
FORM 6-K
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Report of Foreign Issuer

**Pursuant to Rule 13a-16 or 15d-16 of
the Securities Exchange Act of 1934**

For the Month of April, 2010

Commission File Number 1-32001

Lorus Therapeutics Inc.

(Translation of registrant's name into English)

2 Meridian Road, Toronto, Ontario M9W 4Z7

(Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.

Form 20-F ☒

Form 40-F ☐

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1): ____

Note: Regulation S-T Rule 101(b)(1) only permits the submission in paper of a Form 6-K if submitted solely to provide an attached annual report to security holders.

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7): ____

Note: Regulation S-T Rule 101(b)(7) only permits the submission in paper of a Form 6-K if submitted to furnish a report or other document that the registrant foreign private issuer must furnish and make public under the laws of the jurisdiction in which the registrant is incorporated, domiciled or legally organized (the registrant's "home country"), or under the rules of the home country exchange on which the registrant's securities are traded, as long as the report or other document is not a press release, is not required to be and has not been distributed to the registrant's security holders, and, if discussing a material event, has already been the subject of a Form 6-K submission or other Commission filing on EDGAR.

Indicate by check mark whether the registrant by furnishing the information contained in this Form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.

Yes ☐

No ☒

If "Yes" is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b):82-_____.

SIGNATURES

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

Lorus Therapeutics Inc.

Date: April 23, 2010

By: /s/ "Elizabeth Williams"

Elizabeth Williams
Director of Finance and Controller

EXHIBIT INDEX

99.1 Material Change Report dated April 23, 2010

Form 51-102F3
Material Change Report

Item 1 Name and Address of Company

Lorus Therapeutics Inc. ("**Lorus**")
 2 Meridian Road
 Toronto, ON
 M9W 4Z7

Item 2 Date of Material Change

April 14, 2010

Item 3 News Release

The press release reporting the material change was issued by Lorus on April 14, 2010 in Canada through Marketwire and is attached hereto as Schedule "A".

Item 4 Summary of Material Change

The news release issued on April 14, 2010 by Lorus announced that Lorus has entered into a promissory note (the "**Note**"), as the debtor, with Trapeze Capital Corp., an entity in which Herbert Abramson, one of its directors, is a director and officer, as the lender, in the amount of \$1,000,000 (the "**Principal Amount**"). The Note includes the following terms:

- (i) interest is payable on the Principal Amount at a rate of 10% per annum and is due at maturity of the Note, six months;
- (ii) Lorus has the ability to elect prepayment upon prior written notice to Trapeze Capital Corp; and
- (iii) upon an event of default, such events including, but not limited to: (i) failure of Lorus to pay interest when due; (ii) a sale of all or substantially all of the assets of Lorus; and (iii) insolvency of Lorus, the Principal Amount may become due to Trapeze Capital Corp, at its option.

Item 5 Full Description of Material Change

All members of the board of directors of Lorus entitled to vote on such matter, authorized Lorus to borrow funds from Trapeze Capital Corp. in the Principal Amount with an interest rate thereon at the rate of 10% per annum, and to thereby enter into the form of Note. The proceeds of the Note will be used for general working capital purposes. Securities laws do not require formal valuation and minority approval exemptions for the entering into of the Note.

For more information regarding the material change, please see the news release filed on April 14, 2010 attached hereto as Schedule "A."

Item 6 Reliance on subsection 7.1(2) or (3) of National Instrument 51-102

Not Applicable.

Item 7 Omitted Information

Not Applicable.

Item 8 Executive Officer

For further information please contact:
 Lorus Therapeutics Inc.
 Dr. Saeid Babaei
 (416) 798-1200 ext. 490.

Item 9 Date of Report

April 23, 2010



NEWS RELEASE

Lorus Therapeutics Reports Third Quarter Results for Fiscal Year 2010

TORONTO, CANADA - April 14, 2010 - Lorus Therapeutics Inc. (the "Company" or "Lorus"), a biopharmaceutical company specializing in the research and development of pharmaceutical products and technologies for the management of cancer, today reported financial results for the three and nine months ended February 28, 2010. Unless specified otherwise, all amounts are in Canadian dollars.

Q3 2010 HIGHLIGHTS

Corporate Highlights

- April 6, 2010, the Company filed a Registration Statement on Form F-1 with the United States Securities and Exchange Commission for an offering of up to US\$17.5 million of units in the United States.

Drug Development Highlights

- April 12, 2010, the Company announced successful production of first clinical batch of anticancer drug LOR-253
- March 10, 2010, the Company announced allowance of a patent on its small molecule program.
- February 24, 2010, the Company announced a publication demonstrating antitumor efficacy of Interleukin 17E.

FINANCIAL RESULTS

The Company's net loss for the three months ended February 28, 2010 decreased to \$1.3 (\$nil per share) million compared to \$2.5 million (\$0.01 per share) in the same period in the prior year. The Company had net earnings of \$7.2 million (\$0.03 per share) for the nine months ended February 28, 2010 compared to a net loss of \$7.0 million (\$0.03 per share) during the same period in the prior year. The year-to-date net earnings are primarily a result of the \$11.0 million gain on sale recognized on the repurchase and extinguishment of the Company's convertible debentures in the first quarter of fiscal 2010.

We utilized cash of \$1.8 million in our operating activities in the three-month period ended February 28, 2010 compared with \$1.8 million during the same period in fiscal 2009. For the nine months ended February 28, 2010 the Company utilized cash of \$3.5 million compared with \$5.7 million in the same period last year. Today, the Company secured a loan of \$1 million from Trapeze Capital Corp., an entity in which Herbert Abramson, one of our directors, is a director and officer. The loan is unsecured, has a six month term, bears interest at the annual rate of 10% and is intended as interim financing.

At February 28, 2010, the Company had cash, cash equivalents and short-term investments of \$1.1 million compared to \$5.9 million at May 31, 2009.

Research and development expenses totaled \$718 thousand in the three-month period ended February 28, 2010 compared to \$1.1 million during the same period in the prior year and decreased to \$1.9 million from \$3.1 million in the nine-month period ended February 28, 2010 as compared to the same period in fiscal 2009.

The decrease in research and development expenditures during the nine-month period ended February 28, 2010 compared to the same period in the prior year of \$1.1 million is primarily a result of the cost of toxicity studies for small molecule conducted and completed in fiscal 2009. No similar costs were incurred in the current year. In addition, we reduced overall, non-critical research and development costs in response to the current cash position.

General and administrative expenses totaled \$515 thousand in the three-month period ended February 28, 2010 compared to \$775 thousand in same period in the prior year. For the nine-month period ended February 28, 2010, general and administrative expenses were \$1.8 million compared with \$2.4 million in the same period in the prior year.

The decrease in general and administrative costs for the three and nine-month periods ended February 28, 2010 is the result of reduced personnel and legal and accounting costs in comparison with the prior year.

Management has forecasted that the Company's current level of cash and cash equivalents and short-term investments will not be sufficient to execute its current planned expenditures for the next twelve months without further investment. The Company continues to pursue additional funding and partnership opportunities to execute its planned expenditures in the future.

Lorus Therapeutics Inc.
Interim Consolidated Statements of Earnings (Loss) (unaudited)

	Three months ended Feb. 28, 2010	Three months ended Feb. 28, 2009	Nine months ended Feb. 28, 2010	Nine months ended Feb. 28, 2009
<i>(amounts in 000's except for per common share data)</i>				
<i>(Canadian dollars)</i>				
REVENUE	\$ 3	\$ 64	\$ 131	\$ 106
EXPENSES				
Research and development	718	1,090	1,916	3,056
General and administrative	515	775	1,791	2,442
Stock-based compensation	94	111	110	347
Depreciation and amortization of fixed assets	21	55	64	141
Operating expenses	1,348	2,031	3,881	5,986
Interest expense	-	160	41	578
Accretion in carrying value of convertible debentures	-	407	80	1,175
Interest income	(2)	(65)	(16)	(218)
Loss from operation for the period	(1,343)	(2,469)	(3,855)	(7,415)
Gain on repurchase of convertible debentures	-	-	11,006	-
Gain on sale of shares	-	-	-	450
Net earnings (loss) and other comprehensive income for the period	(1,343)	(2,469)	7,151	(6,965)
Basic earnings (loss) per common share	\$ -	\$ (0.01)	\$ 0.03	\$ (0.03)
Weighted average number of common shares outstanding used in the calculation of: ⁽¹⁾				
Basic earnings (loss) per share	298,010	253,538	275,232	244,039
Diluted earnings (loss) per share	298,010	253,538	278,377	244,039

(1) During periods of net loss, the calculation of diluted loss per share excludes all common shares potentially issuable upon the exercise of stock options, warrants and the convertible debenture that could dilute basic loss per share, because to do so would be anti-dilutive.

About Lorus

Lorus is a biopharmaceutical company focused on the research and development of novel therapeutics in cancer. Lorus' goal is to capitalize on its research, preclinical, clinical and regulatory expertise by developing new drug candidates that can be used, either alone, or in combination with other drugs, to successfully manage cancer. Through its own discovery efforts and an acquisition and in-licensing program, Lorus is building a portfolio of promising anticancer drugs. Lorus Therapeutics Inc. is listed on the Toronto Stock Exchange under the symbol LOR.

Forward Looking Statements

This press release contains forward-looking statements within the meaning of Canadian and U.S. securities laws. Such statements include, but are not limited to, statements relating to: financings and corporate reorganizations, the establishment of corporate alliances, the Company's plans, objectives, expectations and intentions and other statements including words such as "continue", "expect", "intend", "will", "should", "would", "may", and other similar expressions. Such statements reflect our current views with respect to future events and are subject to risks and uncertainties and are necessarily based upon a number of estimates and assumptions that, while considered reasonable by us are inherently subject to significant business, economic, competitive, political and social uncertainties and contingencies. Many factors could cause our actual results, performance or achievements to be materially different from any future results, performance or achievements described in this press release. Such expressed or implied forward looking statements could include, among others: our ability to continue to operate as a going concern; our ability to obtain the capital required for research and operations; the inherent risks in early stage drug development including demonstrating efficacy; development time/cost and the regulatory approval process; the progress of our clinical trials; our ability to find and enter into agreements with potential partners; our ability to attract and retain key personnel; changing market conditions; and other risks detailed from time-to-time in our ongoing quarterly filings, annual information forms, annual reports and annual filings with Canadian securities regulators and the United States Securities and Exchange Commission.

Should one or more of these risks or uncertainties materialize, or should the assumptions set out in the section entitled "Risk Factors" in our filings with Canadian securities regulators and the United States Securities and Exchange Commission underlying those forward-looking statements prove incorrect, actual results may vary materially from those described herein. These forward-looking statements are made as of the date of this press release and we do not intend, and do not assume any obligation, to update these forward-looking statements, except as required by law. We cannot assure you that such statements will prove to be accurate as actual results and future events could differ materially from those anticipated in such statements. Investors are cautioned that forward-looking statements are not guarantees of future performance and accordingly investors are cautioned not to put undue reliance on forward-looking statements due to the inherent uncertainty therein.

Lorus Therapeutics Inc.'s recent press releases are available through its website at www.lorusthera.com. For Lorus' regulatory filings on SEDAR, please go to www.Sedar.com. For SEDAR filings prior to July 10, 2007 you will find these under the company profile for Global Summit Real Estate Inc. (Old Lorus).

For further information, please contact:

Lorus Therapeutics Inc.

Dr. Saeid Babaei, 1-416-798-1200 ext. 490
ir@lorusthera.com