

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM S-8

REGISTRATION STATEMENT

UNDER

THE SECURITIES ACT OF 1933

NILE THERAPEUTICS, INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware
(State of Incorporation)

88-0363465
(I.R.S. Employer Identification No.)

115 Sansome Street, Suite #310
San Francisco, California 94104
(Address of Principal Executive Offices including Zip Code)

AMENDED AND RESTATED 2005 STOCK OPTION PLAN
(Full Title of the Plan)

Daron Evans
Chief Financial Officer
Nile Therapeutics, Inc.
115 Sansome Street, Suite #310
San Francisco, California 94104
(415) 875-7880

Copy to:
Alan C. Mendelson, Esq.
Mark V. Roeder, Esq.
Latham & Watkins LLP
140 Scott Drive
Menlo Park, California 94025
(650) 328-4600

(Name, Address, Including Zip Code, and Telephone Number,
Including Area Code for Agent for Service)

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>

CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered(1)	Amount to be Registered(2)	Proposed Maximum Offering Price Per Share	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common Stock, \$0.001 par value per share	5,517,676(3)	\$5.00(4)	\$27,588,380.00(4)	\$1,084.23

- In addition, pursuant to Rule 416(c) under the Securities Act of 1933, this Registration Statement also covers an indeterminate amount of interests to be offered or sold pursuant to the employee benefit plan described herein.
- This Registration Statement shall also cover any additional shares of Common Stock which become issuable under the Nile Therapeutics, Inc. Amended and Restated 2005 Stock Option Plan, or the Plan, by reason of any stock dividend, stock split, recapitalization or other similar transaction effected without the receipt of consideration, which results in an increase in the number of outstanding shares of the Registrant's Common Stock.
- Represents 3,782,769 shares of Common Stock reserved for issuance upon the exercise of stock options under the Plan plus an additional 1,734,907 shares of Common Stock that may become reserved for issuance under the Plan.
- Estimated solely for the purpose of calculating the registration fee pursuant to Rules 457(h) and 457(c) of the Securities Act of 1933, as amended, on the basis of the average of the high (\$5.25) and low (\$4.75) prices for the Registrant's Common Stock reported on the NASDAQ Capital Market on July 8, 2008.

PART I

INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

The information called for in Part I of Form S-8 is not being filed with or included in this Form S-8 (by incorporation by reference or otherwise) in accordance with the rules and regulations of the Securities and Exchange Commission, or the Commission.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference

The following documents, which were filed with the Commission, are incorporated herein by reference:

- (a) The Registrant's Annual Report on Form 10-KSB for the fiscal year ended December 31, 2007 filed March 27, 2008, including all material incorporated by reference therein, and the Registrant's Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2008 filed May 15, 2008.
- (b) The Registrant's Current Reports on Form 8-K filed January 28, 2008, February 7, 2008, February 27, 2008, March 5, 2008, March 13, 2008, May 1, 2008 and June 23, 2008, including all material incorporated by reference therein.
- (c) The prospectus filed by the Registrant with the Commission pursuant to Rule 424(b) under the Securities Act of 1933, as amended, on November 15, 2007, relating to the registration statement on Form SB-2, as amended (Registration No. 333-146843), which contains the Registrant's audited financial statements for the latest fiscal year for which such statements have been filed.
- (d) The description of the Company's Common Stock contained in the Registration Statement on Form 8-A filed with the Commission on May 9, 2008, including any subsequently filed amendments and reports updating that description.

All documents subsequently filed by the Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act after the date of this Registration Statement and prior to the filing of a post-effective amendment which indicates that all securities offered hereby have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference herein and to be a part of this Registration Statement from the date of the filing of such documents. Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained in this Registration Statement, or in any other subsequently filed document which also is or is deemed to be incorporated by reference in this Registration Statement, modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

Item 4. Description of Securities

Not applicable.

Item 5. Interests of Named Experts and Counsel

Not applicable.

Item 6. Indemnification of Directors and Officers

Under Section 145 of the General Corporation Law of the State of Delaware, the Registrant has broad powers to indemnify its directors and officers against liabilities they may incur in such capacities, including liabilities under the Securities Act.

The Registrant's Certificate of Incorporation requires the Registrant to indemnify its directors and officers to the fullest extent permitted by Delaware law as it presently exists or may hereafter be amended.

The Registrant's Bylaws require the Registrant to indemnify and hold harmless, to the fullest extent permitted by applicable law as it presently exists or may hereafter be amended, any person who was or is made or is threatened to be made a party or is otherwise involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that he or she, or a person for whom he or she is the legal representative, is or was a director or officer of the Registrant or, while a director or officer of the Registrant, is or was serving at the request of the Registrant as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust, enterprise or nonprofit entity, including service with respect to employee benefit plans, against all liability and loss suffered and expenses (including attorneys' fees) reasonably incurred by such person. Notwithstanding the preceding sentence, the Registrant shall be required to indemnify such a person in connection with a proceeding (or part thereof) commenced by such person only if the commencement of such proceeding (or part thereof) by the person was authorized in the specific case by the Board of Directors.

The Registrant currently carries directors and officers' liability insurance, which may insure against officer or director liability arising under the 1933 Act.

Item 7. Exemption from Registration Claimed

Not Applicable.

Item 8. Exhibits

See the Exhibit Index.

Item 9. Undertakings

The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of this Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the Registration Statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective Registration Statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement;

provided, however, that paragraphs (i) and (ii) do not apply if the Registration Statement is on Form S-8, and the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the Registration Statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the Registrant's annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the Registration Statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of San Francisco, state of California, on this 11th day of July, 2008.

Nile Therapeutics, Inc.

By: /s/ Daron Evans
Daron Evans
Chief Financial Officer

POWER OF ATTORNEY

Each person whose signature appears below constitutes and appoints Peter Strumph and Daron Evans, and each or any of them, his true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him and in his name, place and stead in any and all capacities, to sign any and all amendments (including post-effective amendments) and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or their or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Peter M. Strumph</u> PETER M. STRUMPH	Chief Executive Officer and Director (Principal Executive Officer)	July 11, 2008
<u>/s/ Daron G. Evans</u> DARON G. EVANS	Chief Financial Officer (Principal Financial and Accounting Officer)	July 11, 2008
<u>/s/ Peter M. Kash</u> PETER M. KASH	Chairman and Director	July 11, 2008
<u>/s/ Joshua A. Kazam</u> JOSHUA A. KAZAM	Director	July 11, 2008
<u>/s/ Paul Mieyal</u> PAUL MIEYAL	Director	July 11, 2008
<u>/s/ David M. Tanen</u> DAVID M. TANEN	Secretary and Director	July 11, 2008
<u>/s/ Scott L. Navins</u> SCOTT L. NAVINS	Treasurer	July 11, 2008
<u>/s/ Pedro Granadillo</u> PEDRO GRANADILLO	Director	July 11, 2008
<u>/s/ Gregory W. Schafer</u> GREGORY W. SCHAFFER	Director	July 11, 2008

INDEX TO EXHIBITS

**Exhibit
Number**

- 4.1* Amended and Restated 2005 Stock Option Plan
 - 4.2** Amended and Restated Certificate of Incorporation of the Registrant
 - 4.3*** Bylaws of the Registrant
 - 5.1 Opinion of Latham & Watkins LLP
 - 23.1 Consent of Hays & Company, LLP
 - 23.2 Consent of Latham & Watkins LLP (included in Exhibit 5.1)
 - 24.1 Power of Attorney (included on signature page of this Registration Statement)
- * Incorporated herein by reference to Exhibit 10.9 of our current report on Form 8-K filed on September 21, 2007 (File No. 333-55166)
- ** Incorporated herein by reference to Exhibit 3.1 of our current report on Form 8-K filed on February 9, 2007 (File No. 333-55166)
- *** Incorporated herein by reference to Exhibit 3.2 of our current report on Form 8-K filed on February 9, 2007 (File No. 333-55166)

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LATHAM & WATKINS LLP

FIRM / AFFILIATE OFFICES

Barcelona	New Jersey
Brussels	New York
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Hamburg	Paris
Hong Kong	San Diego
London	San Francisco
Los Angeles	Shanghai
Madrid	Silicon Valley
Milan	Singapore
Moscow	Tokyo
Munich	Washington, D.C.

July 11, 2008

Nile Therapeutics, Inc.
 115 Sansome Street, Suite 310
 San Francisco, California 94104

Re: Registration Statement on Form S-8

Ladies and Gentlemen:

We have acted as special counsel to Nile Therapeutics, Inc., a Delaware corporation (the "Company"), in connection with the registration of 5,517,676 shares of common stock of the Company, par value \$0.001 per share (the "Shares"), issuable under the Company's Amended and Restated 2005 Stock Option Plan (the "Plan"), pursuant to a registration statement on Form S-8 under the Securities Act of 1933, as amended (the "Act"), filed with the Securities and Exchange Commission (the "Commission") on July 11, 2008 (the "Registration Statement"). This opinion is being furnished in accordance with the requirements of Item 601(b)(5) of Regulation S-K under the Act, and no opinion is expressed herein as to any matter pertaining to the contents of the Registration Statement or the prospectus forming a part thereof, other than as to the validity of the Shares.

As such counsel, we have examined such matters of fact and questions of law as we have considered appropriate for purposes of this letter. With your consent, we have relied upon the foregoing and upon certificates and other assurances of officers of the Company and others as to factual matters without having independently verified such factual matters.

We are opining herein only as to the General Corporation Law of the State of Delaware, and we express no opinion with respect to any other laws.

Subject to the foregoing, it is our opinion that, as of the date hereof, when certificates representing the Shares in the form of the specimen certificate examined by us have been manually signed by an authorized officer of the transfer agent and registrar therefor, and have been delivered and paid for as contemplated by the Plan, the issuance and sale of the Shares will have been duly authorized by all necessary corporate action of the Company, and the Shares will be validly issued, fully paid and nonassessable.

This opinion is for your benefit in connection with the Registration Statement and may be relied upon by you and by persons entitled to rely upon it pursuant to the applicable provisions of federal securities laws. We consent to your filing this opinion as an exhibit to the Registration Statement. In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Commission thereunder.

Very truly yours,

/s/ Latham & Watkins LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement (Form S-8 filed as of July 11, 2008) of Nile Therapeutics, Inc. for the registration of 5,517,676 its common stock and to the use of our report dated March 25, 2008, relating to the December 31, 2007 financial statements of Nile Therapeutics, Inc.

/s/ Hays & Company, LLP
New York, New York
July 11, 2008