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**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 October, 2010

Commission File Number 1-32001

**Lorus Therapeutics Inc.**

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(Translation of registrant's name into English)

**2 Meridian Road, Toronto, Ontario M9W 4Z7**

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(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-\_\_\_\_\_.

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**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: October 15, 2010

By: /s/ "Elizabeth Williams"  
Elizabeth Williams  
Director of Finance and Controller

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**EXHIBIT INDEX**

99.1 News Release dated October 15, 2010 - LORUS THERAPEUTICS REPORTS FIRST QUARTER RESULTS FOR FISCAL YEAR 2011



## NEWS RELEASE

### LORUS THERAPEUTICS REPORTS FIRST QUARTER RESULTS FOR FISCAL YEAR 2011

**TORONTO, ONTARIO - October 15, 2010** - Lorus Therapeutics Inc. (TSX: LOR, OTCBB: LRUSF) ("Lorus" or the "Corporation"), 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 months ended August 31, 2010.

#### Q1 2011 HIGHLIGHTS

- Received approval of the Investigational New Drug ("IND") application for Lorus' anticancer drug candidate LOR-253 by the U.S. FDA. Based on the approval of the IND by the FDA, Lorus plans to proceed with a first-in-man Phase I dose escalation trial with LOR-253 in advanced or metastatic solid tumors. The trial will assess the safety profile, tolerability, and antitumor activity of LOR-253 in cancer patients. It is expected that the Phase I trial will be initiated by the end of the calendar year.
- Filed a final short form prospectus for units of the Corporation (the "Rights Offering"). Under the Rights Offering, holders of common shares of the Corporation as of October 12, 2010 (the "Record Date") will receive one right for each common share held as of the Record Date. Each two (2) rights will entitle the holder thereof to purchase a unit of the Corporation ("Unit") at a price of \$1.11 per Unit. Each Unit consists of one common share of the Corporation and one warrant to purchase an additional common share of the Corporation at a price of \$1.33 until May 2012. The Corporation has secured a standby purchase arrangement by Herbert Abramson, one of Lorus' directors whereby Mr. Abramson will make an investment such that the minimum gross proceeds of the Rights Offering are \$4 million. There will be no fee paid to Mr. Abramson for this commitment. Mr. Abramson is also providing the Company with interim financing by way of three \$500 thousand monthly loans, all have been advanced as of October 5, 2010. The loans are unsecured, have a six-month term (or the earlier of the closing of the Rights Offering) and bear interest at the annual rate of 10%. These loans will be repaid from the proceeds of the rights offering.
- Announced the publication of a peer-reviewed scientific article describing synthesis and antibacterial activity of novel antimicrobial compounds from Lorus' small molecule program. The article reported the results of studies showing that many of these compounds exhibited potent growth inhibition of multidrug resistant bacterial strains. Some of the compounds showed comparable antibacterial activity to that of vancomycin and higher activity than linezolid, both of which are antibiotics currently used to treat serious bacterial infections.

#### FINANCIAL RESULTS

Our loss from operations for the three months ended August 31, 2010 was \$1.2 million (\$0.12 per share) compared with \$1.2 million (\$0.15 per share) during the same period in fiscal 2010. During the three months ended August 31, 2009 the Company recorded a gain on the repurchase of its secured convertible debentures of \$11.0 million reflecting the difference between the fair value of the debentures at the repurchase date, net of transaction costs of \$221 thousand, and the cash payment amount of \$3.3 million resulting in net income for the period of \$9.8 million (income \$1.14 per share).

Loss from operations for the three months ended August 31, 2010 compared with the same period in the prior year remained consistent. Lower research and development expenditures of \$51 thousand due to reduction in spending to conserve cash, lower stock based compensation expense of \$56 thousand due to no stock options issued in the first quarter of 2011 as well as no accretion in the carrying value of the convertible debentures due to their settlement in the first quarter of 2010 were offset by no revenue in the current quarter compared with \$49 thousand in the prior year as well as higher general and administrative spending of \$56 thousand resulting from financing fees of \$95 thousand due to the terminated US financing.

We utilized cash of \$685 thousand in our operating activities in the three months ended August 31, 2010 compared with \$987 thousand in the same period in the prior year. The decrease is primarily a result of increased current liabilities balances.

At August 31, 2010, we had cash and cash equivalents and short-term investments of \$227 thousand compared to \$914 thousand at May 31, 2010.

Research and development expenses totaled \$489 thousand in the three months ended August 31, 2010 compared to \$540 thousand during the same period in the prior year. The slight decrease in spending during the current period compared with the prior-year period is due to a reduction in expenditures during the current period in an effort to conserve cash. Costs incurred during the quarter related primarily to the preparation of the LOR-253 Phase I clinical trial to be initiated in the fourth quarter of calendar 2010.

General and administrative expenses totaled \$589 thousand for the three months ended August 31, 2010 compared to \$533 thousand in the same period in the prior year. The slight increase in costs is due to \$95 thousand in financing fees related to the proposed US financing terminated during the quarter. Excluding these one time costs general and administrative costs were lower than the prior year, primarily due to headcount reductions.

Management has forecasted that the Company's current level of cash, cash equivalents and short-term investments is not sufficient to execute its current planned expenditures for the next twelve months without further investment. The Company is currently in discussion with several potential investors to provide additional funding. Management believes that it will complete one or more of these arrangements in sufficient time to continue to execute its planned expenditures without interruption. However, there can be no assurance that the capital will be available as necessary to meet these continuing expenditures, or if the capital is available, that it will be on terms acceptable to the Company.

**Lorus Therapeutics Inc.**  
**Consolidated Statements of (Loss) Earnings - Unaudited**

<i>(amounts in 000's except for per common share data)</i> <i>(Canadian dollars)</i>	Three months ended Aug. 31, 2010	Three months ended Aug. 31, 2009
<b>REVENUE</b>	<b>\$ -</b>	<b>\$ 49</b>
<b>EXPENSES</b>		
Research and development	489	540
General and administrative	589	533
Stock-based compensation	49	105
Depreciation and amortization of fixed assets	14	21
<b>Operating expenses</b>	<b>1,141</b>	<b>1,199</b>
Interest expense	28	27
Accretion in carrying value of convertible debentures	-	80
Interest income	(4)	(11)
<b>Loss from operations for the period</b>	<b>(1,165)</b>	<b>(1,246)</b>
Gain on repurchase of convertible debentures and transfer of assets	-	11,006
<b>Net (loss) earnings and other comprehensive income for the period</b>	<b>(1,165)</b>	<b>9,760</b>
<b>Basic and diluted (loss) earnings per common share</b>	<b>\$ (0.12)</b>	<b>\$ 1.14</b>
<b>Weighted average number of common shares outstanding used in the calculation of</b>		
<b>Basic and Diluted (loss) earnings per common share</b>	<b>9,933</b>	<b>8,567</b>

**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. Lorus Therapeutics Inc. is listed on the Toronto Stock Exchange under the symbol LOR and the Over the Counter Bulletin Board under the symbol LRUSF.

**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: the ability of the company to continue as a going concern, the completion of the rights offering, future financing, 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; our ability to complete the proposed rights offering; 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](http://www.lorusthera.com). For Lorus' regulatory filings on SEDAR, please go to [www.Sedar.com](http://www.Sedar.com).

For further information, please contact:

**Lorus Therapeutics Inc.**

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