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

FORM 10-Q

(Mark One)

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

FOR THE QUARTERLY PERIOD ENDED MARCH 31, 2011

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

FOR THE TRANSITION PERIOD FROM TO

Commission File Number: 001-34058

NILE THERAPEUTICS, INC.

(Exact Name Of Registrant As Specified In Its Charter)

Delaware	**88-0363465**
(State of Incorporation)	**(I.R.S. Employer Identification No.)**

4 West 4th Ave., Suite 400, San Mateo, CA 94402
(Address of principal executive offices)(Zip Code)

(650) 458-2670
(Registrant's telephone number, including area code)
Not Applicable
(Former name, former address and former fiscal year, if changed since last report)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Exchange Act during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). ☐ Yes ☐ No

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 ☐ Accelerated filer ☐

Non-accelerated filer ☐ (Do not check if a smaller reporting company) Smaller reporting company ☒

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

As of May 10, 2011, there were 34,698,764 shares of common stock, par value $0.001 per share, of Nile Therapeutics, Inc. issued and outstanding.

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Forward-Looking Statements

This Quarterly Report contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. Any statements about our expectations, beliefs, plans, objectives, assumptions or future events or performance are not historical facts and may be forward-looking. These forward-looking statements include, but are not limited to, statements about:

- the development of our product candidates;
- the regulatory approval of our product candidates;
- our use of clinical research centers and other contractors;
- our ability to find collaborative partners for research, development and commercialization of potential products;
- acceptance of our products by doctors, patients or payors;
- our ability to market any of our product candidates;
- our history of operating losses;
- our ability to compete against other companies and research institutions;
- our ability to secure adequate protection for our intellectual property;
- our ability to attract and retain key personnel;
- availability of reimbursement for our product candidates;
- the effect of potential strategic transactions on our business;
- our ability to obtain adequate financing; and
- the volatility of our stock price.

These statements are often, but not always, made through the use of words or phrases such as “anticipate,” “estimate,” “plan,” “project,” “continuing,” “ongoing,” “expect,” “believe,” “intend” and similar words or phrases. For such statements, we claim the protection of the Private Securities Litigation Reform Act of 1995. Readers of this Quarterly Report on Form 10-Q are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the time this Quarterly Report on Form 10-Q was filed with the Securities and Exchange Commission, or SEC. These forward-looking statements are based largely on our expectations and projections about future events and future trends affecting our business, and are subject to risks and uncertainties that could cause actual results to differ materially from those anticipated in the forward-looking statements. Discussions containing these forward-looking statements may be found throughout this report, including Part I, the section entitled “Item 2: Management's Discussion and Analysis of Financial Condition and Results of Operations.” These forward-looking statements involve risks and uncertainties, including the risks discussed in our Annual Report on Form 10-K for the year ended December 31, 2010 (“Form 10-K”), that could cause our actual results to differ materially from those in the forward-looking statements. Except as required by law, we undertake no obligation to publicly revise our forward-looking statements to reflect events or circumstances that arise after the filing of this report or documents incorporated by reference herein that include forward-looking statements. The risks discussed in our Form 10-K and in this report should be considered in evaluating our prospects and future financial performance.

In addition, past financial or operating performance is not necessarily a reliable indicator of future performance and you should not use our historical performance to anticipate results or future period trends. We can give no assurances that any of the events anticipated by the forward-looking statements will occur or, if any of them do, what impact they will have on our results of operations and financial condition.

References to the “Company,” “Nile,” the “Registrant,” “we,” “us,” or “our” in this report refer to Nile Therapeutics, Inc., a Delaware corporation, unless the context indicates otherwise.

PART I — FINANCIAL INFORMATION

Item 1. Financial Statements.

NILE THERAPUTICS, INC.
(A DEVELOPMENT STAGE COMPANY)
CONDENSED BALANCE SHEETS

	March 31, 2011 (unaudited)	December 31, 2010
ASSETS		
Current assets		
Cash and cash equivalents	$ 2,123,861	$ 3,378,155
Prepaid expenses and other current assets	227,823	219,095
Total current assets	2,351,684	3,597,250
Property and equipment, net	14,571	16,765
Other noncurrent assets	51,938	51,938
Total assets	$ 2,418,193	$ 3,665,953
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities		
Accounts payable	$ 478,859	$ 332,380
Accrued expenses and other current liabilities	181,275	652,275
Due to related party	83,602	84,430
Total current liabilities	743,736	1,069,085
Commitments and contingencies		
Stockholders' equity		
Preferred stock, $0.001 par value, 10,000,000 shares authorized, none issued and outstanding	-	-
Common stock, $0.001 par value, 100,000,000 shares authorized, 34,698,764 and 34,629,794 shares issued and outstanding	34,699	34,630
Additional paid-in capital	42,765,744	42,492,432
Deficit accumulated during the development stage	(41,125,986)	(39,930,194)
Total stockholders' equity	1,674,457	2,596,868
Total liabilities and stockholders' equity	$ 2,418,193	$ 3,665,953

See accompanying notes to the unaudited condensed financial statements.

NILE THERAPUTICS, INC.
(A DEVELOPMENT STAGE COMPANY)
CONDENSED STATEMENTS OF OPERATIONS
(unaudited)

	Three Months Ended March 31,		Period from August 1, 2005 (inception) through March 31, 2011
	2011	2010	
Grant income	$ -	$ -	$ 482,235
Operating expenses:			
Research and development	622,332	1,313,423	26,481,272
General and administrative	575,278	623,202	14,784,709
Total operating expenses	1,197,610	1,936,625	41,265,981
Loss from operations	(1,197,610)	(1,936,625)	(40,783,746)
Other income (expense):			
Interest income	1,986	4,846	789,945
Interest expense	-	-	(1,273,734)
Other (expense) income	(168)	(43)	141,549
Total other income (expense)	1,818	4,803	(342,240)
Net loss	$ (1,195,792)	$ (1,931,822)	$ (41,125,986)
Basic and diluted loss per share	$ (0.03)	$ (0.07)	
Weighted-average common shares outstanding	34,673,475	27,085,824	

See accompanying notes to the unaudited condensed financial statements.

NILE THERAPEUTICS, INC.
(A DEVELOPMENT STAGE COMPANY)
CONDENSED STATEMENT OF STOCKHOLDERS' EQUITY (DEFICIT)
PERIOD FROM AUGUST 1, 2005 (INCEPTION) TO MARCH 31, 2011
(unaudited)

	COMMON STOCK				
	SHARES	AMOUNT	ADDITIONAL PAID-IN CAPITAL	DEFICIT ACCUMULATED DURING THE DEVELOPMENT STAGE	TOTAL STOCKHOLDERS' EQUITY (DEFICIT)
Issuance of common shares to founders	13,794,132	$ 13,794	$ (8,794)	$ -	$ 5,000
Founders shares returned to treasury	(1,379,419)	-	-	-	-
Net loss	-	-	-	(10,043)	(10,043)
Balance at December 31, 2005	12,414,713	13,794	(8,794)	(10,043)	(5,043)
Issuance of common shares pursuant to licensing agreement	1,379,419	-	500	-	500
Issuance of stock options for services	-	-	10,000	-	10,000
Net loss	-	-	-	(2,581,972)	(2,581,972)
Balance at December 31, 2006	13,794,132	13,794	1,706	(2,592,015)	(2,576,515)
Issuance of common shares pursuant to licensing agreement	63,478	64	182,172	-	182,236
Issuance of common shares pursuant to licensing agreement	350,107	350	999,650	-	1,000,000
Common shares sold in private placement, net of issuance costs of $102,000	6,957,914	6,958	19,865,789	-	19,872,747
Warrants issued in connection with note conversion	-	-	288,000	-	288,000
Conversion of notes payable upon event of merger	1,684,085	1,684	4,349,481	-	4,351,165
Note discount arising from beneficial conversion feature	-	-	483,463	-	483,463
Reverse merger transaction					
Elimination of accumulated deficit	-	-	(234,218)	-	(234,218)
Previously issued SMI stock	1,250,000	1,250	232,968	-	234,218
Employee stock-based compensation	-	-	1,902,298	-	1,902,298
Non-employee stock-based compensaton	-	-	(667)	-	(667)
Net loss	-	-	-	(10,302,795)	(10,302,795)
Balance at December 31, 2007	24,099,716	24,100	28,070,642	(12,894,810)	15,199,932
Warrants issued in satisfaction of accrued liabilities	-	-	334,992	-	334,992
Employee stock-based compensation	-	-	2,436,603	-	2,436,603
Non-employee stock-based compensation	-	-	13,687	-	13,687
Issuance of common shares pursuant to licensing agreement	49,689	50	249,950	-	250,000
Net loss	-	-	-	(13,131,596)	(13,131,596)
Balance at December 31, 2008	24,149,405	24,150	31,105,874	(26,026,406)	$ 5,103,618
Employee stock-based compensation	-	-	1,772,597	-	1,772,597
Non-employee stock-based compensation	-	-	473,584	-	473,584
Units sold in private placement, net of issuance costs of $282,773	2,691,394	2,691	3,083,284	-	3,085,975
Warrants issued to placement agent in connection with private placement	-	-	201,200	-	201,200
Stock option and warrant exercises	245,025	245	217,228	-	217,473
Net loss	-	-	-	(7,872,297)	(7,872,297)
Balance at December 31, 2009	27,085,824	27,086	36,853,767	(33,898,703)	2,982,150
Employee stock-based compensation			1,142,552	-	1,142,552
Non-employee stock-based compensation	-	-	(19,249)	-	(19,249)
Units sold in private placement, net of issuance costs of $715,801	7,475,000	7,475	4,509,224	-	4,516,699
Stock option and warrant exercises	68,970	69	6,138	-	6,207
Net loss	-	-	-	(6,031,491)	(6,031,491)
Balance at December 31, 2010	34,629,794	34,630	42,492,432	(39,930,194)	2,596,868
Employee stock-based compensation			267,174	-	267,174

Stock option and warrant exercises	68,970	69	6,138	-	6,207
Net loss	-	-	-	(1,195,792)	(1,195,792)
Balance at March 31, 2011	34,698,764	$ 34,699	$ 42,765,744	$ (41,125,986)	$ 1,674,457

See accompanying notes to the unaudited condensed financial statements.

NILE THERAPEUTICS, INC.
(A DEVELOPMENT STAGE COMPANY)
CONDENSED STATEMENTS OF CASH FLOWS
(unaudited)

	Three Months Ended March 31,		Period from August 1, 2005 (inception) through March 31, 2011
	2011	2010	
Cash flows from operating activities			
Net loss	$ (1,195,792)	$ (1,931,822)	$ (41,125,986)
Adjustment to reconcile net loss to net cash used in operating activities			
Depreciation and amortization	2,194	4,000	315,335
Stock-based compensation	267,174	432,223	9,766,307
Write-off of intangible assets	-	106,830	106,830
Warrants issued in connection with note conversion	-	-	288,000
Note discount arising from beneficial conversion feature	-	-	483,463
Loss on disposal of assets	-	-	35,223
Noncash interest expense	-	-	351,165
Changes in operating assets and liabilities			
Prepaid expenses and other current assets	(8,728)	(25,213)	(227,823)
Other non-current assets	-	-	(51,938)
Accounts payable	146,479	13,917	478,859
Accrued expenses and other current liabilities	(471,000)	246,433	181,275
Due to related party	(828)	(8,692)	83,602
Net cash used in operating activities	(1,260,501)	(1,162,324)	(29,315,688)
Cash flows from investing activities			
Purchase of property and equipment	-	-	(128,868)
Proceeds from sale of assets	-	-	2,500
Cash paid for intangible assets	-	-	(345,591)
Net cash used in investing activities	-	-	(471,959)
Cash flows from financing activities			
Proceeds from issuance of notes payable	-	-	5,500,000
Repayment of notes payable	-	-	(1,500,000)
Proceeds from exercise of stock options and warrants	6,207	-	229,887
Proceeds from sale of common stock to founders	-	-	5,000
Proceeds from sale of common stock in private placement	-	-	27,676,621
Net cash provided by financing activities	6,207	-	31,911,508
Net (decrease) increase in cash and cash equivalents	(1,254,294)	(1,162,324)	2,123,861
Cash and cash equivalents at beginning of period	3,378,155	3,175,718	-
Cash and cash equivalents at end of period	$ 2,123,861	$ 2,013,394	$ 2,123,861
Supplemental schedule of cash flows information:			
Cash paid for interest	$ -	$ -	$ 150,000
Supplemental schedule of non-cash investing and financing activities:			
Warrants issued in sastisfaction of accrued liability	$ -	$ -	$ 334,992
Warrants issued to placement agent and investors, in connection with private placement	$ -	$ -	$ 4,637,300
Conversion of notes payable and interest to common stock	$ -	$ -	$ 4,351,165
Common shares of SMI issued in reverse merger transaction	$ -	$ -	$ 1,250

See accompanying notes to the unaudited condensed financial statements.

NILE THERAPEUTICS, INC.
(A DEVELOPMENT STAGE COMPANY)

NOTES TO CONDENSED FINANCIAL STATEMENTS
March 31, 2011
(unaudited)

1. DESCRIPTION OF BUSINESS

Nile Therapeutics, Inc. ("Nile" or the "Company") develops innovative products for the treatment of cardiovascular diseases. Nile's lead compound is cenderitide, a chimeric natriuretic peptide currently in a Phase I clinical study for the treatment of heart failure. The Company is also developing CU-NP, a pre-clinical rationally designed natriuretic peptide that consists of amino acid chains identical to those produced by the human body, specifically the ring structure of C-type Natriuretic Peptide ("CNP") and the N- and C-termini of Urodilatin ("URO").

The Company was incorporated in the State of Nevada on June 17, 1996 and reincorporated in Delaware on February 9, 2007, at which time its name was SMI Products, Inc. ("SMI"). On September 17, 2007, the Company completed a merger transaction whereby Nile Merger Sub, Inc., a Delaware corporation and a wholly-owned subsidiary of SMI, merged with and into Nile Therapeutics, Inc., a privately held Delaware corporation ("Old Nile"), with Old Nile becoming a wholly-owned subsidiary of SMI. Immediately following the merger described above, Old Nile was merged with and into the Company, with the Company remaining as the surviving corporation to that merger. In connection with that short-form merger, the Company changed its name to "Nile Therapeutics, Inc." These two merger transactions are hereinafter collectively referred to as the "Merger." All costs incurred in connection with the Merger have been expensed. Upon completion of the Merger, the Company adopted Old Nile's business plan.

2. BASIS OF PRESENTATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The Company is a development stage enterprise since it has not yet generated any revenue from the sale of products and, through March 31, 2011, its efforts have been principally devoted to developing its licensed technologies, recruiting personnel, establishing office facilities, and raising capital. Accordingly, the accompanying condensed financial statements have been prepared in accordance with the provisions of ASC 915, "Development Stage Entities."

The accompanying unaudited Condensed Financial Statements have been prepared in accordance with generally accepted accounting principles for interim financial information and with the instructions to Form 10-Q adopted under the Securities Exchange Act of 1934, as amended. Accordingly, they do not include all of the information and footnotes required by accounting principles generally accepted in the United States of America for complete financial statements. In the opinion of Nile's management, the accompanying Condensed Financial Statements contain all adjustments (consisting of normal recurring accruals and adjustments) necessary to present fairly the financial position, results of operations and cash flows of the Company at the dates and for the periods indicated. The interim results for the period ended March 31, 2011 are not necessarily indicative of results for the full 2011 fiscal year or any other future interim periods. Because the Merger was accounted for as a reverse acquisition under generally accepted accounting principles, the financial statements for periods prior to September 17, 2007 reflect only the operations of Old Nile.

These unaudited Condensed Financial Statements have been prepared by management and should be read in conjunction with the Financial Statements and notes thereto included in the Company's Annual Report on Form 10-K for the year ended December 31, 2010 filed with the Securities and Exchange Commission.

The preparation of financial statements in conformity with generally accepted accounting principles requires that management make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting periods. Estimates and assumptions principally relate to services performed by third parties but not yet invoiced, estimates of the fair value and forfeiture rates of stock options issued to employees and consultants, and estimates of the probability and potential magnitude of contingent liabilities. Actual results could differ from those estimates.

Research and development

Research and development costs are charged to expense as incurred. Research and development includes employee costs, fees associated with operational consultants, contract clinical research organizations, contract manufacturing organizations, clinical site fees, contract laboratory research organizations, contract central testing laboratories, licensing activities, and allocated office, insurance, depreciation, and facilities expenses. The Company accrues for costs incurred as the services are being provided by monitoring the status of the trial and the invoices received from its external service providers. As actual costs become known, the Company adjusts its accruals in the period when actual costs become known. Costs related to the acquisition of technology rights for which development work is still in process are charged to operations as incurred and considered a component of research and development costs.

The Company has entered into a collaboration agreement whereby the Company is reimbursed for work preformed on behalf of the collaborator. The Company records all of these expenses as research and development expenses and the reimbursements from the collaborator as revenue. See note 5 for further details.

3. LIQUIDITY, CAPITAL RESOURCES AND MANAGEMENT'S PLANS

The Company has experienced net losses since its inception and has an accumulated deficit of approximately $41.1 million at March 31, 2011. The Company expects to incur substantial and increasing losses and to have negative net cash flows from operating activities as it expands its technology portfolio and engages in further research and development activities, particularly the conducting of pre-clinical and clinical trials.

Cash resources as of March 31, 2011 were approximately $2.1 million, compared to $3.4 million as of December 31, 2010. Based on its resources at March 31, 2011 and the current plan of expenditure for continued development of the Company's current product candidates, which includes the enrollment of a Phase I clinical trial with cenderitide and Medtronic's pump technology, the Company believes that it has sufficient capital to fund its operations into the fourth quarter of 2011. The Company will need to raise additional capital to complete the next clinical trial of cenderitide, which is expected to be a Phase IIb trial to be initiated in 2012. Additionally, the Company will need substantial additional financing in the future until it can achieve profitability, if ever. The Company's continued operations will depend on its ability to raise additional funds through various potential sources, such as equity and debt financing, or to license its product candidates to another pharmaceutical company. The Company will continue to fund operations from cash on hand and through sources of capital similar to those previously described. The Company cannot assure that it will be able to secure such additional financing, or if available, that it will be sufficient to meet its needs.

The success of the Company depends on its ability to discover and develop new products to the point of FDA approval and subsequent revenue generation and, accordingly, to raise enough capital to finance these developmental efforts. Management plans to raise additional equity capital or license one or more of its products to finance the continued operating and capital requirements of the Company. Amounts raised will be used to further develop the Company's product candidates, acquire additional product licenses and for other working capital purposes. While the Company will extend its best efforts to raise additional capital to fund all operations for the next 12 to 24 months, management can provide no assurances that the Company will be able to raise sufficient funds. The accompanying financial statements do not include any adjustments that might result from the outcome of this uncertainty.

In addition, to the extent that the Company raises additional funds by issuing shares of its common stock or other securities convertible or exchangeable for shares of common stock, stockholders may experience additional significant dilution. In the event the Company raises additional capital through debt financings, the Company may incur significant interest expense and become subject to covenants in the related transaction documentation that may affect the manner in which the Company conducts its business. To the extent that the Company raises additional funds through collaboration and licensing arrangements, it may be necessary to relinquish some rights to its technologies or product candidates, or grant licenses on terms that may not be favorable to the Company. These things may have a material adverse effect on the Company's business.

These factors raise substantial doubt about the Company's ability to continue as a going concern. Accordingly, the Company's condensed financial statements have been prepared on a going concern basis, which contemplates the realization of assets and the settlement of liabilities and commitments in the normal course of business.

4. BASIC AND DILUTED LOSS PER SHARE

Basic loss per share is computed by dividing the loss available to common shareholders by the weighted-average number of common shares outstanding. Diluted loss per share is computed similarly to basic loss per share except that the denominator is increased to include the number of additional common shares that would have been outstanding if the potential common shares had been issued and if the additional common shares were dilutive.

For all periods presented, potentially dilutive securities are excluded from the computation of fully diluted loss per share as their effect is anti-dilutive.Potentially dilutive securities include:

	March 31, 2011	March 31, 2010
Warrants to purchase common stock	-	-
Options to purchase common stock	3,050,000	1,184,313
Total potentially dilutive securities	3,050,000	1,184,313

For the three months ended March 31, 2011 and 2010, 10,550,285 and 6,997,170 warrants and options have been excluded from the computation of the dilutive earnings per share, respectively, as their exercise prices are greater than the 100 day moving average market price per common share as of April 29, 2011 and April 30, 2010, respectively.

5. INTANGIBLE ASSETS AND INTELLECTUAL PROPERTY

License Agreements

Cenderitide

On January 20, 2006, the Company entered into an exclusive, worldwide, royalty-bearing license agreement, or the cenderitide License Agreement, with the Mayo Foundation for Medical Education and Research ("Mayo") for the rights to issued patents, patent applications and know-how relating to the use of cenderitide in all therapeutic indications. The Company was also entitled to rights to improvements to cenderitide that arise out of the laboratory of Dr. John Burnett, the co-inventor of cenderitide, until January 19, 2009.

Under the terms of the cenderitide License Agreement, the Company agreed to make contingent cash payments up to an aggregate of $31.9 million upon successful completion of specified clinical and regulatory milestones relating to cenderitide. This aggregate amount is subject to increase upon the receipt of regulatory approval for each additional indication of cenderitide as well as for additional compounds or analogues contained in the intellectual property.

In addition to the potential milestone payments discussed above, the cenderitide License Agreement requires the Company to issue shares of common stock to Mayo for an equivalent dollar amount of grants received in excess of $300,000, but not to exceed $575,000. For the period from August 1, 2005 (inception) through December 31, 2009, the Company received $482,235 in grant income for which it has issued to Mayo 63,478 shares (representing $182,236) of common stock.

The cenderitide License Agreement, unless earlier terminated, will continue in full force and effect until January 20, 2026. However, to the extent any patent covered by the license is issued with an expiration date beyond January 20, 2026, the term of the agreement will continue until such expiration date. Mayo may terminate the agreement earlier (i) for the Company's material breach of the agreement that remains uncured after 90 days' written notice, (ii) the Company's insolvency or bankruptcy, or (iii) if the Company challenges the validity or enforceability of any of the patents in any manner. The Company may terminate the agreement without cause upon 90 days' written notice.

CU-NP

On June 13, 2008, the Company entered into an exclusive, worldwide, royalty-bearing license agreement, or the CU-NP License Agreement, with Mayo for the rights to intellectual property and to develop commercially CU-NP for all therapeutic indications. The Company also holds the rights to improvements to CU-NP that arise out of the laboratory of Dr. John Burnett and Dr. Candace Lee, the inventors of CU-NP, until June 12, 2011.

Under the terms of the CU-NP License Agreement, the Company made an up-front cash payment to Mayo and agreed to make future contingent cash payments up to an aggregate of $24.3 million upon achievement of specific clinical and regulatory milestones relating to CU-NP, including a milestone payment due in connection with the initiation of the first Phase II clinical trial of the licensed product. This aggregate amount of $24.3 million is subject to increase upon the receipt of regulatory approval for each additional indication of CU-NP, as well as for additional compounds or analogues contained in the intellectual property. Pursuant to the agreement, the Company must also pay Mayo an annual maintenance fee and a percentage of net sales of licensed products.

Payments payable pursuant to the CU-NP License Agreement, are recorded as research and development expenses in the accompanying Condensed Statements of Operations. Additionally, Dr. Burnett has applied for funding through Mayo's Discovery-Translation Program. In the event Dr. Burnett is awarded funding through this program, and the funding is used for the development of the licensed product based on the patent applications, the Company agreed to grant to Mayo an equivalent dollar value in warrants to purchase shares of the Company's common stock. The number of shares purchasable under these warrants will be calculated using the Black-Scholes option-pricing model and the warrants will include a cashless exercise provision with language to be negotiated in good faith between the parties.

The CU-NP License Agreement, unless earlier terminated, will continue in full force and effect until June 13, 2028. However, to the extent any patent covered by the license is issued with an expiration date beyond June 13, 2028, the term of the agreement will continue until such expiration date. Mayo may terminate the agreement earlier (i) for the Company's material breach of the agreement that remains uncured after 90 days written notice, (ii) the Company's insolvency or bankruptcy, (iii) if the Company challenges the validity or enforceability of any of the patents in any manner, or (iv) or upon receipt of notice from the Company that it has terminated all development efforts under the agreement. The Company may terminate the agreement without cause upon 90 days' written notice.

Collaboration Agreement

On February 25, 2011, the Company entered into a Clinical Trial Funding Agreement (the "Collaboration Agreement") with Medtronic, Inc. Pursuant to the Collaboration Agreement, Medtronic will provide the equipment necessary for the Company to conduct its planned Phase I clinical trial to assess the pharmacokinetics and pharmacodynamics of cenderitide when delivered to heart failure patients through continuous subcutaneous infusion using Medtronic's diabetes pump technology. The Collaboration Agreement provides that Medtronic will reimburse the Company for certain external expenses related to the Phase I clinical trial and make other payments upon the achievement of certain milestones as defined in the Collaboration Agreement. Any budget overages will be reviewed by the Company and Medtronic and may result in additional reimbursement.

Under the Collaboration Agreement, the Company has agreed not to enter into an agreement with another third party to develop or commercialize cenderitide or any drug/device combination developed under the agreement until the earlier of: (i) three months following delivery to Medtronic of a final database with respect to the Phase I trial; and (ii) 15 months after the date of the Collaboration Agreement.

The Collaboration Agreement provides that intellectual property conceived in or otherwise resulting from the performance of the Phase I clinical trial shall be jointly owned by the Company and Medtronic (the "Joint Intellectual Property"), and that the Company shall pay royalties to Medtronic based on the net sales of any Nile product, of which the manufacture, use or sale is covered or claimed in one or more issued patents constituting Joint Intellectual Property. The Collaboration Agreement further provides that, if the parties fail to enter into a definitive commercial license agreement with respect to cenderitide, then each party shall have a right of first negotiation to license exclusive rights to any Joint Intellectual Property.

The Collaboration Agreement will remain in effect until the completion of the Phase I clinical trial unless terminated earlier by either party (i) if the other has materially breached its obligations thereunder, (ii) if the other party becomes subject to a bankruptcy or similar proceeding, (iii) for reasons related to the safety, efficacy, toxicity or formulation of cenderitide, or (iv) for a failure of the study to meet its endpoints. Also, Medtronic may terminate the agreement without cause at any time upon 90 days written notice to the Company, in which event Medtronic shall be obligated to pay for any non-cancelable costs incurred by us prior to such termination.

6. STOCKHOLDERS' EQUITY

(a) Common Stock

On April 21, 2010, the Company entered into an underwriting agreement (the "Underwriting Agreement"), providing for the offer and sale in a firm commitment underwritten public offering (the "Offering") of 6,500,000 units of its securities at a public offering price of $0.70 per unit (less an underwriting discount of $0.063 per unit). The Offering closed on April 27, 2010. Pursuant to the Underwriting Agreement, the Company granted the underwriters an option for a period of 45 days to purchase up to an additional 975,000 units to cover over-allotments. On May 6, 2010, the underwriters exercised their option to purchase the maximum amount of 975,000 over-allotment units. The sale of the over-allotment units closed on May 10, 2010. Each unit sold in the Offering consisted of one share of the Company's common stock and 0.30 warrants to purchase common stock (the "Unit Warrants"). Each whole Unit Warrant has a term of five years and represents the right to purchase one share of the Company's common stock at an exercise price of $0.94 per share. The units separated immediately and the common stock and Unit Warrants were issued separately. Among other terms and conditions of the Unit Warrants, the agreement provides that, in the event the closing sale price of the Company's common stock is at least $3.00 per share for any 20 trading days within a period of 30 consecutive trading days, the Company may call the Unit Warrants for redemption, at a redemption price of $0.01 per Unit Warrant, by providing at least 30 days notice to each Unit Warrant holder. The Unit Warrants were approved for trading on the Nasdaq Capital Market under the symbol "NLTXW" and began trading on April 22, 2010.

In total, the Company sold 7,475,000 units under the terms of the Underwriting Agreement, consisting of an aggregate of 7,475,000 shares of common stock and 2,242,500 Unit Warrants. In addition, the Company issued the underwriters a five-year warrant to purchase 390,000 shares of the Company's common stock at an exercise price of $0.94 per share, which had a fair value of $271,900 and was accounted for as a cost of the offering and charged to stockholders' equity.

The net proceeds to the Company from the sale of all units, after deducting underwriting discounts, commissions and professional fees of $715,801, was $4,516,699.

(b) Warrants

In connection with the April 2010 Offering discussed above, the Company issued a total of 2,242,500 Unit Warrants, each of which has a term of five years and represents the right to purchase one share of the Company's common stock at an exercise price of $0.94 per share. In addition, the Company issued the underwriters a five-year warrant to purchase 390,000 shares of the Company's common stock at an exercise price of $0.94 per share.

Below is a table that summarizes all outstanding warrants to purchase shares of the Company's common stock as of March 31, 2011.

Grant Date	Warrants Issued	Exercise Price Range	Weighted Average Exercise Price	Expiration Date	Exercised	Warrants Outstanding
9/11/2007	168,377	2.71	$ 2.71	9/11/2012	-	168,377
3/26/2008	206,912	2.71	$ 2.71	9/11/2012	-	206,912
7/15/2009	2,909,695	1.25-2.28	$ 1.64	7/14/2014	5,000	2,904,695
4/21/2010	2,632,500	0.94	$ 0.94	4/20/2015	-	2,632,500
	5,917,484		**$ 1.50**		**5,000**	**5,912,484**

7. STOCK OPTION PLAN

The Company's Amended and Restated 2005 Stock Option Plan (the "Plan") was initially adopted by the Board of Directors on August 10, 2005. The Plan authorized a total of 2,000,000 shares of common stock for issuance. On September 17, 2007, pursuant to the Merger, the Plan was amended and each share of common stock then subject to the Plan was substituted with 2.758838 shares of common stock, resulting in an aggregate of 5,517,676 shares available under the Plan. On July 26, 2010, the Company's stockholders approved an amendment to the Plan increasing the total number of shares authorized for issuance thereunder to 9,500,000. Under the Plan, incentives may be granted to officers, employees, directors, consultants, and advisors. Incentives under the Plan may be granted in any one or a combination of the following forms: (a) incentive stock options and non-statutory stock options, (b) stock appreciation rights, (c) stock awards, (d) restricted stock and (e) performance shares. The Plan is administered by the Board of Directors, or a committee appointed by the Board, which determines the recipients and types of awards to be granted, as well as the number of shares subject to the awards, the exercise price and the vesting schedule. The term of stock options granted under the Plan cannot exceed ten years. Currently, stock options are granted with an exercise price equal to closing price of the Company's common stock on the date of grant, and generally vest over a period of one to four years.

For the three months ended March 31, 2011, the Company estimated the fair value of each option award granted to employees using the Black-Scholes option-pricing model. The following assumptions were used for the three months ended March 31, 2011 (no options were issued in the three months ended March 31, 2010):

	March 31, 2011
Expected volatility	97%
Expected term	5 years
Dividend yield	0%
Risk-free interest rates	2.2%

The valuation assumptions were determined as follows:

- Expected volatility – The expected volatility is calculated from 260 day volatility of the Company's stock price.

- Expected term – The expected term of the awards represents the period of time that the awards are expected to be outstanding. Management considered historical data and expectations for the future to estimate employee exercise and post vest termination behavior.

- Divided yield – The estimate for annual dividends is zero, because the Company has not historically paid dividends and does not intend to in the foreseeable future.

A summary of the status of the options issued under the Plan at March 31, 2011, and information with respect to the changes in options outstanding is as follows:

	Shares Available for Grant	Outstanding Stock Options	Weighted-Average Exercise Price	Aggregate Intrinsic Value
Balance at January 1, 2011	2,267,851	6,923,154	$ 1.52	
Options granted under the Plan	(300,000)	300,000	$ 0.56	
Options exercised		(68,970)	$ 0.09	
Options forfeited	60,133	(60,133)	$ 0.93	
Balance at March 31, 2011	2,027,984	7,094,051	$ 1.50	$ 1,374,250
Exercisable at March 31, 2011		4,978,491	$ 1.88	$ 524,050

The following table summarizes information about stock options outstanding at March 31, 2011:

	Outstanding			Exercisable	
Range of Exercise Prices	Shares	Weighted-Average Remaining Contractual Life	Weighted-Average Exercise Price	Total Shares	Weighted-Average Exercise Price
$0.09 to $0.93	3,980,923	7.64	$ 0.49	2,118,423	$ 0.61
$1.14 to $2.71	2,476,779	5.10	$ 2.33	2,303,445	$ 2.40
$4.45 to $5.75	636,349	6.36	$ 4.54	556,623	$ 4.55
Total	7,094,051	6.72	$ 1.50	4,978,491	$ 1.88

Share-based compensation is recognized only for those awards that are ultimately expected to vest, therefore, the Company has applied an estimated forfeiture rate to unvested awards for the purpose of calculating compensation cost. These estimates will be revised, if necessary, in future periods if actual forfeitures differ from estimates. Changes in forfeiture estimates impact compensation cost in the period in which the change in estimate occurs.

Employee stock-based compensation costs for the three months ended March 31, 2011 and 2010 and for the cumulative period from August 1, 2005 (inception) through March 31, 2011 are as follows:

	Three months ended March 31,		Period from August 1, 2005 (inception) through March 31, 2011
	2011	2010	
General and administrative	$ 205,206	$ 263,530	$ 6,392,234
Research and development	61,968	87,948	1,135,815
Total	$ 267,174	$ 351,478	$ 7,528,049

The fair value of shares vested under the Plan for the three months ended March 31, 2011 and 2010 and for the period from August 1, 2005 (inception) through March 31, 2011 were $329,597, $475,818, and $5,991,137 respectively.

At March 31, 2011, total unrecognized estimated employee (including directors) compensation cost related to stock options granted prior to that date was $463,727, which is expected to be recognized over a weighted-average vesting period of 1.6 years. This unrecognized estimated employee compensation cost does not include $25,052 in management estimated forfeitures of performance-based stock options.

Common stock, stock options or other equity instruments issued to non-employees (including consultants and all members of the Company's Scientific Advisory Board) as consideration for goods or services received by the Company are accounted for based on the fair value of the equity instruments issued (unless the fair value of the consideration received can be more reliably measured). The fair value of stock options is determined using the Black-Scholes option-pricing model and is periodically remeasured as the underlying options vest. The fair value of any options issued to non-employees is recorded as expense over the applicable service periods.

On August 12, 2010, in conjunction with an amended services agreement, the Company issued to named employees of Two River Consulting ("TRC") stock options to purchase 250,000 shares of the Company's common stock that where fully vested on issuance and had an estimated fair value of $82,200.

Stock-based compensation costs incurred for services by non-employees for the three months ended March 31, 2011 and 2010, and for the cumulative period from August 1, 2005 (inception) through March 31, 2011 totaled $0, $80,745, and $461,972, respectively. These amounts were included in research and development and administrative expenses in the accompanying Condensed Statements of Operations.

8. RELATED PARTIES

On June 24, 2009, the Company entered into a services agreement with TRC to provide various clinical development, operational and administrative services to the Company for a period of one year. Joshua A. Kazam, the Company's President and Chief Executive Officer and director, and Arie S. Belldegrun, who was appointed to serve as a member of the Company's Board of Directors on September 24, 2009, are each partners of TRC. David M. Tanen, who served as the Company's Secretary and director until his resignation from both positions on September 24, 2009, is also a partner of TRC. The terms of the services agreement were reviewed and approved by a special committee of the Company's Board of Directors consisting of independent directors (the "Special Committee"). None of the members of the Special Committee has any interest in TRC or the services agreement. As compensation for the services contemplated by the services agreement, the Company agreed to pay to TRC a monthly cash fee of $65,000 and issued stock options to purchase up to an aggregate of 750,000 shares of the Company's common stock at a price per share equal to $0.89, the closing sale price of the Company's common stock on June 24, 2009.Twenty-five percent of the stock options vested immediately and the remaining 75% were scheduled to vest pursuant to the achievement of certain milestones relating to the clinical development of cenderitide. On January 5, 2011, the final block of stock options vested. Of the 750,000 original stock options issued, 535,172 stock options vested with a total fair value of $353,976. On August 12, 2010, the Special Committee approved an extension of the services agreement with TRC to provide for a month-to-month term and the issuance of fully-vested and immediately-exercisable stock options to purchase 250,000 shares of the Company's common stock at an exercise price of $0.38 per share, which had an estimated fair value of $82,200 was expensed on the date of grant. On March 17, 2011, the Special Committee approved an amendment of the services agreement, pursuant to which the level of services to be provided by TRC was reduced and the monthly cash fee payable to TRC was reduced to $31,702. Additional operational and clinical development services may be provided by TRC, and billed to the Company, on an hourly basis.

On occasion, some of the Company's expenses are paid by TRC. No interest is charged by TRC on any outstanding balance owed by the Company. For the three months ended March 31, 2011 and 2010 and for the period from August 1, 2005 (inception) through March 31, 2011, total cash services and reimbursed expenses totaled $213,602, $205,461 and $1,530,473 respectively. As of March 31, 2011 the Company has a payable to TRC of $83,602 which was paid in full during April 2011.

9. SUBSEQUENT EVENTS

On May 10, 2011, the Company received notice from Nasdaq informing the Company that its common stock would be delisted from the Nasdaq Capital Market due to noncompliance with Nasdaq Marketplace Rule 5550(a)(2), which requires the common stock of listed companies to maintain a minimum closing bid price of $1.00, and that trading of the Company's common stock would be suspended as of the opening of business on May 12, 2011, with formal delisting to follow. Based on the Company's plan to regain compliance with the minimum closing bid price requirement, which was presented to a Nasdaq Listing Qualifications Panel on January 6, 2011, the panel granted the Company until May 31, 2011 to regain compliance with the minimum closing bid price requirement. One component of the plan presented by the Company to the panel was to effect a reverse stock split. On May 10, 2011, the Company informed Nasdaq that it had determined not to proceed with a reverse stock split prior to May 31, 2011, which resulted in the panel's determination to delist the Company's common stock. Following the suspension of trading in the Company's common stock on the Nasdaq Capital Market, trading in the Company's common stock has transitioned to the OTCQB Marketplace.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Overview

We are a development stage biopharmaceutical company in the business of commercially developing innovative products for the treatment of cardiovascular diseases. We currently have rights to develop and commercialize two product candidates, described as follows:

- ***Cenderitide****,* our lead product candidate, is a chimeric natriuretic peptide that we are developing for the treatment of heart failure. We plan to develop cenderitide for the treatment of patients for up to 90 days following admission for acutely decompensated heart failure, or ADHF. We also believe cenderitide may be useful in several other cardiovascular and renal indications. We are currently conducting a Phase I clinical trial in collaboration with Medtronic, Inc. Pursuant to an agreement with Medtronic, a portion of the costs to conduct this Phase I trial are being paid for by Medtronic.

- ***CU-NP***, is a pre-clinical rationally designed natriuretic peptide that consists of amino acid chains identical to those produced by the human body, specifically the ring structure of C-type natriuretic peptide, or CNP, and the N- and C-termini of Urodilatin, or URO. We are currently evaluating the potential for the chronic dosing of CU-NP, which could be used to treat a number of cardiovascular and renal diseases.

We have no product sales to date and we will not generate any product revenue until we receive approval from the U.S. Food and Drug Administration, or the FDA, or equivalent foreign regulatory bodies to begin selling our pharmaceutical product candidates. Developing pharmaceutical products is a lengthy and very expensive process. Assuming we do not encounter any unforeseen safety issues during the course of developing our product candidates, we do not expect to complete the development of a product candidate for several years, if ever. To date, most of our development expenses have related to our lead product candidate, cenderitide. As we proceed with the clinical development of cenderitide and as we further develop CU-NP, our second product candidate, our research and development expenses will further increase. To the extent we are successful in acquiring additional product candidates for our development pipeline, our need to finance further research and development will continue increasing. Accordingly, our success depends not only on the safety and efficacy of our product candidates, but also on our ability to finance the development of the products. Our major sources of working capital have been proceeds from private and public sales of our common stock, and debt financings.

Research and development, or R&D, expenses consist primarily of salaries and related personnel costs, fees paid to consultants and outside service providers for pre-clinical, clinical, and manufacturing development, legal expenses resulting from intellectual property prosecution, contractual review, and other expenses relating to the design, development, testing, and enhancement of our product candidates. We expense our R&D costs as they are incurred.

General and administrative, or G&A, expenses consist primarily of salaries and related expenses for executive, finance and other administrative personnel, personnel recruiting fees, accounting, legal and other professional fees, business development expenses, rent, business insurance and other corporate expenses.

Our results include non-cash compensation expense as a result of the issuance of stock, stock options, and warrants. We expense the fair value of stock options and warrants over the vesting period. When more precise pricing data is unavailable, we determine the fair value of stock options using the Black-Scholes option-pricing model. The terms and vesting schedules for share-based awards vary by type of grant and the employment status of the grantee. Generally, the awards vest based upon time-based or performance-based conditions. Performance-based conditions generally include the attainment of goals related to our financial performance and product development. Stock-based compensation expense is included in the respective categories of expense in the statements of operations. We expect to record additional non-cash compensation expense in the future, which may be significant.

Results of Operations

General and Administrative Expenses. G&A expenses for the three months ended March 31, 2011 and 2010 were approximately $0.6 million and $0.6 million, respectively. There were no significant changes in G&A activities during the first three months of 2011 as compared to 2010.

Research and Development Expenses. R&D expenses for the three months ended March 31, 2011 and 2010 were approximately $0.6 million and $1.3 million, respectively. The decrease of approximately $0.7 million over 2010 is primarily due to the completion of our Phase II clinical study of cenderitide during the fourth quarter of 2010.

Cenderitide. Although the development of cenderitide is still in its early stages, we believe that it has potential applications to treat heart failure. In addition to the Phase I clinical trial costs being paid for by Medtronic, we expect to spend $0.7 to $0.8 million in external development costs in the remainder of fiscal 2011. We dosed the first patient in the Phase I trial in April 2011 and expect to enroll a total of approximately 50 patients in the trial. Our strategy for further development of cenderitide in 2012 will depend to a large degree on the outcome of this ongoing clinical trial. We plan to initiate a larger Phase IIb clinical trial in 2012, which will require significant additional capital to fund.

CU-NP. Since acquiring our rights to CU-NP in June 2008, we have incurred total research and development expenses of approximately $0.6 million through March 31, 2011. CU-NP has only undergone preclinical studies and has yet to be studied in humans. Based on our current development plans for CU-NP, we anticipate that we will expend a minimal amount on external development costs until we have obtained significant additional capital.

Our expenditures on current and future clinical development programs, particularly our cenderitide program, are expected to be substantial, particularly in relation to our available capital resources, and to increase. However, these planned expenditures are subject to many uncertainties, including the results of clinical trials and whether we develop any of our drug candidates with a partner or independently. As a result of such uncertainties, we cannot predict with any significant degree of certainty the duration and completion costs of our research and development projects or whether, when and to what extent we will generate revenues from the commercialization and sale of any of our product candidates. The duration and cost of clinical trials may vary significantly over the life of a project as a result of unanticipated events arising during clinical development and a variety of factors, including:

- the number of trials and studies in a clinical program;
- the number of patients who participate in the trials;
- the number of sites included in the trials;
- the rates of patient recruitment and enrollment;
- the duration of patient treatment and follow-up;
- the costs of manufacturing our drug candidates; and
- the costs, requirements, timing of, and the ability to secure regulatory approvals.

Interest Income. Interest income for the three months ended March 31, 2011 and 2010 were approximately $1,986 and $4,846, respectively. This decrease in interest income over 2010 is due to lower interest rates earned on cash in bank accounts, and lower average cash balances in 2011than 2010 levels.

Liquidity and Capital Resources

The following table summarizes our liquidity and capital resources as of March 31, 2011 and December 31, 2010 and our net decrease in cash and cash equivalents for the three months ended March 31, 2011 and 2010 (the amounts stated are expressed in thousands):

Liquidity and capital resources	**March 31, 2011**	**December 31,2010**
Cash and cash equivalents	$ 2,124	$ 3,378
Working Capital	1,608	2,528
Stockholders' equity	1,674	2,597

	Three Months Ended March 31,	
Cash flow data	**2011**	**2010**
Cash used in:		
Operating activities	$ (1,260)	$ (1,162)
Investing activities	-	-
Cash provided by:		
Financing activities	6	-
Net decrease in cash and cash equivalents	$ (1,254)	$ (1,162)

Our total cash resources as of March 31, 2011 were $2.1 million compared to $3.4 million as of December 31, 2010. As of March 31, 2011, we had approximately $0.7 million in liabilities, and $1.6 million in net working capital. We incurred a net loss of $1.2 million and had negative cash flow from operating activities of $1.3 million for the three months ended March 31, 2011. Since August 1, 2005 (inception) through March 31, 2011, we have incurred an aggregate net loss of approximately $41.1 million, while negative cash flow from operating activities has amounted to $29.3 million. As we continue to develop our product candidates, we expect to continue to incur substantial and increasing losses, which will continue to generate negative net cash flows from operating activities as we expand our technology portfolio and engage in further research and development activities, particularly the conducting of pre-clinical studies and clinical trials.

From inception through March 31, 2011, we have financed our operations through public and private sales of our equity and debt securities. As we have not generated any revenue from operations to date, and we do not expect to generate revenue for several years, if ever, we will need to raise substantial additional capital in order to continue to fund our research and development, including our long-term plans for clinical trials and new product development, as well as to fund operations generally. We may seek to raise additional funds through various potential sources, such as equity and debt financings, or through strategic collaborations and license agreements. We can give no assurances that we will be able to secure such additional sources of funds to support or operations, or if such funds are available to us, that such additional financing will be sufficient to meet our needs.

Based on our resources at March 31, 2011 and the current plan of expenditure on continuing development of current product candidates, which includes the enrollment of a Phase I clinical trial with cenderitide and Medtronic's pump technology, we believe that we have sufficient capital to fund our operations into the fourth quarter of 2011. We would need substantial additional capital in order to initiate and fund the next clinical study of cenderitide, which is expected to be a Phase IIb clinical trial. Our actual cash requirements may vary materially from those now planned, however, because of a number of factors, including the changes in the focus and direction of our research and development programs, including the acquisition and pursuit of development of new product candidates; competitive and technical advances; costs of commercializing any of the product candidates; and costs of filing, prosecuting, defending and enforcing any patent claims and any other intellectual property rights. If we are unable to raise additional funds when needed, we may not be able to market our products as planned or continue development and regulatory approval of our products, we could be required to delay, scale back or eliminate some or all our research and development programs and we may need to wind down our operations altogether. Each of these alternatives would likely have a material adverse effect on our business.

Our forecasted average monthly cash expenditures for the next nine months, net of funding from Medtronic, are approximately $0.3 million. Following the completion of our ongoing Phase I trial, we will need substantial additional capital, whether from a financing or a strategic partnership, in order to initiate and complete the next study, a Phase IIb clinical trial.

The actual amount of funds we will need to operate is subject to many factors, some of which are beyond our control. These factors include the following:

- the progress of our research activities;
- the number and scope of our research programs;
- the progress of our pre-clinical and clinical development activities;
- the progress of the development efforts of parties with whom we have entered into research and development agreements;
- our ability to maintain current research and development programs and to establish new research and development and licensing arrangements;
- the cost involved in prosecuting and enforcing patent claims and other intellectual property rights; and the cost and timing of regulatory approvals.

We have based our estimates on assumptions that may prove to be wrong. We may need to obtain additional funds sooner than planned or in greater amounts than we currently anticipate. Potential sources of financing include strategic relationships, public or private sales of equity or debt and other sources. We may seek to access the public or private equity markets when conditions are favorable due to our long-term capital requirements. We do not have any committed sources of financing at this time, and it is uncertain whether additional funding will be available when we need it on terms that will be acceptable to us, or at all. If we raise funds by selling additional shares of common stock or other securities convertible into common stock, the ownership interests of our existing stockholders will be diluted. If we are not able to obtain financing when needed, we may be unable to carry out our business plan. As a result, we may have to significantly limit our operations and our business, financial condition and results of operations would be materially harmed. In such an event, we will be required to undertake a thorough review of our programs and the opportunities presented by such programs and allocate our resources in the manner most prudent.

To the extent that we raise additional funds by issuing equity or convertible or non-convertible debt securities, our stockholders may experience additional significant dilution and such financing may involve restrictive covenants. To the extent that we raise additional funds through collaboration and licensing arrangements, it may be necessary to relinquish some rights to our technologies or our product candidates, or grant licenses on terms that may not be favorable to us. These things may have a material adverse effect on our business.

The continuation of our business beyond the forth quarter of 2011 is dependent upon obtaining further long-term financing, the successful development of our drug product candidates and related technologies, the successful and sufficient market acceptance of any product offerings that we may introduce, and, finally, the achievement of a profitable level of operations. The issuance of additional equity securities by us may result in a significant dilution in the equity interests of current stockholders. Obtaining commercial loans, assuming those loans would be available, on acceptable terms or even at all, will increase our liabilities and future cash commitments.

April 2010 Financing

On April 21, 2010, we sold in an underwritten public offering a total of 6,500,000 units of our securities at a public offering price of $0.70 per unit. Each unit contained one share of common stock and 0.30 warrants to purchase common stock, each whole warrant representing the right to purchase one share of common stock at an exercise price of $0.94 per share. We may call the warrants for redemption upon 30 days notice if the price of our common stock is at least $3.00 per share for any 20 trading days within a period of 30 consecutive trading days. The units separated immediately and the common stock and warrants were issued separately. The warrants are approved for trading on the Nasdaq Capital Market under the symbol "NLTXW" and began trading on April 22, 2010. The sale of these 6,500,000 units closed on April 27, 2010.

Pursuant to the terms of the underwriting agreement, we granted the underwriters an option for a period of 45 days to purchase up to an additional 975,000 units to cover over-allotments, if any. We also issued the underwrites a five-year warrant to purchase 390,000 shares of our common stock at an exercise price of $0.94 per share.

On May 6, 2010, the underwriters exercised their option to purchase the maximum amount of 975,000 over-allotment units. The sale of the over-allotment units closed on May 10, 2010.

The net proceeds to us from the sale of the units, after deducting underwriting discounts and commissions, was approximately $4.6 million when including the proceeds from the sale of the 975,00 over-allotment units.

License Agreement Commitments

Cenderitide License Agreement

Pursuant to our license agreement with the Mayo Foundation for Medical Education and Research ("Mayo") for cenderitide, in July 2008 we made a milestone payment of $400,000 to Mayo upon the dosing of the first patient in a Phase II trial. Subsequent milestones achieved will require us to make additional milestone payments to Mayo. We agreed to make contingent cash payments up to an aggregate of $31.9 million upon successful completion of specified clinical and regulatory milestones relating to cenderitide. This aggregate amount is subject to increase upon the receipt of regulatory approval for each additional indication of cenderitide as well as for additional compounds or analogues contained in the intellectual property.

The cenderitide license agreement, unless earlier terminated, will continue in full force and effect until January 20, 2026. However, to the extent any patent covered by the license is issued with an expiration date beyond January 20, 2026, the term of the agreement will continue until such expiration date. Mayo may terminate the agreement earlier (i) for our material breach of the agreement that remains uncured after 90 days' written notice to us, (ii) our insolvency or bankruptcy, or (iii) if we challenge the validity or enforceability of any of the patents in any manner. We may terminate the agreement without cause upon 90 days' written notice.

CU-NP License Agreement

On June 13, 2008, we entered into a second license agreement with Mayo pursuant to which we acquired the rights to CU-NP. Under the terms of the agreement, Mayo granted to us a worldwide, exclusive license for the rights to commercially develop CU-NP for all therapeutic indications. We also have the rights to improvements to CU-NP and know-how that arise out of the laboratory of Dr. John Burnett and Dr. Candace Lee, the inventors of CU-NP and employees of the Mayo Clinic, until June 12, 2011.

Under the terms of the CU-NP license agreement, we made an up-front cash payment to Mayo and agreed to make future contingent cash payments up to an aggregate of $24.3 million upon achievement of specific clinical and regulatory milestones relating to CU-NP, including a milestone payment due in connection with the initiation of the first Phase II clinical trial of the licensed product. This aggregate amount of $24.25 million is subject to increase upon the receipt of regulatory approval for each additional indication of CU-NP, as well as for additional compounds or analogues contained in the intellectual property. Pursuant to the agreement, we must also pay Mayo an annual maintenance fee and a percentage of net sales of licensed products.

The CU-NP License Agreement, unless earlier terminated, will continue in full force and effect until June 13, 2028. However, to the extent any patent covered by the license is issued with an expiration date beyond June 13, 2028, the term of the agreement will continue until such expiration date. Mayo may terminate the agreement earlier (i) for our material breach of the agreement that remains uncured after 90 days' written notice to us, (ii) our insolvency or bankruptcy, (iii) if we challenge the validity or enforceability of any of the patents in any manner, or (iv) or upon receipt of notice from the Company that we have terminated all development efforts under the agreement. We may terminate the agreement without cause upon 90 days' written notice.

Collaboration Agreement

In February 2011, we entered into a Clinical Trial Funding Agreement with Medtronic, Inc. Pursuant to the agreement, Medtronic will provide the funding and equipment necessary for us to conduct our planned Phase I clinical trial to assess the pharmacokinetics and pharmacodynamics of cenderitide when delivered to heart failure patients through continuous subcutaneous infusion using Medtronic's diabetes pump technology. In accordance with the agreement, Medtronic will provide the funding necessary to conduct the Phase I clinical trial and will supply the pumps and related equipment for use therein.

Under the agreement, we have agreed not to enter into an agreement with a third party to develop or commercialize cenderitide or any drug/device combination developed under the agreement until the earlier of: (i) three months following delivery to Medtronic of a final database with respect to the Phase I trial; and (ii) 15 months after the date of the agreement.

The agreement provides that intellectual property conceived in or otherwise resulting from the performance of the Phase I clinical trial shall be jointly owned by us and Medtronic (the "Joint Intellectual Property"), and that we shall pay royalties to Medtronic based on the net sales of any Nile product, the manufacture, use or sale of which is covered or claimed in one or more issued patents constituting Joint Intellectual Property. The agreement further provides that, if the parties fail to enter into a definitive commercial license agreement with respect to cenderitide, then each party shall have a right of first negotiation to license exclusive rights to any Joint Intellectual Property.

The agreement will remain in effect until the completion of the Phase I clinical trial unless terminated earlier by either party (i) if the other has materially breached its obligations thereunder, (ii) if the other party becomes subject to a bankruptcy or similar proceeding, (iii) for reasons related to the safety, efficacy, toxicity or formulation of cenderitide, or (iv) for a failure of the study to meet its endpoints. Also, Medtronic may terminate the agreement without cause at any time upon 90 days written notice to us, in which event Medtronic shall be obligated to pay for any non-cancelable costs incurred by us prior to such termination.

Off -Balance Sheet Arrangements

There were no off-balance sheet arrangements as of March 31, 2011.

Critical Accounting Policies and Estimates

Our financial statements are prepared in accordance with generally accepted accounting principles. The preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, expenses and related disclosures. We evaluate our estimates and assumptions on an ongoing basis, including research and development and clinical trial accruals, and stock-based compensation estimates. Our estimates are based on historical experience and various other assumptions that we believe to be reasonable under the circumstances. Our actual results could differ from these estimates. We believe the following critical accounting policies reflect the more significant judgments and estimates used in the preparation of our financial statements and accompanying notes.

Research and Development Expenses and Accruals

R&D expenses consist primarily of salaries and related personnel costs, fees paid to consultants and outside service providers for pre-clinical, clinical, and manufacturing development, legal expenses resulting from intellectual property prosecution, contractual review, and other expenses relating to the design, development, testing, and enhancement of our product candidates. Except for capitalized patent expenses, R&D costs are expensed as incurred. Amounts due under such arrangements may be either fixed fee or fee for service, and may include upfront payments, monthly payments, and payments upon the completion of milestones or receipt of deliverables.

Our cost accruals for clinical trials and other R&D activities are based on estimates of the services received and efforts expended pursuant to contracts with numerous clinical trial centers and CROs, clinical study sites, laboratories, consultants, or other clinical trial vendors that perform the activities. Related contracts vary significantly in length, and may be for a fixed amount, a variable amount based on actual costs incurred, capped at a certain limit, or for a combination of these elements. Activity levels are monitored through close communication with the CRO's and other clinical trial vendors, including detailed invoice and task completion review, analysis of expenses against budgeted amounts, analysis of work performed against approved contract budgets and payment schedules, and recognition of any changes in scope of the services to be performed. Certain CRO and significant clinical trial vendors provide an estimate of costs incurred but not invoiced at the end of each quarter for each individual trial. The estimates are reviewed and discussed with the CRO or vendor as necessary, and are included in R&D expenses for the related period. For clinical study sites, which are paid periodically on a per-subject basis to the institutions performing the clinical study, we accrue an estimated amount based on subject screening and enrollment in each quarter. All estimates may differ significantly from the actual amount subsequently invoiced, which may occur several months after the related services were performed.

In the normal course of business we contract with third parties to perform various R&D activities in the on-going development of our product candidates. The financial terms of these agreements are subject to negotiation and vary from contract to contract and may result in uneven payment flows. Payments under the contracts depend on factors such as the achievement of certain events, the successful enrollment of patients, and the completion of portions of the clinical trial or similar conditions. The objective of our accrual policy is to match the recording of expenses in our financial statements to the actual services received and efforts expended. As such, expense accruals related to clinical trials and other R&D activities are recognized based on our estimate of the degree of completion of the event or events specified in the specific contract.

We have entered into a collaboration agreement with Medtronic, Inc. relating to our ongoing Phase I clinical trial of cenderitide. Under this agreement, we are reimbursed for certain costs of the Phase I trial. We record all of these expenses as research and development expense and the reimbursements from the collaborator as revenue.

No adjustments for material changes in estimates have been recognized in any period presented.

Stock-Based Compensation

Our results include non-cash compensation expense as a result of the issuance of stock, stock options and warrants. We have issued stock options to employees, directors, consultants and Scientific Advisory Board members under our Amended and Restated 2005 Stock Option Plan.

We expense the fair value of stock-based compensation over the vesting period. When more precise pricing data is unavailable, we determine the fair value of stock options using the Black-Scholes option-pricing model. This valuation model requires us to make assumptions and judgments about the variables used in the calculation. These variables and assumptions include the weighted-average period of time that the options granted are expected to be outstanding, the volatility of our common stock, the risk-free interest rate and the estimated rate of forfeitures of unvested stock options.

Stock options or other equity instruments to non-employees (including consultants and all members of the Company's Scientific Advisory Board) issued as consideration for goods or services received by the Company are accounted for based on the fair value of the equity instruments issued (unless the fair value of the consideration received can be more reliably measured). The fair value of stock options is determined using the Black-Scholes option-pricing model and is periodically remeasured as the underlying options vest. The fair value of any options issued to non-employees is recorded as expense over the applicable service periods.

The terms and vesting schedules for share-based awards vary by type of grant and the employment status of the grantee. Generally, the awards vest based upon time-based or performance-based conditions. Performance-based conditions generally include the attainment of goals related to our financial and development performance. Stock-based compensation expense is included in the respective categories of expense in the Statements of Operations. We expect to record additional non-cash compensation expense in the future, which may be significant.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

Our exposure to market risk for changes in interest rates relates primarily to our cash and cash equivalents. The goal of our investment policy is to place our investments with highly rated credit issuers and limit the amount of credit exposure to any one issuer. We seek to improve the safety and likelihood of preservation of our invested funds by limiting default risk and market risk. Our policy is to mitigate default risk by investing in high credit quality securities and currently do not hedge interest rate exposure. Due to our policy to only make investments with short-term maturities, we do not believe that an increase in market rates would have any material negative impact on the value of our investment portfolio.

As of March 31, 2011, our portfolio consisted primarily of bank savings accounts and a certificate of deposit associated with our lease obligation, and we did not have any investments with significant exposure to the subprime mortgage market issues. Based on our investment portfolio and interest rates at March 31, 2011, we believe that a decrease in interest rates would not have a significant impact on the fair value of our cash and cash equivalents of approximately $2.1 million.

Item 4. Controls and Procedures.

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our reports under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow for timely decisions regarding required disclosure. In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and management is required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

As required by Commission Rule 13a-15(b), we carried out an evaluation, under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures as of the end of the quarter covered by this report. Based on the foregoing, our Chief Executive Officer and Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

There has been no change in our internal control over financial reporting during the most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II — OTHER INFORMATION

Item 1. Legal Proceedings.

The Company is not a party to any material pending legal proceedings.

Item 1A. Risk Factors.

An investment in our securities is speculative in nature, involves a high degree of risk, and should not be made by an investor who cannot bear the economic risk of its investment for an indefinite period of time and who cannot afford the loss of its entire investment. You should carefully consider the information described in the following risk factor, together with the other information appearing elsewhere in this report, before making an investment decision regarding our common stock. You should also consider the risk factors set forth in our Annual Report on Form 10-K for the year ended December 31, 2010 ("2010 Annual Report") under the caption "Item 1A. Risk Factors." If any of the risks described below or in our 2010 Annual Report actually occur, our business, financial condition, results of operation and future growth prospects would likely be materially and adversely affected. In these circumstances, the market price of our common stock could decline, and you may lose all or a part of your investment in our common stock. Moreover, the risks described below and in our 2010 Annual Report are not the only ones that we face. Additional risks not presently known to us or that we currently deem immaterial may also affect our business, operating results, prospects or financial condition.

Because trading in our common stock has been suspended on the Nasdaq Capital Market and has transitioned to the OTCQB Marketplace, the volume of shares traded and the prices at which such shares trade may result in lower prices than might otherwise exist if our common stock was traded on a national securities exchange.

On May 10, 2011, we received notice from Nasdaq informing us that our common stock would be delisted from the Nasdaq Capital Market due to noncompliance with Nasdaq Marketplace Rule 5550(a)(2), which requires the common stock of listed companies to maintain a minimum closing bid price of $1.00, and that trading of our common stock would be suspended as of the opening of business on May 12, 2011, with formal delisting to follow. Nasdaq first notified us of noncompliance with the minimum closing bid price requirement on June 1, 2010, at which time we were afforded a period of 180 days, or until November 29, 2010, in which to regain compliance with the minimum closing bid price requirement. We did not regain compliance with this requirement by November 29, 2010 and, accordingly, on November 30, 2010, we received notice from Nasdaq informing us that our common stock would be subject to delisting unless we requested a hearing before a Nasdaq Listing Qualifications Panel. Upon our request, a hearing before the panel was held on January 6, 2011. At the hearing, we presented a plan to regain compliance with the minimum closing bid price requirement, one component of which consisted of effecting a reverse stock split, and requested that the panel grant us additional time within which to regain compliance. The panel rendered its decision on March 1, 2011, granting us until May 31, 2011 to regain compliance with the minimum closing bid price requirement. On May 10, 2011, we informed Nasdaq that we had determined not to proceed with a reverse stock split prior to May 31, 2011, which resulted in the panel's determination to delist our common stock.

Following the suspension of trading in our common stock on the Nasdaq Capital Market, trading in our common stock has transitioned to the OTCQB Marketplace. Stocks traded on the OTCQB Marketplace are often less liquid than stocks traded on national securities exchanges, not only in terms of the number of shares that can be bought and sold at a given price, but also in terms of delays in the timing of transactions and reduced coverage of us by security analysts and the media. This may result in lower prices for our common stock than might otherwise be obtained if our common stock were traded on a national securities exchange, and could also result in a larger spread between the bid and asked prices for our common stock.

Further, the delisting of our common stock from the Nasdaq Capital Market means that our common stock will now be considered a "penny stock." The SEC has adopted regulations which generally define "penny stock" to be an equity security that has a market price of less than $5.00 per share, subject to specific exemptions, one of which is listing on a national securities exchange. Because the market price of our common stock is currently less than $5.00 per share, and none of the specific exemptions are applicable following the delisting of our common stock, our common stock will be considered a "penny stock" according to SEC rules. This designation requires any broker or dealer selling our common stock to disclose certain information concerning the transaction, obtain a written agreement from the purchaser and determine that the purchaser is reasonably suitable to purchase our common stock. These rules may restrict the ability of brokers or dealers to sell shares of our common stock.

Item 2. Unregistered Sales of Securities and Use of Proceeds.

Not applicable.

Item 3. Defaults Upon Senior Securities.

Not applicable.

Item 4. [Removed and Reserved.]

Item 5. Other Information.

Amendment of Services Agreement

As previously disclosed, on June 24, 2009, the Company entered into a Services Agreement (the "Services Agreement") with Two River Consulting, LLC ("TRC") to provide various clinical development, operational and administrative services to the Company. The term of TRC's engagement under the Services Agreement was one year, subject to extension by mutual agreement of the parties. On August 12, 2010, the Company and TRC entered into an amendment to the Services Agreement (the "First Amendment"), pursuant to which the term of the Services Agreement was extended to continue on a month-to-month basis until otherwise terminated by one of the parties. On March 17, 2011, the Company and TRC entered into a second amendment to the Services Agreement (the "Second Amendment"), pursuant to which the level of services to be provided by TRC was reduced and the monthly cash fee to be paid by the Company was reduced from $65,000 to $31,702. Under the Second Amendment, additional services may be provided by TRC, and billed to the Company, on an hourly basis. The foregoing summary of the Second Amendment is qualified in its entirety by reference to the complete text of the Second Amendment, a copy of which is attached hereto as Exhibit 10.2 and incorporated herein by reference. In addition, the terms of the Services Agreement and First Agreement were described in the Company's Current Report on Form 8-K filed with the SEC on June 25, 2009, and Quarterly Report on Form 10-Q filed with the SEC on August 16, 2010, respectively, and are incorporated by reference herein.

Joshua A. Kazam, the Company's President and Chief Executive Officer and director, and Arie S. Belldegrun, a director of the Company, are each partners of TRC. The terms of the Second Amendment were reviewed and approved by a special committee of the Company's Board of Directors consisting of independent, disinterested directors. None of the members of the special committee has any interest in TRC, the Services Agreement, the First Amendment, or the Second Amendment.

Results of 2011 Annual Meeting of Stockholders

On May 10, 2011, the Company held its 2011 Annual Meeting of Stockholders. Set forth below is a brief description of each matter voted upon at the meeting and the voting results with respect to each matter.

1. A proposal to elect eight directors to hold office until the Company's 2012 Annual Meeting of Stockholders, or until their respective successors have been elected and have qualified, or until their earlier resignation or removal.

Director Nominee	Votes For	Votes Withheld
Arie S. Belldegrun	14,731,999	112,572
Richard B. Brewer	14,753,099	91,472
Pedro Granadillo	14,816,614	27,957
Peter M. Kash	14,735,205	109,366
Joshua A. Kazam	14,761,999	82,572
Frank Litvack	14,786,214	58,357
Paul A. Mieyal	14,786,614	57,957
Gregory W. Schafer	14,816,214	28,357

2. A proposal to authorize an amendment to the Company's certificate of incorporation to effect a combination (reverse split) of the Company's common stock at a ratio not to exceed one-for-ten;

For	Against	Abstentions	Broker Non-Votes
22,529,657	1,685,467	143,574	0

3. A proposal to ratify the appointment of Crowe Horwath LLP as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2011.

For	Against	Abstentions	Broker Non-Votes
24,131,530	68,509	158,660	0

Pursuant to the foregoing votes, the eight director nominees listed above were elected to serve as directors until the next annual meeting of stockholders, and the proposals to authorize an amendment to the Company's certificate of incorporation to effect a combination (reverse split) of the Company's common stock at a ratio not to exceed one-for-ten and to ratify the appointment of Crowe Horwath LLP as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2011, were both approved.

Notice of Delisting; Transition to OTCQB Marketplace

As previously disclosed, on June 1, 2010, the Company received a notice from the Listing Qualifications Department (the "Staff") of The NASDAQ Stock Market LLC ("NASDAQ") stating that the minimum bid price of the Company's common stock had been below $1.00 per share for 30 consecutive business days and that the Company was therefore not in compliance with the minimum bid price requirement for continued listing on The NASDAQ Capital Market set forth in Listing Rule 5550(a)(2). The notice indicated that, in accordance with Listing Rule 5810(c)(3)(A), the Company had been granted 180 calendar days, or until November 29, 2010, to evidence compliance with the minimum bid price requirement.

The Company did not regain compliance with Rule 5550(a)(2) by November 29, 2010 and, accordingly, on November 30, 2010, the Company received written notification from the Staff stating that the Company's common stock would be subject to delisting from The NASDAQ Capital Market unless the Company requested a hearing to the NASDAQ Listing Qualifications Panel (the "Panel"). Upon the Company's request, a hearing before the Panel was held on January 6, 2011. At the hearing, the Company presented a plan to regain compliance with Rule 5550(a)(2), one component of which consisted of effecting a reverse stock split, and requested that the Panel grant the Company additional time within which to regain compliance. The Panel rendered its decision on March 1, 2011, granting the Company until May 31, 2011 to regain compliance with Rule 5550(a)(2).

On May 10, 2011, the Company informed Nasdaq that it had determined not to proceed with a reverse stock split prior to May 31, 2011. Accordingly, on May 10, 2011, the Company was notified by NASDAQ that trading in its common stock would be suspended on The Nasdaq Capital Market as of the open of business on May 12, 2011, with formal delisting to follow. Following the suspension of trading in the Company's common stock on the Nasdaq Capital Market, trading in its common stock has transitioned to the OTCQB Marketplace. Operated by OTC Markets Group Inc., the OTCQB is a market tier for OTC traded companies that are registered and reporting with the Securities and Exchange Commission.

Item 6. Exhibits.

Exhibit No.	Exhibit Description
10.1	Clinical Trial Funding Agreement between Nile Therapeutics, Inc. and Medtronic, Inc., dated February 25, 2011.++
10.2	Amendment No. 2 to Services Agreement between Nile Therapeutics, Inc. and Two River Consulting, LLC, dated March 17, 2011.
31.1	Certification of Chief Executive Officer pursuant to Securities Exchange Act Rule 13a-15(e)/15d-15(e) as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Chief Financial Officer pursuant to Securities Exchange Act Rule 13a-15(e)/15d-15(e) as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

++ Certain portions of this exhibit have been omitted pursuant to a request for confidential treatment under Rule 24b-2 of the Exchange Act. The entire exhibit has been separately filed with the Commission.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

NILE THERAPEUTICS, INC.

Date: May 16, 2011

By: /s/ Joshua Kazam
Joshua Kazam
Chief Executive Officer
(Principal Executive Officer)

Date: May 16, 2011

By: /s/ Daron Evans
Daron Evans
Chief Financial Officer
(Principal Financial and Accounting Officer)

EXHIBIT INDEX

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++ Certain portions of this exhibit have been omitted pursuant to a request for confidential treatment under Rule 24b-2 of the Exchange Act. The entire exhibit has been separately filed with the Commission.

EXHIBIT 10.1

CLINICAL TRIAL FUNDING AGREEMENT

THIS CLINICAL TRIAL FUNDING AGREEMENT (this "Agreement") is entered into as of February 25, 2011 (the "Effective Date") between**NILE THERAPEUTICS, INC.**, a Delaware company with offices at 4 West 4th Avenue, Suite 400, San Mateo, California 99402 ("Nile") and **MEDTRONIC, INC**., a Minnesota corporation with offices at 710 Medtronic Parkway, Minneapolis, Minnesota 55432, U.S.A. ("Medtronic") (each a "Party," collectively the "Parties").

RECITALS

WHEREAS, Nile is a company focused on the use of hybrid natriuretic peptides, including but not limited to CD-NP, as defined in the Nile Patents ("Drug", as further defined in Section 1.1.6 below);

WHEREAS, Medtronic is a leader in the business of designing, manufacturing and marketing medical devices, including medical devices for delivery of various peptides such as the Pumps and Sets (as defined in Section 2.1 below) (collectively, the "Devices", as further defined in Section 2.1 below);

WHEREAS, the Parties have entered a Confidential Disclosure Agreement with an effective date of August 9, 2010 ("CDA") to govern the mutual exchange of information for the purpose of exploring a possible business relationship, and the Parties desire to terminate the CDA and replace it with this Agreement;

WHEREAS, the Parties have entered into a Material Transfer Agreement with an effective date of October 19, 2010 ("MTA") pursuant to which Nile provided Medtronic with a sample of the Drug for purposes of Medtronic evaluating the effectiveness and stability of the Drug which will continue to remain in effect; and

WHEREAS, the Parties desire to enter an agreement to conduct drug-device testing and a Clinical Study involving Nile's Drug and certain Medtronic Devices, including Pumps and Sets (as further defined below), beginning with a feasibility study to assess the pharmacokinetics and phamacodynamics of the Drug as defined in the Work Plan (as that term is defined in Section 1.1.31).

AGREEMENT

NOW THEREFORE, in consideration of the foregoing premises and for other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, the Parties agree as follows:

INFORMATION MARKED BY [***] HAS BEEN OMITTED PURSUANT TO A REQUEST FOR CONFIDENTIAL TREATMENT. THE OMITTED PORTION HAS BEEN SEPARATELY FILED WITH THE SECURITIES AND EXCHANGE COMMISSION.

ARTICLE 1
DEFINITIONS

1.1 Specific Definitions. For purposes of this Agreement, the following definitions shall apply:

1.1.1. "Affiliate" means any corporation or other business entity controlled by, controlling, or under common control with Nile or Medtronic, respectively. For this purpose, "control" means (a) direct or indirect beneficial ownership of fifty percent (50%) or more of the voting control, or (b) the power to direct or cause the direction of the management and policies of such corporation or other business entity.

1.1.2. "Bankruptcy Event" occurs if a Party (a) becomes the subject of a voluntary or involuntary proceeding or appointment under any bankruptcy, insolvency, receivership, liquidation, general assignment, custodian, trusteeship or similar law or rule, or (b) makes a general assignment for the benefit of creditors; and, in the event such proceeding or appointment or assignment is involuntary, such proceeding or appointment or assignment is not dismissed within sixty (60) days after being filed.

1.1.3. "Budget" shall mean the document attached hereto as Exhibit B.

1.1.4. "Cause" means material breach of the Agreement by a Party that remains uncured ninety (90) days after the other Party notifies the breaching Party in writing of such breach; provided, however, that the opportunity to cure shall not apply if the material breach in question is, by its nature, not curable. For clarity, a dispute about whether and the amount of money that may be owed by a Party to the other pursuant to Section 7 shall not be construed to be a material breach of this Agreement provided that the Party alleged to be in breach (i) pays all amounts owed to the other Party which are not in dispute and (ii) the Parties are working in good faith to resolve the dispute in question, which may include, if applicable, litigation.

1.1.5. "Clinical Study" means the Phase IIa feasibility study designed by Nile to be conducted hereunder as further set forth in the attached Work Plan.

1.1.6. "Clinical Data" means all data generated during a Clinical Study, including raw clinical data, lab data, final Case Report Forms and reports.

1.1.7. "Drug" means the hybrid natriuretic peptides (CD-NP) known as cenderitide as defined in US Patent Number(s) 6,407,211 owned or licensed or otherwise acquired by or assigned to Nile, which exist at the Effective Date.

1.1.8. "Drug Master File" means a regulatory dossier containing proprietary information per 21 CFR 314.420.

1.1.9. "Effective Date" means the date first set forth above on this Agreement.

1.1.10. "FDA" means the United States Food and Drug Administration and, when applied in the context of foreign agencies, those foreign agencies having regulatory jurisdiction equivalent to the FDA.

1.1.11. "GCP" means Good Clinical Practices as defined in the ICH Guideline for Good Clinical Practice and Parts 50, 54, 56, and 312 of the United States Code of Federal Regulations ("CFR").

1.1.12. "GLP" means Good Laboratory Practices as defined in 21 CFR Part 58.

1.1.13. "GMP" means Good Manufacturing Practices as defined in 21 CFR Parts 210 and 211 and Parts 600 through 680.

1.1.14. "Intellectual Property" means all forms of intellectual property in any jurisdiction and under any law, whether now or hereafter existing, including: (a) inventions, discoveries, patent applications, patents (including letters patent, industrial designs, and inventor's certificates), design registrations, invention disclosures, and applications to register industrial designs, and any and all rights to any of the foregoing anywhere in the world, including any provisionals, substitutions, extensions, supplementary patent certificates, reissues, re-exams, renewals, divisions, continuations, continuations in part, continued prosecution applications, and other similar filings or notices provided for under the laws of the United States, or of any other country; (b) trade secrets and other confidential or non-public business information, including ideas, formulas, compositions, inventor's notes, discoveries, improvements, concepts, know-how, manufacturing and production processes and techniques, testing information, research and development information, data resulting or derived from research activities, inventions, invention disclosures, unpatented blue prints, drawings, specifications designs, plans, proposals and technical data, business and marketing plans, market surveys, market know-how and customer lists and related information; (c) copyrights, whether or not registered, and any non-registered copyright to any writings and other copyrightable works of authorship, including source code, object code, documentation (whether or not released), and databases; (d) features of shape, configuration, pattern or ornament; and (e) registrations of, and applications to register, any of the foregoing with any governmental entity and any renewals or extensions thereof and all other rights to any of the foregoing.

1.1.15. "Joint Intellectual Property" shall mean Intellectual Property which is conceived in or otherwise results from the performance of the Clinical Study, regardless of inventorship, that does not otherwise constitute Medtronic Improvements or Nile Improvements.

1.1.16. "Medtronic" means Medtronic, Inc.

1.1.17. "Medtronic Background Intellectual Property" shall mean all Intellectual Property and proprietary materials or devices owned or otherwise controlled by Medtronic on the Effective Date (including, without limitation, proprietary methodologies applied by Medtronic in the performance of the Medtronic Studies) or developed or acquired by Medtronic independently of this Agreement following the Effective Date.

1.1.18. "Medtronic Improvements" shall mean Intellectual Property claiming or covering any proprietary Medtronic delivery devices ("Delivery Devices") or the use (other than the Intellectual Property claiming or covering the use of Delivery Devices for the administration of Nile Materials which shall be considered Joint Intellectual Property) or manufacture (in whole or part) of any such proprietary Medtronic delivery device which are conceived in or otherwise resulting from the performance of the purpose of the Clinical Study, regardless of inventorship.

1.1.19. "Net Sales" means any gross invoice sales of Royalty Bearing Products by Nile, Nile sub-licensees, or Nile assignees, as the case may be, excluding sales, use, value added, occupation or excise taxes, and other taxes based or imposed based on the transfer of a Product from one party to another or the provision of a service, excluding freight, duty or insurance, and rebates, refunds, exchanges, discounts and allowances for credits for the foregoing and net of amounts written off by Nile.

1.1.20. "Nile" means Nile Therapeutics, Inc.

1.1.21. "Nile Background Intellectual Property" shall mean all Intellectual Property and proprietary materials owned or otherwise controlled by Nile on the Effective Date or developed or acquired by Nile independently of this Agreement following the Effective Date.

1.1.22. "Nile Improvements" shall mean Intellectual Property pertaining to Nile Materials or the use (other than the Intellectual Property claiming or covering the use of Delivery Devices for the administration of Nile Materials which shall be considered Joint Intellectual Property) or manufacture (in whole or part) of Nile Materials conceived in or otherwise resulting from the performance of the Clinical Study, regardless of inventorship.

1.1.23. "Nile Materials" shall mean Nile's proprietary compounds, materials or other substance as outlined on Exhibit A that are transferred to Medtronic for completion of the Medtronic Studies, including but not limited to CD-NP powdered peptide. Exhibit A shall be attached hereto and incorporated herein as if fully set forth. Nile shall own all rights and title to Nile Material.

1.1.24. "Nile Patents" means the following Intellectual Property:

Patent	First Named Inventor	Publ. Date
US 6,407,211	BURNETT, et al	June 18, 2002
US 6,818,619	BURNETT, et al	November 16, 2004
US 7,384,917	BURNETT, et al	June 10, 2008
US 7,754,852	BURNETT, et al	July 13, 2010
US2002/0082219	BURNETT, et al	June 27, 2002
US2003/0069186	BURNETT, et al	April 10, 2003
US2005/0059600	BURNETT, et al	March 17, 2005
US2007/0042957	BURNETT, et al	February 22, 2007
US2008/0032933	BURNETT, et al	February 7, 2008
US2009/0054337	BURNETT, et al	February 26, 2009
US2009/0069243	BURNETT, et al	March 12, 2009
US2009/0170756	BURNETT, et al	July 2, 2009
EP1242452	BURNETT, et al	September 25, 2002
EP2171053	BURNETT, et al	April 7, 2010
WO2008112424	BURNETT, et al	September 18, 2008
WO2009015011	BURNETT, et al	January 29, 2009
WO2009086126	BURNETT, et al	July 9, 2009
WO2009149161	BURNETT, et al	December 10, 2009
WO2010002583	BURNETT, et al	January 7, 2010
WO2010078325	BURNETT, et al	July 8, 2010
WO2001044284	BURNETT, et al	June 21, 2001
WO2007035600	BURNETT, et al	March 29, 2007
61/408,320	LIEU, et al	Filed October 29, 2010
61/440,154	LIEU, et al	Filed February 7, 2011

The "Nile Patents" additionally include any divisional, continuation, continuation-in-part, that is based on the above listed patents, and any patents that shall issue on any of the above-listed patent applications or on any improvements thereof, and any reissues and extensions thereof.

1.1.25. "Parties" means Medtronic and Nile.

1.1.26. "Product" means any Drug, Device, or Drug/Device combination developed pursuant to the Agreement.

1.1.27. "Protocol" means, with respect to any Clinical Study using the Drug, the protocol for such clinical study prepared in accordance with Article 3.

1.1.28. "Royalty Bearing Product(s)" means any Product or Products, the manufacture, use or sale of which are covered or claimed in one or more issued patents constituting Joint Intellectual Property.

1.1.29. "Sponsor" means the company responsible for the clinical investigation as defined in 21 CFR Part 312.3.

1.1.30. "Third Party" means any party other than Nile and its Affiliates and Medtronic and its Affiliates.

1.1.31 "Work Plan" shall mean the document attached hereto as Exhibit A.

1.1.32 The following terms are defined in the following Sections:

Section	Term(s)
Recitals	“Medtronic Devices”
Recitals	“CDA”
Recitals	“MTA”
1.18	“Delivery Devices”
2.1	“Drug/Device Combination Therapy”
2.1	“Pumps”
2.1	“Sets”
2.2	“Collaboration and License Agreement”
3.1	“CRO”
4.2.1	“Indemnitor”
4.2.1	“Medtronic Indemnitees”
4.2.1	“Claim”
4.2.2	“Nile Indemnitees”
5.1	“Confidential Information”
5.1	“Disclosing Party”
5.1	“Receiving Party”
5.2	“SEC”
5.6	“Publications”

ARTICLE 2
PURPOSE AND SCOPE OF AGREEMENT

2.1 Purpose and Scope of Agreement. The Parties will undertake a Drug-Device testing program using Nile's Drug (including specific and necessary formulations of the Drug) in a Medtronic Device to permit the parties' evaluation of potential further testing and development of a Drug/Device combination therapy ("Drug/Device Combination Therapy"). The data generated from the testing program may become part of Nile's Investigational New Drug Application (IND) and/or New Drug Application (NDA). The initial work within the scope of the Agreement will be a feasibility study designed by Nile under joint consent of the Parties to assess the pharmacokinetics and pharmacodynamics of the Drug as described in the Work Plan and Budget developed by the Parties and approved by Medtronic ("Clinical Study"). The Work Plan and Budget are attached hereto and incorporated herein as Exhibit A and Exhibit B, respectively. In connection with the Clinical Study and as further set forth in the Work Plan, Medtronic will provide Mini-Med® Paradigm Insulin Pumps ("Pumps") and Sertable® Infusion Sets ("Sets") as further specified in the Work Plan. Medtronic shall retain ownership of the Pumps and Nile shall return the Pumps to Medtronic upon completion of the Clinical Study. As further set forth herein, a prior Agreements between the parties shall be terminated and replaced by the terms of this Agreement.

ARTICLE 3
RESPONSIBILITIES FOR CLINICAL STUDY

3.1 Nile Responsibilities for the Clinical Study (Sponsorship). Nile shall contract with a clinical research organization ("CRO") to conduct the Clinical Study to assess the pharmacokinetics and phamacodynamics of the Drug. Nile shall be the Sponsor for the Clinical Study, and will develop, subject to Medtronic's review and approval, the regulatory submissions and the Protocol for the Clinical Study, which would include, and not be limited to:

- Protocol and Informed Consent,
- Investigator's Brochure,
- Data forms and Database,
- Content review and development of the final report(s),
- Drug and/or Device accountability and data requirements,
- Adverse Events review and reports submitted to regulatory agencies, and
- Submissions to regulatory agencies.

Nile is responsible for oversight of the Clinical Study. Nile will conduct investigator and center selection, and manage data collection and limited data analysis conducted by the CRO. Communication and meetings with any regulatory agency regarding the Clinical Study would be conducted pursuant to joint agreement of the Parties. Medtronic shall retain ownership of the Pumps provided under this Agreement. Nile agrees to return all Pumps to Medtronic upon the conclusion of the Clinical Study or the termination of this Agreement, whichever is sooner.

3.2 Medtronic Responsibilities. Pursuant to the Work Plan and Budget, Medtronic will provide (i) the type and number of Medtronic Devices needed for the Clinical Study, and (ii) its timely comments to and approvals of the requisite components of the Clinical Study set forth herein.

3.3 Compliance with Laws. Each Party will be responsible for ensuring that its respective responsibilities under the Agreement comply with applicable GMP, GLP and GCP requirements and all regulatory requirements for the filing and prosecution of the regulatory approvals. Both Parties will, as reasonably necessary to assure safety and regulatory compliance, put into place and maintain in cooperation with each other appropriate safety and regulatory compliance procedures.

ARTICLE 4
OTHER RIGHTS AND OBLIGATIONS

4.1 Drug Supply Obligations of Nile. During the Term of this Agreement, Nile shall through a mutually agreed manufacturer use its reasonable efforts to supply sufficient quantities of the Drug for the Clinical Study and for such additional future supply needs as required by Medtronic for research governed by an appropriate agreement between Nile and Medtronic.

4.2 Indemnification.

4.2.1. Nile ("Indemnitor") shall indemnify and hold harmless Medtronic (or its Affiliates, officers, directors, employer or agents, which, together with Medtronic, are collectively referred to as the "Medtronic Indemnitees"), for any loss, claim, damage, expense or liability incurred by the Medtronic Indemnitees including, but not limited to, attorneys' fees, settlements and costs of litigation and defense thereof resulting from any Third Party claim, suit or proceeding arising from any of the following causes (each, a "Claim"):

(a) Nile's failure to have the Drug properly manufactured in accordance with the applicable specifications or other breach of warranty pertaining to the manufacture thereto;

(b) Nile's failure to comply with applicable law or regulations in connection with the Drug or the conduct of the Clinical Study; or

(c) Nile's breach of a representation, warranty or covenant made by it in this Agreement.

4.2.2. Medtronic ("Indemnitor") shall indemnify and hold harmless Nile (or its Affiliates, officers, directors, employer or agents, which, together with Medtronic, are collectively referred to as the "Nile Indemnitees"), for any loss, claim, damage, expense or liability incurred by the Nile Indemnitees including, but not limited to, attorneys' fees, settlements and costs of litigation and defense thereof resulting from any Third Party claim, suit or proceeding arising from any of the following causes (each, a "Claim"):

(a) Medtronic's failure to comply with applicable law or regulations in connection with the Devices, Drug or the conduct of the Clinical Study; or

(b) Medtronic's breach of a representation, warranty or covenant made by it in this Agreement.

4.2.3. The applicable Indemnitee agrees to notify the applicable Indemnitor as soon as it becomes aware of any Claim and to cooperate with and authorize Indemnitor to carry out the sole management and defense of any such Claim. The Indemnitee may not compromise or settle any Claim without the prior written approval of Indemnitor.

4.3 Non-Compete Obligations. During the term of this Agreement and any Work Plans hereunder, and until the sooner of: (i) three (3) months following the delivery to Medtronic of a final database with respect to any Clinical Study hereunder, and (ii) fifteen (15) months after the Effective Date, Nile (either itself or through Affiliates) shall not enter into an agreement with a third party to develop or commercialize the Product.

ARTICLE 5
CONFIDENTIALITY

5 . 1 Confidential Information. "Confidential Information" shall mean any proprietary information or compilation of information of one of the Parties (the "Disclosing Party") which it discloses to the other Party (the "Receiving Party") that is not generally known to the public, including trade secrets and know how, disclosed during the Term of this Agreement, excluding information which:

5.1.1. was already in the possession of the Receiving Party prior to the Receiving Party's receipt from the Disclosing Party (provided that the Receiving Party is able to provide the Disclosing Party with reasonable proof thereof);

5.1.2. is or becomes known to the public by reason of acts not attributable to the Receiving Party;

5.1.3. is or becomes available to the Receiving Party from a source other than the Disclosing Party which source has rightfully obtained such information and has no obligation of non-disclosure or confidentiality (directly or indirectly) to the Disclosing Party with respect thereto; or

5.1.4. has been independently developed by the Receiving Party without breach of this Agreement or use of any Confidential Information of the Disclosing Party (provided that the receiving Party is able to provide the Disclosing Party with reasonable proof thereof if requested).

All Confidential Information disclosed by one party to the other under this Agreement (whether that of the Disclosing Party or a Third Party) must be in writing and bear a legend "Proprietary", "Confidential" or words of similar import or, if disclosed in any manner other than in writing, shall be preceded by an oral statement indicating that the information is proprietary or confidential, and shall be followed by written summary of the information and confirmation that such information is confidential by the Disclosing Party within thirty (30) days.

INFORMATION MARKED BY [***] HAS BEEN OMITTED PURSUANT TO A REQUEST FOR CONFIDENTIAL TREATMENT. THE OMITTED PORTION HAS BEEN SEPARATELY FILED WITH THE SECURITIES AND EXCHANGE COMMISSION.

5.2 Confidentiality Obligations. With respect to any Confidential Information of a Party disclosed by it or its Affiliates to the other Party during the Term of this Agreement, the Receiving Party agrees that such Confidential Information shall be maintained in confidence by the Receiving Party and its Affiliates, and that such Confidential Information shall not be disclosed by the Receiving Party or its Affiliates to any Third Party without the prior written consent of the Disclosing Party (except as permitted or required for performance by the Receiving Party of its rights or duties hereunder). Notwithstanding the foregoing provisions of this Section 5.2, either Party may disclose Confidential Information of the other Party or the terms of this Agreement if such Party reasonably determines, based on advice from its legal counsel, that it is required to make such disclosure by applicable law, regulation or legal process, including by the rules or regulations of the FDA or United States Securities and Exchange Commission (the "SEC") or similar regulatory agency(ies) in a country other than the United States or of any stock exchange, in which event such Party shall provide prior notice of such intended disclosure to such other Party sufficiently in advance to enable the other Party to seek confidential treatment or other protection for the Confidential Information subject to such requirement unless the Disclosing Party is prevented by law or regulation from providing such advance notice, shall disclose only such Confidential Information of such other Party as such Disclosing Party reasonably determines is required to be disclosed, and shall seek confidential treatment of any terms of this Agreement that the Disclosing Party considers particularly sensitive, including the royalty rate terms of this Agreement, from the SEC, similar regulatory agencies in countries other than the United States, or any stock exchange.

5.3 Disclosures to Employees, Consultants, and Advisors. Each Party agrees that it and its Affiliates may provide Confidential Information received from the other Party only to the Receiving Party's respective employees, consultants and advisors, and to the employees, consultants and advisors of the Receiving Party's Affiliates, who have a reasonable need to know such Confidential Information, provided that each Party shall remain responsible for any failure by its and its Affiliates' respective employees, consultants and advisors to protect such information and materials as required under this Article 5.

5.4 Term. All confidentiality and limited use obligations imposed under this Article 5 shall expire upon the later of five (5) years after the expiration or termination of this Agreement or five (5) years following a Party's receipt of such Confidential Information.

5.5 Agreement Terms; Public Announcement. Except for pre-approved statements agreed upon in writing by the Parties regarding the existence of this Agreement and the transactions contemplated hereby, neither Party will disclose to any Third Party the terms of this Agreement or the transactions contemplated hereby, nor issue any press release or public announcement regarding the existence of the this Agreement or any provisions hereof or the transactions contemplated hereby, without the other Party's prior written consent; provided that, (i) either Party is permitted to disclose the existence of this Agreement and its contents in any filings with the SEC or any other governmental or quasi-governmental authority (whether domestic or foreign) to the extent required by law or regulation, (ii) the disclosing Party shall notify the other Party in advance and in writing, (iii) the disclosing Party shall cooperate reasonably with the non-disclosing Party to obtain an order or other reliable assurance from the relevant governmental or quasi-governmental authority that confidential treatment will be accorded to any information that is Confidential Information, and (iv) neither party shall unreasonably withhold its approval.

INFORMATION MARKED BY [***] HAS BEEN OMITTED PURSUANT TO A REQUEST FOR CONFIDENTIAL TREATMENT. THE OMITTED PORTION HAS BEEN SEPARATELY FILED WITH THE SECURITIES AND EXCHANGE COMMISSION.

5.6 Publication of Clinical Trial Results. For any Clinical Study under this Agreement, the Parties agree to collaborate to publish the results of such studies and agree that they will not independently publish, publicly disclose, present or discuss any results of or information pertaining to the Clinical Study until a joint publication is released; provided however, that if a Party desires to withdraw from it participation in a joint publication, then the other Party will have the right to publish the Clinical Study results in accordance with the provisions of this section (the "Publishing Party"). The requirements of this Section 5.6 apply to all abstracts, articles, manuscripts, presentations and other forms of publication regarding the results of activities performed pursuant to such studies or trials (collectively, "Publications"). Unless the Publication is jointly authored by the Parties, the Publishing Party will provide to the other Party a copy of the Publication for review to determine whether Confidential Information is disclosed, to allow the other Party to protect its rights in patentable or copyrightable materials, and to check for technical correctness. When requested by the other Party, the Publishing Party will delay publication up to an additional forty-five (45) days to allow the other Party to protect its right in patentable or copyrightable material. If notified by the other Party within the forty five (45) day review period that such Publication contains Confidential Information, the Publishing Party shall delete Confidential Information and the Parties shall come to a mutual agreement upon any other technical and editorial corrections requested by the other Party prior to publication or presentation. Nile acknowledges that, per Medtronic's policy, Medtronic will not compensate Nile or any Healthcare Professional (as defined below) who serve as authors or contributors on Publications for their writing or editing activities. Nile agrees that any fees or costs related to Publication writing or editing activities are not included in the Budget set forth in Exhibit B. "Healthcare Professional" means any person, other than an individual patient, in a position to purchase, lease, recommend, use, influence or arrange for the purchase or lease of, or prescribe Medtronic products. Healthcare Professionals include, but are not limited to, physicians, nurses, nurse practitioners, physician assistants, clinical PharmDs, clinical psychologists, dentists, and surgeons.

ARTICLE 6
INTELLECTUAL PROPERTY; POTENTIAL SUBSEQUENT STUDIES AND COLLABORATION

6.1 Pre-existing Rights. Nothing contained herein shall affect the rights of Medtronic in Medtronic Background Intellectual Property or the rights of Nile in Nile Background Intellectual Property or Nile Materials. However, to the extent that Medtronic and Nile have the legal right and ability to do so, each party hereby grants to the other party a non-exclusive, royalty-free right to use the other party's Background Intellectual Property, or Nile Materials solely for completing the Clinical Study. Such right shall terminate upon the sooner of the expiration or termination of this Agreement.

6.2 Potential Subsequent Studies and Collaboration. At the completion of the Clinical Study, the Parties will discuss in good faith an additional "Collaboration and License Agreement" governing any future work to be conducted in connection with the Drug; provided, however, that entry into any such additional agreement shall be within the sole discretion of the parties.

6.3 Medtronic Improvements. All rights and title to Medtronic Improvements shall vest in Medtronic. Medtronic Improvements shall be considered Confidential Information of Medtronic and will be subject to the terms of this Agreement. Nile herby assigns, and shall assign any interest in Medtronic Improvements to Medtronic.

6.4 Nile Improvements. All rights and title to Nile Improvements shall vest in Nile. Nile Improvements shall be considered Confidential Information of Nile and will be subject to the terms of this Agreement. Medtronic herby assigns, and shall assign any interest in Nile Improvements to Nile.

6.5 Joint Intellectual Property. All right and title to Joint Intellectual Property and Clinical Data shall vest jointly in Nile and Medtronic and the Parties shall each take such steps as may be reasonably requested by the other to secure the joint ownership interests of the Parties. Nile inventors hereby assigns and shall assign to Nile, and Medtronic inventors hereby assigns and shall assign to Medtronic their respective interests to Joint Intellectual Property. One Party will promptly furnish the other Party an invention disclosure naming joint inventors of any Joint Intellectual Property.

6.6 Royalty. Nile will pay Medtronic a royalty equal to [***] percent ([***]%) of Net Sales. Royalties shall be paid on a Royalty Bearing Product-by-Royalty Bearing Product and country-by-country basis until the expiration in each country of the last to expire of the issued patents constituting Joint Intellectual Property in such country covering the manufacture, use, offer for sale or sale of such Royalty Bearing Product.

6.7 Timing of Royalty Payments. Royalty payments shall be paid in quarterly installments, within 60 days following the end of each calendar quarter.

6.8 No Deductions from Payments. Nile shall be solely responsible for payment of any fee, royalty or other payment due to any third party in connection with the research, development, manufacture, distribution, use, sale, import or export of a Royalty Bearing Product, and Nile shall not have the right to set off any amounts paid to such third party, including fee, royalty or other payment, against any amount payable to Medtronic hereunder.

6.9 Single Royalty. Only a single royalty payment shall be due and payable on Net Sales of a Royalty Bearing Product, regardless if such Royalty Bearing Product is covered by more than one Valid Claim.

6.10 Royalty Reports. Within 60 days after the end of each calendar quarter in which a royalty payment under this Article 6 is required to be made, Nile shall send to Medtronic a report of Net Sales for which a royalty is due, which report sets forth for such calendar quarter the following information: (i) total Net Sales sold during such calendar quarter, (ii) Net Sales on a country-by-country basis, (iii) gross sales on a country-by-country basis, (iv) quantity of Royalty Bearing Products sold, (v) the exchange rate used to convert Net Sales from the currency in which they are earned to United States dollars; and (vi) the total royalty payments due.

6.11 Currency. All payments to be made under this Agreement shall be made in United States dollars, unless expressly specified to the contrary herein. Net Sales outside of the United States shall be first determined in the currency in which they are earned and shall then be converted into an amount in United States dollars. All currency conversions shall use the conversion rate reported by a mutually acceptable foreign exchange rate data source on the last Business Day of the calendar quarter for which such payment is being determined.

6.12 Method of Payment. Amounts due under this Agreement shall be paid in immediately available funds, by means of wire transfer to an account identified by Medtronic.

6.13 Withholding of Taxes. Nile may withhold from payments due to Medtronic amounts for payment of any withholding tax that is required by law to be paid to any taxing authority with respect to such payments. Nile shall provide to Medtronic all relevant documents and correspondence, and shall also provide to Medtronic any other cooperation or assistance on a reasonable basis as may be necessary to enable Medtronic to claim exemption from such withholding taxes and to receive a full refund of such withholding tax or claim a foreign tax credit. Nile shall give Medtronic proper evidence from time to time as to the payment of such tax. The Parties shall cooperate with each other in seeking deductions under federal and state tax laws and any double taxation or other similar treaty or agreement from time to time in force. Such cooperation may include Nile making payments from a single source in the U.S., where possible.

6.14 Late Payments. Any amounts not paid on or before the date due under this Agreement are subject to interest from the date due through and including the date upon which payment is received. Interest is calculated, over the period between the date due and the date paid, at a rate equal to [***] percentage point ([***]%) over the "bank prime loan" rate, as such rate is published in the U.S. Federal Reserve Bulletin H.15 or successor thereto on the last business day of the applicable calendar quarter prior to the dateon which such payment is due.

6.15 Blocked Currency. If, at any time, legal restrictions prevent the prompt remittance of part or all royalties with respect to any country where a Royalty Bearing Product is sold, payment shall be made through such lawful means or methods. When in any country, the law or regulations prohibit both the transmittal and deposit of royalties or other payments; Nile shall continue to report all such amounts, but may suspend payment for as long as such prohibition is in effect. As soon as such prohibition ceases to be in effect, all amounts that would have been obligated to be transmitted or deposited but for the prohibition, together with accrued interested thereon, shall promptly be transmitted to Medtronic.

6.16 Records. Nile shall keep, and shall require that each sublicensee keep, full, true and accurate books of account containing the particulars of its Net Sales and the calculation of royalties. Nile and its sublicensees shall each keep such books of account and the supporting data and other records at its principal place of business. Such books and records must be maintained available for examination in accordance with this Section 6.16 for five (5) calendar years after the end of the calendar year to which they pertain, and otherwise as reasonably required to comply with Generally Accepted Accounting Principles ("GAAP").

6.17 Appointment of Auditor. Medtronic may appoint an internationally-recognized independent accounting firm reasonably acceptable to Nile to inspect the relevant books of account of Nile and its sublicensee to verify any reports or statements provided, or amounts paid or invoiced (as appropriate), by Nile or its Sublicensees.

6.18 Procedures for Audit. Medtronic may exercise its right to have Nile's and its sublicensees's relevant records examined only during the three year period during which Nile is required to maintain records, no more than once in any consecutive four calendar quarters. Nile and its Sublicensees are required to make records available for inspection only during regular business hours, only at such place or places where such records are customarily kept, and only upon receipt of at least fifteen (15) days advance notice from Medtronic.

6.19 Audit Report. The independent accountant will be instructed to provide to Medtronic an audit report containing its conclusions regarding the audit, and specifying whether the amounts paid were correct, and, if incorrect, the amount of any underpayment or overpayment.

6.20 Underpayment and Overpayment. After review of the auditor's report: (i) if there is an uncontested underpayment by Nile for all of the periods covered by such auditor's report, then Nile shall pay to Medtronic the full amount of that uncontested underpayment, and (ii) if there is an uncontested overpayment for such periods, then Medtronic shall provide to Nile a credit against future payments (such credit equal to the full amount of that overpayment), or, if Nile is not obligated to make any future payments, then Medtronic shall pay to Nile the full amount of that overpayment. If the total amount of any such underpayment exceeds five percent (5%) of the amount previously paid by Nile for the period subject to audit, then Nile shall pay the reasonable costs for the audit. Otherwise, all costs of the audit shall be paid by Medtronic.

6.21 Right of First Negotiation. In the event that the Parties fail to enter into a definitive commercial license agreement with respect to Nile Materials within fifteen months following the Effective Date, each Party shall have a right of first negotiation to license exclusive rights of any Joint Intellectual Property, as provided in this Section 6.21. Each Party shall promptly disclose to the other Party any patentable invention conceived, solely or jointly with others, by its employees, contractors or agents in the performance of the Work Plan and constituting Joint Intellectual Property. Within fifteen months following the Effective Date, the Party receiving such disclosure shall advise the Party making such disclosure whether it has an interest in securing an exclusive license to such invention and all patent rights covering or claiming such invention. If the Party receiving such disclosure notifies the disclosing Party of its interest in securing an exclusive license during such fifteen month period, the Parties shall enter into good faith exclusive negotiations for 90 days following the date of such notice. If, at that the end of such 90 day period, the Parties have not entered into such a license, each Party shall be free to exploit its interest in such patentable invention and associated patent rights as it deems appropriate, without the consent of and without accounting to the other Party.

ARTICLE 7
BUDGET, PAYMENT AND FINANCIAL REPORTING

7.1 Budget. Attached hereto in Exhibit B is a budget reflecting Medtronic's payment obligations with respect to the Work Plan. Medtronic shall not be obligated to pay any amounts to Nile with respect to the Work Plan other than as set forth in the Budget. If it shall appear to Nile that the amounts specified in any line item of the Budget shall be exceeded in connection with the Work Plan, Nile shall so inform Medtronic as soon as reasonably possible and Nile and Medtronic shall determine whether the Budget should be amended to provide for such excess amounts.

7.2 Payment Milestones. Medtronic will make payments to Nile for progression on the work plan according to the milestone payment structure specified in the Budget. Upon achievement of each specified milestone, Nile will provide email confirmation to Medtronic addressed to Maura Donovan at [***]@medtronic.com and submit and invoice to the following address

Medtronic, Inc.
710 Medtronic Parkway
Mail Stop LT220
Minneapolis, MN 55432-5604 USA
Attn.: Maura Donovan

7.3 Payment. Medtronic shall make payments to Nile within forty-five (45) days of receiving an invoice from Nile. Payments shall be made by wire transfer to:

Citibank, NA
640 Fifth Avenue
New York, NY 10019
Account # [***]
ABN# [***]

7.4 Financial Reporting. Nile shall provide Medtronic with a quarterly financial report of all expenses incurred for the purpose of the Clinical Study in accordance with the Budget. Each report shall be emailed Maura Donavan, Vice President Corporate Life Sciences, Medtronic, Inc. at [***]@medtronic.com, or such other Medtronic personnel which Medtronic may designate.

INFORMATION MARKED BY [***] HAS BEEN OMITTED PURSUANT TO A REQUEST FOR CONFIDENTIAL TREATMENT. THE OMITTED PORTION HAS BEEN SEPARATELY FILED WITH THE SECURITIES AND EXCHANGE COMMISSION.

ARTICLE 8
PRIOR AGREEMENTS BETWEEN THE PARTIES

8.1 Confidentiality Agreement. The CDA is hereby terminated in its entirety effective as of the Effective Date of this Agreement and replaced by the confidentiality provisions set forth herein.

8.2 Material Transfer Agreement. The MTA shall continue in full force and effect until it expires or is terminated in accordance with its terms.

ARTICLE 9
REPRESENTATIONS AND WARRANTIES

9.1 Representations and Warranties of Nile. Nile represents and warrants to Medtronic as follows:

9.1.1. Nile has full power and authority to enter into this Agreement and to perform its obligations hereunder.

9.1.2. This Agreement has been duly authorized, executed and delivered by Nile and constitutes a legal, valid and binding agreement of Nile enforceable in accordance with its terms, subject to bankruptcy, insolvency, fraudulent transfer, reorganization, moratorium and similar laws of general applicability relating to or affecting creditors' rights and to general equity principles.

9.1.3. Neither the execution and delivery of this Agreement nor compliance by Nile with this Agreement's terms and provisions will violate (a) any provisions of the agreements governing Nile's conduct or operation, (b) any material contract, license, franchise or permit to which Nile is a party or by which it is bound, or (c) to the knowledge of Nile, any law, statute, regulation, injunction, order or decree of any government agency or authority or court to which any of said entity is subject.

9.1.4. Nile is not aware of and has not received any communications challenging the ownership, validity or effectiveness of any of its patents, patent applications, licenses, trade secrets or other intellectual property required for the performance by Nile of its obligations under this Agreement.

9.1.5. To the best knowledge and belief of Nile's Chief Executive Officer and Chief Financial Officer: (i) Nile is the owner or exclusive licensee of the entire right, title, and interest in and to the Nile Patents; (ii) Nile has the right and power to grant future licenses; (iii) there are no other agreements with any other party in that would conflict with the grant of licenses under the Nile Patents; and (iv) there no prior art that would invalidate the Nile Patents.

9.2 Representations and Warranties of Medtronic. Medtronic represents and warrants to Nile as follows:

9.2.1. Medtronic has full corporate power and authority to enter into this Agreement and to perform its respective obligations hereunder.

9.2.2. This Agreement has been duly authorized, executed and delivered by Medtronic and constitutes a legal, valid and binding agreement of said party enforceable in accordance with its terms, subject to bankruptcy, insolvency, fraudulent transfer, reorganization, moratorium and similar laws of general applicability relating to or affecting creditors' rights and to general equity principles.

9.2.3. Neither the execution and delivery of this Agreement nor compliance by Medtronic with this Agreement's terms and provisions will violate (a) any provisions of the articles of incorporation or bylaws of Medtronic, (b) any material contract, license, franchise or permit to which Medtronic is a party or by which it is bound, or (c) to the knowledge of Medtronic, any law, statue, regulation, injunction, order or decree of any government agency or authority or court to which said entity is subject.

9.3 Warranty Disclaimer. The Parties acknowledge that the Clinical Study (and potentially any subsequent clinical studies under this Agreement) are experimental in nature and subject to all the risks (including risks of delay in the project) associated with human research and drug and/or medical device product development. As such, neither Party makes any representation, warranty or guarantee that this Agreement will produce successful regulatory approvals to commercialize the Drug with Medtronic Devices. EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS AGREEMENT, THE PARTIES MAKE NO OTHER REPRESENTATIONS AND EXTEND NO OTHER WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED.

ARTICLE 10
TERM AND TERMINATION

10.1 Term. This Agreement shall take effect on the Effective Date and shall remain in effect until the earlier of the completion of the Clinical Study or termination pursuant to this Article 10.

10.2 Termination Rights.

10.2.1. A Party may terminate this Agreement (a) with Cause, or (b) due to the other Party's Bankruptcy Event immediately upon delivery of a written notice to the other Party.

10.2.2. Medtronic may terminate this Agreement without Cause at any time upon ninety (90) days written notice to Nile, provided Medtronic shall be obligated to pay Nile for any non-cancelable costs Nile incurred prior to the effective date of termination. Nile shall not terminate this Agreement before the Clinical Study is fully concluded, except pursuant to Sections 10.2.1 or 10.2.3.

10.2.3. The Parties may terminate this Agreement (a) without Cause at any time for reasons related to the safety, efficacy, toxicity or formulation of the Drug, or for a failure of any Clinical Study to meet its endpoints; or (b) through a written document signed by authorized representatives of each Party specifically agreeing to the termination of this Agreement.

10.3 Preservation of Licenses in Bankruptcy. If Nile should file a petition under bankruptcy laws, or if any involuntary petition shall be filed against Nile, Medtronic shall be protected in the continued enjoyment of its rights as licensee hereunder to the maximum feasible extent including, if it so elects, the protection conferred upon licensees under Section 365(n) of Title 11 of the U.S. Code, or any similar provision of any applicable law.

10.4 Survival. Notwithstanding the foregoing sections of this Article 10, and in addition to provisions of this Agreement that survive by their own express terms, the Parties' respective ongoing rights and obligations under Sections 2, 3, 4.2, 5, 6, 10 and 11 shall survive termination of this Agreement hereunder.

10.5 No Consequential or Punitive Damages. EXCEPT FOR A BREACH OF A PARTY'S CONFIDENTIALITY OBLIGATIONS UNDER ARTICLE 5, NEITHER PARTY HERETO SHALL BE LIABLE TO PAY THE OTHER PARTY COMPENSATION, REIMBURSEMENT OR DAMAGES FOR SUCH OTHER PARTY'S INDIRECT, INCIDENTAL, CONSEQUENTIAL, SPECIAL, EXEMPLARY, MULTIPLE OR PUNITIVE DAMAGES, INCLUDING BUT NOT LIMITED TO LOSS OF PROSPECTIVE PROFITS OR ANTICIPATED SALES, FOR SUCH OTHER PARTY'S EXPENDITURES, INVESTMENTS, OR COMMITMENTS IN CONNECTION WITH ITS BUSINESS OR GOODWILL, OR FOR ANY OTHER REASON WHATSOEVER, REGARDLESS OF ANY NOTICE OF SUCH DAMAGES. NOTHING IN THIS SECTION 10.5 IS INTENDED TO LIMIT OR RESTRICT THE INDEMNIFICATION RIGHTS.

ARTICLE 11
MISCELLANEOUS

11.1 Successors and Assigns. The rights or obligations of the parties hereto may not be assigned without the prior written consent of the other Party; provided that the rights of either Party may be assigned by it to an Affiliate of such Party or to such business organization which shall succeed to substantially all the assets and business of such Party or such subsidiary or business to which this Agreement relates. Subject to the foregoing, the provisions of this Agreement shall inure to the benefit of, and be binding upon, the permitted successors and assigns of the parties hereto.

11.2 Notices. All notices or other communications to a party required or permitted hereunder shall be in writing and shall be given by hand delivery, courier service (with acknowledgement of receipt), telecopy (with confirmation of transmission), or by certified mail, postage prepaid with return receipt requested, to the following person at the following address:

If to Nile:

Nile Therapeutics, Inc
West 4th Avenue, Suite 400,
San Mateo, California 99402
Attn.: Daron Evans
FAX: [***]

If to Medtronic:

Medtronic, Inc.
710 Medtronic Parkway
Mail Stop LT220
Minneapolis, MN 55432-5604 USA
Attn.: Maura Donovan
FAX: [***]

With a copy to:

Medtronic, Inc.
710 Medtronic Parkway
Minneapolis, MN 55432 USA
Attn.: Margaret Price
FAX: [***]

Any party may change the above-specified recipient and/or mailing address by notice to all other parties given in the manner herein prescribed. All notices shall be deemed given on the day when actually delivered as provided above (if delivered personally or by telecopy) or on the day shown on the return receipt (if delivered by mail).

11.3 Waiver. The failure of a party to enforce, at any time, any of the provisions of this Agreement, or to require at any time performance by the other parties of any of the provisions hereof, shall in no way be construed to be a waiver of such provisions, nor in any way to affect the validity of this Agreement or any part thereof, or the right of a party to thereafter enforce each and every such provision.

11.4 Severability. If any provision of this Agreement is held to be unenforceable or illegal, the other provisions of this Agreement shall not be affected by any such holding and shall remain in full force and effect. In such event the parties shall use all reasonable efforts to replace any such unenforceable or illegal provision with a provision reflecting as nearly as possible the intent, purpose and economic effect of such provision.

11.5 Independent Contractor. Each party shall act solely as an independent contractor. Nothing in this Agreement shall be construed to give either party the power of authority to act for, bind, or commit the other party.

INFORMATION MARKED BY [***] HAS BEEN OMITTED PURSUANT TO A REQUEST FOR CONFIDENTIAL TREATMENT. THE OMITTED PORTION HAS BEEN SEPARATELY FILED WITH THE SECURITIES AND EXCHANGE COMMISSION.

11.6 Headings and Numbering. The headings and numbering are inserted and included solely for convenience and reference and shall not be considered or given any effect in construing this Agreement or any part hereof. This Agreement shall be interpreted without regard to any rule or presumption favoring interpretation hereof against the party causing this Agreement to be drafted.

11.7 Entire Agreement. This Agreement, including its exhibits and schedules hereto, supersedes all prior oral agreements and understandings between the Parties, as well as the CDA (which shall be deemed to be terminated as of the Effective Date of this Agreement) with respect to the subject matter hereof. This Agreement may be modified, amended or changed only by a written instrument signed by the parties.

11.8 Survival. All of the representations, warranties, and indemnifications made in this Agreement, and all terms and provisions hereof intended to be observed and performed by the parties after the termination hereof, shall survive such termination and continue thereafter in full force and effect, subject to applicable statute of limitations.

11.9 Governing Law. The legality, validity, enforceability and interpretation of this Agreement shall be governed by the laws of the State of New York, without giving effect to the principles of conflict of laws.

11.10 Expenses. Except as expressly provided herein, Medtronic and Nile shall each bear its own expenses incurred on its behalf with respect to this Agreement and the transactions contemplated herein and therein.

11.11 Benefit. Nothing in this Agreement or the agreements referred to herein, expressed or implied, shall confer on any person other than the parties hereto or thereto, or their respective permitted successors or assigns, any rights, remedies, obligations or liabilities under or by reason of this Agreement, the agreements referred to herein, or the transactions contemplated herein or therein.

11.12 Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original, but all of which taken together shall be considered one and the same instrument.

INFORMATION MARKED BY [***] HAS BEEN OMITTED PURSUANT TO A REQUEST FOR CONFIDENTIAL TREATMENT. THE OMITTED PORTION HAS BEEN SEPARATELY FILED WITH THE SECURITIES AND EXCHANGE COMMISSION.

IN WITNESS WHEREOF the parties have executed this Agreement effective as of the date first above written.

NILE THERAPEUTICS, INC.

/s/ Daron Evans

By: Daron Evans

MEDTRONIC, INC.

/s/ Richard E. Kuntz

By: Richard E. Kuntz

INFORMATION MARKED BY [***] HAS BEEN OMITTED PURSUANT TO A REQUEST FOR CONFIDENTIAL TREATMENT. THE OMITTED PORTION HAS BEEN SEPARATELY FILED WITH THE SECURITIES AND EXCHANGE COMMISSION.

Exhibit A

Work Plan

[***]

Exhibit redacted in its entirety

INFORMATION MARKED BY [***] HAS BEEN OMITTED PURSUANT TO A REQUEST FOR CONFIDENTIAL TREATMENT. THE OMITTED PORTION HAS BEEN SEPARATELY FILED WITH THE SECURITIES AND EXCHANGE COMMISSION.

Exhibit B

Budget For Clinical Study in Work Plan

[***]

Exhibit redacted in its entirety

INFORMATION MARKED BY [***] HAS BEEN OMITTED PURSUANT TO A REQUEST FOR CONFIDENTIAL TREATMENT. THE OMITTED PORTION HAS BEEN SEPARATELY FILED WITH THE SECURITIES AND EXCHANGE COMMISSION.

AMENDMENT NO. 2 TO
SERVICES AGREEMENT

THIS AMENDMENT NO. 2 TO SERVICES AGREEMENT (this "Amendment") is entered as of March 17, 2011 (the "Effective Date"), by and between NILE THERAPEUTICS, INC., a Delaware corporation ("Nile") and TWO RIVER CONSULTING, LLC, a Delaware limited liability corporation ("Consultant"), having a business address at 689 Fifth Avenue, New York, NY 10022.

RECITALS:

WHEREAS, the parties previously entered into a Services Agreement dated June 24, 2009, as amended on August 12, 2010 (the "Agreement"), pursuant to which Nile engaged Consultant to perform certain Services as described in the Agreement for a term of one year, subject to extension upon the mutual agreement of the parties; and

WHEREAS, Nile and Consultant each desire to continue to the engagement of Consultant by Nile, but with a reduced level of services and compensation, as described below.

NOW, THEREFORE, in consideration of the foregoing and the mutual agreements, provisions and covenants contained herein, the parties hereby agree as follows:

1. Compensation. As of the Effective Date, Section 2.1 shall be amended and restated in its entirety, as follows:

"**2.1** To pay CONSULTANT an amount equal to Thirty-One Thousand Seven Hundred Two Dollars ($31,702.00) per month during the Term. Such monthly compensation rate is based upon a fixed fee billing rate by level for personnel multiplied by the number of hours for each level as estimated by the parties to be necessary to perform the Services. To the extent NILE requests Services that will require hours or personnel in excess of such budget in a given month, CONSULTANT reserves the right to invoice NILE for such excess at CONSULTANT's hourly rates in effect on the date hereof, in accordance with the schedule attached hereto as Appendix A. Undisputed payments will be made by NILE within 30 days from NILE's receipt of CONSULTANT's invoice. Invoices will contain such detail as NILE may reasonably require and will be payable in U.S. Dollars."

2 . Miscellaneous. All capitalized terms used but not defined herein shall have the meanings ascribed to such terms in the Agreement. Except as amended or modified by this Amendment, the parties hereby confirm that all other terms and provisions of the Agreement shall remain in full force and effect. This Amendment may be executed in any number of counterparts, each of which shall constitute an original, but all of which together shall constitute one and the same instrument.

Signature page follows.

IN WITNESS WHEREOF, the undersigned have caused this Amendment No. 2 to Services Agreement to be duly executed as of the date and year first above written.

NILE THERAPRUTICS, INC.

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

TWO RIVER CONSULTING, LLC

By: /s/ David Tanen
Name: David M. Tanen
Title: VP of Managing Member

APPENDIX A

Rate Schedule

Consultant Personnel	Hourly Rate ($)
Business Development	150
Project Management, Operations	135
Medical Consulting	250
Accounting/Financial Reporting	150

EXHIBIT 31.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER

I, Joshua Kazam, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Nile Therapeutics, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 16, 2011

/s/ Joshua Kazam
Name: Joshua Kazam
Title: Chief Executive Officer

EXHIBIT 31.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER

I, Daron Evans, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Nile Therapeutics, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 16, 2011

/s/ Daron Evans
Name: Daron Evans
Title: Chief Financial Officer

EXHIBIT 32.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER
CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

Pursuant to 18 U.S.C. § 1350, as created by Section 906 of the Sarbanes-Oxley Act of 2002, the undersigned officer of Nile Therapeutics, Inc. (the "**Company**") hereby certifies, to such officer's knowledge, that:

(1) the accompanying Quarterly Report on Form 10-Q of the Company for the quarterly period ended March 31, 2011 (the "**Report**") fully complies with the requirements of Section 13(a) or Section 15(d), as applicable, of the Securities Exchange Act of 1934, as amended; and

(2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: May 16, 2011

/s/ Joshua Kazam
Name: Joshua Kazam
Title: Chief Executive Officer

EXHIBIT 32.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER
CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

Pursuant to 18 U.S.C. § 1350, as created by Section 906 of the Sarbanes-Oxley Act of 2002, the undersigned officer of Nile Therapeutics, Inc. (the "**Company**") hereby certifies, to such officer's knowledge, that:

(1) the accompanying Quarterly Report on Form 10-Q of the Company for the quarterly period ended March 31, 2011 (the "**Report**") fully complies with the requirements of Section 13(a) or Section 15(d), as applicable, of the Securities Exchange Act of 1934, as amended; and

(2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: May 16, 2011

/s/ Daron Evans
Name: Daron Evans
Title: Chief Financial Officer