



DIVISION OF  
CORPORATION FINANCE

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

May 16, 2012

Via E-mail

Jean Francois-Huc  
President and Chief Executive Officer  
BioAmber Inc.  
1250 Rene Levesque West, Suite 4110  
Montreal, Quebec, Canada H3B 4W8

**Re: BioAmber Inc.  
Amendment No. 5 to Registration Statement on Form S-1  
Filed May 4, 2012  
File No. 333-177917**

Dear Mr. Huc:

We have reviewed your response letter and the above-referenced filing, and have the following comments.

Form S-1/A#5 filed May 4, 2012

General

1. State your election under Section 107(b) of the JOBS Act:
  - If you have elected to opt out of the extended transition period for complying with new or revised accounting standards pursuant to Section 107(b), include a statement that the election is irrevocable; or
  - If you have elected to use the extended transition period for complying with new or revised accounting standards under Section 102(b)(1), provide a risk factor explaining that this election allows you to delay the adoption of new or revised accounting standards that have different effective dates for public and private companies until those standards apply to private companies. Please state in your risk factor that, as a result of this election, your financial statements may not be comparable to companies that comply with public company effective dates. Include a similar statement in your critical accounting policy disclosures.

Financial Statements

Notes to the Financial Statements

Note 9. Property and Equipment

2. Please disclose the line item(s) in which you include depreciation and amortization. If you do not allocate depreciation and amortization to cost of goods sold, please tell us what consideration you gave to SAB Topic 11:B.

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.

You may contact Nudrat Salik, Staff Accountant, at 202-551-3692, or Rufus Decker, Accounting Branch Chief, at 202-551-3769 if you have questions regarding comments on the financial statements and related matters. Please contact Erin Jaskot, Staff Attorney, at 202-551-3442, or Craig Slivka, Special Counsel, at 202-551-3729 with any other questions.

Sincerely,

/s/ Craig E. Slivka, for

Pamela A. Long  
Assistant Director

cc: Michael Minahan, Esq. (*via E-mail*)  
Goodwin Procter LLP