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 November, 2011

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-_____.

SIGNATURE

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: November 8, 2011

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

EXHIBIT INDEX

99.1	News Release Dated November 8, 2011 - Lorus Therapeutics Presents Positive Data From Nonclinical Toxicity Studies on Lead Cancer Drug at Major Conference

NEWS RELEASE

Lorus Therapeutics Presents Positive Data From Nonclinical Toxicity Studies on Lead Cancer Drug at Major Conference

TORONTO, CANADA, November 8, 2011 – Lorus Therapeutics Inc. (TSX: LOR) ("Lorus"), today announced the presentation of positive nonclinical toxicity data for its lead small molecule anti-cancer drug candidate LOR-253 at the Annual Meeting of the American College of Toxicology (ACT). The ACT Annual Meeting taking place in Phoenix, Arizona, November 6-9, is one of the largest and most respected toxicology conferences held globally each year.

The poster presentation details the results of nonclinical toxicity and toxicokinetics studies conducted with LOR-253. The studies were part of the formal safety evaluation of LOR-253 to support first-in-man clinical trials in cancer, and to determine the starting dose of LOR-253 in patients. The studies, which took place over one year, examined a wide range of toxicity parameters in rat and dog species, as well as safety pharmacology and blood toxicity.

Overall, LOR-253 had a favorable nonclinical toxicology profile in both animal species and was well tolerated at doses higher than efficacious dose levels established in animal models of human cancers.

Of significance, the data show that the effective dose could be increased by a factor of eight to fifteen before seeing levels of toxicity in the animal studies.

Additional data in the poster include the results of preclinical anticancer studies on LOR-253 in mouse models of human non-small cell lung cancer (NSCLC). The data show that LOR-253 has significant anticancer activity against NSCLC, particularly in tumors with low expression levels of the tumor suppressor Krüppel-like factor 4 (KLF4). Lorus is currently examining the role of KLF4 as a potential biomarker for LOR-253 anticancer activity.

The poster, entitled "Nonclinical Toxicity Studies for a Novel Anticancer Agent, LOR-253" (Abstract No. 701), will be presented on November 8, 2011 by Intrinsik Health Sciences Inc., a leading provider of toxicology and regulatory affairs consulting services that collaborated with Lorus on the LOR-253 toxicity program.

"We're very pleased to have our formal nonclinical toxicity data for LOR-253 presented at a major toxicology conference", said Dr. Aiping Young, Lorus' President and CEO. "We're grateful to Intrinsik Health Sciences for presenting the data, and for their expert guidance and input on this program."

About LOR-253
LOR-253 represents a new class of anticancer agent, which we believe may offer a competitive advantage over classical drugs. This drug candidate has shown selective and potent antitumor activity in preclinical investigations with a variety of human cancers, including colon cancer and non-small cell lung cancer, and has demonstrated an excellent therapeutic window due to its low toxicity. LOR-253 is a first-in-class small molecule that has been optimized to inhibit the novel cancer target Metal-Responsive Transcription Factor 1 (MTF-1). MTF-1 is overexpressed in selective cancer indications, and its downregulation by LOR-253 results in induction of the novel tumor suppressor Krüppel-like factor 4 (KLF4), leading to the downregulation of cyclin D1, an important regulator of cell cycle progression and cell proliferation. MTF-1 downregulation also results in decreased expression of genes involved in the adaptation of tumors to hypoxia (low oxygen content) and angiogenesis. Increased angiogenesis and alterations in the cyclin D1 regulatory pathway have been linked to the development of cancer.

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. The Company also has expertise in antimicrobial drug discovery. Lorus Therapeutics Inc. is listed on the Toronto Stock Exchange under the symbol LOR.

Forward Looking Statements
This press release may contain forward-looking statements within the meaning of Canadian and U.S. securities laws. Such statements include, but are not limited to, statements relating to: our research program plans, our plans to conduct clinical trials, the successful and timely completion of clinical studies and the regulatory approval process, our ability to continue as a going concern, our ability to fund future research, our plans to obtain partners to assist in the further development of our product candidates, the establishment of corporate alliances, the Company's plans, objectives, expectations and intentions and other statements including words such as "continue", "believe", "plan", "expect", "intend", "will", "should", "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 that may be expressed or implied by such forward-looking statements, including, among others: our ability to continue 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 Annual Information Form 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 the Company's 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).

Enquiries:

For further information, please contact:

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