



UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

May 13, 2010

Mail Stop 4631

**Via U.S. mail**

John G. Melo  
President and Chief Executive Officer  
Amyris Biotechnologies, Inc.  
5885 Hollis Street, Suite 100  
Emeryville, CA 94608

**Re: Amyris Biotechnologies, Inc.  
Registration Statement on Form S-1  
Filed on: April 16, 2010  
File No.: 333-166135**

Dear Mr. Melo:

We have reviewed your filing and have the following comments. Where indicated, we think you should revise your document in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with supplemental information so we may better understand your disclosure. After reviewing this information, we may or may not raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

**General**

1. We will process this filing and your amendments without price ranges. Since the price range triggers a number of disclosure matters, we will need sufficient time to process the amendment when it is included. Please understand that its effect on the disclosure throughout the document may cause us to raise issues on areas not previously commented upon.
2. As indicated in the comment above, we note that you have omitted certain pricing-related information as well as other information from this filing. If you

- intend to rely on Rule 430A, please note that Rule 430A does not allow for the omission prior to effectiveness of amounts that may be computed based on the maximum number of shares offered and the mid-point of the offering price range, or the number of shares to be offered on the cover. In addition, please confirm that you will not circulate copies of the registration statement or the preliminary prospectus until you include an estimated price range, maximum number of shares, dollar amounts dependent upon the offering price that are based on the mid-point of the offering price range, and all other information except information you may exclude in reliance upon Rule 430A.
3. Prior to the effectiveness of your registration statement, please inform us as to whether or not the amount of compensation allowable or payable to the Underwriters has received clearance by FINRA.
  4. We encourage you to file all exhibits with your next amendment or otherwise furnish us drafts of your legal opinion and underwriting agreement. Please understand that we will need adequate time to review these materials before effectiveness.
  5. You are currently incorporated in the state of California and you disclose that you will reincorporate in Delaware "prior to completion of the offering." It is not clear when you intend to form the Delaware corporation and whether it will be in existence prior to the effective date of the registration statement. As such, please clarify your use of the phrase "prior to the completion of this offering," which is used throughout the prospectus to describe the timeframe for establishing the Delaware corporate entity. If the reincorporation to Delaware is to take place after the effectiveness of the registration but prior to the close of the IPO, then explain why the Delaware entity is the appropriate registrant and how the signatures on the registration statement currently comply with Section 6 of the Securities Act and Instruction 1 to Form S-1, which requires that the filing be signed by the issuer and the designated representatives. If you believe the signatures in the current format conform to the requirements of the statute and form, notwithstanding the fact that the issuer of the securities is not yet in existence, explain the basis of this belief in your response.
  6. Please update your financial statements and related disclosures to include the period ended March 31, 2010.

Inside Front Cover Page

7. Please remove the dealer prospectus delivery obligation from the inside front cover. See Item 502(b) of Regulation S-K.

Special Note Regarding Forward-Looking Statements, page 36

8. We note the disclosure in the last paragraph on page 36. Clarify the extent to which you are cautioning investors in their evaluation of this data. More clearly express the company's views regarding the reliability of the data and statistics in your registration statement. Please remove language that suggests you are not responsible for assessing the reasonableness and soundness of the market data and other information. If the industry and market data requires disclaimers such as those presented here, it does not appear the market data contribute to an informed investor understanding of the market for the company's products and services as of the time of their potential investments. Please assess your disclosure throughout the prospectus and revise as appropriate. Finally, if true, confirm that all market and industry data represents information that is generally available to the public and was not prepared for you for a fee.

Use of Proceeds, page 37

9. Provide a concise but meaningful description of the capital expenditures you plan to fund with the proceeds of the offering. Ensure that management's discussion addresses your plans for capital expenditures and the role of those capital expenditures in your business plans and the competitive need and effect that management perceives with respect to the planned capital improvements.

Management's Discussion and Analysis of Financial Condition and Results of Operations, page 44

Critical Accounting Policies and Estimates, page 49

Stock-Based Compensation, page 51

10. Please revise to address the following items:
  - o Disclose the intrinsic value of outstanding equity instruments based on the estimated IPO price.
  - o Include a specific and comprehensive discussion of the factors that led to the increase in the fair value of you common stock between April 2010 and the present and how these factors impacted the determination of your IPO price.

Liquidity and Capital Resources, page 61

11. We note your disclosure on page F-28 indicating that the credit agreement requires compliance with certain covenants and that you were in compliance with such covenants at December 31, 2009. If it becomes reasonably likely that you

will not be in compliance with any of your material debt covenants, please disclose the required ratios/amounts as well as the actual ratios/amounts as of each reporting date. Also discuss compliance with any other particular restrictions. Such a presentation may allow an investor to more easily understand your current status in meeting your covenants.

Contractual Obligations, page 64

12. We note your disclosure on page F-8 indicating that you are required to fund an additional \$10.5 million in cost sharing expenses under your DOE grant. It is unclear to us why this amount was not included in your table of contractual obligations. Please advise or revise.

Amyris Brasil S.A. Transaction, page 64

13. We note your disclosure that you intend to exercise your right to require investors to convert their shares of Amyris Brasil to your common stock and as a result will issue 550,044 shares of your stock. We also note on pages 7 and 38 that the conversion of Amyris Brasil will result in 311,111 shares of your common stock being issued. Please reconcile the two statements for us and revise your disclosures as necessary.

Business, page 67

General

14. We note that the disclosures throughout your Business discussion, including the “Business Overview” discussion in the prospectus summary, incorporate statistical information, estimates and other industry data; however, you do not disclose the basis for some of the assertions made in your disclosure and it is unclear whether the cited information is publicly available or whether it was funded or paid by you. If you do not have appropriate independent support for a statement, please revise the language to make clear that it is management’s belief based on your experience in the industry, if true, or disclose the source. For example, refer to statements such as Sao Martinho S.A. is “one of the largest sugar and ethanol producers in Brazil.”

Business Overview, page 67

15. Please briefly describe the general development of your business during the past five years, including the year in which the business was organized and its form of organization. See Item 101(a) of Regulation S-K.

The Amyris Solution, page 71

16. You disclose that your technology platform is designed to produce your products “from widely available plant-derived feedstocks.” Clarify whether you intend to utilize other feedstock options in addition to the Brazilian sugarcane and whether the contract manufacturers will utilize a broad or singular variety of feedstock in connection with the 2011 product roll-out.
17. You disclose that one of your competitive strength is the capital light model you will be pursuing in manufacturing your products. In light of the significant capital contribution that you will be making for the construction of the facility at Usina São Martinho, as well as the likelihood that you may have to make similar capital contributions in the future, please revise your disclosure to contextualize the significance of the “capital light” approach when compared to the capital intensive nature of the ethanol industry in general.

Our Strategy, page 73

18. We note disclosure in the first bullet point on page 73. Please disclose the “high value applications” you are targeting for your initial sales, including the geographical market where your products will be sold.

Our Products, page 79

Chemical Products, page 80

19. In the third paragraph, or in another applicable section of the filing, please provide a brief discussion of what a customer-required product qualification process may entail. Provide similar disclosure with respect to the certification process by diesel engine manufacturers, which you discuss on page 81.

Transportation Fuels, page 80

20. We note the disclosure relating to the work of an independent third party who you engaged in testing your fuel. Please tell us what consideration you have given to naming the third party in the registration statement and obtaining the third party’s consent to be named. Refer to Interpretation 233.02 of the Division’s Securities Act Rules Compliance and Disclosure Interpretations.
21. In your last paragraph of this subsection, you state that you have entered into agreements with “major engine and aircraft manufacturers.” Tell us what consideration you have given to summarizing the nature of your agreements with these manufacturers and filing your agreements with them as exhibits pursuant to Item 601(b)(10) of Regulation S-K.

Product Distribution and Sales, page 81

22. We note your disclosure in the second paragraph. Please explain to us with a view toward disclosure what the vertical integration of your commercialization efforts would require from an infrastructure standpoint. Also define the term “certain blend credits” and explain their significance.

Competition, page 82

23. Please quantify, to the extent possible, the number of companies with whom you compete for market share and describe clearly your competitive position. To the extent that you know or have reason to know that one or a small number of competitors is dominant in the industry, please name such competitor(s). See Item 101(c)(1)(x) of Regulation S-K.

Board of Directors, page 90

24. Please tell us what consideration you have given to filing the voting agreement as an exhibit to the registration statement. Refer to Item 601(b)(10) of Regulation S-K.

Executive Compensation, page 94

25. We note that you have not included any disclosure in response to Item 402(s) of Regulation S-K. Please advise us of the basis for your conclusion that disclosure is not necessary and describe the process you undertook to reach that conclusion.

Material United States Federal Tax Considerations for Non-U.S. Holders of Common Stock, page 124

26. Please revise the first sentence to clarify that the disclosure discusses the “material” tax consequences of investment in your shares. Use of the word “certain” implies that there could be material tax consequences that you have chosen not to discuss. In addition, please revise the second sentence of the introductory paragraph to remove the statement that the summary does not provide “a complete analysis” of all potential tax considerations. Again, your disclosure could imply that you have omitted certain material analyses from your discussion.

Underwriters, page 128

27. Please briefly discuss the “certain” legal matters and the “other conditions” precedent to the underwriters’ obligation to pay for the shares.

Notes to the Consolidated Financial Statements

5. Commitments and Contingencies, page F-24  
Operating Leases, page F-25

28. We note you are entitled to a tenant improvement allowance of \$11.4 million. Please revise to clarify if the leasehold improvements within your property and equipment balance include amounts that have not yet been purchased. In addition, please revise to clarify how you have considered these amounts in your depreciation policy.

9. Convertible Preferred Stock, page F-32

29. Please revise to disclose how you have considered the terms of your preferred stock in determining whether there is a beneficial conversion feature or an embedded derivative that should be remeasured every reporting period. In this regard, we note that your Series B and Series B-1 have conversion ratios of 1:1.098 and 1:1.10, respectively, and have per share conversion prices that are less than the per share liquidation prices. In addition, we note that the value of certain of your warrants has been deducted from the carrying value of your preferred stock.

12. Restricted stock, F-36

30. We note that you have the right to repurchase unvested shares at the original purchase price per share. Please revise to disclose what consideration you gave to classifying the shares as a liability. Reference ASC 718-10-25-9.

13. Stock Based Compensation, page F-36

31. Please revise to disclose why there is no stock based compensation expense included in your cost of product sales.

19. Subsequent Events, page F-45

32. Please revise to include a more specific and comprehensive discussion regarding how you intend to account for your joint venture with Usina Sao Martinho. In this regard, please discuss if you intend to consolidate the joint venture and disclose the ownership percentage you have in the entity. Reference ASC 810.

Part II

Item 16. Exhibits and Financial Statements Schedules, page II-4

33. Please note that with respect to the form of your amended and restated certificate of incorporation and bylaws (Exhibits 3.03 and 3.04, respectively), please note that you must file copies of your charter and bylaws as currently in effect prior to the effectiveness of the registration statement. See Item 601(b)(3) of Regulation S-K.

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As appropriate, please amend your registration statement in response to these comments. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes all information required under the Securities Act of 1933 and that they have provided all information investors require for an informed investment decision. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosure they have made.

Notwithstanding our comments, in the even the company requests acceleration of the effective date of the pending registration statement, it should furnish a letter, at the time of such request, acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.



Mr. John G. Melo  
Amyris Biotechnologies, Inc.  
May 13, 2010  
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In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in connection with our review of your filing or in response to our comments on your filing.

We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. We will act on the request and, pursuant to delegated authority, grant acceleration of the effective date.

We direct your attention to Rules 460 and 461 regarding requesting acceleration of a registration statement. Please allow adequate time after the filing of any amendment for further review before submitting a request for acceleration. Please provide this request at least two business days in advance of the requested effective date.

You may contact Melinda Hooker, Staff Accountant, at (202) 551-3732 or Tricia Armelin, Senior Staff Accountant, at (202) 551-3747 if you have questions regarding comments on the financial statements and related matters. Please contact Era Anagnosti, Staff Attorney, at (202) 551-3369 or the undersigned at (202) 551-3397 with any other questions.

Sincerely,

Jay E. Ingram  
Legal Branch Chief

cc: Daniel J. Winnike, Esq.  
*Fenwick & West LLP*  
*via facsimile at (650) 938-5200*