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

FORM 8-K

CURRENT REPORT
PURSUANT TO SECTION 13 OR 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934

Date of report (Date of earliest event reported): May 7, 2010

NILE THERAPEUTICS, INC.

(Exact name of Registrant as Specified in its Charter)

Delaware	**001-34058**	**88-0363465**
(State or other jurisdiction of incorporation)	**(Commission File Number)**	**(I.R.S. Employer Identification No.)**

4 West 4th Ave., Suite 400
San Mateo, California 94402
(Address of Principal Executive Offices)

(650) 458-2670
(Registrant's telephone number, including area code)

Not Applicable
(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 8.01. Other Events.

On May 7, 2010, Nile Therapeutics, Inc. issued a press release announcing completion of the dose escalation stage of its ongoing Phase II study of CD-NP in patients with acute decompensated heart failure. A copy of the press release is attached hereto as Exhibit 99.1 and is incorporated herein by reference.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits.

Exhibit No.	Description
99.1	Press release dated May 7, 2010.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the Registrant has duly caused this report to be signed on its behalf by the undersigned, hereunto duly authorized.

NILE THERAPEUTICS, INC.

Date: May 7, 2010

By: /s/ Joshua A. Kazam
Joshua A. Kazam
President and Chief Executive Officer

EXHIBIT INDEX

Exhibit No.	Description
99.1	Press release dated May 7, 2010.

PRESS RELEASE

May 7, 2010

Nile Therapeutics Completes Dose Escalation in Ongoing Phase II Study

SAN MATEO, CA, May 7, 2010 -- Nile Therapeutics, Inc. (NASDAQ: NLTX), acompany focused on the development of novel therapeutics for heart failure patients, today announced that it has completed the dose escalation stage of an ongoing Phase II study of CD-NP in patients with acute decompensated heart failure. Nile had previously announced that the study, NIL-CDNP-CT005, was expanded to permit additional dose exploration prior to proceeding to larger Phase II studies.

“Following a planned interim safety review with our Data Safety Monitoring Committee and discussion with our Scientific Advisory Board, we have reached our maximum tolerated dose in this population, and have identified two doses that appear to have an attractive safety and activity profile in acute heart failure patients,” said Dr. Hsiao D. Lieu, the VP of Clinical Research for Nile. “We plan to use the remaining cohorts in the CT005 study to expand the number of patients exposed at these doses and confirm safety prior to proceeding to our next Phase II study.”

“We are extremely pleased with the enrollment rate over the past several weeks, which has allowed us to reach our target dose levels ahead of our original schedule,” said Joshua A. Kazam, Nile’s CEO. “We feel that this is reflective of the enthusiasm our investigators have for the CD-NP program, and we are excited to continue progressing our clinical plan.”

To date, 52 of the approximately 75 patients intended for inclusion in the CT005 study have been enrolled. Full data from the study are expected in late 2010.

About Nile Therapeutics

Nile Therapeutics, Inc. is a clinical-stage biopharmaceutical company that develops innovative products for the treatment of cardiovascular disease and other areas of unmet medical needs. Nile is initially focusing its efforts on developing its lead compound, CD-NP, a novel rationally designed chimeric peptide in clinical studies for the treatment of heart failure, and CU-NP, a novel, rationally designed natriuretic peptide. A key component of the company’s strategy is to acquire the global rights to additional compounds to expand its portfolio. More information on Nile can be found at http://www.nilethera.com.

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Safe Harbor Paragraph for Forward-Looking Statements: This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 that involve substantial risks and uncertainties. All statements, other than statements of historical facts, included in this press release regarding the timing, progress and anticipated results of the clinical development, regulatory processes, clinical trial timelines, anticipated benefits of CD-NP, Nile's strategy, future operations, outlook, milestones, the timing and success of Nile's product development, future financial position, future financial results, plans and objectives of management are forward-looking statements. Nile may not actually achieve these plans, intentions or expectations and Nile cautions investors not to place undue reliance on Nile's forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements Nile makes. Various important factors that could cause actual results or events to differ materially from the forward-looking statements that Nile makes include Nile's need to raise additional capital to fund its product development programs to completion, Nile's reliance on third-party researchers to develop its product candidates, and its lack of experience in developing and commercializing pharmaceutical products. Additional risks are described in greater detail in the reports Nile files with Securities and Exchange Commission, including those described under the caption "Risk Factors" in Item 1A of its Annual Report on Form 10-K for the year ended December 31, 2009 filed with the Securities and Exchange Commission on March 3, 2010. Nile is providing this information as of the date of this press release and does not undertake any obligation to update any forward-looking statements as a result of new information, future events or otherwise.