

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 January, 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-_____.

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: January 14, 2011

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

EXHIBIT INDEX

99.1 News Release dated January 13, 2011 -Lorus Therapeutics Enrolls First Patient in Phase I Clinical Study of Anticancer Drug LOR-253



NEWS RELEASE

Lorus Therapeutics Enrolls First Patient in Phase I Clinical Study of Anticancer Drug LOR-253

TORONTO, CANADA, January 13, 2011 - Lorus Therapeutics Inc. (TSX: LOR; OTCBB: LRUSF) ("Lorus"), a biopharmaceutical company specializing in the discovery, research and development of pharmaceutical products and technologies for the management of cancer, today announced the enrollment of the first cancer patient in a Phase I clinical study evaluating its small molecule anticancer drug candidate LOR-253.

The open-label, dose escalation study will enroll patients with advanced or metastatic solid tumors for which no effective therapy is currently available, or whose cancer has not responded to conventional or standard therapies. The primary objectives of the study are to determine the maximum tolerated dose and recommended Phase II dose of LOR-253. Additional study objectives include the safety profile, anti-tumor activity, and pharmacokinetics of LOR-253. The study will be conducted under the direction of Dr. Andrea Cercek and Dr. Leonard Saltz in New York City at the Memorial Sloan Kettering Cancer Center, which is a recognized world leader in the investigation of novel cancer therapies.

The study plans to enroll approximately 22-37 patients during the dose escalation stage. In addition, up to 10 patients will be added at the recommended Phase II dose level for assessment of tumor biomarkers related to the anticancer mechanism of LOR-253. Preference will be given to enrolment of patients with colorectal cancer and non-small cell lung cancer in this expanded treatment group, based on the strong anticancer efficacy of LOR-253 against these cancer types in preclinical studies.

LOR-253 is a first in class drug, being the first clinical-stage compound to stimulate KLF-4, a tumor suppressor factor which is characteristically deficient in a variety of cancers, including colorectal cancer and lung cancer, and so represents a new approach to cancer therapy.

"This is an important milestone for the development of LOR-253, as the first clinical stage drug from our very active small molecule discovery program", said Dr. Aiping Young, Lorus' President and CEO. "We hope the highly tumor-specific nature of the target will also translate into a superior safety profile".

About LOR-253

LOR-253 represents a new class of anticancer agent, which we believe may offer a competitive advantage over classical drugs. The drug 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 a 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 called 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. LOR-253 represents the first molecule among Lorus' portfolio of compounds with distinct and rational profiles selective for these targets.

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 and on the OTCBB under the symbol LRUSF.

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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