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, 2009

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 20, 2009

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

EXHIBIT INDEX

99.1	News Release dated April 15, 2009 - Lorus announces report of evidence of clinical activity in clinical trial of LOR-2040 combined with capecitabine and oxaliplatin in the treatment of advanced metastatic solid tumors
99.2	News Release dated April 20, 2009 - Lorus Therapeutics Presents New Findings for First-in-class Anticancer Drug Candidate LOR-253

NEWS RELEASE

Lorus announces report of evidence of clinical activity in clinical trial of LOR-2040 combined with capecitabine and oxaliplatin in the treatment of advanced metastatic solid tumors

TORONTO, CANADA, April 15, 2009 – Lorus Therapeutics Inc. (TSX: LOR) ("Lorus"), a biopharmaceutical company specializing in the research and development of pharmaceutical products and technologies for the management of cancer, today announced the publication by study investigators of the results of a clinical trial with its lead drug LOR-2040, formerly known as GTI-2040, in combination with capecitabine and oxaliplatin in patients with advanced metastatic solid tumors.

The article entitled "Phase I trial of GTI-2040, oxaliplatin, and capecitabine in the treatment of advanced metastatic solid tumors: a California Cancer Consortium Study" was published in the Cancer Chemotherapy Pharmacology 2009 March 26 Epub ahead of print and is available online through PubMed (http://www.ncbi.nlm.nih.gov/PubMed/).

The Phase I trial, described in the article, was conducted as a California Cancer Consortium study under the direction of the Principal Investigator, Dr. Stephen I. Shibata. The study was sponsored by the National Cancer Institute (NCI), Division of Cancer Treatment and Diagnosis (DCTD) under a Clinical Trials Agreement (CTA) with Lorus.

The article reported that combination therapy with LOR-2040, capecitabine and oxaliplatin was safe with evidence of clinical activity in patients with advanced incurable tumors, including lung, colorectal, and breast cancers, despite the relatively low doses used in the study. Partial response (tumor regression) with the LOR-2040 drug combination was seen in a non-small cell lung cancer patient who had previously been treated with multiple chemotherapy regimens. Two patients, one with breast cancer and one with lung cancer, achieved stable disease at the maximum tolerated dose of the three-drug combination, while a patient with colorectal cancer had stable disease at a higher dose level. The study investigators concluded that combination therapy with LOR-2040, capecitabine and oxaliplatin was feasible in patients with advanced solid tumors.

"This study again identifies a potential therapeutic benefit of LOR-2040 in difficult-to-treat cancer patients with different solid tumors, including heavily pre-treated non-small cell lung cancer patients for which there remains a significant unmet medical need" said Dr. Aiping Young, Lorus' President and CEO. "LOR-2040 when combined with chemotherapy appears to achieve this clinical activity without unacceptable toxicity in patients with failed prior therapies. This study supports our ongoing programs in a range of cancer types".

About LOR-2040

LOR-2040 is an RNA-targeted drug that specifically targets the R2 component of ribonucleotide reductase, which is required for DNA synthesis and cell proliferation. Through downregulation of R2, LOR-2040 has demonstrated strong antitumor and antimetastatic activity in a variety of tumor types in both *in vitro* and *in vivo* models and is under study in a multiple Phase I/II clinical program, including an advanced Phase II clinical trial with LOR-2040 and high dose Ara-C (HiDAC) in refractory and relapsed Acute Myeloid Leukemia (AML) under the CTA with DCTD, NCI. The R2 target has been described as a malignant determinant that is elevated in a wide range of tumor types, which can cooperate with a variety of cellular cancer causing genes known as oncogenes to enhance tumor growth and metastatic potential.

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 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 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 repay or refinance the convertible debentures by October 2009; 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:

Lorus Therapeutics Inc.
Dr. Saeid Babaei, 416-798-1200 ext. 490; ir@lorusthera.com

NEWS RELEASE

Lorus Therapeutics Presents New Findings for First-in-class Anticancer Drug Candidate LOR-253

- Scientific Presentation at the 100th Annual Meeting of the American Association for Cancer Research (AACR) -

TORONTO, CANADA, APRIL 20, 2009 – Lorus Therapeutics Inc. (TSX: LOR) ("Lorus"), a biopharmaceutical company specializing in the research and development of pharmaceutical products and technologies for the management of cancer, today announced the presentation of preclinical data for its lead small molecule anticancer drug candidate LOR-253 at the Annual Meeting of the AACR in Denver, CO, April 18-22, 2009.

The presentation entitled "Mechanistic studies of a novel small molecule anticancer drug, LOR-253, on cell cycle arrest and angiogenesis" was presented on April 19, 2009. The abstract for the presentation (Abstract Number: 1822) is available online on the AACR website (http://www.aacr.org).

In the presentation, Lorus provided new data from the preclinical evaluation of LOR-253 (formerly known as LT-253), a novel first-in-class inhibitor of the target Metal Responsive Transcription Factor-1 (MTF-1).

The studies presented further explore the detailed mechanism of action of LOR-253. The key findings include MTF-1 dependent induction of a novel tumor suppressor, namely Krupple Like Factor-4 (KLF-4), leading to activation of several inhibitors of tumor growth as well as repression of several tumor promoters. These alterations were demonstrated specifically in cancer cells, but not in normal cells, which supports a strong LOR-253-mediated antitumor activity. These observations occurred at safe doses in several animal studies.

Lorus also reported for the first time that LOR-253 inhibits angiogenesis, which is the formation of new blood vessels that promotes tumor growth. In animal studies, non-small cell lung tumors isolated from LOR-253 treated mice showed reduced blood vessel density, indicating inhibition of tumor angiogenesis. The tumors also showed reduced expression of Hypoxia Induced Factor-1 (HIF-1), a known angiogenesis stimulator, through inhibition of MTF-1.

LOR-253 is currently in late stage preclinical development. An Investigational New Drug (IND) application for LOR-253 is being finalized and is to be filed with the U.S. FDA in Q2 2009 for a Phase I dose escalation trial in selected solid tumors.

"These new results provide additional proof of anticancer mechanisms for LOR-253 , and demonstrates the value of this novel compound to our pipeline", said Dr. Aiping Young, Lorus' President and CEO. "We are especially pleased to report that LOR-253 inhibits angiogenesis, which is a well validated mechanism for progression of cancer and other diseases".

About LOR-253

LOR-253 is a small molecule compound that has shown selective and potent antitumor activity in a variety of human cancers, including colon cancer and non-small cell lung cancer, and has an excellent therapeutic window due to its low toxicity. LOR-253 is a first-in-class inhibitor of the novel cancer target Metal-Responsive Transcription Factor 1 (MTF-1). The mode of action of LOR-253 involves the downregulation of cyclin D1, an important regulator of cell cycle progression and cell proliferation, and decreased expression of genes involved in tumor hypoxia (low oxygen content) and angiogenesis. Increased angiogenesis and alterations in the cyclin D1 regulatory pathway and 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. 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.

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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.

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