

March 23, 2011

VIA EDGAR

Mr. Jeffrey P. Riedler Securities and Exchange Commission Division of Corporation Finance (Mail Stop 4720) 100 F Street N.E. Washington, D.C. 20549

Re: Nile Therapeutics, Inc. (the "Company") Preliminary Proxy Statement on Schedule 14A Filed March 15, 2011 File No. 001-34058

Dear Mr. Riedler:

On behalf of the Company, this letter is being submitted in response to the letter dated March 22, 2011 from the Securities and Exchange Commission (the "Commission") in which the staff of the Commission (the "Staff") commented on the Preliminary Proxy Statement.

For the Staff's convenience, the Staff's comment has been stated below in its entirety in bold type, with the Company's response set out immediately underneath it in regular type.

1. We note your statement on page 24 that "Although at present, apart from the sale of the additional equity securities that we may contemplate, we have no other current arrangements or understandings providing for the issuance of the additional shares that would be made available for issuance upon effectiveness of the reverse stock split." Please expand your discussion to describe the sale of the additional equity securities to which you have referred.

The Company clarifies that it has no current arrangements or understandings providing for the issuance of additional shares. Below is the Company's proposed revised disclosure for use in its Definitive Proxy Statement, marked to show changes from the disclosure in the Preliminary Proxy Statement.

The par value of our common stock would remain unchanged at \$0.001 per share. The amendment would not change the number of authorized shares of common stock. Accordingly, the reverse stock split will have the effect of creating additional unreserved shares of our authorized common stock. Although at present, apart from the sale of the additional equity securities that we may contemplate, we have no other current arrangements or understandings providing for the issuance of the additional shares that would be made available for issuance upon effectiveness of the reverse stock splits. These additional shares may be used by us for various purposes in the future without further stockholder approval, including, among other things:

* * *

On behalf of the Company, it hereby acknowledges the following:

- · 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 in the filings reviewed by the Staff do not foreclose the Commission from taking any action with respect to the filings; 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.

Please contact the undersigned at (650) 458-2678, or Sean Nagle, the Company's counsel, at (612) 492-7422, if you have any questions with respect to the responses contained in this letter.

Nile Therapeutics, Inc.

/s/ Daron Evans

Daron Evans Chief Financial Officer

cc: Ms. Karen Ubell, Esq., Division of Corporation Finance Mr. Sean M. Nagle, Esq.