



DIVISION OF  
CORPORATION FINANCE

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

**Mail Stop 3561**

September 15, 2006

Mr. Thomas P. Mac Mahon  
Chairman of the Board, President and  
Chief Executive Officer  
Laboratory Corporation of America Holdings  
358 South Main Street  
Burlington, NC 27215

**Re: Laboratory Corporation of America Holdings  
Form 10-K for the year ended December 31, 2005  
Filed February 28, 2006  
Supplemental Letter dated August 21, 2006  
File No. 1-11353**

Dear Mr. Mac Mahon:

We have reviewed your documents and have the following comments. Where indicated, we think you should revise your documents 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 information so we may better understand your disclosure. After reviewing this information, we may 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 any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Mr. Thomas P. Mac Mahon  
Laboratory Corporation of America Holdings  
September 14, 2006  
Page 2

December 31, 2005 Form 10-K  
Part II, Item 8 – Financial Statements, page 47  
Note 4 – Investments in Joint Venture Partnerships, page F-14

1. We note your response to prior comment three. Please provide us with your calculation of the income test under Rule 1-02(w) of Regulation S-X for each equity investment individually. We may have additional comments after reviewing your response.
2. Please tell us how you determined the amount of the recorded intangible asset to allocate to each of the Canadian joint ventures. Also, please confirm that the recorded balance of each equity investment, including the allocated intangible, is included in your assessment of the recoverability of each investment under APB 18.

#### Closing Comments

As appropriate, please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a cover letter with any 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 Maureen Bauer at 202-551-3237 or Carlton Tartar, Assistant Chief Accountant at 202-551-3387 if you have questions regarding comments on the financial statements and related matters. In this regard, please do not hesitate to contact the undersigned or John Reynolds at 202-551-3790, who supervised the review of your filing.

Sincerely,

Tia Jenkins  
Senior Assistant Chief  
Accountant  
Office of Emerging Growth  
Companies

Mr. Thomas P. Mac Mahon  
Laboratory Corporation of America Holdings  
September 14, 2006  
Page 3