Biotech Advisors II, LLC, a Delaware limited liability company (Advisors II), whose sole member is TPG Ventures Holdings, LLC, a Delaware limited liability company (Venture Holdings II), whose managing member is TPG Ventures Partners, L.P., a Delaware limited partnership (Venture Partners II) and, together with Partners II, GenPar II, Advisors II and Venture Holdings II, the TPG Funds), whose general partner is Tarrant Advisors, Inc., a Texas corporation (Tarrant), whose sole shareholder is Tarrant Capital Advisors, Inc., a Delaware corporation (TCA). Messrs. David Bonderman and James G. Coulter are directors, officers and sole shareholders of TCA, and may therefore be deemed to be the beneficial owners of the TPG Stock. The address of each of the TPG Funds, Tarrant, TCA, and Messrs. Bonderman and Coulter is c/o TPG Capital, L.P., 301 Commerce Street, Suite 3300, Fort Worth, TX 76102.
- (6) The address of Maxwell (Mauritius) Pte Ltd is 60B Orchard Road, #06-18 Tower 2, The Atrium @ Orchard, Singapore 238891.
- (7) Represents 1,502,983 shares of common stock issuable upon exercise of options that are exercisable within 60 days of May 21, 2010. If these options were exercised in full, 713,092 of these shares would be subject to vesting and a right of repurchase in our favor upon Mr. Melo's cessation of service prior to vesting.
- (8) Represents 45,000 shares of common stock issuable upon exercise of vested options that are exercisable within 60 days of May 21, 2010.
- (9) Represents shares held by entities affiliated with Kleiner Perkins Caufield & Byers of which Mr. Doerr is an affiliate but excludes 244,536 of these shares over which Mr. Doerr has no voting or investment power.
- (10) Dr. Duyk, who is one of our directors, is a partner of TPG Growth, LLC, which is an affiliate of Partners II. Dr. Duyk has no voting or investment power over and disclaims beneficial ownership of the TPG Stock. The address of Dr. Duyk is c/o TPG Capital, L.P., 301 Commerce Street, Suite 3300, Fort Worth, TX 76102.
- (11) Represents 100,000 shares of common stock issuable upon exercise of options that are exercisable within 60 days of May 21, 2010. If these options were exercised in full, 91,667 of the shares resulting from such exercise would be subject to vesting and a right of repurchase in our favor upon Dr. Levinson's cessation of service prior to vesting.
- (12) Represents 100,000 shares of common stock issuable upon exercise of options that are exercisable within 60 days of May 21, 2010. If these options were exercised in full, 91,667 of the shares resulting from such exercise would be subject to vesting and a right of repurchase in our favor upon Mr. Pichette's cessation of service prior to vesting.
- (13) Includes (i) 863,000 shares of common stock held by Dr. Reiling, (ii) an aggregate of 37,000 shares of common stock held by transferees of Dr. Reiling, over which shares he retains shared voting power and (iii) 85,000 shares issuable upon exercise of options of Dr. Reiling that are exercisable within 60 days of May 21, 2010. If these options were exercised in full, 38,251 of the shares resulting from such exercise would be subject to vesting and a right of repurchase in our favor upon Dr. Reiling's cessation of service prior to vesting.

**Table of Contents**

- (14) Includes (i) 25,445 shares of common stock, of which 13,147 are unvested as of May 21, 2010, and subject to a lapsing right of repurchase in our favor and (ii) 224,555 shares issuable upon exercise of options that are exercisable within 60 days of May 21, 2010. If these options were exercised in full, 132,688 of the shares resulting from such exercise would be subject to vesting and a right of repurchase in our favor upon Ms. Hilleman's cessation of service prior to vesting.
- (15) Represents 230,000 shares of common stock issuable upon exercise of options that are exercisable within 60 days of May 21, 2010. If these options were exercised in full, 157,334 of the shares resulting from such exercise would be subject to vesting and a right of repurchase in our favor upon Dr. Cherry's cessation of service prior to vesting.
- (16) Represents 280,000 shares of common stock issuable upon exercise of options that are exercisable within 60 days of May 21, 2010. If these options were exercised in full, 155,167 of the shares resulting from such exercise would be subject to vesting and a right of repurchase in our favor upon Dr. Lievense's cessation of service prior to vesting.
- (17) Includes (i) 100,000 shares of common stock and (ii) 140,000 shares issuable upon exercise of options that are exercisable within 60 days of May 21, 2010. If these options were exercised in full, 59,167 of the shares resulting from such exercise would be subject to vesting and a right of repurchase in our favor upon Ms. Tompkins' cessation of service prior to vesting.
- (18) Includes the shares described in footnotes (2) through (5) and (7) through (17) above. Also includes (i) 900,000 shares of common stock held by executive officers and (ii) 545,000 shares issuable upon exercise of options held by executive officers within 60 days after May 21, 2010, of which 498,251 shares, if these options were exercised in full, would be subject to vesting and a right of repurchase in our favor upon the executive officer's cessation of service prior to vesting.

**Table of Contents**

**DESCRIPTION OF CAPITAL STOCK**

Upon the completion of this offering, our authorized capital stock will consist of \_\_\_\_\_ shares of common stock, par value \$0.0001 per share, and \_\_\_\_\_ shares of preferred stock, par value \$0.0001 per share. A description of the material terms and provisions of our restated certificate of incorporation and restated bylaws affecting the rights of holders of our capital stock is set forth below. The description is intended as a summary, and is qualified in its entirety by reference to the form of our restated certificate of incorporation and the form of our restated bylaws to be adopted prior to the completion of this offering that will be filed with the registration statement relating to this prospectus. The descriptions of our common stock and preferred stock reflect changes to our capital structure that will occur upon the completion of this offering.

**Common Stock**

*Dividend Rights*

Subject to preferences that may apply to shares of preferred stock outstanding at the time, the holders of outstanding shares of our common stock are entitled to receive dividends out of funds legally available if our Board of Directors, in its discretion, determines to issue dividends, and only then at the times and in the amounts that our Board of Directors may determine.

*Voting Rights*

Each holder of common stock is entitled to one vote for each share of common stock held on all matters submitted to a vote of stockholders. Our restated certificate of incorporation eliminates the right of stockholders to cumulate votes for the election of directors. Our restated certificate of incorporation establishes a classified Board of Directors, to be divided into three classes with staggered three-year terms. Only one class of directors will be elected at each annual meeting of our stockholders, with the other classes continuing for the remainder of their respective three-year terms.

*No Preemptive or Similar Rights*

Our common stock is not entitled to preemptive rights and is not subject to conversion, redemption or sinking fund provisions.

*Right to Receive Liquidation Distributions*

Upon our dissolution, liquidation or winding-up, the assets legally available for distribution to our stockholders are distributable ratably among the holders of our common stock, subject to prior satisfaction of all outstanding debt and liabilities and the preferential rights and payment of liquidation preferences, if any, on any outstanding shares of preferred stock.

**Preferred Stock**

Immediately upon the completion of this offering, each outstanding share of preferred stock will be converted into common stock.

Following this offering, we will be authorized, subject to limitations prescribed by Delaware law, to issue preferred stock in one or more series, to establish from time to time the number of shares to be included in each series and to fix the designation, powers, preferences and rights of the shares of each series and any of its qualifications, limitations or restrictions. Our Board of Directors also can increase or decrease the number of shares of any series, but not below the number of shares of that series then outstanding, without any further vote or action by our stockholders. Our Board of Directors may authorize the issuance of preferred stock with voting

## **Table of Contents**

or conversion rights that could adversely affect the voting power or other rights of the holders of the common stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring or preventing a change in control of our company and may adversely affect the market price of our common stock and the voting and other rights of the holders of common stock. We have no current plan to issue any shares of preferred stock.

## **Options**

As of March 31, 2010, we had options to purchase 5,759,455 shares of our common stock outstanding pursuant to our 2005 Stock Option/Stock Issuance Plan. In addition, as of March 31, 2010, we had granted an option to purchase up to 60,000 shares of our common stock outside of our 2005 Stock Option/Stock Issuance Plan.

## **Warrants**

As of March 31, 2010, we had one warrant to purchase 2,580 shares of our Series B preferred stock with an exercise price of \$24.88 per share. The warrant has a net exercise provision under which the holder in lieu of payment of the exercise price in cash can surrender the warrant and receive a net number of shares of Series B preferred stock based on the fair market value of such stock at the time of exercise of the warrant after deduction of the aggregate exercise price. Unless earlier exercised, this warrant will expire on the first anniversary of the closing of this offering. After the closing of this offering, this warrant will become exercisable for a number of shares of common stock determined by multiplying 2,580 by the conversion ratio of the Series B Preferred Stock in effect at the closing of this offering.

As of March 31, 2010, we had six warrants to purchase an aggregate of 106,567 shares of our Series B-1 preferred stock with an exercise price of \$25.26 per share. Each of these warrants has a net exercise provision under which the holder in lieu of payment of the exercise price in cash can surrender the warrant and receive a net number of shares of Series B-1 preferred stock based on the fair market value of such stock at the time of exercise of the warrant after deduction of the aggregate exercise price. Unless earlier exercised, one warrant to purchase 2,009 shares of Series B-1 Preferred Stock will expire on the first anniversary of the closing of this offering and five warrants to purchase an aggregate of 104,558 shares of our Series B-1 preferred stock will expire on various dates from March 2015 to March 2016. After the closing of this offering, these warrants will become exercisable for an aggregate number of shares of common stock determined by multiplying 106,567 by the conversion ratio of the Series B-1 preferred stock in effect at the closing of this offering.

As of March 31, 2010, we had three warrants to purchase an aggregate of 73,258 shares of our Series C preferred stock with an exercise price of \$12.46 per share. Each of these warrants has a net exercise provision under which the holder in lieu of payment of the exercise price in cash can surrender the warrant and receive a net number of shares of Series C preferred stock based on the fair market value of such stock at the time of exercise of the warrant after deduction of the aggregate exercise price. Unless earlier exercised, two of these warrants to purchase an aggregate of 24,101 will expire on the first anniversary of the closing of this offering and one warrant to purchase an aggregate of 49,157 shares will expire January 7, 2017. After the closing of this offering, these warrants will become exercisable for an aggregate number of shares of common stock determined by multiplying 73,258 by the conversion ratio of the Series C preferred stock in effect at the closing of this offering.

## **Restricted Stock Units**



## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

As of March 31, 2010, we had granted 176,272 restricted stock units outside our 2005 Stock Option/Stock Issuance Plan. Each restricted stock unit represents the right to receive one share of our common stock.

## **Table of Contents**

### **Registration Rights**

#### ***Demand Registration Rights***

At any time beginning 180 days after the completion of this offering and ending on March 12, 2013, the holders of at least 30% of the shares having registration rights under our investors' rights agreement may request that we file a registration statement under the Securities Act covering the shares of the requesting holders. We will be obligated to use our commercially reasonable efforts to register such shares if they represent at least 20% of the shares resulting from conversion of our preferred stock and if the anticipated aggregate price to the public is at least \$5,000,000. We are required to effect no more than two registration statements upon exercise of these demand registration rights. We may postpone the filing of a registration statement for up to 90 days once in a 12-month period if we determine that the filing would be seriously detrimental to us and our stockholders.

#### ***Piggyback Registration Rights***

If we register any of our securities for public sale, the stockholders with registration rights will have the right to include their shares in the registration statement. However, this right does not apply to a registration relating to any of our employee benefit plans, the offer and sale of debt securities, or a registration on any registration form that does not include the information required for registration of the shares having piggyback registration rights. The managing underwriter of any underwritten offering will have the right to limit, due to marketing reasons, the number of shares registered by these holders to 25% of the total shares covered by the registration statement.

#### ***Form S-3 Registration Rights***

The holders of shares having registration rights can request that we register all or a portion of their shares on Form S-3 if we are eligible to file a registration statement on Form S-3 and the aggregate price to the public of the shares offered is at least \$2,000,000. We are required to file no more than one registration statement on Form S-3 upon exercise of these rights in any 12-month period. We may postpone the filing of a registration statement on Form S-3 for up to 90 days once in a 12-month period if we determine that the filing would be seriously detrimental to us and our stockholders.

#### ***Registration Expenses***

We will pay all expenses incurred in connection with exercise of demand and piggyback registration rights, except for underwriting discounts and commissions. However, we will not pay for any expenses of any demand registration if the request is subsequently withdrawn by the holders of a majority of the shares requested to be included in such a registration statement, subject to limited exceptions. The expenses associated with exercise of Form S-3 registration rights will be borne pro rata by the holders of the shares registered on such Form S-3.

#### ***Expiration of Registration Rights***

The registration rights described above will expire five years after this offering is completed.

Holders of substantially all of our shares with these registration rights have signed agreements with the underwriters prohibiting the exercise of their registration rights for 180 days, subject to a possible extension of up to 34 additional days beyond the end of such 180-day period, following the date of this prospectus. These agreements are described below under **Underwriting**.

#### **Anti-Takeover Provisions**

The provisions of Delaware law, our restated certificate of incorporation and our restated bylaws may have the effect of delaying, deferring or discouraging another person from acquiring control of our company.

## **Table of Contents**

### ***Delaware Law***

Upon completion of our reincorporation in the State of Delaware, we will be governed by the provisions of Section 203 of the Delaware General Corporation Law regulating corporate takeovers. This section prevents some Delaware corporations from engaging, under some circumstances, in a business combination, which includes a merger or sale of at least 10% of the corporation's assets with any interested stockholder, meaning a stockholder who, together with affiliates and associates, owns or, within three years prior to the determination of interested stockholder status, did own 15% or more of the corporation's outstanding voting stock, unless:

the transaction is approved by the Board of Directors prior to the time that the interested stockholder became an interested stockholder;

upon consummation of the transaction which resulted in the stockholder's becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced; or

at or subsequent to such time that the stockholder became an interested stockholder the business combination is approved by the Board of Directors and authorized at an annual or special meeting of stockholders by at least two-thirds of the outstanding voting stock which is not owned by the interested stockholder.

A Delaware corporation may opt out of these provisions with an express provision in its original certificate of incorporation or an express provision in its certificate of incorporation or bylaws resulting from a stockholders' amendment approved by at least a majority of the outstanding voting shares. We do not plan to opt out of these provisions. This statute could prohibit or delay mergers or other takeover or change in control attempts and, accordingly, may discourage attempts to acquire us.

### ***Restated Certificate of Incorporation and Restated Bylaw Provisions***

Our restated certificate of incorporation and our restated bylaws will include a number of provisions that may have the effect of deterring hostile takeovers or delaying or preventing changes in control of our management team, including the following:

*Board of Directors Vacancies.* Our restated certificate of incorporation and restated bylaws will authorize only our Board of Directors to fill vacant directorships. In addition, the number of directors constituting our Board of Directors will be set only by resolution adopted by a majority vote of our entire Board of Directors. These provisions prevent a stockholder from increasing the size of our Board of Directors and gaining control of our Board of Directors by filling the resulting vacancies with its own nominees.

*Classified Board.* Our restated certificate of incorporation and restated bylaws will provide that our Board of Directors is classified into three classes of directors. The existence of a classified board could delay a successful tender offeror from obtaining majority control of our Board of Directors, and the prospect of that delay might deter a potential offeror. Pursuant to Delaware law, the directors of a corporation having a classified board may be removed by the stockholders only for cause. In addition, stockholders will not be permitted to cumulate their votes for the election of directors.

*Stockholder Action; Special Meeting of Stockholders.* Our restated certificate of incorporation will provide that our stockholders may not take action by written consent, but may only take action at annual or special meetings of our stockholders. Our restated bylaws

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

will further provide that special meetings of our stockholders may be called only by a majority of our Board of Directors, the chairman of our Board of Directors, our chief executive officer or our president.

*Advance Notice Requirements for Stockholder Proposals and Director Nominations.* Our restated bylaws will provide advance notice procedures for stockholders seeking to bring business before our annual meeting of stockholders, or to nominate candidates for election as directors at our annual meeting of stockholders. Our restated bylaws also will specify certain requirements regarding the form

## **Table of Contents**

and content of a stockholder's notice. These provisions may preclude our stockholders from bringing matters before our annual meeting of stockholders or from making nominations for directors at our annual meeting of stockholders.

*Issuance of Undesignated Preferred Stock.* After the filing of our restated certificate of incorporation, our Board of Directors will have the authority, without further action by the stockholders, to issue up to \_\_\_\_\_ shares of undesignated preferred stock with rights and preferences, including voting rights, designated from time to time by the Board of Directors. The existence of authorized but unissued shares of preferred stock enables our Board of Directors to render more difficult or to discourage an attempt to obtain control of us by means of a merger, tender offer, proxy contest or otherwise.

## **Transfer Agent and Registrar**

The transfer agent and registrar for our common stock will be \_\_\_\_\_.

## **Stock Exchange Listing**

We will apply to have our common stock listed on The Nasdaq Global Market under the symbol AMRS.

## **SHARES ELIGIBLE FOR FUTURE SALE**

Prior to this offering, there has been no public market for our common stock, and we cannot assure you that a significant market for our common stock will develop or be sustained after this offering. Future public market sales or the possibility of such future sales, of substantial amounts of our common stock, including shares issued upon exercise of our options and warrants, could adversely affect the trading price of our common stock or could impair our ability to raise capital in the future. Furthermore, since only a limited number of shares will be available for sale shortly after this offering because of the contractual and legal restrictions on resale described below, sales of substantial amounts of our common stock in the public market after those restrictions lapse could also adversely affect the trading price of our common stock.

## **Sales of Restricted Securities**

Upon the completion of this offering, a total of \_\_\_\_\_ shares of our common stock will be outstanding, based on the number of shares outstanding at March 31, 2010, and assuming no exercises of options or warrants after March 31, 2010, and the issuance of \_\_\_\_\_ shares of common stock in this offering.

Of the shares to be outstanding after the closing of this offering, all shares sold in this offering will be freely tradable without restriction under the Securities Act, except that any shares purchased in this offering by our affiliates, as that term is defined in Rule 144 under the Securities Act generally may be sold in the public market only in compliance with Rule 144.

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

The remaining 27,570,029 shares of common stock will be restricted securities, as that term is defined in Rule 144 under the Securities Act. These restricted securities are eligible for public sale only if they are registered under the Securities Act or if they qualify for an exemption from registration under Rule 144 or Rule 701 under the Securities Act, which are summarized below. In addition, substantially all of these restricted securities will be subject to the lock-up agreements described below.

As a result of the lock-up agreements and the provisions of our Amended and Restated Investors Rights Agreement described below, and subject to the provisions of Rules 144 and 701 under the Securities Act, these restricted securities will be available for sale in the public market as follows:

on the date of this prospectus, of the shares will be available for sale in the public market without restriction; and

## **Table of Contents**

beginning 181 days after the date of this prospectus, subject to extension as described in Underwriters, shares will become eligible for sale in the public market, of which shares will be freely tradable under Rule 144, and shares will be freely tradable, subject to the limitations under Rules 144 and 701, of which shares will be unvested and subject to our right of repurchase.

In addition, of the shares of our common stock that were subject to stock options and warrants outstanding as of March 31, 2010, options and warrants to purchase shares of common stock will be exercisable 181 days following the effective date of this prospectus and the shares resulting from any such exercises will be eligible for sale 181 days following the effective date of this prospectus, subject to extension as described in Underwriters.

As of March 31, 2010, 176,272 shares of common stock were subject to outstanding restricted stock units, of which units will have settled 181 days after the effective date of this prospectus and will be freely tradable, subject to the limitations under Rule 144.

## **Rule 144**

In general, under Rule 144 as currently in effect, once we have been subject to public company reporting requirements for at least 90 days, a person who is not deemed to have been one of our affiliates for purposes of the Securities Act at any time during the 90 days preceding a sale and who has beneficially owned the shares proposed to be sold for at least six months, including the holding period of any prior owner other than our affiliates, is entitled to sell those shares without complying with the manner of sale, volume limitation or notice provisions of Rule 144, subject to compliance with the public information requirements of Rule 144. If such a person has beneficially owned the shares proposed to be sold for at least one year, including the holding period of any prior owner other than our affiliates, then that person is entitled to sell those shares without complying with any of the requirements of Rule 144.

In general, under Rule 144, as currently in effect, our affiliates or persons selling shares on behalf of our affiliates are entitled to sell upon the expiration of the lock-up agreements described below, within any three-month period beginning 90 days after the date of this prospectus, a number of shares that does not exceed the greater of:

1% of the number of shares of common stock then outstanding, which will equal approximately shares immediately after the offering; or

the average weekly trading volume of the common stock during the four calendar weeks preceding the filing of a notice on Form 144 with respect to such sale.

Sales under Rule 144 by our affiliates or persons selling shares on behalf of our affiliates are also subject to certain manner of sale provisions and notice requirements and to the availability of current public information about us.

## **Rule 701**



## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

Any of our employees, officers, directors or consultants who purchased shares under a written compensatory plan or contract may be entitled to sell them in reliance on Rule 701. Rule 701 permits affiliates to sell their Rule 701 shares under Rule 144 without complying with the holding period requirements of Rule 144. Rule 701 further provides that non-affiliates may sell these shares in reliance on Rule 144 without complying with the holding period, public information, volume limitation or notice provisions of Rule 144. All holders of Rule 701 shares are required to wait until 90 days after the date of this prospectus before selling those shares. However, all shares issued under Rule 701 are subject to lock-up agreements described below and/or to a 180-day market stand-off contractual restriction in our favor and will only become eligible for sale when the lock-up and/or market standoff period expires.

## **Table of Contents**

### **Investors Rights Agreement**

Under our Amended and Restated Investors Rights Agreement, the holders of our capital stock that are party to that agreement have agreed to not sell any of our securities owned by them for a period of 180 days after the date of effectiveness of the registration statement to which this prospectus is a part, and in specific circumstances, up to an additional 34 days. Such market stand-off rights are contingent upon all directors, officers and holders of at least one percent of our voting capital stock entering into a similar agreement.

### **Other Market Stand-off Provisions**

In addition to the market-standoff restrictions described above, the stock purchase agreements entered into by all optionees who have exercised options under our 2005 Stock Option/Stock Issuance Plan contain a market stand-off restriction of 180 days, which is contingent upon all of our directors and officers being subject to a similar restriction.

### **Lock-Up Agreements**

We and each of our directors, officers and a substantial majority of our other stockholders have agreed that, without the prior written consent of Morgan Stanley & Co. Incorporated and Goldman, Sachs & Co. on behalf of the underwriters, we and they will not, during the period ending 180 days after the date of this prospectus:

offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend or otherwise transfer or dispose of, directly or indirectly, any shares of common stock beneficially owned by us or such persons or any securities convertible into or exercisable or exchangeable for shares of common stock; or

enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of our common stock.

The terms of the lock-up agreements, including exceptions to the prohibitions described above, as more fully described in Underwriting below.

### **Registration Rights**

Upon the completion of this offering, the holders of an aggregate of 26,866,881 shares of our common stock (including shares issuable upon exercise of certain stock options) and the holders of warrants to purchase an aggregate of 24,101 shares of our common stock, or their permitted transferees, will be entitled to rights with respect to the registration of these shares under the Securities Act. Registration of these shares under the Securities Act would result in these shares becoming fully tradable without restriction under the Securities Act immediately upon the effectiveness of the registration, except for shares purchased by affiliates. See Description of Capital Stock Registration Rights for additional information.

**Registration Statements**

We intend to file a registration statement on Form S-8 under the Securities Act covering all of the shares of common stock subject to options outstanding and reserved for issuance under our stock plans. We expect to file this registration statement as soon as practicable after this offering. However, none of the shares registered on Form S-8 will be eligible for resale until the expiration of the lock-up agreements to which they are subject.

**Table of Contents**

**MATERIAL U.S. FEDERAL TAX CONSIDERATIONS**

**FOR NON-U.S. HOLDERS OF COMMON STOCK**

This section summarizes the material U.S. federal income tax considerations relating to the ownership and disposition of common stock by non-U.S. holders. This summary does not discuss all potential tax considerations. The information provided below is based upon provisions of the Internal Revenue Code of 1986, as amended, or the Code, and Treasury regulations promulgated thereunder, administrative rulings and judicial decisions currently in effect. These authorities may change at any time, possibly on a retroactive basis, or the Internal Revenue Service, or IRS, might interpret the existing authorities differently. In either case, the tax considerations of owning or disposing of common stock could differ from those described below. For purposes of this summary, a non-U.S. holder is any holder other than:

an individual who is a citizen or resident of the U.S.;

a corporation created or organized under the laws of the U.S., any state or the District of Columbia;

a trust that is (1) subject to the primary supervision of a U.S. court and one or more U.S. persons have authority to control all substantial decisions of the trust or (2) has a valid election in effect under applicable U.S. Treasury regulations to be treated as a U.S. person; or

an estate whose income is subject to U.S. income tax regardless of source.

If you are a non-U.S. holder that is an individual, you may, in many cases, be deemed to be a resident alien, as opposed to a nonresident alien, by virtue of being present in the U.S. for at least 31 days in the calendar year and for an aggregate of at least 183 days during a three-year period ending in the current calendar year. For these purposes, all the days present in the current year, one-third of the days present in the immediately preceding year, and one-sixth of the days present in the second preceding year are counted. Resident aliens are subject to U.S. federal income tax as if they were U.S. citizens. Such an individual is urged to consult his or her own tax advisor regarding the U.S. federal income tax consequences of the sale, exchange or other disposition of common stock. If a partnership or other pass-through entity is a beneficial owner of common stock, the tax treatment of a partner in the partnership or an owner of the entity will depend upon the status of the partner or other owner and the activities of the partnership or other entity. Any partner in a partnership or member in a pass-through entity holding shares of our common stock should consult its own tax advisor.

This discussion assumes that a non-U.S. holder will hold our common stock as a capital asset (generally, property held for investment). The summary generally does not address tax considerations that may be relevant to particular investors because of their specific circumstances, or because they are subject to special rules, including if the investor is a U.S. expatriate, controlled foreign corporation, passive foreign investment company, corporation that accumulates earnings to avoid U.S. federal income tax, dealer in securities or currencies, financial institution, regulated investment company, real estate investment trust, tax-exempt entity, insurance company, person holding our common stock as part of a hedging, integrated, conversion or constructive sale transaction or a straddle, trader in securities that elects to use a mark-to-market method of accounting, person liable for the alternative minimum tax, and partner or beneficial owner in a pass-through entity. Finally, the summary does not describe the effects of any applicable foreign, state or local laws, or, except to the extent discussed below, the effects of any applicable gift or estate tax laws.

INVESTORS CONSIDERING THE PURCHASE OF COMMON STOCK SHOULD CONSULT THEIR OWN TAX ADVISORS REGARDING THE APPLICATION OF THE U.S. FEDERAL INCOME AND ESTATE TAX LAWS TO THEIR PARTICULAR SITUATIONS AND THE CONSEQUENCES OF FOREIGN, STATE OR LOCAL LAWS, AND TAX TREATIES.



## **Table of Contents**

### **Dividends**

We do not expect to declare or pay any dividends on our common stock in the foreseeable future. If we do pay dividends on shares of our common stock, however, such distributions will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. Distributions in excess of our current and accumulated earnings and profits will constitute a return of capital that is applied against and reduces, but not below zero, a non-U.S. holder's adjusted tax basis in shares of our common stock. Any remaining excess will be treated as gain realized on the sale or other disposition of our common stock. See Sale of Common Stock.

Any dividend paid to a non-U.S. holder on our common stock will generally be subject to U.S. withholding tax at a 30% rate. The withholding tax might not apply, however, or might apply at a reduced rate, under the terms of an applicable income tax treaty between the U.S. and the non-U.S. holder's country of residence. You should consult your tax advisors regarding your entitlement to benefits under a relevant income tax treaty. Generally, in order for us or our paying agent to withhold tax at a lower treaty rate, a non-U.S. holder must certify its entitlement to treaty benefits. A non-U.S. holder generally can meet this certification requirement by providing a Form W-8BEN (or any successor form) or appropriate substitute form to us or our paying agent. If the holder holds the stock through a financial institution or other agent acting on the holder's behalf, the holder will be required to provide appropriate documentation to the agent. The holder's agent will then be required to provide certification to us or our paying agent, either directly or through other intermediaries. For payments made to a foreign partnership or other pass-through entity, the certification requirements generally apply to the partners or other owners rather than to the partnership or other entity, and the partnership or other entity must provide the partners' or other owners' documentation to us or our paying agent. If you are eligible for a reduced rate of U.S. federal withholding tax under an income tax treaty, you may obtain a refund or credit of any excess amounts withheld by filing an appropriate claim for a refund with the IRS in a timely manner.

Dividends received by a non-U.S. holder that are effectively connected with a U.S. trade or business conducted by the non-U.S. holder, or, if an income tax treaty between the U.S. and the non-U.S. holder's country of residence apply, are attributable to a permanent establishment you maintain in the U.S., are not subject to such withholding tax. To obtain this exemption, a non-U.S. holder must provide us with an IRS Form W-8ECI properly certifying such exemption. Such effectively connected dividends, although not subject to withholding tax, are taxed at the same graduated rates applicable to U.S. persons, net of certain deductions and credits, subject to any applicable tax treaty providing otherwise. In addition to the graduated tax described above, dividends received by corporate non-U.S. holders that are effectively connected with a U.S. trade or business of the corporate non-U.S. holder may also be subject to a branch profits tax at a rate of 30% or such lower rate as may be specified by an applicable tax treaty.

### **Sale of Common Stock**

Non-U.S. holders will generally not be subject to U.S. federal income tax on any gains realized on the sale, exchange or other disposition of common stock unless:

the gain (1) is effectively connected with the conduct by the non-U.S. holder of a U.S. trade or business and (2) if an income tax treaty applies between the U.S. and the non-U.S. holder's country of residence, the gain is attributable to a permanent establishment (or, in the case of an individual, a fixed base) maintained by the non-U.S. holder in the U.S. (in which case the special rules described below apply);

the non-U.S. holder is an individual who is present in the U.S. for 183 days or more in the taxable year of the sale, exchange or other disposition of our common stock, and certain other requirements are met (in which case the gain would be subject to a flat 30% tax,

Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

or such reduced rate as may be specified by an applicable income tax treaty, which may be offset by U.S. source capital losses, even though the individual is not considered a resident of the U.S.); or

## **Table of Contents**

the rules of the Foreign Investment in Real Property Tax Act, or FIRPTA, treat the gain as effectively connected with a U.S. trade or business.

The FIRPTA rules may apply to a sale, exchange or other disposition of common stock if we are, or were within the shorter of the five-year period preceding the disposition and the non-U.S. holder's holding period, a U.S. real property holding corporation, or USRPHC. In general, we would be a USRPHC if interests in U.S. real estate comprised at least half of our assets. We do not believe that we are a USRPHC and we do not anticipate becoming one in the future. Even if we become a USRPHC, as long as our common stock is regularly traded on an established securities market, such common stock will be treated as U.S. real property interests only if a non-U.S. holder actually owns or constructively holds more than 5% of our outstanding common stock.

If any gain from the sale, exchange or other disposition of common stock, (1) is effectively connected with a U.S. trade or business conducted by a non-U.S. holder and (2) if an income tax treaty between the U.S. and the non-U.S. holder's country of residence applies, is attributable to a permanent establishment (or, in the case of an individual, a fixed base) maintained by such non-U.S. holder in the U.S., then the gain generally will be subject to U.S. federal income tax at the regular graduated rates. If the non-U.S. holder is a corporation, under certain circumstances, that portion of its earnings and profits that is effectively connected with its U.S. trade or business, subject to certain adjustments, generally would be subject to a branch profits tax. The branch profits tax rate is generally 30%, although an applicable income tax treaty between the U.S. and the non-U.S. holder's country of residence might provide for a lower rate.

### ***U.S. Federal Estate Tax***

The estates of nonresident alien individuals generally are subject to U.S. federal estate tax on property with a U.S. situs. Because we are a U.S. corporation, our common stock will be U.S. situs property and, therefore, will be included in the taxable estate of a nonresident alien decedent, unless an applicable estate tax treaty between the U.S. and the decedent's country of residence provides otherwise.

### ***Backup Withholding and Information Reporting***

The Code and the Treasury regulations require those who make specified payments to report the payments to the IRS. Among the specified payments are dividends and proceeds paid by brokers to their customers. The required information returns enable the IRS to determine whether the recipient properly included the payments in income. This reporting regime is reinforced by backup withholding rules. These rules require the payors to withhold tax from payments subject to information reporting if the recipient fails to cooperate with the reporting regime by failing to provide his taxpayer identification number to the payor, furnishing an incorrect identification number, or failing to report interest or dividends on his returns. The backup withholding tax rate is currently 28%. The backup withholding rules do not apply to payments to corporations, whether domestic or foreign.

Payments to non-U.S. holders of dividends on common stock generally will not be subject to backup withholding, and payments of proceeds made to non-U.S. holders by a broker upon a sale of common stock will not be subject to information reporting or backup withholding, in each case so long as the non-U.S. holder certifies its nonresident status (and we or our paying agent do not have actual knowledge or reason to know the holder is a U.S. person or that the conditions of any other exemption are not, in fact, satisfied) or otherwise establishes an exemption. The certification procedures to claim treaty benefits described under Dividends will satisfy the certification requirements necessary to avoid the backup withholding tax as well. We must report annually to the IRS any dividends paid to each non-U.S. holder and the tax withheld, if any, with respect to these dividends. Copies of these reports may be made available to tax authorities in the country where the non-U.S. holder resides.



Under the Treasury regulations, the payment of proceeds from the disposition of shares of our common stock by a non-U.S. holder made to or through a U.S. office of a broker generally will be subject to information reporting and backup withholding unless the beneficial owner certifies, under penalties of perjury, among other

**Table of Contents**

things, its status as a non-U.S. holder (and we or our paying agent do not have actual knowledge or reason to know the holder is a U.S. person) or otherwise establishes an exemption. The payment of proceeds from the disposition of shares of our common stock by a non-U.S. holder made to or through a non-U.S. office of a broker generally will not be subject to backup withholding and information reporting, except as noted below. Information reporting, but not backup withholding, will apply to a payment of proceeds, even if that payment is made outside of the U.S., if you sell our common stock through a non-U.S. office of a broker that is:

a U.S. person (including a foreign branch or office of such person);

a controlled foreign corporation for U.S. federal income tax purposes;

a foreign person 50% or more of whose gross income from certain periods is effectively connected with a U.S. trade or business; or

a foreign partnership if at any time during its tax year (a) one or more of its partners are U.S. persons who, in the aggregate, hold more than 50% of the income or capital interests of the partnership or (b) the foreign partnership is engaged in a U.S. trade or business;

unless the broker has documentary evidence that the beneficial owner is a non-U.S. holder and certain other conditions are satisfied, or the beneficial owner otherwise establishes an exemption (and the broker has no actual knowledge or reason to know to the contrary).

Backup withholding is not an additional tax. Any amounts withheld from a payment to a holder of common stock under the backup withholding rules can be credited against any U.S. federal income tax liability of the holder and may entitle the holder to a refund, provided that the required information is furnished to the IRS in a timely manner.

THE PRECEDING DISCUSSION OF U.S. FEDERAL TAX CONSIDERATIONS IS FOR GENERAL INFORMATION ONLY. IT IS NOT TAX ADVICE. EACH PROSPECTIVE INVESTOR SHOULD CONSULT ITS OWN TAX ADVISOR REGARDING THE PARTICULAR U.S. FEDERAL, STATE, LOCAL AND FOREIGN TAX CONSEQUENCES OF PURCHASING, HOLDING AND DISPOSING OF OUR COMMON STOCK, INCLUDING THE CONSEQUENCES OF ANY PROPOSED CHANGE IN APPLICABLE LAWS.

**Table of Contents**

**UNDERWRITERS**

Under the terms and subject to the conditions in an underwriting agreement dated the date of this prospectus, the underwriters named below, for whom Morgan Stanley & Co. Incorporated, Goldman, Sachs & Co. and J.P. Morgan Securities Inc. are acting as representatives, have severally agreed to purchase, and we have agreed to sell to them, severally, the number of shares indicated below:

Name	Number of Shares
Morgan Stanley & Co. Incorporated	
Goldman, Sachs & Co.	
J.P. Morgan Securities Inc.	
Itaú USA Securities Inc.	
Thomas Weisel Partners LLC	

Total:

The underwriters and the representatives are collectively referred to as the underwriters and the representatives, respectively. The underwriters are offering the shares of common stock subject to their acceptance of the shares from us and subject to prior sale. The underwriting agreement provides that the obligations of the several underwriters to pay for and accept delivery of the shares of common stock offered by this prospectus are subject to the approval of certain legal matters by their counsel and to certain other conditions. The underwriters are obligated to take and pay for all of the shares of common stock offered by this prospectus if any such shares are taken. However, the underwriters are not required to take or pay for the shares covered by the underwriters over-allotment option described below.

The underwriters initially propose to offer part of the shares of common stock directly to the public at the offering price listed on the cover page of this prospectus and part to certain dealers at a price that represents a concession not in excess of \$ \_\_\_\_\_ a share under the public offering price. After the initial offering of the shares of common stock, the offering price and other selling terms may from time to time be varied by the representatives. The offering of the shares by the underwriters is subject to receipt and acceptance and subject to the underwriters' right to reject any order in whole or in part.

We have granted to the underwriters an option, exercisable for 30 days from the date of this prospectus, to purchase up to \_\_\_\_\_ additional shares of common stock at the public offering price listed on the cover page of this prospectus, less underwriting discounts and commissions. To the extent the option is exercised, each underwriter will become obligated, subject to certain conditions, to purchase about the same percentage of the additional shares of common stock as the number listed next to the underwriter's name in the preceding table bears to the total number of shares of common stock listed next to the names of all underwriters in the preceding table.

The following table shows the per share and total public offering price, underwriting discounts and commissions, and proceeds before expenses to us. These amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase up to an additional \_\_\_\_\_ shares of common stock.

Per Share	Total	
	No Exercise	Full Exercise

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

Public offering price	\$	\$	\$
Underwriting discounts and commissions to be paid by us	\$	\$	\$
Proceeds, before expenses, to us	\$	\$	\$

The estimated offering expenses payable by us, exclusive of the underwriting discounts and commissions, are approximately \$ .

The underwriters have informed us that they do not intend sales to discretionary accounts to exceed five percent of the total number of shares of common stock offered by them.

**Table of Contents**

As of the completion of this offering our common stock will be approved for listing on The Nasdaq Global Market under the trading symbol AMRS .

We and all of our directors and officers, and the holders of substantially all of our outstanding stock and stock options have agreed that, without the prior written consent of Morgan Stanley & Co. Incorporated and Goldman, Sachs & Co. on behalf of the underwriters, we and they will not, during the period ending 180 days after the date of this prospectus:

offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend or otherwise transfer or dispose of, directly or indirectly, any shares of common stock beneficially owned by us or such persons or any securities convertible into or exercisable or exchangeable for shares of common stock, or

enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of our common stock;

whether any such transaction described above is to be settled by delivery of common stock or such other securities, in cash or otherwise. In addition, we have agreed that, without the prior written consent of Morgan Stanley & Co. Incorporated and Goldman, Sachs & Co. on behalf of the underwriters, we will not, during the period ending 180 days after the date of this prospectus, file any registration statement with the SEC relating to the offering of any shares of common stock or any securities convertible into or exercisable or exchangeable for common stock, except for the filing of a registration statement on Form S-8 relating to the offering of securities in accordance with the terms of a plan in effect on the date hereof.

The restrictions described in the immediately preceding paragraph to do not apply to, among other things:

transactions relating to shares of our common stock or other securities acquired in open market transactions after the completion of this offering, provided that no filing under the Securities Exchange Act of 1934, or the Exchange Act (other than a filing on a Form 5, Schedule 13D or Schedule 13G (or 13D/A or 13G/A) made after the expiration of the restricted period), shall be required or shall be voluntarily made in connection with subsequent sales of common stock or other securities acquired in such open market transactions;

transfers of shares of our common stock or any security convertible into or exercisable for common stock as a bona fide gift;

transfers of shares of our common stock or any security convertible into or exercisable or exchangeable for common stock to us, pursuant to agreements under which we have the option to repurchase such shares or a right of first refusal with respect to transfers of such shares, provided that such transfers after the date of this prospectus shall be for less than market value of our common stock at the time of transfer;

the sale of shares of common stock to the underwriters;

the establishment of a trading plan pursuant to Rule 10b5-1 under the Exchange Act, provided that such plan does not provide for any transaction, including any sale, until the termination of the restricted period; or

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

the exercise of options, warrants or rights to acquire shares of our common stock or any security convertible into common stock, in accordance with their terms, provided that the acquired common stock is subject to the restricted period.

In addition, we, all of our directors and officers and the holders of substantially all of our outstanding stock and stock options have agreed that, without the prior written consent of Morgan Stanley & Co. Incorporated and Goldman, Sachs & Co. on behalf of the underwriters, we and they will not, during the period ending 180 days after the date of this prospectus, make any demand for, or exercise any right with respect to, the registration of any shares of common stock or any security convertible into or exercisable or exchangeable for common stock.

## **Table of Contents**

The 180 day restricted period described in the preceding paragraphs will be extended if:

during the last 17 days of the 180 day restricted period we issue an earnings release or material news or a material event relating to us occurs; or

prior to the expiration of the 180 day restricted period, we announce that we will release earnings results during the 16-day period beginning on the last day of the 180 day period;

in which case the restrictions described in the preceding paragraph will continue to apply until the expiration of the 18 day period beginning on the issuance of the earnings release or the occurrence of the material news or material event.

In order to facilitate the offering of the common stock, the underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of the common stock. Specifically, the underwriters may sell more shares than they are obligated to purchase under the underwriting agreement, creating a short position. A short sale is covered if the short position is no greater than the number of shares available for purchase by the underwriters under the over-allotment option. The underwriters can close out a covered short sale by exercising the over-allotment option or purchasing shares in the open market. In determining the source of shares to close out a covered short sale, the underwriters will consider, among other things, the open market price of shares compared to the price available under the over-allotment option. The underwriters may also sell shares in excess of the over-allotment option, creating a naked short position. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the common stock in the open market after pricing that could adversely affect investors who purchase in this offering. As an additional means of facilitating this offering, the underwriters may bid for, and purchase, shares of common stock in the open market to stabilize the price of the common stock. The underwriters may also impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the representatives have repurchased shares sold by or for the account of such underwriter in stabilizing or short covering transactions. These activities may raise or maintain the market price of the common stock above independent market levels or prevent or retard a decline in the market price of the common stock. The underwriters are not required to engage in these activities and may end any of these activities at any time.

We and the underwriters have agreed to indemnify each other against certain liabilities, including liabilities under the Securities Act, or to contribute to payments the other may be required to make because of any of these liabilities.

A prospectus in electronic format may be made available on websites maintained by one or more underwriters, or selling group members, if any, participating in this offering. The representatives may agree to allocate a number of shares of common stock to underwriters for sale to their online brokerage account holders. Internet distributions will be allocated by the representatives to underwriters that may make Internet distributions on the same basis as other allocations.

The underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, principal investment, hedging, financing and brokerage activities. Certain of the underwriters and their respective affiliates may in the future perform, various financial advisory and investment banking services for the issuer, for which they would receive customary fees and expenses.

In the ordinary course of their various business activities, the underwriters and their respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for

their own account and for the accounts of their customers and may at any time hold long and short positions in such securities and instruments. Such investment and securities activities may involve securities and instruments of the issuer.



## **Table of Contents**

### **Pricing of the Offering**

Prior to this offering, there has been no public market for our common stock. The initial public offering price was determined by negotiations between us and the representatives. Among the factors considered in determining the initial public offering price were our future prospects and those of our industry in general, our sales, earnings and certain other financial and operating information in recent periods, and the price-earnings ratios, price-sales ratios, market prices of securities, and certain financial and operating information of companies engaged in activities similar to ours. We cannot assure you that the prices at which our shares will sell in the public market after this offering will not be lower than the initial public offering price or that an active trading market in our common stock will develop and continue after this offering.

### **European Economic Area**

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a Relevant Member State), each underwriter has represented and agreed that with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State (the Relevant Implementation Date) it has not made and will not make an offer of shares to the public in that Relevant Member State prior to the publication of a prospectus in relation to the shares which has been approved by the competent authority in that Relevant Member State or, where appropriate, approved in another Relevant Member State and notified to the competent authority in that Relevant Member State, all in accordance with the Prospectus Directive, except that it may, with effect from and including the Relevant Implementation Date, make an offer of shares to the public in that Relevant Member State at any time:

to legal entities which are authorised or regulated to operate in the financial markets or, if not so authorised or regulated, whose corporate purpose is solely to invest in securities;

to any legal entity which has two or more of (1) an average of at least 250 employees during the last financial year; (2) a total balance sheet of more than €43,000,000 and (3) an annual net turnover of more than €50,000,000, as shown in its last annual or consolidated accounts;

to fewer than 100 natural or legal persons (other than qualified investors as defined in the Prospectus Directive) subject to obtaining the prior consent of the representatives for any such offer; or

in any other circumstances which do not require the publication by the Issuer of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an offer of shares to the public in relation to any shares in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the shares to be offered so as to enable an investor to decide to purchase or subscribe the shares, as the same may be varied in that Relevant Member State by any measure implementing the Prospectus Directive in that Relevant Member State and the expression Prospectus Directive means Directive 2003/71/EC and includes any relevant implementing measure in each Relevant Member State.

### **United Kingdom**

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

Each underwriter has represented and agreed that:

it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the FSMA) received by it in connection with the issue or sale of the shares in circumstances in which Section 21(1) of the FSMA does not apply to us; and

it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the shares in, from or otherwise involving the United Kingdom.

## **Table of Contents**

### **Hong Kong**

The shares may not be offered or sold by means of any document other than (i) in circumstances which do not constitute an offer to the public within the meaning of the Companies Ordinance (Cap.32, Laws of Hong Kong), or (ii) to professional investors within the meaning of the Securities and Futures Ordinance (Cap.571, Laws of Hong Kong) and any rules made thereunder, or (iii) in other circumstances which do not result in the document being a prospectus within the meaning of the Companies Ordinance (Cap.32, Laws of Hong Kong), and no advertisement, invitation or document relating to the shares may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the laws of Hong Kong) other than with respect to shares which are or are intended to be disposed of only to persons outside Hong Kong or only to professional investors within the meaning of the Securities and Futures Ordinance (Cap. 571, Laws of Hong Kong) and any rules made thereunder.

### **Singapore**

This prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares may not be circulated or distributed, nor may the shares be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore (the SFA), (ii) to a relevant person, or any person pursuant to Section 275(1A), and in accordance with the conditions, specified in Section 275 of the SFA or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the shares are subscribed or purchased under Section 275 by a relevant person which is: (a) a corporation (which is not an accredited investor) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or (b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary is an accredited investor, shares, debentures and units of shares and debentures of that corporation or the beneficiaries' rights and interest in that trust shall not be transferable for 6 months after that corporation or that trust has acquired the shares under Section 275 except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person, or any person pursuant to Section 275(1A), and in accordance with the conditions, specified in Section 275 of the SFA; (2) where no consideration is given for the transfer; or (3) by operation of law.

### **Japan**

The securities have not been and will not be registered under the Financial Instruments and Exchange Law of Japan (the Financial Instruments and Exchange Law) and each underwriter has agreed that it will not offer or sell any securities, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organized under the laws of Japan), or to others for re-offering or resale, directly or indirectly, in Japan or to a resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the Financial Instruments and Exchange Law and any other applicable laws, regulations and ministerial guidelines of Japan.

**Table of Contents**

**LEGAL MATTERS**

The validity of the shares of common stock offered hereby will be passed upon for us by Fenwick & West LLP, Mountain View, California. Wilson Sonsini Goodrich & Rosati, P.C., Palo Alto, California, is acting as counsel for the underwriters in connection with certain legal matters related to this offering.

Certain investment partnerships comprised of members of, and persons associated with, Wilson Sonsini Goodrich & Rosati, P.C. beneficially hold an aggregate of 23,000 shares of our common stock, which represents less than 0.1% of our outstanding shares of common stock.

**EXPERTS**

The consolidated financial statements as of December 31, 2008 and 2009 and for each of the three years in the period ended December 31, 2009, included in this prospectus have been so included in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

**WHERE YOU CAN FIND ADDITIONAL INFORMATION**

We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the shares of common stock offered hereby. This prospectus, which constitutes a part of the registration statement, does not contain all of the information set forth in the registration statement or the exhibits and schedule filed therewith. For further information about us and the common stock offered hereby, we refer you to the registration statement and the exhibits and schedules filed therewith. Statements contained in this prospectus regarding the contents of any contract or any other document that is filed as an exhibit to the registration statement are not necessarily complete, and each such statement is qualified in all respects by reference to the full text of such contract or other document filed as an exhibit to the registration statement. We currently do not file periodic reports with the SEC. Upon completion of this offering, we will be required to file periodic reports, proxy statements and other information with the SEC pursuant to the Securities Exchange Act of 1934. A copy of the registration statement and the exhibits filed therewith may be inspected without charge at the public reference room maintained by the SEC, located at 100 F Street, NE, Washington, DC 20549, and copies of all or any part of the registration statement may be obtained from that office. Please call the SEC at 1-800-SEC-0330 for further information about the public reference room. The SEC also maintains an Internet website that contains reports, proxy and information statements and other information regarding registrants that file electronically with the SEC. The address of the website is [www.sec.gov](http://www.sec.gov).

**Table of Contents**

**CONSOLIDATED FINANCIAL STATEMENTS**

**Index**

**Amyris Biotechnologies, Inc.**

	<b>Page(s)</b>
<b><u>Report of Independent Registered Public Accounting Firm</u></b>	F-2
<b>Consolidated Financial Statements</b>	
<u>Consolidated Balance Sheets</u>	F-3
<u>Consolidated Statements of Operations</u>	F-4
<u>Consolidated Statements of Convertible Preferred Stock, Redeemable Noncontrolling Interest and Deficit</u>	F-5
<u>Consolidated Statements of Cash Flows</u>	F-7
<u>Notes to Consolidated Financial Statements</u>	F-9

F-1

**Table of Contents**

**Report of Independent Registered Public Accounting Firm**

To the Board of Directors and Shareholders of

Amyris Biotechnologies, Inc.

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of operations, of convertible preferred stock, redeemable noncontrolling interest and deficit, and of cash flows present fairly, in all material respects, the financial position of Amyris Biotechnologies, Inc. and its subsidiaries at December 31, 2009 and December 31, 2008, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2009 in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

As discussed in Note 2 to the consolidated financial statements, the Company changed the manner in which it accounts for noncontrolling interest in 2009.

/s/ PricewaterhouseCoopers LLP

San Jose, California

April 16, 2010

F-2

**Table of Contents****Amyris Biotechnologies, Inc.****Consolidated Balance Sheets****In Thousands, Except Share and Per Share Amounts**

	December 31, 2008	December 31, 2009	March 31, 2010 (Unaudited)	Pro Forma Shareholders Equity as of March 31, 2010 (Unaudited)
<b>Assets</b>				
Current assets:				
Cash and cash equivalents	\$ 17,899	\$ 19,188	\$ 26,800	
Short-term investments	19,291	48,022	73,941	
Accounts receivable	787	1,372	3,821	
Inventories	1,420	2,298	1,973	
Prepaid expenses and other current assets	1,556	3,983	2,040	
Total current assets	40,953	74,863	108,575	
Property and equipment, net	41,565	42,560	43,913	
Restricted cash	2,748	4,506	4,515	
Long-term investments	12,950			
Other assets	607	230	1,179	
Total assets	\$ 98,823	\$ 122,159	158,182	
<b>Liabilities, Convertible Preferred Stock, Redeemable Noncontrolling Interest and Equity (Deficit)</b>				
Current liabilities:				
Accounts payable	\$ 2,617	\$ 1,709	\$ 2,866	
Deferred revenue		378		
Accrued and other current liabilities	5,083	10,445	8,566	
Capital lease obligation, current portion	557	2,251	2,615	
Debt, current portion	340	9,018	8,534	
Total current liabilities	8,597	23,801	22,581	
Capital lease obligation, net of current portion	3,041	4,977	4,916	
Long-term debt, net of current portion	2,809	4,362	4,242	
Convertible preferred stock warrant liability	2,132	2,740	2,705	\$
Deferred rent, net of current portion	12,154	8,828	8,640	
Restructuring liability		4,486	4,412	
Other liabilities	797	1,553	1,676	
Total liabilities	29,530	50,747	49,172	
Commitments and contingencies (Note 5)				
Convertible preferred stock no par value, 16,104,641 authorized as of December 31, 2008, 21,080,641 shares authorized as of December 31, 2009 and 23,862,355 shares authorized as of March 31, 2010 (unaudited); 13,681,658 and 18,365,222 shares issued and outstanding as of December 31, 2008 and 2009, respectively (aggregate liquidation value of \$126,225 and \$185,566 as of December 31, 2008 and 2009, respectively); 21,385,969 shares issued and outstanding as of March 31, 2010 (unaudited) (aggregate liquidation value of \$237,101) no shares issued and outstanding, pro forma (unaudited)	121,436	179,651	230,606	

Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

Redeemable noncontrolling interest		5,506	7,094	
Shareholders' Equity (Deficit):				
Common stock - no par value; 28,000,000 and 33,000,000 shares authorized as of December 31, 2008 and 2009, respectively and 38,000,000 authorized as of March 31, 2010; 5,015,576 and 5,114,205 shares issued and outstanding as of December 31, 2008 and 2009, respectively and 5,120,712 shares issued and outstanding as of March 31, 2010 (unaudited); 38,000,000 shares authorized, 27,570,029 shares issued and outstanding, pro forma (unaudited)	583	858	873	241,278
Additional paid-in capital	2,582	4,509	6,308	6,308
Accumulated other comprehensive income (loss)	(468)	1,336	729	729
Accumulated deficit	(55,989)	(120,448)	(136,600)	(136,600)
<b>Total Amyris Biotechnologies, Inc. shareholders' equity (deficit)</b>	<b>(53,292)</b>	<b>(113,745)</b>	<b>(128,690)</b>	<b>111,715</b>
Noncontrolling interest	1,149			
<b>Total equity (deficit)</b>	<b>(52,143)</b>	<b>(113,745)</b>	<b>(128,690)</b>	<b>\$ 111,715</b>
Total liabilities, convertible preferred stock, redeemable noncontrolling interest and equity (deficit)	\$ 98,823	\$ 122,159	\$ 158,182	

See accompanying notes to the consolidated financial statements.



**Table of Contents****Amyris Biotechnologies, Inc.****Consolidated Statements of Operations****In Thousands, Except Share and Per Share Amounts**

	2007	Years Ended December 31, 2008	2009	Three Months Ended March 31, 2009 (Unaudited)	2010 (Unaudited)
<b>Revenues</b>					
Product sales	\$	\$ 10,680	\$ 61,689	\$ 1,534	\$ 9,954
Collaborative research services	6,046	3,008	2,919	557	1,378
Government grants	138	204			2,323
<b>Total revenues</b>	<b>6,184</b>	<b>13,892</b>	<b>64,608</b>	<b>2,091</b>	<b>13,655</b>
<b>Cost and operating expenses</b>					
Cost of product sales		10,364	60,428	1,424	10,003
Research and development	8,662	30,306	38,263	8,603	11,178
Sales, general and administrative	10,522	16,622	23,558	4,402	9,216
Restructuring and asset impairment charges			5,768		
<b>Total cost and operating expenses</b>	<b>19,184</b>	<b>57,292</b>	<b>128,017</b>	<b>14,429</b>	<b>30,397</b>
Loss from operations	(13,000)	(43,400)	(63,409)	(12,338)	(16,742)
<b>Other income (expense):</b>					
Interest income	1,178	1,378	448	237	276
Interest expense	(28)	(377)	(1,218)	(234)	(384)
Other income (expense), net	76	(144)	(621)	(58)	515
<b>Total other income (expense)</b>	<b>1,226</b>	<b>857</b>	<b>(1,391)</b>	<b>(55)</b>	<b>407</b>
Loss before income taxes	(11,774)	(42,543)	(64,800)	(12,393)	(16,335)
Benefit from income taxes		(207)			
Net loss	\$ (11,774)	\$ (42,336)	\$ (64,800)	\$ (12,393)	\$ (16,335)
Loss attributable to noncontrolling interest		(472)	(341)	(221)	(183)
Net loss attributable to Amyris Biotechnologies, Inc. shareholders	\$ (11,774)	\$ (41,864)	\$ (64,459)	\$ (12,172)	\$ (16,152)
Net loss per share of common stock attributable to Amyris Biotechnologies, Inc. shareholders, basic and diluted	\$ (3.28)	\$ (9.91)	\$ (13.56)	\$ (2.65)	\$ (3.22)
Weighted-average shares of common stock outstanding used in computing net loss per share of common stock, basic and diluted	3,592,932	4,223,533	4,753,085	4,592,400	5,010,569
Pro forma net loss per share of common stock attributable to Amyris Biotechnologies, Inc. shareholders, basic and diluted (unaudited)			\$ (3.16)		\$ (0.67)

Weighted-average shares of common stock  
outstanding used in computing pro forma net  
loss per share of common stock, basic and  
diluted (unaudited)

20,279,433

24,794,446

See accompanying notes to the consolidated financial statements.

F-4

**Table of Contents****Amyris Biotechnologies, Inc.****Consolidated Statements of Convertible Preferred Stock, Redeemable Noncontrolling Interest and Deficit**

(In Thousands, Except Share and Per Share Amounts)	Convertible Preferred Stock		Redeemable Noncontrolling Interest	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Noncontrolling Interest	Total Deficit
	Shares	Amount		Shares	Amount					
<b>January 1, 2007</b>	2,992,176	\$ 6,397	\$	4,503,917	\$ 42	\$ 9	\$ (2,351)	\$	\$	\$ (2,300)
Issuance of Series A convertible preferred stock at \$2.174 per share for cash and services, net of issuance costs of \$21	6,482,824	14,073								
Issuance of Series B convertible preferred stock at \$24.88 per share for cash and services, net of issuance costs of \$89	1,517,093	37,656								
Issuance of common stock upon exercise of stock options, net of restricted stocks				361,723	219					219
Repurchase of common stock				(20,625)	(2)					(2)
Stock-based compensation						546				546
Components of other comprehensive income (loss)										
Change in unrealized gain on investments								10		10
Net loss							(11,774)			(11,774)
<b>Total comprehensive loss</b>										(11,764)
<b>December 31, 2007</b>	10,992,093	58,126		4,845,015	259	555	(14,125)	10		(13,301)
Issuance of Series B convertible preferred stock at \$24.88 per share for cash, net of issuance costs of \$80	150,724	3,670								
Issuance of Series B-1 convertible preferred stock at \$25.26 per share for cash, net of issuance costs of \$2,746	2,538,841	61,385								
Issuance of warrants in connection with issuance of Series B-1 convertible preferred stock		(1,745)								
Issuance of common stock upon exercise of stock options, net of restricted stocks				172,059	326					326
Repurchase of common stock				(1,498)	(2)					(2)
Stock-based compensation						2,027				2,027
Sale of noncontrolling interest									1,621	1,621
Components of other comprehensive income (loss)										
Change in unrealized gain on investments								77		77
Foreign currency translation adjustment								(555)		(555)
Net loss.							(41,864)		(472)	(42,336)
<b>Total comprehensive loss.</b>										(42,814)

Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

<b>December 31, 2008</b>	13,681,658	121,436		5,015,576	583	2,582	(55,989)	(468)	1,149	(52,143)
Issuance of Series B-1 convertible preferred stock at \$25.26 per share for cash, net of issuance costs of \$103	76,880	1,840								
Issuance of Series C convertible preferred stock at \$12.46 per share for cash, net of issuance costs of \$956	4,606,684	56,443								
Issuance of warrants in connection with issuance of Series B-1 convertible preferred stock		(68)								
Issuance of common stock upon exercise of stock options, net of restricted stock				127,515	284					284
Repurchase of common stock				(28,886)	(9)					(9)
Stock-based compensation						3,299				3,299
Proceeds from redeemable noncontrolling interest			5,626							
Purchase of noncontrolling interest						(1,372)		(928)		(2,300)
Components of other comprehensive income (loss)										
Change in unrealized loss on investments								(84)		(84)
Foreign currency translation adjustment								1,888		1,888
Net loss.			(120)				(64,459)		(221)	(64,680)
<b>Total comprehensive loss.</b>										<b>(62,876)</b>
<b>December 31, 2009</b>	18,365,222	\$ 179,651	\$ 5,506	5,114,205	\$ 858	\$ 4,509	\$ (120,448)	\$ 1,336	\$	\$ (113,745)

**Table of Contents****Amyris Biotechnologies, Inc.****Consolidated Statements of Convertible Preferred Stock, Redeemable Noncontrolling Interest and Deficit (Continued)**

(In Thousands, Except Share and Per Share Amounts)	Convertible Preferred Stock		Redeemable Noncontrolling Interest	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Noncontrolling Interest	Total Deficit
	Shares	Amount		Shares	Amount					
<b>December 31, 2009</b>	18,365,222	\$ 179,651	\$ 5,506	5,114,205	\$ 858	\$ 4,509	\$ (120,448)	\$ 1,336	\$	\$ (113,745)
Issuance of Series C convertible preferred stock at \$12.46 per shares of cash, net of issuance costs of \$5 (unaudited)	295,981	3,683								
Issuance of Series C-1 convertible preferred stock at \$17.56 per shares of cash, net of issuance costs of \$68 (unaudited)	2,724,766	47,779								
Issuance of warrants in connection with issuance of Series C convertible preferred stock (unaudited)		(507)								
Issuance of common stock upon exercise of stock options, net of restricted stock (unaudited)				6,707	15					15
Repurchase of common stock (unaudited)				(200)						
Stock-based compensation (unaudited)						1,799				1,799
Proceeds from redeemable noncontrolling interest (unaudited)			1,706							
Components of other comprehensive income (loss)										
Change in unrealized loss on investments (unaudited)								(9)		(9)
Foreign currency translation adjustment (unaudited)			65					(598)		(598)
Net loss (unaudited)			(183)				(16,152)			(16,152)
<b>Total comprehensive loss (unaudited)</b>										<b>(16,759)</b>
<b>March 31, 2010</b>	21,385,969	\$ 230,606	\$ 7,094	5,120,712	\$ 873	\$ 6,308	\$ (136,600)	\$ 729	\$	\$ (128,690)

See accompanying notes to the consolidated financial statements.

**Table of Contents****Amyris Biotechnologies, Inc.****Consolidated Statements of Cash Flows****In Thousands**

	Years Ended December 31,			Three Months Ended March 31,	
	2007	2008	2009	2009	2010
				(Unaudited)	
<b>Operating activities</b>					
Net loss.	\$ (11,774)	\$ (42,336)	\$ (64,800)	\$ (12,393)	\$ (16,335)
Adjustments to reconcile net loss to net cash used in operating activities:					
Convertible preferred stock issued for services	255				
Convertible preferred stock warrants		274	62		33
Depreciation and amortization	634	2,627	5,775	1,399	1,625
Loss on disposal of property and equipment		144	12		
Loss on the sale of investments					(1)
Stock-based compensation	546	2,027	3,299	602	1,799
Amortization of premium (discount) on investments	402	(400)	191	(39)	161
Change in fair value of convertible preferred stock warrant liability		114	445	(138)	(542)
Restructuring and asset impairment charges			356		
Other noncash expenses			219	58	20
Changes in assets and liabilities:					
Accounts receivable, net		(787)	(585)	(229)	(2,449)
Inventories		(1,420)	(878)	146	325
Prepaid expenses and other assets	(103)	(1,943)	972	370	1,180
Accounts payable	114	1,278	(997)	(1,519)	1,184
Restructuring			5,078		(176)
Accrued and other long-term liabilities	2,303	2,114	4,470	(827)	(1,510)
Deferred revenue	(1,903)	(1,355)	378		(378)
Deferred rent		784	285	(192)	(113)
Net cash used in operating activities	(9,526)	(38,879)	(45,718)	(12,762)	(15,177)
<b>Investing activities</b>					
Purchase of short-term investments	(120,901)	(48,153)	(47,996)	(1,248)	(38,645)
Maturities of short-term investments	88,258	52,746	31,690	17,750	4,150
Sales of short-term investments	2,950	8,905	250		8,407
Purchases of long-term investments	(8,750)	(6,200)			
Sales and maturities of long-term investments		2,000			
Change in restricted cash	(736)	(1,962)	(1,758)	(130)	(8)
Purchase of property and equipment, net of disposals	(2,464)	(21,996)	(7,608)	(2,813)	(3,147)
Net cash provided by (used in) investing activities	(41,643)	(14,660)	(25,422)	13,559	(29,243)
<b>Financing activities</b>					
Proceeds from issuance of convertible preferred stock, net of issuance costs	51,474	65,055	58,283	1,845	51,462
Proceeds from issuance of common stock, net of repurchases	217	586	113	1	5
Purchase of noncontrolling interest			(2,300)		
Proceeds from equipment financing		1,220	4,763	4,280	850

Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

Principal payments on capital leases	(152)	(378)	(1,134)	(269)	(547)
Proceeds from debt			9,643	8,100	
Principal payments on debt		(125)	(985)	(143)	(974)
Deferred offering costs					(144)
Proceeds from sale of noncontrolling interest		1,621	3,090		1,706
<b>Net cash provided by financing activities</b>	<b>51,539</b>	<b>67,979</b>	<b>71,473</b>	<b>13,814</b>	<b>52,358</b>
Effect of exchange rate changes on cash and cash equivalents		(555)	956	34	(326)
<b>Net increase in cash and cash equivalents</b>	<b>370</b>	<b>13,885</b>	<b>1,289</b>	<b>14,645</b>	<b>7,612</b>
Cash and cash equivalents at beginning of period	3,644	4,014	17,899	17,899	19,188
<b>Cash and cash equivalents at end of period</b>	<b>\$ 4,014</b>	<b>\$ 17,899</b>	<b>\$ 19,188</b>	<b>\$ 32,544</b>	<b>\$ 26,800</b>

See accompanying notes to the consolidated financial statements.

F-7

**Table of Contents****Amyris Biotechnologies, Inc.****Consolidated Statements of Cash Flows (Continued)****In Thousands**

	Years Ended December 31,			Three Months Ended March 31,	
	2007	2008	2009	2009	2010
<b>Supplemental disclosures of cash flow information:</b>					
Cash paid for interest	\$ 18	\$ 320	\$ 1,204	\$ 235	\$ 384
Cash paid for income taxes, net of refunds	\$	\$	\$ 27	\$ 3	\$
<b>Supplemental disclosure of noncash investing and financing activities:</b>					
Convertible preferred stock issued for services	\$ 255	\$	\$	\$	\$
Stock receivable for noncontrolling interest	\$	\$	\$ 2,536	\$	\$
Additions to property and equipment under capital lease obligations	\$ 807	\$ 2,101	\$	\$	\$
Additions to property and equipment under notes payable	\$	\$ 3,274	\$ 1,038	\$ 677	\$ 29
Additions to property and equipment under tenant improvement allowances	\$	\$ 11,370	\$	\$	\$
Acquisitions of assets under accounts payable	\$ 411	\$ 731	\$ 20	\$ 133	\$ 39
Financing of insurance premium under notes payable	\$	\$	\$ 378	\$	\$ 101
Change in unrealized gain (loss) on investments	\$ 10	\$ 77	\$ (84)	\$ (79)	\$ (9)
Asset retirement obligation	\$	\$ 470	\$	\$	\$
Warrants issued in connection with the issuance of convertible preferred stock	\$	\$ 1,745	\$ 68	\$ 68	\$ 507
Accrued deferred offering costs	\$	\$	\$	\$	\$ 811
Financing of rent payments under notes payable	\$	\$	\$	\$	\$ 239

See accompanying notes to the consolidated financial statements.



**Table of Contents**

**Amyris Biotechnologies, Inc.**

**Notes to Consolidated Financial Statements**

**1. The Company and Basis of Presentation**

Amyris Biotechnologies, Inc. (the Company) was incorporated in the State of California on July 17, 2003 for the purpose of leveraging breakthroughs in synthetic biology to develop and provide renewable compounds for a variety of markets. The Company is currently building and applying its industrial synthetic biology platform to provide alternatives to select petroleum-sourced products used in specialty chemical and transportation fuel markets worldwide. The Company's first 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 to transportation fuels, such as diesel. While the Company's platform is able to use a wide variety of feedstocks, the Company has focused initially on Brazilian sugarcane. The Company intends to secure access to this feedstock and to expand its production capacity by working with existing sugar and ethanol mill owners to build new, adjacent bolt-on facilities at their existing mills in return for a share of the higher gross margin the Company believes it will realize from the sale of our renewable products. The Company's first such arrangement is its joint venture with Usina São Martinho (see Note 19).

In February 2008, the Company incorporated a wholly owned subsidiary, Amyris Fuels, Inc., a Delaware corporation, which is engaged in marketing and distribution of certain fuels. In September 2008, the Company established a wholly owned subsidiary, Amyris Fuels, LLC, a Delaware limited liability company into which it merged Amyris Fuels, Inc. In March 2008, the Company formed a subsidiary, Amyris Pesquisa e Desenvolvimento de Biocombustíveis Ltda., for the purpose of manufacturing and trading transportation fuels from sugarcane feedstock in Brazil and abroad (See Note 16). In March 2008, the Company sold a 30% interest to Crystalsev and the subsidiary was renamed Amyris-Crystalsev Pesquisa e Desenvolvimento de Biocombustíveis Ltda. (ACB). The Company invested \$3.8 million of cash for a 70% interest in ACB, and Crystalsev contributed \$1.6 million of cash for the remaining 30% interest.

In April 2009, the Company re-purchased Crystalsev's 30% interest in ACB for \$2.3 million resulting in Amyris Brasil becoming a wholly-owned subsidiary again. The purchase of the noncontrolling interest was treated as an equity transaction and the fair value of the consideration paid of \$2.3 million was recorded as a reduction of the carrying value of the noncontrolling interest and additional paid-in capital. In December 2009, ACB was renamed Amyris Brasil S.A.

On December 22, 2009, the Company sold a 4.8% interest in Amyris Brasil for BRL\$10.0 million. The redeemable noncontrolling interest is reported in the mezzanine equity section of the consolidated balance sheet because the Company is subject to a contingent put option under which it may be required to repurchase an interest in Amyris Brasil from the noncontrolling interest holder.

In March 2010, the Company sold an incremental 3.4% interest in Amyris Brasil for BRL \$3.0 million (unaudited).

During December 2009, the Company received notification of a conditional award from the Department of Energy (DOE), pursuant to the Recovery Act-Demonstration of Integrated Biorefinery Operations Funding Opportunity Announcement, authorizing a grant for \$24.3 million. Under this grant, the Company is required to fund an additional \$10.6 million in cost sharing expenses. The Company's obligation for this cost share is contingent on reimbursement for project costs incurred. As of December 31, 2009, no amounts had been provided from the DOE. During the quarter ended March 31, 2010 the Company recognized \$2.3 million (unaudited) in revenue under this grant.



**Table of Contents**

**Amyris Biotechnologies, Inc.**

**Notes to Consolidated Financial Statements (Continued)**

**2. Summary of Significant Accounting Policies**

*Basis of Presentation and Use of Estimates*

The accompanying consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ( GAAP ) and include all adjustments necessary for the fair presentation of the Company s consolidated financial position, results of operations and cash flows for the periods presented. The consolidated financial statements include the accounts of the Company, wholly- owned subsidiaries and one majority-owned subsidiary. All intercompany accounts and transactions have been eliminated in consolidation. In preparing the consolidated financial statements, management must make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities as of the date of the consolidated financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates.

*Unaudited Interim Financial Information*

The consolidated financial statements as of March 31, 2010, and for the three months ended March 31, 2010 and March 31, 2009 are unaudited. All disclosures as of March 31, 2010, and for the three month periods ended March 31, 2009 and March 31, 2010, presented in the notes to the financial statements are unaudited. The unaudited interim financial statements have been prepared on the same basis as the annual financial statements and, in the opinion of management, reflect all normal recurring adjustments necessary for a fair statement of the Company s financial position as of March 31, 2010 and results of operations and cash flows for the three months ended March 31, 2009 and March 31, 2010. The results of operations for the three months ended March 31, 2010 are not necessarily indicative of the results to be expected for the year ended December 31, 2010 or for other interim periods or for future years.

*Unaudited Pro Forma Information*

The March 31, 2010 unaudited pro forma shareholders equity has been prepared assuming that upon the completion of a qualifying initial public offering (i) all of the Company s convertible preferred stock outstanding will automatically convert into shares of common stock, (ii) the Company s convertible preferred stock warrants will become warrants for common stock (see Note 10), and (iii) shares of Amyris Brasil held by third parties will convert into shares of the Company s common stock (see Note 16). The March 31, 2010 unaudited pro forma shareholders equity reflects the (i) the conversion of all 21,385,969 outstanding shares of preferred stock into 21,899,273 shares of common stock, the reclassification of the preferred stock warrant liability to common stock and reclassification of redeemable noncontrolling interest to common stock immediately prior to the completion of the initial public offering.

*Significant Risks and Uncertainties*

The Company is subject to certain risks and uncertainties that could have a material and adverse effect on the Company's future financial position or results of operations. Factors that could affect the Company's future operating results and cause actual results to vary materially from expectations include, but are not limited to, limited operating history, 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, 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 ethanol, as well as 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

F-10

**Table of Contents****Amyris Biotechnologies, Inc.****Notes to Consolidated Financial Statements (Continued)**

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, our ability to integrate businesses that we may acquire and risks associated with the international aspects of our business.

Certain products developed by the Company may require approvals from the Environmental Protection Agency or other United States or international regulatory agencies prior to commercial sales. There can be no assurance the Company's future products will receive the necessary approvals. If the Company was denied approval or approval was delayed, it may have a material adverse impact on the Company.

To achieve profitable operations, the Company must successfully develop, manufacture and market its products. There can be no assurance that any such products can be developed or manufactured at an acceptable cost and with appropriate performance characteristics, or that such products will be successfully marketed. These factors could have a material adverse effect upon the Company's future financial results.

***Concentration of Credit Risk***

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

The Company's accounts receivable are derived from customers located in the United States. The Company performs ongoing credit evaluation of its customers, does not require collateral, and maintains allowances for potential credit losses on customer accounts when deemed necessary. To date, there have been no such losses and the Company has not recorded an allowance for doubtful accounts.

Customers representing greater than 10% of accounts receivable were as follows (in percentages):

<b>Customers</b>	<b>December 31, 2008</b>	<b>2009</b>	<b>March 31, 2010 (Unaudited)</b>
Customer A	10	*	*
Customer B	15	*	*
Customer C	*	51	55
Customer D	12	*	*

Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

Customer E	*	17	19
Customer F	14	*	*
Customer G	20	*	*
Customer H	26	*	*
Customer I	*	*	11

\* Less than 10%

F-11

**Table of Contents****Amyris Biotechnologies, Inc.****Notes to Consolidated Financial Statements (Continued)**

Customers representing greater than 10% of revenues were as follows (in percentages):

Customers	Years Ended December 31,		Three Months Ended March 31,
	2008	2009	2010 (Unaudited)
Customer A	33	33	*
Customer B	30	*	*
Customer C	*	22	47
Customer D	21	*	*
Customer E	*	*	17
Customer I	*	*	10

\* Less than 10%

The Company is exposed to counterparty credit risk on all of its derivative commodity instruments. The Company has established and maintains strict counterparty credit guidelines and enters into agreements only with counterparties that are investment grade or better. The Company does not require collateral under these agreements.

***Fair Value of Financial Instruments***

The Company measures certain financial assets and liabilities at fair value based on the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants. Financial instruments are primarily comprised of commercial paper, government bonds and notes, auction rate securities (ARS), rights to sell its ARS (Put Option), derivatives and convertible preferred stock warrants. Where available, fair value is based on or derived from observable market prices or other observable inputs. Where observable prices or inputs are not available valuation models are applied. These valuation techniques involve some level of management estimation and judgment, the degree of which is dependent on the price transparency for the instruments or market and the instruments' complexity.

The carrying amounts of the Company's financial instruments, including cash and cash equivalents, accounts receivable, prepaid expenses, accounts payable and accrued liabilities, approximate fair value due to their relatively short maturities, and market interest rates if applicable. Based on the borrowing rates currently available to the Company for debt with similar terms, the carrying value of the notes payable and credit facility approximates its fair value. The carrying amount of the convertible preferred stock warrant liability represents its estimated fair value.

***Cash and Cash Equivalents***

All highly liquid investments purchased with an original maturity date of three months or less at the date of purchase are considered to be cash equivalents. Cash and cash equivalents consist of money market funds, commercial paper, U.S. Government agency securities and various deposit accounts.

*Investments*

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



**Table of Contents**

**Amyris Biotechnologies, Inc.**

**Notes to Consolidated Financial Statements (Continued)**

term investment grade commercial paper, U.S. Government agency securities and notes and ARS. The Company classifies all of its investments, other than ARS, as available-for-sale and records such assets at estimated fair value in the consolidated balance sheets, with unrealized gains and losses, if any, reported as a component of accumulated other comprehensive income (loss) in shareholders' deficit. Debt securities are adjusted for amortization of premiums and accretion of discounts and such amortization and accretion are reported as a component of interest income. Realized gains and losses and declines in value that are considered to be other than temporary are recognized in the statements of operations. The cost of securities sold is determined on the specific identification method. There were no significant realized gains or losses from sales of debt securities during the years ended December 31, 2007, 2008 and 2009 and the three months ended March 31, 2010 (unaudited). As of December 31, 2008 and 2009 and March 31, 2010, the Company did not have any other-than-temporary declines in the fair value of its debt securities.

The Company classifies the ARS as trading securities and records all changes in fair value as component of other income (expense), net. The underlying securities have stated or contractual maturities that are generally greater than one year. The Company estimates the fair value of the ARS using a discounted cash flow model incorporating assumptions that market participants would use in their estimates of fair value. The Company has a Put Option to sell its ARS at par value. The Company has accounted for the Put Option as a freestanding financial instrument and elected to record it at fair value with changes in fair value recorded as a component of other income (expense), net (See Note 3).

***Restricted Cash***

Cash accounts that are restricted as to withdrawal or usage are presented as restricted cash. As of December 31, 2008 and 2009 and March 31, 2010, the Company had \$2.7 million, \$4.5 million and \$4.5 million (unaudited), respectively, of restricted cash held by a bank in certificate of deposits as collateral for certain of its facility and capital lease agreements.

***Inventories***

Inventories, which consist of ethanol, are stated at the lower of cost or market. Cost is computed on a first-in, first-out basis. Inventory costs include costs such as transportation and storage costs incurred in bringing the inventory to its existing location.

***Derivative Instruments***

The Company is exposed to market risks related to price volatility of ethanol. The Company makes limited use of derivative instruments, which include futures positions on the New York Mercantile Exchange and the CME/Chicago Board of Trade. The Company does not engage in speculative derivative activities, and the majority of the Company's activity in derivative commodity instruments is intended to manage the financial risk posed by physical transactions and inventory. Changes in the fair value of the derivative contracts are recognized currently in the

consolidated statements of operations as specific hedge accounting criteria are not met.

*Asset Retirement Obligations*

The fair value of the asset retirement obligation is recognized in the period in which it is incurred if a reasonable estimate of fair value can be made. In addition, the associated asset retirement cost is added to the carrying amount of the associated asset and this additional carrying amount is amortized over the life of the asset. The Company's asset retirement obligations are associated with its commitment to return property subject to the operating lease in Brazil to its original condition upon lease termination.

F-13

**Table of Contents****Amyris Biotechnologies, Inc.****Notes to Consolidated Financial Statements (Continued)**

As of December 31, 2008 and 2009 and March 31, 2010 the Company has recorded asset retirement obligations of \$499,000, \$746,000 and \$742,000 (unaudited), respectively. The related leasehold improvements are being amortized to depreciation expense over the term of the lease or the useful life of the assets, whichever is shorter. Related amortization expense was \$0, \$106,000 and \$175,000 for the years ended December 31, 2007, 2008 and 2009, respectively, and \$51,000 (unaudited) for the three months ended March 31, 2010.

***Property and equipment***

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

Leasehold improvements are amortized on a straight-line basis over the terms of the lease, or the useful life of the assets, whichever is shorter. Depreciation and amortization periods for the Company's property and equipment are as follows:

Furniture and office equipment	5 years
Computers and software	3-5 years
Research and laboratory equipment	7 years

Computers and software includes internal-use software that is acquired, internally developed or modified to meet the Company's internal needs. Amortization commences when the software is ready for its intended use and the amortization period is the estimated useful life of the software, generally three to five years. Capitalized costs primarily include contract labor and payroll costs of the individuals dedicated to the development of internal-use software. Capitalized software totaled approximately \$0, \$0.6 million, and \$1.1 million as of December 31, 2007, 2008 and 2009, respectively, and \$1.2 million (unaudited) as of March 31, 2010 related to software development costs pertaining to the installation of a new financial reporting system.

***Impairment of Long-Lived Assets***

The Company periodically reviews property and equipment for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset are impaired or the estimated useful lives are no longer appropriate. If indicators of impairment exist and the undiscounted projected cash flows associated with such assets are less than the carrying amount of the asset, an impairment loss is recorded to write the asset down to their estimated fair values. Fair value is estimated based on discounted future cash flows. Impairment charges of \$0, \$0 and \$3,075,000 were recorded during the years ended December 31, 2007, 2008 and 2009, respectively, and zero (unaudited) for three months ended March 31, 2010.

*Convertible Preferred Stock Warrant Liability*

The Company accounts for its freestanding warrants for shares of the Company's convertible preferred stock that are contingently redeemable as liabilities at fair value on the consolidated balance sheets. The warrants are subject to re-measurement at each balance sheet date and the change in fair value, if any, is recognized as other income (expense), net. The Company will continue to adjust the liability for changes in fair value until the earlier of (i) exercise of the warrants, (ii) conversion into warrants to purchase common stock, or (iii) expiration of the warrants. Upon conversion, the convertible preferred stock warrant liability will be reclassified to common stock.

F-14

**Table of Contents**

**Amyris Biotechnologies, Inc.**

**Notes to Consolidated Financial Statements (Continued)**

***Convertible Preferred Stock***

The holders of the Company's outstanding convertible preferred stock, voting or consenting together as a separate class, control the vote of the Company's shareholders. As a result, the holders of all series of the Company's convertible preferred stock can force a change in control that would trigger liquidation. As redemption of the convertible preferred stock through liquidation is outside the control of the Company, all shares of convertible preferred stock have been presented outside of shareholders' deficit in the Company's consolidated balance sheets. All series of convertible preferred stock are collectively referred to in the consolidated financial statements as convertible preferred stock.

***Noncontrolling Interest and Redeemable Noncontrolling Interest***

As of January 1, 2009, the Company adopted the new accounting standard which establishes accounting and reporting standards for noncontrolling interests in consolidated financial statements. These provisions require that the carrying value of noncontrolling interests to be removed from the mezzanine equity section of the consolidated balance sheet and reclassified as equity, and that consolidated net income be recast to include net income attributable to the noncontrolling interests. The standard requires retrospective presentation and disclosure of existing noncontrolling interests. Accordingly, the Company presented noncontrolling interests as a separate component of equity (deficit) and has also presented net loss attributable to the noncontrolling interest in the consolidated statement of operations. Upon adoption, the noncontrolling interest of \$1.1 million was reclassified to a component of total equity (deficit) in the consolidated balance sheet from the mezzanine equity section.

In accordance with accounting and reporting standards for redeemable equity instruments, a noncontrolling interest with redemption features (redeemable noncontrolling interest), such as a put option, that is not solely within the control of the Company, is required to be reported in the mezzanine equity section of the consolidated balance sheet.

Changes in noncontrolling interest ownership that do not result in a change of control and where there is a difference between fair value and carrying value are accounted for as equity transactions.

***Revenue Recognition***

The Company recognizes revenue from the sale of ethanol and delivery of research and development services and governmental grants. Ethanol sales consists of sales to customers through purchase from third-party suppliers in which the Company takes physical control of the ethanol and accepts risk of loss. Revenue is recognized when all of the following criteria are met: persuasive evidence of an arrangement exists, delivery has occurred or services have been rendered, the fee is fixed or determinable and collectability is reasonably assured.

If sales arrangements contain multiple elements, the Company evaluates whether the components of each arrangement represent separate units of accounting. To date the Company has determined that all revenue arrangements should be accounted for as a single unit of accounting.

*Product Sales*

The Company sells ethanol under short-term agreements at prevailing market prices. Revenues are recognized, net of discounts and allowances, once passage of title and risk of loss has occurred and contractually specified acceptance criteria have been met, provided all other revenue recognition criteria have also been met.

F-15

**Table of Contents**

**Amyris Biotechnologies, Inc.**

**Notes to Consolidated Financial Statements (Continued)**

*Collaborative Research Services*

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

*Government grants*

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

*Cost of Product Sales*

Cost of product sales consists primarily of cost of purchased ethanol, terminal fees paid for storage and handling, transportation costs between terminals and changes in the fair value of the derivative commodity instruments.

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.

*Costs of Start-Up Activities*

Start-up activities are defined as those one-time activities related to opening a new facility, introducing a new product or service, conducting business in a new territory, conducting business with a new class of customer or beneficiary, initiating a new process in an existing facility, commencing some new operation or activities related to organizing a new entity All the costs associated with a potential site are expensed, until

the site is considered viable by management, at which time costs would be considered for capitalization based on authoritative accounting literature.

***Research and Development***

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

F-16



**Table of Contents**

**Amyris Biotechnologies, Inc.**

**Notes to Consolidated Financial Statements (Continued)**

***Income taxes***

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

Effective January 1, 2007, the Company adopted the accounting guidance for uncertainties in income taxes, which prescribes a recognition threshold and measurement process for recording uncertain tax positions taken, or expected to be taken in a tax return, in the consolidated financial statements. Additionally, the guidance also prescribes new treatment for the derecognition, classification, accounting in interim periods and disclosure requirements for uncertain tax positions. The Company accrues for the estimated amount of taxes for uncertain tax positions if it is more likely than not that the Company would be required to pay such additional taxes. An uncertain tax position will not be recognized if it has a less than 50% likelihood of being sustained.

***Currency Translation***

The functional currency of the Company's majority-owned subsidiary in Brazil is the Brazilian real. Accordingly, asset and liability accounts of those operations are translated into United States dollars using the current exchange rate in effect at the balance sheet date and equity accounts are translated into United States dollars using historical rates. The revenues and expenses are translated using the average exchange rates in effect during the period, and gains and losses from foreign currency translation adjustments are included as a component of accumulated other comprehensive income (loss) in the consolidated balance sheets.

***Comprehensive Income (Loss)***

Comprehensive income (loss) represents all changes in shareholders' deficit except those resulting from investments or contributions by shareholders. The Company's unrealized gains and losses on available-for-sale securities and foreign currency translation adjustments represent the components of comprehensive income (loss) excluded from the Company's net loss and have been disclosed in the consolidated statements of convertible preferred stock, redeemable noncontrolling interest and deficit for all periods presented.

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

Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

	December 31,		March 31, 2010	
	2008	2009	2009	2010
			(Unaudited)	
Foreign currency translation adjustment	\$ (555)	\$ 1,333	(507)	735
Accumulated unrealized gain (loss) on investment	87	3	8	(6)
Total accumulated other comprehensive income (loss)	\$ (468)	\$ 1,336	\$ (499)	\$ 729

*Stock-Based compensation*

The Company accounts for stock-based compensation arrangements with employees using a fair value method which requires the recognition of compensation expense for costs related to all stock-based payments including stock options. The fair value method requires the Company to estimate the fair value of stock-based

**Table of Contents**

**Amyris Biotechnologies, Inc.**

**Notes to Consolidated Financial Statements (Continued)**

payment awards on the date of grant using an option pricing model. The Company uses the Black-Scholes pricing model to estimate the fair value of options granted that are expensed on a straight-line basis over the vesting period.

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

***Net Loss per Share and Unaudited Pro Forma Net Loss per Share of Common Stock***

Basic net loss per share of common stock is computed by dividing the Company's net loss attributable to Amyris Biotechnologies, Inc. shareholders by the weighted-average number of shares of common stock outstanding during the period. Diluted net loss per share of common stock is computed by giving effect to all potentially dilutive securities, including stock options, restricted stock units, warrants and convertible preferred stock. Basic and diluted net loss per share of common stock attributable to Amyris Biotechnologies, Inc. shareholders was the same for all periods presented as the inclusion of all potentially dilutive securities outstanding was anti-dilutive. As such, the numerator and the denominator used in computing both basic and diluted net loss are the same for each period presented.

The calculations for the unaudited pro forma basic and diluted net loss per share of common stock attributable to Amyris Biotechnologies, Inc. shareholders assume the conversion of all outstanding shares of convertible preferred stock into shares of common stock, as if the conversions had occurred at the beginning of the period or the issuance date for Series B-1, Series C and Series C-1 convertible preferred stock issued during the year ended December 31, 2009 and the three months ended March 31, 2010 (unaudited), and the conversion of Amyris Brasil shares held by third parties. Also, the numerator in the pro forma basic and diluted net loss per share calculation has been adjusted to remove gains and losses resulting from re-measurements of the convertible preferred stock warrant liability as these measurements would no longer be required when the convertible preferred stock warrants become warrants to purchase shares of the Company's common stock.

**Table of Contents****Amyris Biotechnologies, Inc.****Notes to Consolidated Financial Statements (Continued)**

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

	Years Ended December 31,			Three Months Ended	
	2007	2008	2009	2009	2010
				March 31, (Unaudited)	
<b>Actual:</b>					
<i>Numerator:</i>					
Net loss attributable to Amyris Biotechnologies, Inc. shareholders	\$ (11,774)	\$ (41,864)	\$ (64,459)	\$ (12,172)	\$ (16,152)
<i>Denominator:</i>					
Weighted-average shares of common stock outstanding used in computing net loss per share of common stock, basic and diluted	3,592,932	4,223,533	4,753,085	4,592,400	5,010,569
Net loss per share of common stock attributable to Amyris Biotechnologies, Inc. shareholders, basic and diluted	\$ (3.28)	\$ (9.91)	\$ (13.56)	\$ (2.65)	\$ (3.22)
<b>Pro Forma:</b>					
<i>Numerator:</i>					
Net loss attributable to Amyris Biotechnologies, Inc. shareholders			\$ (64,459)		\$ (16,152)
Less: Change in fair value of convertible preferred stock warrant liability (unaudited)			(445)		542
Net loss used in computing pro forma net loss per share of common stock attributable to Amyris Biotechnologies, Inc. shareholders, basic and diluted (unaudited)			\$ (64,014)		\$ (16,694)
<i>Denominator:</i>					
Weighted-average shares of common stock outstanding used in computing net loss per share of common stock, basic and diluted			4,753,085		5,010,569
Add: Pro forma adjustment to reflect weighted-average effect of assumed conversion of convertible preferred stock (unaudited)			15,517,824		19,455,593
Add: Pro forma adjustment to reflect weighted-average effect of conversion of Amyris Brasil shares (unaudited)			8,524		328,284
			20,279,433		24,794,446

Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

Weighted-average shares of common stock used  
in computing pro forma net loss per share of  
common stock, basic and diluted (unaudited)

Pro forma net loss per share of common stock attributable to Amyris Biotechnologies, Inc shareholders, basic and diluted (unaudited)	\$	(3.16)	\$	(0.67)
--	----	--------	----	--------

F-19

**Table of Contents****Amyris Biotechnologies, Inc.****Notes to Consolidated Financial Statements (Continued)**

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

	Years Ended December 31,			Three Months Ended March 31,	
	2007	2008	2009	2009	2010
				(Unaudited)	
Convertible preferred stock (as converted basis)*	11,171,110	14,185,660	18,878,526	14,271,842	21,899,273
Period-end stock options to purchase common stock	2,628,910	3,628,169	4,446,894	3,556,756	5,819,455
Period-end common stock subject to repurchase	964,525	505,035	132,038	363,777	76,861
Convertible preferred stock warrants (as converted basis)*		129,272	146,447	133,580	195,604
Period-end restricted stock units		50,000	50,000	50,000	176,272
Total	14,764,545	18,498,136	23,653,905	18,375,955	28,167,465

\* The convertible preferred stock and convertible preferred stock warrants were computed on an as converted basis using the conversion ratios in effect as of March 31, 2010 for all periods presented. See Note 9 for conversion ratios.

**Recent accounting pronouncements**

In June 2009, the FASB issued a new accounting standard that requires a qualitative approach to identifying a controlling financial interest in a variable interest entity ( VIE ) and requires ongoing assessment of whether an interest in a VIE makes the holder the primary beneficiary of the VIE. The new accounting standard is effective for the Company on January 1, 2010. The adoption of the standard had no impact on the Company's consolidated financial position, results of operations or cash flows.

In October 2009, the FASB issued a new accounting standard that changes the accounting for arrangements with multiple deliverables. Specifically, the new accounting standard requires an entity to allocate arrangement consideration at the inception of an arrangement to all of its deliverables based on their relative selling prices. In addition, the new standard eliminates the use of the residual method of allocation and requires the relative-selling-price method in all circumstances in which an entity recognizes revenue for an arrangement with multiple deliverables. In October 2009, the FASB also issued a new accounting standard that changes revenue recognition for tangible products containing software and hardware elements. Specifically, if certain requirements are met, revenue arrangements that contain tangible products with software elements that are essential to the functionality of the products are scoped out of the existing software revenue recognition accounting guidance and will be accounted for under these new accounting standards. Both standards will be effective for the Company in the first quarter of 2011. Early adoption is permitted. The Company is currently assessing the impact that the adoption of these standards will have on its consolidated financial statements.

In January 2010, the FASB issued an amendment to an accounting standard which requires new disclosures for fair value measures and provides clarification for existing disclosure requirements. Specifically, this amendment require an entity to disclose separately the amounts of significant

Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

transfers in and out of Level 1 and Level 2 fair value measurements and to describe the reasons for the transfers; and to disclose separately information about purchases, sales, issuances and settlements in the reconciliation for fair value measurements

F-20

**Table of Contents****Amyris Biotechnologies, Inc.****Notes to Consolidated Financial Statements (Continued)**

using significant unobservable inputs, or Level 3 inputs. This amendment clarifies existing disclosure requirements for the level of disaggregation used for classes of assets and liabilities measured at fair value and requires disclosure about the valuation techniques and inputs used to measure fair value for both recurring and nonrecurring fair value measurements using Level 2 and Level 3 inputs. The adoption of this amendment will not impact the Company's consolidated financial statements.

**3. Fair Value of Financial Instruments**

Assets and liabilities recorded at fair value in the consolidated financial statements are categorized based upon the level of judgment associated with the inputs used to measure their fair value. Hierarchical levels which are directly related to the amount of subjectivity associated with the inputs to the valuation of these assets or liabilities are as follows:

Level 1 Observable inputs, such as quoted prices in active markets for identical assets or liabilities.

Level 2 Observable inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities, quoted prices in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3 Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

The following tables set forth the Company's financial instruments that were measured at fair value on a recurring basis by level within the fair value hierarchy. Assets and liabilities measured at fair value are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. The Company's assessment of the significance of a particular input to the fair value measurement in its entirety requires management to make judgments and considers factors specific to the asset or liability. As of December 31, 2008, the Company's fair value hierarchy for its financial assets and financial liabilities that are carried at fair value was as follows (in thousands):

	Quoted Prices in Active Markets for Identical Assets (Level 1)	Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Balance as of December 31, 2008
<b>Financial Assets</b>				
Money market funds	\$ 7,784	\$	\$	\$ 7,784
Commercial paper		2,850		2,850
US Government agency securities		16,441		16,441
Auction rate securities			10,907	10,907
Put Option			2,043	2,043



Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

Total financial assets	\$	7,784	\$	19,291	\$	12,950	\$	40,025
<b>Financial Liabilities</b>								
Derivative liabilities	\$		\$	45	\$		\$	45
Convertible preferred stock warrant liability						2,132		2,132
Total financial liabilities	\$		\$	45	\$	2,132	\$	2,177

F-21

**Table of Contents****Amyris Biotechnologies, Inc.****Notes to Consolidated Financial Statements (Continued)**

As of December 31, 2009, the Company's fair value hierarchy for its financial assets and financial liabilities that are carried at fair value was as follows (in thousands):

	Quoted Prices in Active Markets for Identical Assets (Level 1)	Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Balance as of December 31, 2009
<b>Financial Assets</b>				
Money market funds	\$ 12,479	\$	\$	\$ 12,479
US Government agency securities		35,322		35,322
Auction rate securities			11,235	11,235
Put Option			1,465	1,465
Derivative assets		13		13
<b>Total financial assets</b>	<b>\$ 12,479</b>	<b>\$ 35,335</b>	<b>\$ 12,700</b>	<b>\$ 60,514</b>
<b>Financial Liabilities</b>				
Convertible preferred stock warrant liability	\$	\$	\$ 2,740	\$ 2,740
<b>Total financial liabilities</b>	<b>\$</b>	<b>\$</b>	<b>\$ 2,740</b>	<b>\$ 2,740</b>

As of March 31, 2010, the Company's fair value hierarchy for its financial assets and financial liabilities that are carried at fair value was as follows (in thousands):

	Quoted Prices in Active Markets for identical Assets (Level 1)	Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Balance as of March 31, 2010
<b>Financial Assets</b>				
Money market funds	\$ 22,085			\$ 22,085
US Government agency securities		61,891		61,891
Auction rate securities			10,632	10,632
Put option			1,418	1,418
Derivative assets		43		43
<b>Total financial assets</b>	<b>\$ 22,085</b>	<b>\$ 61,934</b>	<b>\$ 12,050</b>	<b>\$ 96,069</b>

**Financial Liabilities**

Convertible preferred stock warrant liability	\$	\$	\$	2,705	\$	2,705
Total financial liabilities	\$	\$	\$	2,705	\$	2,705

F-22

**Table of Contents****Amyris Biotechnologies, Inc.****Notes to Consolidated Financial Statements (Continued)**

The change in the fair value of the Level 3 investments is summarized below (in thousands):

	<b>Auction Rate Securities</b>	<b>Put Option</b>
<b>Fair value as of December 31, 2007</b>	\$ 18,750	\$
Unrealized loss recorded in other income (expense), net	(2,043)	
Recognition of the Put Option		2,043
Net purchases and sales/ maturities	(5,800)	
<b>Fair value as of December 31, 2008</b>	10,907	2,043
Redemption at par	(250)	
Change in fair value recorded in other income (expense), net	578	(578)
<b>Fair value as of December 31, 2009</b>	11,235	1,465
Redemption at par (unaudited)	(650)	
Change in fair value recorded in other income (expense), net (unaudited)	47	(47)
<b>Fair value at March 31, 2009 (unaudited)</b>	\$ 10,632	\$ 1,418

The change in the fair value of the convertible preferred stock warrant liability is summarized below:

<b>Fair value as of December 31, 2007</b>	\$
Fair value of warrants issued	2,018
Change in fair value recorded in other income (expense), net	114
<b>Fair value as of December 31, 2008</b>	2,132
Fair value of warrants issued	336
Fair value of cancelled award	(173)
Change in fair value recorded in other income (expense), net	445
<b>Fair value as of December 31, 2009</b>	2,740
Fair value of warrant issued (unaudited)	507
Change in fair valued recorded in other income (expense), net (unaudited)	(542)
<b>Fair value as of March 31, 2010 (unaudited)</b>	\$ 2,705

The Company's investment portfolio includes ARS, which are issued principally by student loan entities and rated AAA by a major credit rating agency. ARS are structured to provide liquidity via an auction process that resets the applicable interest rate at predetermined calendar intervals,

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

usually every 28 days. The underlying securities have stated or contractual maturities that are generally greater than one year. Typically, the carrying value of ARS approximates fair value due to the frequent resetting of the interest rates. In February 2008, auctions failed for \$12.95 million in par value of ARS that the Company held because sell orders exceeded buy orders. These failures are not believed to be a credit issue, but rather caused by a lack of liquidity. The funds associated with these failed auctions may not be accessible until the issuer calls the security, a successful auction occurs, a buyer is found outside of the auction process, or the security matures. During the year ended December 31, 2009 and the three months ended March 31, 2009 and 2010, a total of \$250,000, \$0 (unaudited) and \$650,000 (unaudited), respectively, of the ARS held by the Company were called at par by the issuer; therefore no realized losses were recognized on these securities.

The Company received notification from UBS AG ( UBS ), issued in connection with a settlement entered into between UBS and certain regulatory agencies, offering to repurchase all of the Company's auction rate security holdings at par value. The Company formally accepted the settlement offer and entered into a repurchase

F-23

---

**Table of Contents**

**Amyris Biotechnologies, Inc.**

**Notes to Consolidated Financial Statements (Continued)**

agreement with UBS in November 2008. By accepting the agreement, the Company (1) received the right ( Put Option ) to sell its ARS at par value to UBS between June 30, 2010 and July 2, 2012 and (2) gave UBS the right to purchase the ARS from the Company any time after the acceptance date as long as the Company receives the full par value. The agreement with UBS covers \$12.7 million and \$12.1 million (unaudited) par value (fair value of \$11.2 million and \$10.6 million (unaudited)) of the ARS held by the Company as of December 31, 2009 and March 31, 2010, respectively.

The Company expects to sell the ARS under the Put Option. However, if the Put Option is not exercised before July 2, 2012, it will expire and UBS will have no further rights or obligation to buy the ARS. UBS' s obligations under the Put Option are not secured by its assets and do not require UBS to obtain any financing to support its performance obligations under the Put Option. UBS has disclaimed any assurance that it will have sufficient financial resources to satisfy its obligations under the Put Option.

During the year ended December 31, 2008, the Company made an election to transfer the ARS from available-for-sale to trading securities. The transfer to trading securities reflects the Company' s intent to exercise the Put Option during the period from June 30, 2010 to June 30, 2012. Prior to entering into the agreement, the Company' s intent was to hold the ARS until the market recovered. At the time of transfer, the unrealized loss on the auction rate securities was \$2.0 million. Prior to the transfer, this unrealized loss was included in accumulated other comprehensive income (loss). Upon transfer of the ARS from available-for-sale to trading securities, the Company immediately recognized an unrealized loss of \$2.0 million, included in other income (expense), net, for the amount of the unrealized loss not previously recognized in earnings. The Company accounted for the Put Option as a freestanding financial instrument and recorded it at fair value. This allowed any changes in the fair value of the Put Option to be offset with changes in the fair value of the related ARS in the Company' s consolidated statements of operations. As a result, \$2.0 million was initially recorded as a credit to other income (expense), net for the fair value of the Put Option.

The Company estimates the fair value of the ARS using a discounted cash flow model incorporating assumptions that market participants would use in their estimates of fair value. Some of these assumptions include estimates for interest rates, timing and amount of cash flows and expected holding periods of the ARS. The Company estimates the fair value of the Put Option using the expected value that the Company will receive from UBS which was calculated as the difference between the fair value and the par value of the ARS as of the option exercise date. This value is discounted by using UBS' s credit default swap rate to account for the credit considerations of the counterparty risk. The Company will reassess the fair values in future reporting periods based on several factors, including continued failure of auctions, failure of investments to be redeemed, deterioration of credit ratings of investments, market risk and other factors.

As of December 31, 2009, the Company has classified its ARS as short-term investments and they were classified as long-term investments as of December 31, 2008 based on its intention to liquidate the investments on June 30, 2010.

***Derivative Instruments***

The Company utilizes derivative financial instruments to mitigate its exposure to certain market risks associated with its ongoing operations. The primary objective for holding derivative financial instruments is to manage commodity price risk. The Company' s derivative instruments

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

principally include ethanol futures. All derivative commodity instruments are recorded at fair value on the consolidated balance sheets. None of the Company's derivative instruments are designated as a hedging instrument. Changes in the fair value of these non-designated hedging instruments are recognized in cost of product sales in the consolidated statements of operations.

F-24

**Table of Contents****Amyris Biotechnologies, Inc.****Notes to Consolidated Financial Statements (Continued)**

Derivative instruments measured at fair value as of December 31, 2008, 2009 and March 31, 2010, and their classification on the consolidated balance sheets and consolidated statements of operations, are presented in the following tables (in thousands) except contract amounts:

Type of Derivative Contract	Asset/Liability as of December 31, 2008		Asset/Liability as of December 31, 2009		Asset/Liability as of March 31, 2010 (Unaudited)	
	Quantity of Short Contracts	Fair Value	Quantity of Short Contracts	Fair Value	Quantity of Short Contracts	Fair Value
Regulated fixed price futures contracts, included in prepaid expenses and other current assets		\$	57	\$ 13	68	\$ 43
Regulated fixed price futures contracts, included in accrued and other current liabilities	35	\$ 45		\$		\$

Type of Derivative Contract	Income Statement Classification	Years Ended December 31,		Three Months Ended March 31, 2010 Gain (Losses) Recognized (Unaudited)
		2008	2009	
Regulated fixed price futures contracts	Cost of Product Sales	\$ 752	\$ (1,910)	\$ 647

**4. Balance Sheet Components****Investments**

The following table summarizes the Company's investments as of December 31, 2008 (in thousands):

	Amortized Cost	December 31, 2008 Unrealized Gain (Loss)	Fair Value
<b>Short-term investments</b>			
Commercial paper	\$ 2,841	\$ 9	\$ 2,850
US Government agency securities	16,363	78	16,441
Total short-term investments	\$ 19,204	\$ 87	\$ 19,291
<b>Long-term investments</b>			



Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

Auction rate securities	\$ 12,950	\$	(2,043)	\$ 10,907
Put Option			2,043	2,043
Total long-term investments	\$ 12,950	\$		\$ 12,950

F-25

**Table of Contents****Amyris Biotechnologies, Inc.****Notes to Consolidated Financial Statements (Continued)**

The following table summarizes the Company's investments as of December 31, 2009 (in thousands):

	Amortized Cost	December 31, 2009 Unrealized Gain (Loss)	Fair Value
<b>Short-term investments</b>			
US Government agency securities	\$ 35,319	\$ 3	\$ 35,322
Auction rate securities	12,700	(1,465)	11,235
Put Option		1,465	1,465
<b>Total short-term investments</b>	<b>\$ 48,019</b>	<b>\$ 3</b>	<b>\$ 48,022</b>

The following table summarizes the Company's investment as of March 31, 2010 (in thousands):

	Amortized Cost	March 31, 2010 Unrealized Gain (Loss) (Unaudited)	Fair Value
<b>Short-term investments</b>			
US Government agency securities	\$ 61,897	\$ (6)	\$ 61,891
Auction rate securities	12,050	(1,418)	10,632
Put Option		1,418	1,418
<b>Total short-term investments</b>	<b>\$ 73,947</b>	<b>\$ (6)</b>	<b>\$ 73,941</b>

**Property and Equipment**

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

	December 31, 2008	December 31, 2009	March 31, 2010 (Unaudited)
Leasehold improvements	\$ 31,182	\$ 29,575	\$ 29,592
Research and laboratory equipment	9,422	16,904	18,031
Computers and software	1,159	1,472	2,683
Furniture and office equipment	1,355	1,468	1,517

Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

Construction in progress	1,998	2,158	2,703
	45,116	51,577	54,526
Less: accumulated depreciation and amortization	(3,551)	(9,017)	(10,613)
Property and equipment, net	\$ 41,565	\$ 42,560	\$ 43,913

Depreciation and amortization expense was \$634,000, \$2.6 million and \$5.8 million for the years ended December 31, 2007, 2008 and 2009, respectively. Depreciation and amortization expense was \$1.4 million (unaudited) and \$1.6 million (unaudited) for the three months ended March 31, 2009 and 2010, respectively.

Property and equipment includes \$4.1 million, \$8.9 million and \$9.7 million (unaudited) of research and laboratory equipment and furniture and office equipment under capital leases as of December 31, 2008 and 2009 and March 31, 2010, respectively. Accumulated amortization of assets under capital leases totaled \$626,000, \$2.1 million and \$2.5 million (unaudited) as of December 31, 2008 and 2009 and March 31, 2010, respectively.

**Table of Contents****Amyris Biotechnologies, Inc.****Notes to Consolidated Financial Statements (Continued)*****Accrued and Other Current Liabilities***

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

	December 31, 2008	December 31, 2009	March 31, 2010 (Unaudited)
Professional services	\$ 1,635	\$ 2,411	\$ 3,664
Property and equipment	731		
Accrued vacation	636	1,471	1,754
Payroll and related expenses	604	1,573	1,302
Tax-related liabilities	431	330	107
Deferred rent, current portion	100	893	729
Refundable exercise price on early exercise of stock options	262	101	91
Refundable deposits		2,177	
Restructuring charge, current portion		592	490
Other	684	897	429
<b>Total accrued and other current liabilities</b>	<b>\$ 5,083</b>	<b>\$ 10,445</b>	<b>\$ 8,566</b>

**5. Commitments and Contingencies*****Capital Leases***

In March 2008, the Company executed an equipment financing agreement intended to cover certain qualifying research and laboratory hardware and software. In January 2009, the agreement was amended to increase the financing amount. During the years ended December 31, 2008 and 2009, the Company financed certain purchases of hardware equipment and software of approximately \$3.3 million and \$4.8 million, respectively. Pursuant to the equipment financing agreement, the Company financed the equipment with the transactions representing capital leases. Accordingly, fixed assets and capital lease liabilities were recorded at the present values of the future lease payments of \$3.1 million and \$6.9 million during the years ended December 31, 2008 and December 31, 2009. The incremental borrowing rates used to determine the present values of the future lease payments was 9.5%. Capital lease obligations expire at various dates, with the latest maturity in April 2013.

In connection with the capital lease entered into in 2008, the Company issued a warrant to purchase shares of the Company's convertible preferred stock (See Note 10).



**Table of Contents****Amyris Biotechnologies, Inc.****Notes to Consolidated Financial Statements (Continued)**

The recorded balance of capital lease obligations as of December 31, 2008 and 2009 and March 31, 2010 was \$3.6 million, \$7.2 million and \$7.5 million (unaudited), respectively. The Company recorded interest expense in connection with its capital leases of \$18,000, \$175,000, \$751,000, \$206,000 (unaudited) for the years ended December 31, 2007, 2008 and 2009 and the three months ended March 31, 2010, respectively. Future minimum payments under capital leases as of December 31, 2009, are as follows (in thousands):

	<b>Capital Leases</b>
<b>Years ending December 31:</b>	
2010	\$ 2,961
2011	2,905
2012	2,394
2013	271
2014	
Thereafter	
Total future minimum lease payments	8,531
Less: executory costs	(19)
Net minimum lease payments	8,512
Less: amount representing interest	(1,284)
Present value of minimum lease payments	7,228
Less: current maturities	(2,251)
Long-term portion	\$ 4,977

**Operating Leases**

The Company has noncancelable operating lease agreements for office, research and development and manufacturing space in the United States and Brazil.

In August 2007, the Company entered into an operating lease for its new headquarters in Emeryville, California, with a term of ten years commencing in May 2008. As part of the operating lease agreement, the Company received a tenant improvements allowance of \$11.4 million. The Company recorded the allowance as deferred rent and associated expenditures as leasehold improvements that are being amortized over the shorter of their useful life or the terms of the lease. In connection with the operating lease, the Company elected to defer a portion of the monthly base rent due under the lease and entered into notes payable agreements with the lessor for the purchase of certain tenant improvements (see Note 6).

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

In addition, the Company leases a facility in Brazil pursuant to a noncancelable operating lease that expires in May 2013 and the Company leases office space in the United States under noncancelable operating leases that expire at various dates, with the latest expiration in May 2018.

The Company recognizes rent expense on a straight-line basis over the noncancelable lease term and records the difference between cash rent payments and the recognition of rent expense as a deferred rent liability. Where leases contain escalation clauses, rent abatements, and/or concession, such as rent holidays and landlord or tenant incentives or allowances, the Company applies them in the determination of straight-line rent expense over the lease term. Rent expense for the years ended December 31, 2007, 2008 and 2009 was \$1.0 million, \$2.9 million and \$3.6 million. Rent expense was \$982,000 (unaudited) and \$753,000 (unaudited) for the three months ended March 31, 2009 and 2010, respectively.

F-28

**Table of Contents****Amyris Biotechnologies, Inc.****Notes to Consolidated Financial Statements (Continued)**

As of December 31, 2009, future minimum rental payments under the operating leases are as follows (in thousands):

	<b>Operating Leases</b>
<b>Years ending December 31:</b>	
2010	\$ 3,161
2011	4,021
2012	4,669
2013	4,328
2014	4,051
Thereafter	14,517
 Total future minimum lease payments	 \$ 34,747

***Amyris Brasil S.A. Transactions***

On December 22, 2009, the Company entered into an investment and shareholders' agreement with third-party investors ( Investors ) to sell a 4.8% equity interest in Amyris Brasil. In the quarter ended March 31, 2010, Amyris Brasil sold an incremental 3.4% (unaudited) equity interest in Amyris Brasil to investors. Under the terms of the agreements, the Company is required to make additional capital investments in Amyris Brasil worth at least BRL \$50.0 million. (See Note 16).

***Guarantor Arrangements***

The Company has agreements whereby it indemnifies its officers and directors for certain events or occurrences while the officer or director is, or was, serving at the Company's request in such capacity. The term of the indemnification period is for the officer or director's lifetime. The maximum potential amount of future payments the Company could be required to make under these indemnification agreements is unlimited; however, the Company has a director and officer insurance policy that limits its exposure and enables the Company to recover a portion of any future amounts paid. As a result of its insurance policy coverage, the Company believes the estimated fair value of these indemnification agreements is minimal. Accordingly, the Company had no liabilities recorded for these agreements as of December 31, 2008 and 2009.

***Other Matters***

The Company may be involved, from time to time, in legal proceedings and claims arising in the ordinary course of its business. Such matters are subject to many uncertainties and outcomes are not predictable with assurance. The Company accrues amounts, to the extent they can be



reasonably estimated, that it believes are adequate to address any liabilities related to legal proceedings and other loss contingencies that the Company believes will result in a probable loss. While there can be no assurances as to the ultimate outcome of any legal proceeding or other loss contingency involving the Company, management does not believe any pending matter will be resolved in a manner that would have a material adverse effect on the Company's consolidated financial position, results of operations or cash flows.

**Table of Contents****Amyris Biotechnologies, Inc.****Notes to Consolidated Financial Statements (Continued)****6. Debt**

Debt is comprised of the following (in thousands):

	December 31, 2008	December 31, 2009	March 31, 2010 (Unaudited)
Credit facility	\$	\$ 8,343	\$ 7,638
Notes payable		4,038	4,143
Loans payable	3,149	999	995
Total debt	3,149	13,380	12,776
Less: current portion	(340)	(9,018)	(8,534)
Long-term debt	\$ 2,809	\$ 4,362	\$ 4,242

***Credit Facility***

In January 2009, the Company entered into a credit facility with UBS associated with student loan auction rate securities holdings. In March and April 2009, the Company drew down \$8.1 million and \$0.5 million on the credit facility. The credit facility is collateralized by the auction rate securities held with the bank. The credit facility bears a variable interest rate of LIBOR plus 1.25% and the weighted average borrowing rate under the credit facility was 1.32% and 1.28% (unaudited) as of December 31, 2009 and March 31, 2010, respectively. As of December 31, 2009 and March 31, 2010, the total amount outstanding under the credit facility was \$8.3 million and \$7.6 million (unaudited), respectively.

***Notes Payable***

During the period between May 2008 and October 2008, the Company entered into notes payable agreements with the lessor of its headquarters under which the total amount of \$3.3 million was borrowed for the purchase of tenant improvements, bearing an interest rate of 9.5% per annum and to be repaid over a period of 55 to 120 months. As of December 31, 2008 and 2009 and March 31, 2010, a principal amount of \$3.1 million, \$2.8 million and \$2.7 million (unaudited) was outstanding under these notes payable, respectively.

During the period between January 2009 and December 2009, the Company entered into notes payable agreements with a service provider in connection with its software implementation under which the total amount of \$1.2 million was borrowed for the payment of implementation

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

services and software licenses, bearing an interest rate of 8.53% per annum and to be repaid over a period of 72 to 83 months. As of December 31, 2009 and March 31, 2010 (unaudited), a principal amount of \$1.1 million was outstanding under these notes payable.

In July 2009, the Company entered into a notes payable agreement of \$378,000 with its insurance provider. The notes payable are payable in monthly principal and interest installments of \$45,300 through March 2010. The note payable accrues interest at 6%. As of December 31, 2009 and March 31, 2010, a principal amount of \$125,000 and zero (unaudited) was outstanding under the notes payable, respectively.

In March 2010, the Company entered into a notes payable agreement of \$101,000 (unaudited) with its insurance provider. The notes are payable in monthly principal and interest installments of \$11,000 (unaudited) through November 2010. The note payable accrues interest at 5.50% (unaudited). As of March 2010 a principal amount of \$90,000 (unaudited) was outstanding under these notes payable.

In February 2010, the Company entered into a notes payable agreement of \$239,000 (unaudited) with its landlord. The notes are payable in monthly principal and interest installments of \$31,000 from June 2010 through

**Table of Contents****Amyris Biotechnologies, Inc.****Notes to Consolidated Financial Statements (Continued)**

January 2011. The notes payable accrue interest at 10.50%. As of March 31, 2010, a principal amount of \$239,000 (unaudited) was outstanding under these notes payable.

**Loans Payable**

In August 2009, the Company entered into a loans payable agreement with the lessor of its headquarters under which \$750,000 was borrowed. The loan is payable in monthly installments of interest only and unpaid interest and principle is payable in December 2011. Interest accrues at an interest rate of 10.5%. As of December 31, 2009 and March 31, 2010 (unaudited), a principal amount of \$750,000 was outstanding under the loan. The notes payable agreement is secured by a \$750,000 letter of credit.

In December 2009, the Company entered into a loan payable agreement with the lessor of its Emeryville, pilot plant under which the total amount of \$250,000 was borrowed, bearing an interest rate of 10% per annum and to be repaid over a period of 96 months. As of December 31, 2009 and March 31, 2010, a principal amount of \$249,000 and \$244,000 (unaudited) was outstanding under the loan, respectively.

Future minimum payments under the debt agreements as of December 31, 2009 are as follows (in thousands):

	Credit Line	Notes Payable	Loans Payable
Years ending December 31:			
2010	\$ 8,398	\$ 993	\$ 123
2011		863	866
2012		861	45
2013		682	45
2014		592	45
Thereafter		1,406	134
Total minimum payments	8,398	5,397	1,258
Less: interest	(55)	(1,359)	(259)
Present value of future minimum payments	8,343	4,038	999
Less: current portion	(8,343)	(653)	(22)
Noncurrent portion of debt	\$	\$ 3,385	\$ 977

**Letters of Credit**

In November 2008, the Company entered into an uncommitted facility letter (the "Credit Agreement") with a financial institution to finance the purchase and sale of fuel and for working capital requirements, as needed. In October 2009, the agreement was amended to decrease the maximum amount that the Company may borrow under such facility. The Credit Agreement, as amended, provides an aggregate maximum availability up to the lower of \$20.0 million and the borrowing base as defined in the agreement, and is subject to a sub-limit of \$5.7 million for the issuance of letters of credit and a sub-limit of \$20 million for short-term cash advances for product purchases. Amyris has a parent guarantor for the payment of the outstanding balance under the Credit Agreement. Outstanding advances bear an interest rate at the Company's option of the bank's prime rate plus 1.0% or the bank's cost of funds plus 3.5%. As of December 31, 2009, the Company had sufficient borrowing base levels to draw down up to a total of \$2.8 million in short term cash advances and \$4.6 million available for letters of credit in addition to those outstanding as of December 31, 2009. As of April 2, 2010 the Company could draw \$2.4 million in short term advances and had \$1.7 million available for letters of credit in addition to those outstanding at March 31, 2010. As of December 31, 2008 and 2009, and March 31, 2010 the Company had no outstanding advances and had \$0.7 million, \$1.1 million and \$4.0 million (unaudited) in outstanding letters of credit under the Credit Agreement.

**Table of Contents****Amyris Biotechnologies, Inc.****Notes to Consolidated Financial Statements (Continued)**

To the extent that amounts under the Credit Agreement remain unused, while the Credit Agreement is in effect and for so long thereafter as any of the obligations under the Credit Agreement are outstanding, the Company will pay an annual commitment fee of \$300,000. The Credit Agreement requires compliance with certain customary covenants that require maintenance of certain specified financial ratios and conditions. As of December 31, 2009, the Company was in compliance with its financial covenants under the Credit Agreement. The Credit Agreement is collateralized by a first priority security interest in certain of the Company's present and future assets.

In November 2009, the Company entered into an irrevocable standby letter of credit agreement for up to \$4.5 million. As of March 31, 2010 five letters of credit had been issued totaling \$3.8 million (unaudited) as security for certain facility and capital leases, each of which expires on November 9, 2010 and will be automatically extended for two one-year periods. As of December 31, 2009, the Company was in compliance with all financial covenants in the letter of credit agreements. In connection with the letter of credit agreements, the Company maintained a deposit balance with the financial institution, which amounted to \$4.5 million as of December 31, 2009 and March 31, 2010 (unaudited), respectively. The availability of the letter of credit is dependent upon maintaining the cash deposits.

**7. Income Taxes**

The components of the provision for (benefit from) income taxes are as follows for the years ended December 31, 2007, 2008 and 2009 (in thousands):

	2007	2008	2009
Current:			
Federal	\$	\$	\$
State		(207)	
Foreign			
Total current provision (benefit)		(207)	
Deferred:			
Federal			
State			
Foreign			
Total deferred provision (benefit)			
Total provision for (benefit from) income taxes	\$	\$ (207)	\$

A reconciliation between the statutory federal income tax and the Company's effective tax rates as a percentage of loss before income taxes is as follows:

	<b>Years Ended December 31,</b>		
	<b>2007</b>	<b>2008</b>	<b>2009</b>
Statutory tax rate	34.0%	34.0%	34.0%
State tax rate, net of federal benefit	6.8	3.5	5.5
Incentive stock option stock compensation	(0.6)	(0.5)	(0.4)
Federal R&D credit	1.5	0.1	1.0
Other	(3.4)	1.1	1.2
Change in valuation allowance	(38.3)	(37.8)	(41.3)
Effective income tax rate	0%	0.4%	0%

F-32

**Table of Contents****Amyris Biotechnologies, Inc.****Notes to Consolidated Financial Statements (Continued)**

Temporary differences and carryforwards that gave rise to significant portions of deferred taxes are as follows (in thousands):

	<b>December 31, 2008</b>	<b>December 31, 2009</b>
Net operating loss carry forwards	\$ 19,879	\$ 37,118
Fixed assets		108
Research and development credits	208	2,409
Accruals and reserves	552	1,240
Stock compensation	719	1,602
Other		5,322
<b>Total deferred tax assets</b>	<b>21,358</b>	<b>47,799</b>
Fixed assets	(296)	
Other	(43)	
<b>Total deferred tax liabilities</b>	<b>(339)</b>	
<b>Net deferred tax asset prior to valuation allowance</b>	<b>21,019</b>	<b>47,799</b>
Less: Valuation allowance	(21,019)	(47,799)
<b>Net deferred tax assets (liabilities)</b>	<b>\$</b>	<b>\$</b>

Due to uncertainties surrounding the realization of deferred tax assets through future taxable income, the Company has provided a full valuation allowance and, therefore, has not recognized any benefits from the net operating losses and other deferred tax assets. The valuation allowance increased \$4.5 million, \$16.1 million and \$26.8 million during the years ended December 31, 2007, 2008 and 2009, respectively.

Recognition of deferred tax assets is appropriate when realization of such assets is more likely than not. Based upon the weight of available evidence, the Company believes it is not yet more likely than not that the net deferred tax assets will be fully realizable. Accordingly, the Company has provided a full valuation allowance against its net deferred tax assets as of December 31, 2009.

As of December 31, 2009, the Company had federal and California net operating loss carryforwards of approximately \$95.8 million and \$67.4 million available to reduce future taxable income, if any, respectively.

The federal net operating loss carryforward begins expiring in 2025, and the California net operating loss carryforward begins expiring in 2015. The Company also had federal and California state research and development credit carryforwards of approximately \$2.0 million and \$2.1 million at December 31, 2009. The federal credits will expire starting 2024 if not utilized. The California tax credits can be carried forward indefinitely.



The Tax Reform Act of 1986 limits the use of net operating loss and tax credit carryforwards in certain situations where equity transactions result in a change of ownership as defined by Internal Revenue Code Section 382. In the event the Company should experience an ownership change, as defined, utilization of its United States net operating loss carryforwards and tax credits could be limited.

F-33

**Table of Contents****Amyris Biotechnologies, Inc.****Notes to Consolidated Financial Statements (Continued)**

Effective January 1, 2007, the Company adopted the accounting guidance on uncertainties in income taxes. A reconciliation of the beginning and ending amounts of unrecognized tax benefits since the adoption of accounting guidance on uncertainty in income taxes is as follows:

<b>January 1, 2007</b>	<b>\$ 41</b>
Increases in balances related to tax provisions taken during current period	108
<b>December 31, 2007</b>	<b>149</b>
Increases in balances related to tax provisions taken during current period	423
<b>December 31, 2008</b>	<b>572</b>
Increases in balances related to tax provisions taken during current period	460
<b>December 31, 2009</b>	<b>\$ 1,032</b>

The Company's policy is to include interest and penalties related to unrecognized tax benefits within the provision for taxes. Management determined that no accrual for interest and penalties was required as of December 31, 2009.

As of December 31, 2009, the Company's total unrecognized tax benefits were \$1 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. The Company does not anticipate the total amounts of unrecognized income tax benefits will significantly increase or decrease in the next 12 months.

The Company's primary tax jurisdiction is the United States. For United States federal and state tax purposes, tax years 2003 through 2009 remain open and subject to tax examination by the appropriate federal or state taxing authorities. Brazil tax years 2008 and 2009 remain open and subject to examination.

**8. Research and Development Activities*****Research and Collaboration Agreement***

In November 2004, the Company entered into a research and collaboration agreement (the Agreement) with the Institute for One World Health (IOWH), a California nonprofit corporation, and the Regents of the University of California, Berkeley (UC Berkeley). Per the agreement, IOWH agreed to work in partnership with UC Berkeley and the Company. UC Berkeley agreed to conduct basic research to aid in the engineering of a microbe to make a biosynthetic precursor of artemisinin, currently the most effective treatment for malaria. The Company will optimize the

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

strain for industrial fermentation and develop a follow-on chemical synthesis for artemisinin using the precursor. IOWH agreed to perform the drug development and regulatory work to demonstrate the bioequivalence of microbially produced artemisinin derivative to the drug's natural form. The Company will receive no payments from the eventual use of the technology towards the production of antimalarial drugs for use in the developing world. The Agreement, however, allows the Company to develop and maintain ownership rights over a platform technology that is applicable towards the production of many other compounds.

During the year ended December 31, 2007, the Company received \$4.1 million under this agreement. The Company recorded deferred revenue of \$1.4 million and \$0 million as of December 31, 2007 and 2008.

F-34

**Table of Contents**

**Amyris Biotechnologies, Inc.**

**Notes to Consolidated Financial Statements (Continued)**

***Exclusive Development and Commercialization Agreement***

In November 2004, the Company entered into an exclusive development and commercialization agreement, as amended in January 2008, with IOWH and sanofi-aventis (the Parties) under which the Parties agreed to develop and commercialize specific products (anti-malarias) in the IOWH field and territory (countries in the developing world). Under this amended agreement, the Company will grant IOWH and its affiliates a worldwide, exclusive, royalty-free license to develop and commercialize such anti-malaria products in those developing world countries.

During the year ended December 31, 2007, 2008 and 2009, the Company received \$0, \$1.7 million and \$1.3 million related to these agreements. During the three months ended March 31, 2009 and 2010, the Company received \$0.6 million (unaudited) and \$0 (unaudited) related to these agreements.

***Professional Services Contract***

During the year ended December 31, 2008, the Company entered into a professional services contract (the Contract) with Auburn University. Per the contract, the Company will provide a portion of the activities required to plant, grow, harvest, and analyze a sugarcane nursery in Alabama. During the years ended December 31, 2008 and 2009, the Company recognized revenue of \$204,000 and \$0 related to this arrangement.

***Development Services Agreement***

In June 2009, the Company entered into a development services agreement with Sanofi Chimie, under which the Company agreed to perform molecular biology development services related to strain improvement on behalf of Sanofi Chimie. Under the terms of the agreement, Sanofi Chimie provided the Company with an up-front payment of \$1.5 million which is being recognized on a ratable basis over the research period under the arrangement. The Company is also eligible to receive milestone payments totaling \$1.5 million and a bonus payment of \$0.3 million if a specified target is met. Milestones to be earned under the agreement have been determined to be at risk and substantive at the inception of the arrangement and are expected to be recognized upon achievement of the milestone and when collectability is reasonably assured. Research and development revenue of \$1.6 million, including milestone revenue was recognized under the agreement during the year ended December 31, 2009 and \$1.4 million (unaudited) was recognized under the agreement in the three months ended March 31, 2010. The Company recorded deferred revenue of \$378,000 as of December 31, 2009 and \$0 (unaudited) as of March 31, 2009 and 2010.

**9. Convertible Preferred Stock**

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

Under the Company's amended and restated articles of incorporation, the Company's convertible preferred stock is issuable in series.

A summary of convertible preferred stock issued and outstanding as of December 31, 2008 is as follows (in thousands, except share data):

	Shares Authorized	Shares Issued and Outstanding	December 31, 2008		
			Liquidation Preference per Share	Liquidation Amount	Carrying Value
Series A	9,475,000	9,475,000	\$ 2.174	\$ 20,599	\$ 20,470
Series B	1,929,641	1,667,817	24.88	41,495	41,326
Series B-1	4,700,000	2,538,841	25.26	64,131	59,640
Total	16,104,641	13,681,658		\$ 126,225	\$ 121,436

F-35

**Table of Contents****Amyris Biotechnologies, Inc.****Notes to Consolidated Financial Statements (Continued)**

A summary of convertible preferred stock issued and outstanding as of December 31, 2009 is as follows (in thousands, except share data):

			<b>December 31, 2009</b>		
	<b>Shares Authorized</b>	<b>Shares Issued and Outstanding</b>	<b>Liquidation Preference per Share</b>	<b>Liquidation Amount</b>	<b>Carrying Value</b>
Series A	9,475,000	9,475,000	\$ 2.174	\$ 20,599	\$ 20,470
Series B	1,929,641	1,667,817	24.88	41,495	41,326
Series B-1	4,700,000	2,615,721	25.26	66,073	61,412
Series C	4,976,000	4,606,684	12.46	57,399	56,443
<b>Total</b>	<b>21,080,641</b>	<b>18,365,222</b>		<b>\$ 185,566</b>	<b>\$ 179,651</b>

A summary of convertible preferred stock issued and outstanding as of March 31, 2010 is as follows (in thousands, except share data):

			<b>March 31, 2010</b>		
	<b>Shares Authorized</b>	<b>Shares Issued and Outstanding</b>	<b>Liquidation Preference per Share (Unaudited)</b>	<b>Liquidation Amount</b>	<b>Carrying Value</b>
Series A	9,475,000	9,475,000	\$ 2.174	\$ 20,599	\$ 20,470
Series B	1,929,641	1,667,817	24.88	41,495	41,326
Series B-1	4,700,000	2,615,721	25.26	66,073	61,412
Series C	4,976,000	4,902,665	12.46	61,087	59,619
Series C-1	2,781,714	2,724,766	17.56	47,847	47,779
<b>Total</b>	<b>23,862,355</b>	<b>21,385,969</b>		<b>\$ 237,101</b>	<b>\$ 230,606</b>

The convertible preferred stock is recorded at fair value on the dates of issuance, net of issuance costs. The convertible preferred stock is classified outside of shareholders' equity (deficit) because the shares contain liquidation features that are not solely within the control of the Company.

The rights, preferences and privileges of the convertible preferred stock are as follows:

**Voting**

Except as required by applicable law, each share of convertible preferred stock has voting rights equal to an equivalent number of shares of common stock into which it is convertible and votes together as one class with the common stock.

As long as at least 20% of the originally issued shares of the convertible preferred stock remain outstanding, consent of the holders of at least the majority of the convertible preferred stock are required for any action that includes among others (i) alters or changes the rights, preferences or privileges of the common stock and convertible preferred stock; (ii) results in the redemption of any shares of convertible preferred stock or common stock; (iii) results in a liquidation or other corporate reorganization; (iv) amends or waives any provision of the Company's amended and restated articles of incorporation; (v) increases or decreases the authorized size of the Board of Directors; and (vi) results in the payment or declaration of any dividend on any shares of common or convertible preferred stock.

### *Dividends*

The holders of the convertible preferred stock are entitled to receive, in preference to any dividend on the common stock, noncumulative dividends, on a pari passu basis, at the rate of 8% of the original issue price per

**Table of Contents**

**Amyris Biotechnologies, Inc.**

**Notes to Consolidated Financial Statements (Continued)**

annum on each outstanding share of Series A, B, B-1, C and C-1 convertible preferred stock. Such dividends are payable when, as and if declared by the Board of Directors. No dividends have been declared to date.

***Conversion Rights***

Each share of preferred stock is convertible, at the option of the holder, at any time, into shares of common stock determined by dividing the issuance price per share by the conversion price in effect at the time of the conversion. The per share conversion prices are subject to adjustment for antidilution, stock splits and reclassifications. The per share conversion prices of Series A, B, B-1, C and C-1 convertible preferred stock are \$2.174, \$22.25, \$22.53, \$12.46 and \$17.56, respectively. Accordingly, the conversion ratios for the Series A, B, B-1, C and C-1 convertible preferred stock to common stock are 1:1, 1:1.118, 1:1.121, 1:1 and 1:1, respectively.

Each share of Series A, B, B-1, C and C-1 convertible preferred stock shall automatically be converted into a number of shares of common stock upon the earlier to occur of (i) the date specified by the written consent or agreement of the holders of a majority of the then outstanding shares of Series A, B, B-1, C and C-1 convertible preferred stock, each such series voting together as a single class, or (ii) immediately upon the completion of the sale of the Company's common stock in a firm commitment, underwritten public offering registered under the Securities Act of 1933, which results in aggregate proceeds to the Company equal to at least \$30.0 million.

***Liquidation Rights***

In the event of any liquidation, dissolution, or winding up of the Company, the holders of the Series A, B, B-1, C and C-1 convertible preferred stock shall be entitled to receive, prior and in preference to any distribution of any of the assets or surplus funds of the Company to the holders of the common stock, an amount equal to \$2.174, \$24.88, \$25.26, \$12.46 and \$17.56 per share plus any declared but unpaid dividends on such share (the Liquidation Preference). After the payment of the Liquidation Preference, all remaining assets available for distribution, if any, shall be distributed ratably among the holders of the common stock. If available assets are insufficient to pay the full Liquidation Preference, the available assets will be distributed to the holders of Series A, B, B-1, C and C-1 convertible preferred stock, in proportion to the preferential amount each such holder is otherwise entitled to receive.

A merger, consolidation, sale or lease of all or substantially all of the assets of the Company which will result in the Company's shareholders immediately prior to such transaction not holding at least 50% of the voting power of the surviving entity, shall be deemed to be a liquidation, dissolution or winding up. Upon this event, holders of all shares of Series A, B, B-1, C and C-1 convertible preferred stock shall receive the greater of (i) their liquidation preference including any declared but unpaid dividends as of the liquidation date or (ii) the amount that would have been payable had all shares of each such series been converted into common stock immediately prior to this event.



***Redemption Rights***

The convertible preferred stock is not redeemable.

The Company performs ongoing assessments of all terms and features of its convertible preferred stock in order to identify any potential embedded features that would require bifurcation or any beneficial conversion features. As part of this analysis, the Company assessed the economic characteristics and risks of its convertible preferred stock, including conversion, liquidation and redemption features, as well as dividend and voting rights. Based on the Company's determination that each series of its convertible preferred stock is an equity host, the Company determined that the features of the convertible preferred stock are most closely associated with an equity host and, although the convertible preferred stock includes conversion features, such conversion features do not result in a beneficial conversion feature and do not require bifurcation as a derivative liability.

F-37

**Table of Contents****Amyris Biotechnologies, Inc.****Notes to Consolidated Financial Statements (Continued)****10. Warrants for Convertible Preferred Stock**

The Company had the following unexercised convertible preferred stock warrants (in thousands, except for share data):

Underlying Stock	Exercise Price per Share	Shares as of		Fair Value as of	
		December 31, 2008	December 31, 2009	December 31, 2008	December 31, 2009
Series B Convertible Preferred Stock	\$ 24.88	12,628	2,580	\$ 237	\$ 48
Series B-1 Convertible Preferred Stock	\$ 25.26	102,724	106,567	1,895	2,267
Series C Convertible Preferred Stock	\$ 12.46		24,101		425
Total		115,352	133,248	\$ 2,132	\$ 2,740

	Exercise Price per Share	Shares as of March 31, 2010 (Unaudited)	Fair Value
			as of March 31, 2010
Series B Convertible Preferred Stock	\$ 24.88	2,580	\$ 33
Series B-1 Convertible Preferred Stock	\$ 25.26	106,567	1,597
Series C Convertible Preferred Stock	\$ 12.46	73,258	1,075
Total		182,405	\$ 2,705

**Series B**

In 2008, in connection with consulting services, the Company issued a warrant to purchase 2,580 shares of the Company's Series B convertible preferred stock at an exercise price of \$24.88 per share. The warrant is immediately exercisable and expires upon the earlier of (i) five years from the effective date; (ii) one year from the effective date of a public offering; or (iii) upon a change of control. The Company estimated the initial fair value of the warrant as of the date of issuance to be \$39,000 and was recorded as consulting expense. The fair value was based on the contractual term of the warrants of five years, risk-free interest rate of 3.5%, expected volatility of 70% and 0% expected dividend yield.

In 2008, in connection with a capital lease agreement, the Company issued a warrant to purchase 10,048 shares of the Company's Series B convertible preferred at an exercise price of \$24.88 per share. The warrant was immediately exercisable and was due to expire upon the earlier of (i) ten years from the effective date; (ii) one year from the effective date of a public offering; or (iii) a merger event. The Company estimated the initial fair value of the warrant to be \$196,000 and was recorded as other assets. The fair value was based on the contractual term of the warrants

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

of ten years, risk-free interest rate of 4.04%, expected volatility of 70% and 0% annual dividend rate. In September 2009, the Company cancelled the warrant and issued a warrant to purchase 10,048 shares of the Company's Series C convertible preferred stock.

### *Series B-1*

In 2008, in connection with the Company's issuance of Series B-1 convertible preferred stock, the Company issued warrants to purchase 100,715 shares of the Company's Series B-1 convertible preferred stock at an exercise price of \$25.26 per share to the placement agent. The warrants are immediately exercisable and expire seven years from the effective date. The Company estimated the initial fair value of these warrants as of the issuance dates to be \$1.7 million and was recorded as a reduction to the carrying value of the Series B-1 convertible preferred stock. The fair value was based on the contractual term of the warrants of seven years, risk-free interest rates from 2.9% to 3.7%, expected volatility from 70% to 75%, and 0% expected dividend yield.

**Table of Contents****Amyris Biotechnologies, Inc.****Notes to Consolidated Financial Statements (Continued)**

In 2008, in connection with an operating lease, the Company issued a warrant to purchase 2,009 shares of the Company's Series B-1 convertible preferred stock at an exercise price of \$25.26 per share. The warrant is exercisable immediately and expires upon the earlier of (i) ten years from the effective date; (ii) an underwritten public offering; or (iii) upon a change of control. The Company estimated the initial fair value of the warrant as of the date of issuance to be \$40,000 and was recorded as rent expense. The fair value was based on the contractual term of the warrants of ten years, risk-free interest rate of 4.0%, expected volatility of 70% and 0% expected dividend yield.

In 2009, in connection with the Company's issuance of Series B-1 convertible preferred stock, the Company issued a warrant to purchase 3,843 shares of the Company's Series B-1 convertible preferred stock at an exercise price of \$25.26 to the placement agent. The warrants are exercisable immediately and expire seven years from the effective date. The Company estimated the fair value of the warrant as of the date of issuance to be \$68,000 and was recorded as a reduction to the carrying value of the Series B-1 convertible preferred stock. The fair value was based on the contractual term of the warrants of seven years, risk-free interest rate of 2.3%, expected volatility of 90% and 0% expected dividend yield.

***Series C***

In September 2009, the Company cancelled the warrant to purchase 10,048 shares of the Company's Series B convertible preferred stock and issued a warrant to purchase 16,075 shares of the Company's Series C convertible preferred stock with an exercise price of \$12.46 per share. In connection with a capital lease arrangement, the Company issued a warrant to purchase 8,026 shares of the Company's Series C convertible preferred stock at an exercise price of \$12.46 per share. The warrants are exercisable immediately and expire upon the earlier of (i) September 2019; (ii) one year from the effective date of a public offering; or (iii) a merger event. The Company estimated the initial fair value of warrants as of the date of issuance to be \$269,000 and was recorded as other assets and amortized over the capital lease draw-down period. The fair value was based on the contractual term of the warrants of ten years, risk-free interest rate of 3.3%, expected volatility of 97%, and 0% expected dividend yield.

In January 2010, in connection with the Company's issuance of Series C convertible preferred stock, the Company issued a warrant to purchase 49,157 shares of the Company's Series C convertible preferred stock at an exercise price of \$12.46 per share to the placement agent. The warrant is exercisable immediately and expires seven years from the effective date. The Company estimated the fair value of the warrant as of the date of issuance to be \$507,000 which was recorded as a reduction to the carrying value of the Series C convertible preferred stock. The fair value was based on the contractual term of the warrant of seven years, risk-free interest rate of 3.39%, expected volatility of 98% and 0% expected dividend yield.

The change in the fair value of convertible preferred stock warrants resulted in a charge to other expense in the amount of \$114,000 and \$445,000 during the years ended December 31, 2008 and 2009. For the three months ended March 31, 2009 and 2010, the Company recorded a gain of \$138,000 (unaudited) and \$542,000 (unaudited), respectively as an offset to other expense to reflect the change in the fair value of the warrants. The Company determined the fair value of the warrants as of December 31, 2008 and 2009 and March 31, 2009 and 2010 using the Black-Scholes option pricing model with the following assumptions:

Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

	December 31,		March 31,	
	2008	2009	2009	2010
			(Unaudited)	
Expected dividend yield	0%	0%	0%	0%
Risk-free interest rate	1.6%-2.3%	1.7%-3.9%	1.2%-2.7%	1.6%-3.8%
Contractual term (in years)	4-9.5	3-9.8	3.8-9.3	2.8-9.5
Expected volatility	80%	98%-111%	90%-93%	98%-112%

F-39

**Table of Contents**

**Amyris Biotechnologies, Inc.**

**Notes to Consolidated Financial Statements (Continued)**

Each of these warrants includes a cashless exercise provision which permits the holder of the warrant to elect to exercise the warrant without paying the cash exercise price, and receive a number of shares determined by multiplying (i) the number of shares for which the warrant is being exercised by (ii) the difference between the fair market value of the stock on the date of exercise and the warrant exercise price, and dividing such by (iii) the fair market value of the stock on the date of exercise. As of December 31, 2009 and March 31, 2010, these warrants were outstanding and exercisable.

**11. Common Stock**

The Articles of Incorporation authorize the Company to issue 33,000,000 and 38,000,000 (unaudited) shares of common stock as of December 31, 2009 and March 31, 2010, respectively. Holders of the Company's common stock are entitled to dividends as and when declared by the Board of Directors, subject to the rights of holders of all classes of stock outstanding having priority rights as to dividends. There have been no dividends declared to date. The holder of each share of common stock is entitled to one vote.

**12. Restricted stock**

Pursuant to restricted stock agreements with the Company's founders, the Company has the right, but not the obligation, to repurchase all or any portion of the unvested shares of common stock upon termination of employment at the original purchase price per share. The repurchase rights with respect to founders stock lapse over the vesting period, which ranges from 68 to 100 months. As of December 31, 2008 and 2009 and March 31, 2010, 267,711, 52,084 and 20,834 (unaudited) restricted shares of common stock held by the Company's founders were subject to repurchase by the Company.

**13. Stock Based Compensation**

***Employee Equity Plan***

In 2005, the Company established its 2005 Stock Option Plan (the "Plan") which provides for the granting of common stock options, RSUs, restricted stock and stock purchase rights awards to employees and consultants of the Company. The Plan allows for time-based or performance-based vesting for the awards. Options granted under the Plan may be either incentive stock options ("ISOs") or nonqualified stock options ("NSOs"). ISOs may be granted only to Company employees (including officers and directors who are also employees). NSOs may be granted to Company employees and consultants.

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

Options under the Plan may be granted for periods of up to ten years. All options issued to date have had a ten year life. The exercise price of an ISO and NSO shall not be less than 100% of the estimated fair value of the shares on the date of grant, as determined by the Board of Directors. The exercise price of an ISO and NSO granted to a 10% shareholder shall not be less than 110% of the estimated fair value of the underlying stock on the date of grant as determined by the Board of Directors. The Company's options generally vest over four to five years.

In December 2009, the Company issued 10,000 shares of restricted stock to an employee with performance-based vesting conditions. The performance based vesting conditions require the achievement of certain operational performance criteria as a condition of vesting for such award within six months following the date of grant. As of December 31, 2009, the Company assessed the probability of achieving the performance conditions and determined it was not probable that the performance condition will be satisfied. No compensation cost was recorded during the year ended December 31, 2009 or the three months ended March 31, 2010 (unaudited).

No income tax benefit has been recognized relating to stock-based compensation expense and no tax benefits have been realized from exercised stock options.

F-40

**Table of Contents****Amyris Biotechnologies, Inc.****Notes to Consolidated Financial Statements (Continued)****Stock Option Activity**

The Company's stock option, RSU and restricted stock grant activity and related information for the years ended December 31, 2007, 2008 and 2009 and the three months ended March 31, 2010 was as follows:

	Shares Available for Grant	Number of Stock Options Outstanding	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Life (Years)	Aggregate Intrinsic Value (in thousands)
Outstanding January 1, 2007	386,800	247,200	\$ 0.22	6.96	\$ 0
Additional shares authorized	3,662,700				
Options granted	(2,792,060)	2,792,060	1.65		
Options exercised		(361,723)	0.60		
Options cancelled	48,627	(48,627)	0.20		
Shares repurchased	20,625		0.10		
Outstanding December 31, 2007	1,326,692	2,628,910	1.69	8.81	5,891
Additional shares authorized	1,390,000				
Options granted	(1,289,549)	1,289,549	3.93		
Restricted stock units granted	(50,000)				
Options exercised		(172,059)	3.42		
Options cancelled	118,231	(118,231)	2.37		
Shares repurchased	1,498		1.16		
Outstanding December 31, 2008	1,496,872	3,628,169	2.38	8.22	21,764
Additional shares authorized					
Options granted	(1,109,553)	1,109,553	4.31		
Restricted stock granted	(10,000)				
Options exercised		(117,515)	1.04		
Options cancelled	173,313	(173,313)	2.98		
Shares repurchased	28,886		0.32		
Outstanding December 31, 2009	579,518	4,446,894	2.87	8.19	28,661
Additional shares authorized (unaudited)	1,026,272				
Options granted (unaudited)	(1,415,310)	1,415,310	10.15		
Restricted stock granted (unaudited)	(126,272)				
Options exercised (unaudited)		(6,707)	0.83		
Options cancelled (unaudited)	36,042	(36,042)	6.73		
Shares repurchased (unaudited)	200		0.28		



Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

Outstanding March 31, 2010 (unaudited)	100,450	5,819,455	\$ 4.62	8.38	\$ 56,202
Vested and expected to vest March 31, 2010 (unaudited)		5,572,615	\$ 4.53	8.35	\$ 54,317
Exercisable March 31, 2010 (unaudited)		2,159,243	\$ 2.58	7.61	\$ 25,260

The aggregate intrinsic value of options exercised under the Plan was \$73,000, \$26,000 and \$308,000 for the years ended December 31, 2007, 2008 and 2009 and \$71,000 for the three months ended March 31, 2010 (unaudited), determined as of the date of option exercise.

F-41

**Table of Contents****Amyris Biotechnologies, Inc.****Notes to Consolidated Financial Statements (Continued)**

The following table summarizes information about stock options outstanding as of December 31, 2009:

Exercise Price	Options Outstanding		Options Exercisable
	Number of Options	Weighted-Average Remaining Contractual Life (Years)	Number of Options
\$0.10	36,700	5.96	35,574
\$0.28	1,180,400	7.10	706,686
\$1.50	273,660	7.57	186,633
\$3.93	1,846,591	8.11	760,537
\$4.31	1,109,543	9.69	208,353
	4,446,894	8.19	1,897,783

The following table summarizes information about stock options outstanding as of March 31, 2010 (unaudited):

Exercise Price	Options Outstanding		Options Exercisable
	Number of Options	Weighted-Average Remaining Contractual Life (Years)	Number of Options
\$0.10	34,700	5.74	34,700
\$0.28	1,174,700	6.83	765,956
\$1.50	273,660	7.33	195,597
\$3.93	1,841,096	7.89	844,811
\$4.31	1,094,714	9.40	254,639
\$9.32	1,168,835	9.76	52,957
\$14.28	231,750	9.96	10,583
	5,819,455	8.38	2,159,243

At December 31, 2008, 930,152 options were vested and exercisable under the plan with a weighted average exercise price of \$1.27 per share.

**Common Stock Subject to Repurchase**

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

Historically, the Company allowed employees to exercise options prior to vesting. The Company has the right to repurchase at the original purchase price any unvested (but issued) common shares upon termination of service of an employee. The consideration received for an exercise of an option is considered to be a deposit of the exercise price and the related dollar amount is recorded as a liability. The shares and liability are reclassified into equity on a ratable basis as the award vests. The Company recorded a liability in accrued expenses of \$262,000, \$101,000 and \$91,000 (unaudited) relating to 237,324, 69,954 and 56,027 (unaudited) options that were exercised and unvested as of December 31, 2008 and 2009 and March 31, 2010, respectively. These shares were subject to a repurchase right held by the Company and are included in issued and outstanding shares as of December 31, 2008 and 2009 and March 31, 2010, respectively.

F-42

**Table of Contents****Amyris Biotechnologies, Inc.****Notes to Consolidated Financial Statements (Continued)*****Stock-Based Compensation***

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

	Years Ended December 31,			The Months Ended March 31,	
	2007	2008	2009	2009	2010
				(Unaudited)	
Research and development	\$ 117	\$ 632	\$ 773	\$ 136	\$ 453
Sales, general and administrative	429	1,395	2,526	466	1,346
<b>Total stock-based compensation expense</b>	<b>\$ 546</b>	<b>\$ 2,027</b>	<b>\$ 3,299</b>	<b>\$ 602</b>	<b>\$ 1,799</b>

***Employee Stock Based Compensation***

During the years ended December 31, 2007, 2008 and 2009, the Company granted 2,531,360, 1,289,549 and 1,089,053 stock options to employees with a weighted average grant date fair value of \$1.65, \$5.83 and \$4.31 per share and during the three months ended March 31, 2010 the Company granted 1,390,310 options to employees with a weighted average grant date fair value of \$10.15 (unaudited). As of December 31, 2009 and March 31, 2010, there was unrecognized compensation costs of \$6.7 million and \$15.6 million (unaudited) related to these stock options. The Company expects to recognize those costs over a weighted average period of 3.5 years as of March 31, 2010. Future option grants will increase the amount of compensation expense to be recorded in these periods.

Compensation expense was recorded for stock-based awards granted to employees based on the grant date estimated fair value (in thousands):

	Years Ended December 31,			Three Months Ended March 31,	
	2007	2008	2009	2009	2010
				(Unaudited)	
Research and development	\$ 38	\$ 501	\$ 765	\$ 134	\$ 435
Sales general and administrative	268	849	1,822	322	843
<b>Total stock-based compensation expense</b>	<b>\$ 306</b>	<b>\$ 1,350</b>	<b>\$ 2,587</b>	<b>\$ 456</b>	<b>\$ 1,278</b>

The Company estimated the fair value of employee stock options using the Black-Scholes option pricing model. The fair value of employee stock options is being amortized on a straight-line basis over the requisite service period of the awards. The fair value of employee stock options

Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

was estimated using the following weighted-average assumptions:

	Years Ended December 31,			Three Months Ended March 31,	
	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%
Expected term (in years)	6.0	6.0	6.0	*	6.0
Expected volatility	70%	70%	97%	*	98%

\* There were no stock option grants during the quarter ended March 31, 2009.

F-43

**Table of Contents****Amyris Biotechnologies, Inc.****Notes to Consolidated Financial Statements (Continued)**

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

*Risk-Free Interest Rate* The risk-free interest rate is based on the United States Treasury yield curve in effect at the time of grant for zero coupon United States Treasury notes with maturities approximately equal to the option's expected term.

*Expected Term* Expected term represents the period that the Company's stock-based awards are expected to be outstanding. The Company's assumptions about the expected term have been based on that of companies that have similar industry, life cycle, revenue and market capitalization.

*Expected Volatility* The expected volatility was based on the historical stock volatilities of several of the Company's publicly listed comparable companies over a period equal to the expected terms of the options, as the Company does not have any trading history to use the volatility of its own common stock.

*Fair Value of Common Stock* The fair value of the shares of common stock underlying the stock options has historically been determined by the Board of Directors. Because there has been no public market for the Company's common stock, the Board of Directors has determined fair value of the common stock at the time of grant of the option by considering a number of objective and subjective factors including valuation of comparable companies, sales of convertible preferred stock to unrelated third parties, operating and financial performance, the lack of liquidity of capital stock and general and industry specific economic outlook, amongst other factors. The fair value of the underlying common stock shall be determined by the Board of Directors until such time as the Company's common stock is listed on an established stock exchange or national market system.

Information regarding the Company's stock option grants during the year ended December 31, 2009 and the three months ended March 31, 2010, including the grant date; the number of stock options issued with each grant; the exercise price, which equals the grant date fair value of the underlying common stock for each grant of stock options, is summarized as follows:

<b>Grant Date</b>	<b>Number of Options Granted</b>	<b>Exercise Price and Fair Value of Underlying Common Stock</b>
September 14, 2009	965,153	\$ 4.31
October 27, 2009	144,400	\$ 4.31
January 7, 2010	1,178,810	\$ 9.32
March 19, 2010	236,500	\$ 14.28

*Forfeiture Rate* The Company estimates its forfeiture rate based on an analysis of its actual forfeitures and will continue to evaluate the adequacy of the forfeiture rate based on actual forfeiture experience, analysis of employee turnover behavior, and other factors. The impact from a

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

forfeiture rate adjustment will be recognized in full in the period of adjustment, and if the actual number of future forfeitures differs from that estimated by the Company, the Company may be required to record adjustments to stock-based compensation expense in future periods.

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

### *Nonemployee Stock Based Compensation*

During the years ended December 31, 2007, 2008 and 2009, the Company granted options to purchase 260,700, 0 and 20,500 shares of common stock to nonemployees in exchange for services. During the three months ended March 31, 2010, the Company granted 25,000 options to purchase common stock to

F-44

**Table of Contents****Amyris Biotechnologies, Inc.****Notes to Consolidated Financial Statements (Continued)**

nonemployees. Compensation expense of \$240,000, \$636,000 and \$238,000 was recorded during the years ended December 31, 2007, 2008 and 2009 for stock-based awards granted to nonemployees. Compensation expense of \$120,000 (unaudited) and \$75,000 (unaudited) was recorded for the three months ended March 31, 2009 and 2010. The nonemployee options were valued using the Black-Scholes option pricing model with the following weighted-average assumptions:

	Years Ended December 31,			Three Months Ended March 31,	
	2007	2008	2009	2009 (Unaudited)	2010
Expected dividend yield	0%	0%	0%	0%	0%
Risk-free interest rate	3.9%-4.8%	1.52%-4.1%	1.8%-3.6%	1.8%-2.8%	3.7%
Contractual term (in years)	9.7	7.0-9.2	6.0-10.0	6.3-9.0	7.4-10.0
Expected volatility	70%	70%-75%	90%-98%	90%	98%

During 2008, the Company entered into a related party transaction with a venture capital group to provide strategic advisory services to Amyris and its majority owned subsidiary Amyris Brasil. One of its directors is also a member of the Company's Board of Directors. As compensation for the advisory services to be rendered, the Company granted 50,000 RSUs with a grant date fair value of \$8.38 during the year ended December 31, 2008. No additional RSUs were granted during the year ended December 31, 2009. In the three months ended March 31, 2010, 126,272 RSUs were granted to the same related party. The RSUs vest quarterly and become fully vested in July 2010. Compensation expense of \$41,000 and \$466,000 was recorded for the years ended December 31, 2008 and 2009. Compensation expense of \$26,000 (unaudited) and \$446,000 (unaudited) was recorded for the three months ended March 31, 2009 and 2010, respectively.

**Shares Reserved for Future Issuance**

As of December 31, 2009 and March 31, 2010 the Company had reserved shares of common stock for issuance as follows:

	December 31, 2009	March 31, 2010 (Unaudited)
Issuance of stock options	5,026,412	5,919,905
Restricted stock units	50,000	176,272
Conversion of convertible preferred stock*	18,878,526	21,899,273
Issuance upon exercise of convertible preferred stock warrants	146,447	195,604
	24,101,385	28,191,054

\* The convertible preferred stock and convertible preferred stock warrants were computed on an as converted basis using the conversion ratios in effect as of March 31, 2010 for all periods presented. See Note 9 for conversion ratios.



**14. Employee Benefit Plan**

The Company established a 401(k) Plan to provide tax deferred salary deductions for all eligible employees. Participants may make voluntary contributions to the 401(k) Plan up to 90% of their eligible compensation, limited by certain Internal Revenue Service restrictions. The Company does not match employee contributions.

F-45

**Table of Contents**

**Amyris Biotechnologies, Inc.**

**Notes to Consolidated Financial Statements (Continued)**

**15. Related Party Transactions**

The Company has entered into a license agreement with University of California, Berkeley. A co-founder and advisor to the Company is a professor at the University of California, Berkeley. The Company paid the advisor \$15,000, \$30,000, \$34,000 and \$15,000 during the years ended December 31, 2007, 2008 and 2009 and the three months ended March 31, 2010, respectively.

Crystalsev Comércio E Representação Ltda. ( Crystalsev ) was issued 40,193 shares of Series B convertible preferred stock by contributing \$1.0 million during the Series B convertible preferred stock financing in March 2008 (see Note 16).

During 2008, the Company entered into an agreement with a venture capital group to provide strategic advisory services to Amyris and its majority owned subsidiary Amyris Brasil. One of its directors is also a member of the Company's Board of Directors. (See Note 13).

**16. Noncontrolling Interest**

In February 2008, the Company formed a subsidiary Amyris Pesquisa e Desenvolvimento de Biocombustíveis, Ltda. In March 2008, the Company sold a 30% interest to Crystalsev and the subsidiary was renamed Amyris-Crystalsev Pesquisa e Desenvolvimento de Biocombustíveis Ltda. ( ACB ). The Company invested \$3.8 million of cash for 70% interest in ACB and Crystalsev contributed \$1.6 million of cash for the remaining 30% interest.

In April 2009, the Company re-purchased Crystalsev's 30% interest in ACB for \$2.3 million resulting in ACB once again becoming a wholly-owned subsidiary. The purchase of the noncontrolling interest was treated as an equity transaction and the fair value of the consideration paid of \$2.3 million was recorded as a reduction of the carrying value of the noncontrolling interest and additional paid-in capital. In December 2009, ACB was renamed Amyris Brasil S.A.

On December 22, 2009, Amyris Brasil sold 1,111,111 shares of Amyris Brasil for a 4.8% interest in Amyris Brasil for BRL\$10.0 million. The redeemable noncontrolling interest is reported in the mezzanine equity section of the consolidated balance sheet because the Company is subject to a contingent put option under which it may be required to repurchase an interest in Amyris Brasil from the noncontrolling interest holder. The Company has recognized a noncontrolling interest for December 22, 2009 to December 31, 2009 in the consolidated balance sheets and statements of operations. The Company has also recognized a receivable of \$2.5 million for which payment was received in January 2010.

In March 2010, Amyris Brasil sold an additional 853,333 shares of its stock, an incremental 3.4% interest, for BRL \$3.0 million (unaudited).

Under the terms of the agreements with these Amyris Brasil Investors, we have the right to require the investors to convert their shares of Amyris Brasil into shares of common stock at a 1:0.28 conversion ratio. We intend to exercise this right prior to the completion of this offering, and as a result will issue 550,044 shares of our common stock to these investors.

Under the terms of the agreements, the Company is required to make additional capital investments in Amyris Brasil worth at least BRL \$50.0 million. The Company also entered into a contingent put option with the Investors in the event that Amyris Brasil receives a binding offer from one or more third parties willing to acquire control of Amyris Brasil through a change of control event that will entitle the Investors to sell their

**Table of Contents****Amyris Biotechnologies, Inc.****Notes to Consolidated Financial Statements (Continued)**

shares to the Company. Under the terms of the put option, the Investors will have the right to receive from the Company its pro rate share of the total put option price. The put option price is defined as being the lower of (i) the amount invested by the Investors in Amyris Brasil plus 8% per year; and (ii) the total amount of proceeds actually received by the Company from a third party acquirer or from Amyris Brasil, in connection with a change of control event relating to the Company.

The following table provides a rollforward of the redeemable noncontrolling interest recorded as mezzanine equity:

<b>Beginning balance as of December 31, 2008</b>	\$
Proceeds from redeemable noncontrolling interest	5,626
Net loss	(120)
<b>Ending balance as of December 31, 2009</b>	5,506
Proceeds from redeemable noncontrolling interest (unaudited)	1,706
Foreign currency translation adjustment (unaudited)	65
Net loss (unaudited)	(183)
<b>Ending balance March 31, 2010 (unaudited)</b>	\$ 7,094

**17. Restructuring**

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

The following table summarizes the liability and utilization by cost type associated with the restructuring (in thousands):

	Exit Costs	Asset Impairments	Deferred Rent Write-Off	Total
<b>Accrued restructuring as of December 31, 2008</b>	\$	\$	\$	\$
Additional accruals	5,412	3,075	(2,719)	5,768
Cash payments	(534)			(534)
Accretion expense	200			200
Non-cash settlements		(3,075)	2,719	(356)

Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

<b>Accrued restructuring as of December 31, 2009</b>	5,078			5,078
Cash payments (unaudited)	(320)			(320)
Accretion expense (unaudited)	144			144
<b>Accrued restructuring as of March 31, 2010 (unaudited)</b>	4,902			4,902
Less current portion (unaudited)	(490)			(490)
<b>Long-term portion as of March 31, 2010 (unaudited)</b>	\$ 4,412	\$	\$	\$ 4,412

The restructuring accrual for facility-related leases (net of estimated sublease proceeds) will be paid over the respective facility lease term through May 2018.

F-47

**Table of Contents****Amyris Biotechnologies, Inc.****Notes to Consolidated Financial Statements (Continued)****18. Reporting Segments**

The chief operating decision maker for the Company is the Chief Executive Officer. The Chief Executive Officer reviews financial information presented on a consolidated basis, accompanied by information about revenue by geographic region, for purposes of allocating resources and evaluating financial performance. The Company has one business activity and there are no segment managers who are held accountable for operations, operating results or plans for levels or components below the consolidated unit level. Accordingly, the Company has determined that it has a single reporting segment and operating unit structure.

Revenues by geography are based on the billing address of the customer. The following tables set forth revenue and long-lived assets by geographic area (in thousands):

**Revenues**

	Years Ended December 31,			Three Months Ended	
	2007	2008	2009	2009	2010
United States	\$ 6,184	\$ 13,892	\$ 64,608	\$ 2,091	\$ 13,655
Total	\$ 6,184	\$ 13,892	\$ 64,608	\$ 2,091	\$ 13,655

**Long-Lived Assets**

	December 31,	December 31,	March 31,
	2008	2009	2010
United States	\$ 39,995	\$ 34,868	\$ 34,557
Brazil	1,570	7,692	9,356
Total	\$ 41,565	\$ 42,560	\$ 43,913

**19. Subsequent Events**

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

The Company has evaluated subsequent events through April 16, 2010, the date on which the consolidated financial statements were issued for inclusion in the Company's registration statement on Form S-1. For the issuance of the financial statements for the three months ended March 31, 2010, the unaudited interim period presented herein, such evaluation was performed through May 25, 2010.

In January 2010, the Company raised \$3.7 million before issuance costs, by issuing 295,981 shares of Series C convertible preferred stock at \$12.46 per share.

In March 2010, the Company raised \$47.8 million before issuance costs, by issuing 2,724,766 shares of Series C-1 convertible preferred stock at \$17.56 per share.

In March 2010, Amyris Brasil received an additional \$1.7 million investment from an investor.

On April 13, 2010, the board of directors of the Company approved the filing of a registration statement with the Securities and Exchange Commission for an initial public offering of the Company's common stock.

On April 14, 2010 we entered into a joint venture with Usina São Martinho, to produce Amyris renewable products. The joint venture, SMA Indústria Química S.A., was created to build the first facility in Brazil fully

**Table of Contents**

**Amyris Biotechnologies, Inc.**

**Notes to Consolidated Financial Statements (Continued)**

dedicated to the production of Amyris renewable products. The new company will be located at the Usina São Martinho mill in Pradópolis, São Paulo state. The joint venture has a 20 year initial term.

Amyris plans to provide genetically engineered yeast to enable the joint venture to produce farnesene, a molecule which may be used as an ingredient in a wide range of consumer and industrial products, including detergents, cosmetics, perfumes and industrial lubricants.

The joint venture will be governed by a four member board of directors, of which the Company and São Martinho will each appoint two members. A three member executive committee, of which we appoint two members one of which will be the plant manager who is the most senior executive, will be responsible for managing construction and operation of the facility.

Under the joint venture agreements, Amyris will grant a royalty-free license to the JV. Amyris will fund the construction costs of the new facility, which is estimated to total between \$80 million to \$100 million, of which São Martinho will reimburse up to 61.8 million Brazilian reais (\$35 million) after we commence production. 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. After this four year period, the price is set to guarantee a break-even price to the joint venture plus an agreed upon return.

Amyris will have 50% ownership in the JV. We have identified the JV as a variable interest entity. We expect to be the Primary Beneficiary and consequently intend to consolidate the joint venture's operations in our financial statements.



**Table of Contents**

**Table of Contents**

**Table of Contents****PART II****INFORMATION NOT REQUIRED IN PROSPECTUS****ITEM 13. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION**

The following table sets forth all expenses to be paid by the Registrant, other than estimated underwriting discounts and commissions, in connection with this offering. All amounts shown are estimates except for the SEC registration fee, the FINRA filing fee and The Nasdaq Global Market listing fee:

SEC registration fee	\$ 7,130
FINRA filing fee	10,500
The Nasdaq Global Market listing fee	*
Printing and engraving	*
Legal fees and expenses	*
Accounting fees and expenses	*
Blue sky fees and expenses (including legal fees)	*
Transfer agent and registrar fees	*
Director and officer insurance	*
Miscellaneous	*
<b>Total</b>	<b>\$ *</b>

\* To be completed by amendment.

**ITEM 14. INDEMNIFICATION OF DIRECTORS AND OFFICERS**

Section 145 of the Delaware General Corporation Law authorizes a court to award, or a corporation's Board of Directors to grant, indemnity to directors and officers under certain circumstances and subject to certain limitations. The terms of Section 145 of the Delaware General Corporation Law are sufficiently broad to permit indemnification under certain circumstances for liabilities, including reimbursement of expenses incurred, arising under the Securities Act of 1933, as amended (the Securities Act).

As permitted by the Delaware General Corporation Law, the Registrant's restated certificate of incorporation to be effective upon the completion of the offering contains provisions that eliminate the personal liability of its directors for monetary damages for any breach of fiduciary duties as a director, except liability for the following:

any breach of the director's duty of loyalty to the Registrant or its stockholders;

acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;

under Section 174 of the Delaware General Corporation Law (regarding unlawful dividends and stock purchases); or

any transaction from which the director derived an improper personal benefit.

As permitted by the Delaware General Corporation Law, the Registrant's restated bylaws to be effective upon the completion of this offering, provide that:

the Registrant is required to indemnify its directors and executive officers to the fullest extent permitted by the Delaware General Corporation Law, subject to very limited exceptions;

the Registrant may indemnify its other employees and agents as set forth in the Delaware General Corporation Law;

II-1

**Table of Contents**

the Registrant is required to advance expenses, as incurred, to its directors and executive officers in connection with a legal proceeding to the fullest extent permitted by the Delaware General Corporation Law, subject to very limited exceptions; and

the rights conferred in the bylaws are not exclusive.

Prior to the completion of this offering, the Registrant intends to enter into indemnification agreements with each of its current directors and executive officers to provide these directors and executive officers additional contractual assurances regarding the scope of the indemnification set forth in the Registrant’s restated certificate of incorporation and restated bylaws and to provide additional procedural protections. At present, there is no pending litigation or proceeding involving a director or executive officer of the Registrant regarding which indemnification is sought. Reference is also made to Section of the underwriting agreement filed as Exhibit 1.1 to this registration statement, which provides for the indemnification of executive officers, directors and controlling persons of the Registrant against certain liabilities. The indemnification provisions in the Registrant’s restated certificate of incorporation, restated bylaws and the indemnification agreements entered into or to be entered into between the Registrant and each of its directors and executive officers may be sufficiently broad to permit indemnification of the Registrant’s directors and executive officers for liabilities arising under the Securities Act.

The Registrant currently carries liability insurance for its directors and officers.

Three of Registrant’s directors (Mr. Doerr, Dr. Duyk and Mr. Kaul) are also indemnified by their employers with regard to their service on the Registrant’s Board of Directors.

Reference is made to the following documents filed as exhibits to this Registration Statement regarding relevant indemnification provisions described above and elsewhere herein:

<b>Exhibit Title</b>	<b>Exhibit Number</b>
Form of Underwriting Agreement	1.01*
Form of Restated Certificate of Incorporation of the Registrant, to be in effect upon the completion of this offering	3.03*
Form of Restated Bylaws of the Registrant, to be in effect upon the completion of this offering	3.04*
Amended and Restated Investors’ Rights Agreement, dated March 12, 2010, by and among the Registrant and certain security holders of the Registrant	4.02
Form of Indemnity Agreement	10.01*

\* To be filed by amendment

**ITEM 15. RECENT SALES OF UNREGISTERED SECURITIES**

Since March 31, 2007, we have issued and sold the following securities:

- As of March 31, 2010, we have issued 564,704 shares of our Common Stock to employees, directors, consultants and other service providers upon the exercise of options and stock purchase rights granted by us under our 2005 Stock Option/Stock Issuance Plan,

## Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

with exercise prices ranging from \$0.10 to \$4.31 per share.

2. In April 2007 and May 2007, we sold an aggregate of 6,482,824 shares of our Series A Preferred Stock at \$2.17 per share for an aggregate purchase price of approximately \$14.1 million to 23 accredited investors.
3. In September 2007 and April 2008, we sold an aggregate of 1,667,817 shares of our Series B Preferred Stock at \$24.88 per share for an aggregate purchase price of approximately \$41.5 million to 11 accredited investors.
4. In February 2008, April 2008, May 2008, July 2008, September 2008, November 2008, December 2008 and January 2009, we sold an aggregate of 2,615,721 shares of our Series B-1 Preferred Stock at \$25.26 per share for an aggregate purchase price of approximately \$66.1 million to 26 accredited investors.

II-2

**Table of Contents**

5. From March 2008 through March 2009, we issued warrants to purchase an aggregate of 104,558 shares of our Series B-1 Preferred Stock at an exercise price of \$25.26 per share to Advanced Equities Financial Corp.
6. In March 2008, we issued warrants to purchase 10,048 shares of our Series B Preferred Stock at an exercise price of \$24.88 per share to TriplePoint Capital LLC. This warrant was cancelled before it was exercised, in exchange for the Series C Preferred Stock warrant issued to TriplePoint Capital LLC, referred to below.
7. In March 2008, we issued warrants to purchase 2,580 shares of our Series B Preferred Stock at an exercise price of \$24.88 per share to Starfish, LLC.
8. In September 2008, we issued warrants to purchase 2,009 shares of our Series B-1 Preferred Stock at an exercise price of \$25.26 per share to ES East Associates LLC.
9. In September 2008, we issued options to purchase up to 60,000 shares of our Common Stock at an exercise price of \$3.93 per share to Lit Tele LLC, outside the terms of our 2005 Stock Option/Stock Issuance Plan.
10. In September 2008, September 2009, October 2009, November 2009, December 2009 and January 2010, we sold an aggregate of 4,902,665 shares of our Series C Preferred Stock at \$12.46 per share for an aggregate purchase price of approximately \$61.1 million to 34 accredited investors.
11. In September 2008, July 2009 and February 2010, we issued an aggregate of 176,272 restricted stock units to Lit Tele LLC, outside the terms of our 2005 Stock Option/Stock Issuance Plan.
12. In September 2009, we issued warrants to purchase an aggregate of 24,101 shares of our Series C Preferred Stock at an exercise price of \$12.46 per share to TriplePoint Capital LLC.
13. In October 2009, we approved the issuance of 10,000 shares of restricted stock to a service provider under our 2005 Stock Option/Stock Issuance Plan at a price of \$4.31 per share.
14. In January 2010, we issued warrants to purchase 49,157 shares of our Series C Preferred Stock at an exercise price of \$12.46 per share to Advanced Equities Financial Corp.
15. In March 2010, we sold 2,724,766 shares of our Series C-1 Preferred Stock at \$17.56 per share for an aggregate purchase price of approximately \$47.8 million to Maxwell (Mauritius) Pte Ltd.
16. In March 2010, Amyris Brasil recorded an additional \$1.7 million investment from an investor.

Unless otherwise stated, the sales of the above securities were deemed to be exempt from registration under the Securities Act in reliance upon Section 4(2) of the Securities Act or Regulation D or Regulation S promulgated thereunder, or Rule 701 promulgated under Section 3(b) of the Securities Act as transactions by an issuer not involving any public offering or pursuant to benefit plans and contracts relating to compensation as provided under Rule 701. The recipients of the securities in each of these transactions represented their intentions to acquire the securities for investment only and not with a view to or for sale in connection with any distribution thereof, and appropriate legends were placed upon the share certificates issued in these transactions. All recipients had adequate access, through their relationships with us, to information about us.





**Table of Contents****ITEM 16. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES**

(a) *Exhibits.* The following exhibits are included herein or incorporated herein by reference:

<b>Exhibit Number</b>	<b>Description</b>	<b>Form</b>	<b>File No.</b>	<b>Previously Filed Filing Date</b>	<b>Exhibit</b>	<b>Filed Herewith</b>
1.01*	Form of Underwriting Agreement					
3.01*	Restated Certificate of Incorporation of the Registrant					
3.02*	Bylaws of the Registrant					
3.03*	Form of Restated Certificate of Incorporation of the Registrant, to be effective upon the consummation of this offering					
3.04*	Form of Restated Bylaws of the Registrant, to be effective upon closing of this offering					
4.01*	Form of the Registrant's common stock certificate					
4.02	Amended and Restated Investors' Rights Agreement dated March 12, 2010 among the Registrant and the Registrant's securityholders listed therein	S-1	333-166135	April 16, 2010	4.02	
4.03*	Shareholders' Agreement by Fundo Mútuo de Investimento em Empresas Emergentes Inovadoras Stratus GC III, Amyris Biotechnologies, Inc., Amyris Brasil S.A. and Stratus Investimentos Ltda. dated December 22, 2009					
4.04*	Agreement by Fundo Mútuo de Investimento em Empresas Emergentes Inovadoras Stratus GC III, Amyris Biotechnologies, Inc., Amyris Brasil S.A. and Stratus Investimentos Ltda. dated March 3, 2010					
4.05	Form of Warrant to Purchase Series B-1 Preferred Stock of the Registrant to Advanced Equities Financial Corp. and a schedule of issued Warrants to Purchase Series B-1 Preferred Stock of the Registrant to Advanced Equities Financial Corp.	S-1	333-166135	April 16, 2010	4.05	
4.06	Warrant to Purchase Series C Preferred Stock dated January 7, 2010 issued by the Registrant to Advanced Equities Financial Corp.	S-1	333-166135	April 16, 2010	4.06	
4.07	Letter Agreement dated April 8, 2010 between the Registrant and Advanced Equities, Inc.	S-1	333-166135	April 16, 2010	4.07	
4.08	Stock Purchase Warrant dated September 23, 2008 issued by the Registrant to ES East Associates, LLC	S-1	333-166135	April 16, 2010	4.08	

**Table of Contents**

Exhibit Number	Description	Form	Previously Filed		Exhibit	Filed Herewith
			File No.	Filing Date		
4.09	Amendment No. 1 dated April 8, 2010 between ES East Associates, LLC and the Registrant to Stock Purchase Warrant dated September 23, 2008 issued by the Registrant to ES East Associates, LLC	S-1	333-166135	April 16, 2010	4.09	
4.10	Stock Purchase Warrant dated March 6, 2008 issued by the Registrant to Starfish, LLC	S-1	333-166135	April 16, 2010	4.10	
4.11	Amendment No. 1 dated April 8, 2010 between Starfish, LLC and the Registrant to Stock Purchase Warrant dated March 6, 2008 issued by the Registrant to Starfish, LLC	S-1	333-166135	April 16, 2010	4.11	
4.12	Amended and Restated Plain English Warrant Agreement dated March 14, 2008, as amended through September 18, 2009 between the Registrant and TriplePoint Capital LLC	S-1	333-166135	April 16, 2010	4.12	
4.13	Amendment No. 1 dated April 8, 2010 between the Registrant and TriplePoint Capital LLC to Amended and Restated Plain English Warrant Agreement originally dated March 14, 2008, as amended, on September 18, 2009 between the Registrant and TriplePoint Capital LLC	S-1	333-166135	April 16, 2010	4.13	
4.14	Plain English Warrant Agreement dated September 18, 2009 between the Registrant and TriplePoint Capital LLC	S-1	333-166135	April 16, 2010	4.14	
4.15	Amendment No. 1 dated April 8, 2010 between the Registrant and TriplePoint Capital LLC to Plain English Warrant Agreement dated September 18, 2009 between the Registrant and TriplePoint Capital LLC	S-1	333-166135	April 16, 2010	4.15	
5.01	Form of opinion of Fenwick & West LLP regarding the legality of the securities being registered					X
10.01*	Form of Indemnity Agreement between the Registrant and its directors and officers					
10.02	Uncommitted Facility Letter dated November 25, 2008 between BNP Paribas and Amyris Fuels, Inc.					X
10.03	Amendment to Uncommitted Facility Letter dated October 7, 2009 between BNP Paribas, Amyris Fuels, LLC, and the Registrant					X
10.04	Amendment No. 2 to Uncommitted Facility Letter dated March 8, 2010 between BNP Paribas, Amyris Fuels, LLC, and the Registrant					X

**Table of Contents**

Exhibit Number	Description	Form	Previously Filed		Exhibit	Filed Herewith
			File No.	Filing Date		
10.05	Plain English Master Lease Agreement dated March 14, 2008 between the Registrant and TriplePoint Capital LLC	S-1	333-166135	April 16, 2010	10.04	
10.06	First Amendment to Plain English Master Lease Agreement dated September 18, 2009 between the Registrant and TriplePoint Capital LLC	S-1	333-166135	April 16, 2010	10.05	
10.07	Reimbursement and Security Agreement dated November 5, 2009 between the Registrant and Bank of the West	S-1	333-166135	April 16, 2010	10.06	
10.08	First Amendment to Reimbursement and Security Agreement dated December 3, 2009 between the Registrant and Bank of the West	S-1	333-166135	April 16, 2010	10.07	
10.09	Termination Letter dated April 28, 2010 between the Registrant and Bank of the West					X
10.10	Pledge Agreement dated April 29, 2010 between the Registrant and Bank of the West					X
10.11	Registrant's acceptance dated November 10, 2008 of offer by UBS Financial Services Inc. relating to auction rate securities	S-1	333-166135	April 16, 2010	10.08	
10.12	Assistance Agreement dated December 30, 2009, as modified by Assistance Agreement dated March 26, 2010, between the Registrant and U.S. Department of Energy, together with schedules and supplements thereto	S-1	333-166135	April 16, 2010	10.09	
10.13	Modification No. 2 to Assistance Agreement dated April 19, 2010 between the Registrant and U.S. Department of Energy					X
10.14	Amended and Restated Strategic Advisory Services Agreement dated July 31, 2009 between the Registrant and Lit Tele LLC	S-1	333-166135	April 16, 2010	10.10	
10.15	Amendment No. 1 dated February 11, 2010 to Amended and Restated Strategic Advisory Services Agreement between the Registrant and Lit Tele LLC	S-1	333-166135	April 16, 2010	10.11	
10.16	Joint Venture Agreement dated April 14, 2010 among Usina São Martinho S.A., Amyris Brasil S.A. and the Registrant					X
10.17	Shareholders' Agreement dated April 14, 2010 among SMA Indústria Química S.A., Usina São Martinho S.A. and Amyris Brasil S.A.					X
10.18	Lease dated August 22, 2007 between ES East Associates, LLC and Amyris Biotechnologies, Inc.	S-1	333-166135	April 16, 2010	10.17	

**Table of Contents**

Exhibit Number	Description	Form	Previously Filed		Exhibit	Filed Herewith
			File No.	Filing Date		
10.19	First Amendment to Lease dated March 10, 2008 between the Registrant and ES East Associates, LLC	S-1	333-166135	April 16, 2010	10.18	
10.20	Second Amendment to Lease dated April 25, 2008 between the Registrant and ES East Associates, LLC	S-1	333-166135	April 16, 2010	10.19	
10.21	Third Amendment to Lease dated July 31, 2008 between the Registrant and ES East Associates, LLC	S-1	333-166135	April 16, 2010	10.20	
10.22	Fourth Amendment to Lease dated November 14, 2009 between the Registrant and ES East Associates, LLC	S-1	333-166135	April 16, 2010	10.21	
10.23	Lease dated April 25, 2008 between the Registrant and EmeryStation Triangle, LLC	S-1	333-166135	April 16, 2010	10.22	
10.24	Letter amending Lease dated April 25, 2008 between the Registrant and EmeryStation Triangle, LLC	S-1	333-166135	April 16, 2010	10.23	
10.25	Second Amendment to Lease dated February 5, 2010 between the Registrant and EmeryStation Triangle, LLC	S-1	333-166135	April 16, 2010	10.24	
10.26	Pilot Plant Expansion Right Letter dated December 22, 2008 between the Registrant and EmeryStation Triangle, LLC	S-1	333-166135	April 16, 2010	10.25	
10.27	Private Instrument of Non-Residential Real Estate Lease Agreement between Lucio Tomasiello and Amyris Brasil S.A. dated March 31, 2008, as amended	S-1	333-166135	April 16, 2010	10.26	
10.28	Offer Letter dated September 27, 2006 between the Registrant and John Melo	S-1	333-166135	April 16, 2010	10.27	
10.29	Amendment dated December 18, 2008 to Offer Letter between the Registrant and John Melo	S-1	333-166135	April 16, 2010	10.28	
10.30	Offer Letter dated September 30, 2008 between the Registrant and Joel Cherry	S-1	333-166135	April 16, 2010	10.29	
10.31	Amendment dated December 19, 2008 to Offer Letter between the Registrant and Joel Cherry	S-1	333-166135	April 16, 2010	10.30	
10.32	Offer Letter dated January 17, 2008 between the Registrant and Jeryl Hilleman	S-1	333-166135	April 16, 2010	10.31	
10.33	Amendment dated December 18, 2008 to Offer Letter between the Registrant and Jeryl Hilleman	S-1	333-166135	April 16, 2010	10.32	
10.34	Offer Letter dated October 22, 2007 between the Registrant and Jeff Lievens	S-1	333-166135	April 16, 2010	10.33	

**Table of Contents**

Exhibit Number	Description	Form	Previously Filed		Exhibit	Filed Herewith
			File No.	Filing Date		
10.35	Amendment dated December 18, 2008 to Offer Letter between the Registrant and Jeff Lievens	S-1	333-166135	April 16, 2010	10.34	
10.36	Offer Letter dated January 24, 2005 between the Registrant and Tamara Tompkins	S-1	333-166135	April 16, 2010	10.35	
10.37	Amendment to Offer Letter dated January 15, 2009 between the Registrant and Tamara Tompkins	S-1	333-166135	April 16, 2010	10.36	
10.38	2005 Stock Option/Stock Issuance Plan of the Registrant	S-1	333-166135	April 16, 2010	10.37	
10.39	Form of Notice of Grant of Stock Option under the Registrant's 2005 Stock Option/Stock Issuance Plan	S-1	333-166135	April 16, 2010	10.38	
10.40	Form of Notice of Grant of Stock Option (non-Exempt) under the Registrant's 2005 Stock Option/Stock Issuance Plan	S-1	333-166135	April 16, 2010	10.39	
10.41	Form of Notice of Grant of Stock Option (non-US) under the Registrant's 2005 Stock Option/Stock Issuance Plan	S-1	333-166135	April 16, 2010	10.40	
10.42	Form of Stock Option Agreement under the Registrant's 2005 Stock Option/Stock Issuance Plan	S-1	333-166135	April 16, 2010	10.41	
10.43	Form of Stock Option Agreement (non-US) under the Registrant's 2005 Stock Option/Stock Issuance Plan	S-1	333-166135	April 16, 2010	10.42	
10.44	Form of Stock Purchase Agreement under the Registrant's 2005 Stock Option/Stock Issuance Plan	S-1	333-166135	April 16, 2010	10.43	
10.45	Form of Stock Purchase Agreement (non-US) under the Registrant's 2005 Stock Option/Stock Issuance Plan	S-1	333-166135	April 16, 2010	10.44	
10.46*	2010 Equity Incentive Plan of the Registrant and forms of award agreements thereunder					
10.47*	2010 Employee Stock Purchase Plan of the Registrant					
21.01	List of subsidiaries of the Registrant	S-1	333-166135	April 16, 2010	21.01	
23.01	Consent of PricewaterhouseCoopers LLP, independent registered public accounting firm					X
23.02*	Consent of Fenwick & West LLP (included in Exhibit 5.01)					
24.01	Power of Attorney	S-1	333-166135	April 16, 2010	24.01	

\* To be filed by amendment.

Portions of this exhibit have been omitted pending a determination by the Securities and Exchange Commission as to whether these portions should be granted confidential treatment.

**Table of Contents**

(b) *Financial Statement Schedules*. All financial statement schedules are omitted because they are not applicable or the information is included in the Registrant's consolidated financial statements or related notes.

**ITEM 17. UNDERTAKINGS**

The undersigned Registrant hereby undertakes to provide to the underwriters at the closing specified in the underwriting agreement, certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

The undersigned Registrant hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(2) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

**Table of Contents****SIGNATURES**

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Emeryville, State of California, on this 25th day of May, 2010.

**AMYRIS BIOTECHNOLOGIES, INC.**

By: /s/ JOHN G. MELO  
John G. Melo, President and Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

<b>Signature</b>	<b>Title</b>	<b>Date</b>
/s/ JOHN MELO	Director, President and Chief Executive Officer	May 25, 2010
John Melo	(Principal Executive Officer)	
/s/ JERYL HILLEMAN	Chief Financial Officer	May 25, 2010
Jeryl Hilleman	(Principal Accounting and Financial Officer)	
*	Director	May 25, 2010
Ralph Alexander		
*	Director	May 25, 2010
John Doerr		
*	Director	May 25, 2010
Geoffrey Duyk, M.D., Ph.D.		
*	Director	May 25, 2010
Samir Kaul		
	Director	, 2010
Arthur Levinson, Ph.D.		
*	Director	May 25, 2010
Patrick Pichette		
*	Director	May 25, 2010
Carole Piwnica		
*	Director	May 25, 2010

Edgar Filing: AMYRIS BIOTECHNOLOGIES INC - Form S-1/A

Kinkead Reiling, Ph.D.

\*

Director

May 25, 2010

Fernando Reinach, Ph.D.

\*By:

/s/ JOHN MELO  
John Melo

Attorney in Fact

II-10



**Table of Contents****EXHIBIT INDEX**

<b>Exhibit Number</b>	<b>Description</b>	<b>Form</b>	<b>File No.</b>	<b>Previously Filed Filing Date</b>	<b>Exhibit</b>	<b>Filed Herewith</b>
1.01*	Form of Underwriting Agreement					
3.01*	Restated Certificate of Incorporation of the Registrant					
3.02*	Bylaws of the Registrant					
3.03*	Form of Restated Certificate of Incorporation of the Registrant, to be effective upon the consummation of this offering					
3.04*	Form of Restated Bylaws of the Registrant, to be effective upon closing of this offering					
4.01*	Form of the Registrant's common stock certificate					
4.02	Amended and Restated Investors' Rights Agreement dated March 12, 2010 among the Registrant and the Registrant's securityholders listed therein	S-1	333-166135	April 16, 2010	4.02	
4.03*	Shareholders' Agreement by Fundo Mútuo de Investimento em Empresas Emergentes Inovadoras Stratus GC III, Amyris Biotechnologies, Inc., Amyris Brasil S.A. and Stratus Investimentos Ltda. dated December 22, 2009					
4.04*	Agreement by Fundo Mútuo de Investimento em Empresas Emergentes Inovadoras Stratus GC III, Amyris Biotechnologies, Inc., Amyris Brasil S.A. and Stratus Investimentos Ltda. dated March 3, 2010					
4.05	Form of Warrant to Purchase Series B-1 Preferred Stock of the Registrant to Advanced Equities Financial Corp. and a schedule of issued Warrants to Purchase Series B-1 Preferred Stock of the Registrant to Advanced Equities Financial Corp.	S-1	333-166135	April 16, 2010	4.05	
4.06	Warrant to Purchase Series C Preferred Stock dated January 7, 2010 issued by the Registrant to Advanced Equities Financial Corp.	S-1	333-166135	April 16, 2010	4.06	
4.07	Letter Agreement dated April 8, 2010 between the Registrant and Advanced Equities, Inc.	S-1	333-166135	April 16, 2010	4.07	
4.08	Stock Purchase Warrant dated September 23, 2008 issued by the Registrant to ES East Associates, LLC	S-1	333-166135	April 16, 2010	4.08	
4.09	Amendment No. 1 dated April 8, 2010 between ES East Associates, LLC and the Registrant to Stock Purchase Warrant dated September 23, 2008 issued by the Registrant to ES East Associates, LLC	S-1	333-166135	April 16, 2010	4.09	

**Table of Contents**

Exhibit Number	Description	Form	Previously Filed		Exhibit	Filed Herewith
			File No.	Filing Date		
4.10	Stock Purchase Warrant dated March 6, 2008 issued by the Registrant to Starfish, LLC	S-1	333-166135	April 16, 2010	4.10	
4.11	Amendment No. 1 dated April 8, 2010 between Starfish, LLC and the Registrant to Stock Purchase Warrant dated March 6, 2008 issued by the Registrant to Starfish, LLC	S-1	333-166135	April 16, 2010	4.11	
4.12	Amended and Restated Plain English Warrant Agreement dated March 14, 2008, as amended through September 18, 2009 between the Registrant and TriplePoint Capital LLC	S-1	333-166135	April 16, 2010	4.12	
4.13	Amendment No. 1 dated April 8, 2010 between the Registrant and TriplePoint Capital LLC to Amended and Restated Plain English Warrant Agreement originally dated March 14, 2008, as amended, on September 18, 2009 between the Registrant and TriplePoint Capital LLC	S-1	333-166135	April 16, 2010	4.13	
4.14	Plain English Warrant Agreement dated September 18, 2009 between the Registrant and TriplePoint Capital LLC	S-1	333-166135	April 16, 2010	4.14	
4.15	Amendment No. 1 dated April 8, 2010 between the Registrant and TriplePoint Capital LLC to Plain English Warrant Agreement dated September 18, 2009 between the Registrant and TriplePoint Capital LLC	S-1	333-166135	April 16, 2010	4.15	
5.01	Form of opinion of Fenwick & West LLP regarding the legality of the securities being registered					X
10.01*	Form of Indemnity Agreement between the Registrant and its directors and officers					
10.02	Uncommitted Facility Letter dated November 25, 2008 between BNP Paribas and Amyris Fuels, Inc.					X
10.03	Amendment to Uncommitted Facility Letter dated October 7, 2009 between BNP Paribas, Amyris Fuels, LLC, and the Registrant					X
10.04	Amendment No. 2 to Uncommitted Facility Letter dated March 8, 2010 between BNP Paribas, Amyris Fuels, LLC, and the Registrant					X
10.05	Plain English Master Lease Agreement dated March 14, 2008 between the Registrant and TriplePoint Capital LLC	S-1	333-166135	April 16, 2010	10.04	
10.06	First Amendment to Plain English Master Lease Agreement dated September 18, 2009 between the Registrant and TriplePoint Capital LLC	S-1	333-166135	April 16, 2010	10.05	

**Table of Contents**

Exhibit Number	Description	Form	Previously Filed		Exhibit	Filed Herewith
			File No.	Filing Date		
10.07	Reimbursement and Security Agreement dated November 5, 2009 between the Registrant and Bank of the West	S-1	333-166135	April 16, 2010	10.06	
10.08	First Amendment to Reimbursement and Security Agreement dated December 3, 2009 between the Registrant and Bank of the West	S-1	333-166135	April 16, 2010	10.07	
10.09	Termination Letter dated April 28, 2010 between the Registrant and Bank of the West					X
10.10	Pledge Agreement dated April 29, 2010 between the Registrant and Bank of the West					X
10.11	Registrant's acceptance dated November 10, 2008 of offer by UBS Financial Services Inc. relating to auction rate securities	S-1	333-166135	April 16, 2010	10.08	
10.12	Assistance Agreement dated December 30, 2009, as modified by Assistance Agreement dated March 26, 2010, between the Registrant and U.S. Department of Energy, together with schedules and supplements thereto	S-1	333-166135	April 16, 2010	10.09	
10.13	Modification No. 2 to Assistance Agreement dated April 19, 2010 between the Registrant and U.S. Department of Energy					X
10.14	Amended and Restated Strategic Advisory Services Agreement dated July 31, 2009 between the Registrant and Lit Tele LLC	S-1	333-166135	April 16, 2010	10.10	
10.15	Amendment No. 1 dated February 11, 2010 to Amended and Restated Strategic Advisory Services Agreement between the Registrant and Lit Tele LLC	S-1	333-166135	April 16, 2010	10.11	
10.16	Joint Venture Agreement dated April 14, 2010 among Usina São Martinho S.A., Amyris Brasil S.A. and the Registrant					X
10.17	Shareholders' Agreement dated April 14, 2010 among SMA Indústria Química S.A., Usina São Martinho S.A. and Amyris Brasil S.A.					X
10.18	Lease dated August 22, 2007 between ES East Associates, LLC and Amyris Biotechnologies, Inc.	S-1	333-166135	April 16, 2010	10.17	
10.19	First Amendment to Lease dated March 10, 2008 between the Registrant and ES East Associates, LLC	S-1	333-166135	April 16, 2010	10.18	
10.20	Second Amendment to Lease dated April 25, 2008 between the Registrant and ES East Associates, LLC	S-1	333-166135	April 16, 2010	10.19	
10.21	Third Amendment to Lease dated July 31, 2008 between the Registrant and ES East Associates, LLC	S-1	333-166135	April 16, 2010	10.20	

**Table of Contents**

Exhibit Number	Description	Form	Previously Filed		Exhibit	Filed Herewith
			File No.	Filing Date		
10.22	Fourth Amendment to Lease dated November 14, 2009 between the Registrant and ES East Associates, LLC	S-1	333-166135	April 16, 2010	10.21	
10.23	Lease dated April 25, 2008 between the Registrant and EmeryStation Triangle, LLC	S-1	333-166135	April 16, 2010	10.22	
10.24	Letter amending Lease dated April 25, 2008 between the Registrant and EmeryStation Triangle, LLC	S-1	333-166135	April 16, 2010	10.23	
10.25	Second Amendment to Lease dated February 5, 2010 between the Registrant and EmeryStation Triangle, LLC	S-1	333-166135	April 16, 2010	10.24	
10.26	Pilot Plant Expansion Right Letter dated December 22, 2008 between the Registrant and EmeryStation Triangle, LLC	S-1	333-166135	April 16, 2010	10.25	
10.27	Private Instrument of Non-Residential Real Estate Lease Agreement between Lucio Tomasiello and Amyris Brasil S.A. dated March 31, 2008, as amended	S-1	333-166135	April 16, 2010	10.26	
10.28	Offer Letter dated September 27, 2006 between the Registrant and John Melo	S-1	333-166135	April 16, 2010	10.27	
10.29	Amendment dated December 18, 2008 to Offer Letter between the Registrant and John Melo	S-1	333-166135	April 16, 2010	10.28	
10.30	Offer Letter dated September 30, 2008 between the Registrant and Joel Cherry	S-1	333-166135	April 16, 2010	10.29	
10.31	Amendment dated December 19, 2008 to Offer Letter between the Registrant and Joel Cherry	S-1	333-166135	April 16, 2010	10.30	
10.32	Offer Letter dated January 17, 2008 between the Registrant and Jeryl Hilleman	S-1	333-166135	April 16, 2010	10.31	
10.33	Amendment dated December 18, 2008 to Offer Letter between the Registrant and Jeryl Hilleman	S-1	333-166135	April 16, 2010	10.32	
10.34	Offer Letter dated October 22, 2007 between the Registrant and Jeff Lievens	S-1	333-166135	April 16, 2010	10.33	
10.35	Amendment dated December 18, 2008 to Offer Letter between the Registrant and Jeff Lievens	S-1	333-166135	April 16, 2010	10.34	
10.36	Offer Letter dated January 24, 2005 between the Registrant and Tamara Tompkins	S-1	333-166135	April 16, 2010	10.35	
10.37	Amendment to Offer Letter dated January 15, 2009 between the Registrant and Tamara Tompkins	S-1	333-166135	April 16, 2010	10.36	
10.38	2005 Stock Option/Stock Issuance Plan of the Registrant	S-1	333-166135	April 16, 2010	10.37	
10.39	Form of Notice of Grant of Stock Option under the Registrant's 2005 Stock Option/Stock Issuance Plan	S-1	333-166135	April 16, 2010	10.38	

**Table of Contents**

Exhibit Number	Description	Form	Previously Filed		Exhibit	Filed Herewith
			File No.	Filing Date		
10.40	Form of Notice of Grant of Stock Option (non-Exempt) under the Registrant's 2005 Stock Option/Stock Issuance Plan	S-1	333-166135	April 16, 2010	10.39	
10.41	Form of Notice of Grant of Stock Option (non-US) under the Registrant's 2005 Stock Option/Stock Issuance Plan	S-1	333-166135	April 16, 2010	10.40	
10.42	Form of Stock Option Agreement under the Registrant's 2005 Stock Option/Stock Issuance Plan	S-1	333-166135	April 16, 2010	10.41	
10.43	Form of Stock Option Agreement (non-US) under the Registrant's 2005 Stock Option/Stock Issuance Plan	S-1	333-166135	April 16, 2010	10.42	
10.44	Form of Stock Purchase Agreement under the Registrant's 2005 Stock Option/Stock Issuance Plan	S-1	333-166135	April 16, 2010	10.43	
10.45	Form of Stock Purchase Agreement (non-US) under the Registrant's 2005 Stock Option/Stock Issuance Plan	S-1	333-166135	April 16, 2010	10.44	
10.46*	2010 Equity Incentive Plan of the Registrant and forms of award agreements thereunder					
10.47*	2010 Employee Stock Purchase Plan of the Registrant					
21.01	List of subsidiaries of the Registrant	S-1	333-166135	April 16, 2010	21.01	
23.01	Consent of PricewaterhouseCoopers LLP, independent registered public accounting firm					X
23.02*	Consent of Fenwick & West LLP (included in Exhibit 5.01)					
24.01	Power of Attorney	S-1	333-166135	April 16, 2010	24.01	

\* To be filed by amendment.  
Portions of this exhibit have been omitted pending a determination by the Securities and Exchange Commission as to whether these portions should be granted confidential treatment.