

Via Facsimile and U.S. Mail
Mail Stop 4720

September 17, 2009

Peter M. Strumph
Chief Executive Officer
Nile Therapeutics, Inc.
115 Sansome Street
Suite #310
San Francisco, CA 94104

**Re: Nile Therapeutics, Inc.
Form 10-K and 10-K/A for the Year Ended December 31, 2008
Filed March 12, 2009 and April 23, 2009
File No. 001-34058**

Dear Mr. Strumph:

We have reviewed your filings and have the following comments.

Where indicated, we think you should revise your Form 10-K in response to these comments. If you disagree, we will consider your explanation as to why a comment is inapplicable or a revision is unnecessary. In our comments, we 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 comment 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

Item 1. Business

Our Product Candidates, page 4

License Agreements, page 6

1. For each of the Mayo License Agreement and the CU-NP Mayo License Agreement, please expand your disclosure to include the amount of aggregate

potential milestone payments you may be required to make, the cash payments made to date, the amount of the annual maintenance fee, term and termination provisions and the percentage of net sales you must pay for licensed products. Please also file each of these agreements as an exhibit to your Form 10-K or provide us with an analysis supporting your determination that these agreements are not material to your business.

Form 10-K/A

Item 10. Directors, Executive Officers and Corporate Governance, page 4
Audit Committee, page 12

2. Please include the information required by Item 407(d)(5) of Regulation S-K regarding the Audit Committee Financial Expert in your future filings. You are required to disclose whether your board of directors has determined that you have at least one audit committee financial expert serving on your audit committee. Identify the financial expert and state whether such person is independent, as defined by applicable listing standards. If you do not have an audit committee financial expert serving on your audit committee, please specifically state that you do not.

* * * *

Please amend your Form 10-K and 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 your amendment that keys your response to our comment and provide any 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 includes 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 filing;
- 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

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- 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 comment on your filing.

Please contact Nandini Acharya, Staff Attorney at (202) 551-3495 or me at (202) 551-3715 with any questions.

Sincerely,

Jeffrey P. Riedler
Assistant Director