

Via Facsimile and U.S. Mail  
Mail Stop 6010

March 23, 2006

Russell M. Medford, M.D., Ph.D.  
President and Chief Executive Officer  
AtheroGenics, Inc.  
8995 Westside Parkway  
Alpharetta, Georgia 30004

**Re: AtheroGenics, Inc.**  
**Form 10-K for Fiscal Year Ended December 31, 2005**  
**Filed March 10, 2006**  
**File No. 000-31261**

Dear Dr. Medford:

We have limited our review of your filing to the issues we have addressed in our comments. In our comments, we ask you to provide us with information so we may better understand your disclosure. Please be as detailed as necessary in your explanation. 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 filings. 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.

Form 10-K – December 31, 2005

Item 7. Management's Discussion And Analysis Of Financial Condition And Results Of Operations, page 35

Liquidity and Capital Resources, page 39

Contractual Obligations Table, page 41

1. Please provide to us, in disclosure type format, a revised version of your contractual obligation table that includes interest to be paid related to your "Long-

term debt” because it does not appear that you included the interest obligations in this table.

Financial Statements

Notes To Financial Statements, page 51

4. Convertible Notes Payable and Equipment Loans, page 54

2. We note that you may be obligated to redeem both the 4.5% and the 1.5% notes on an accelerated basis under certain circumstances. We also note that you may be obligated to adjust the conversion rate on the 1.5% notes under certain circumstances. Please provide to us in disclosure type format a discussion of what these circumstances are.

\* \* \* \*

Please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a letter that keys your responses to our comments and provide the requested information. Detailed letters greatly facilitate our review. Please file your letter on EDGAR under the form type label CORRESP.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing include all information required under the Securities Exchange Act of 1934 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 disclosures they have made.

In connection with responding to our comments, please provide, in your letter, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filings;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

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 our review of your filing or in response to our comments on your filing.

Russell M. Medford, M.D., Ph.D.  
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You may contact James Peklenk, Staff Accountant, at (202) 551-3661, or Jim Atkinson, Accounting Branch Chief, at (202) 551-3674 if you have questions regarding the comment. In this regard, do not hesitate to contact me, at (202) 551-3679.

Sincerely,

Jim B. Rosenberg  
Senior Assistant Chief  
Accountant