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 financial year ended May 31, 2006

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 Form 20-F or Form 40-F.]

Form 20-F ___X___ Form 40-F __X__

[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 ____X___

[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 18, 2006

By: "Jim A Wright"
Jim A. Wright
President and C.E.O.

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LORUS ANNOUNCES DOWN REGULATION OF GTI-2040 MOLECULAR TARGET IN BREAST CANCER CLINICAL STUDY

- Publication shows rapid reduction in target gene expression in responding tumor tissue -

TSX: LOR
AMEX: LRP

TORONTO, CANADA, April 18, 2006 - Lorus Therapeutics Inc. ('Lorus'), a biopharmaceutical company specializing in the research, development and commercialization of pharmaceutical products and technologies for the management of cancer, today announced publication of data demonstrating decreased expression of the molecular target for its antisense drug, GTI-2040, in a Phase II breast cancer clinical trial.

The article titled "Analysis of ribonucleotide reductase M2 mRNA levels in patient samples after GTI-2040 antisense drug treatment', to be published in the May issue of *Oncology Reports* (Volume 15, Issue 5, Pages 1299-1304), presents a case study from a National Cancer Institute (NCI) sponsored Phase II clinical trial of GTI-2040 in combination with capecitabine in metastatic breast cancer. The publication describes the development of a rapid and practical method to measure ribonucleotide reductase R2 (also known as M2), a malignant determinant that is the molecular target of GTI-2040 therapy. The trial is sponsored by the Cancer Therapy Evaluation Program of the US NCI under a Clinical Trials Agreement between Lorus and the NCI.

In the case presented, a rapid and dramatic reduction in expression of the gene for the R2 component of ribonucleotide reductase was demonstrated in tumor biopsy tissue following treatment with GTI-2040 in combination with capecitabine. An approximately 25-fold decrease in R2 was seen as early as one day after the start of GTI-2040 treatment. This finding, in conjunction with an observed clinical response of six months duration, was paralleled by an

observed reduction of the R2 target in circulating white blood cells (WBCs). This decrease suggests a potential utility of WBCs as a "surrogate" tissue for measuring this malignant determinant, and may also be useful for evaluating the activity of GTI-2040 in down regulating target gene expression in patients for whom tumor biopsy is not possible.

Evaluation of additional patient biopsies is continuing in this ongoing study. The authors noted that the findings suggest the method presented has potential for assessing target down regulation by GTI-2040 in a clinical setting.

"This case study showing down regulation of target gene expression by GTI-2040 in both tumor tissue responding to treatment and in leukocytes as a surrogate tissue is highly encouraging," said Dr Jim Wright, CEO of Lorus Therapeutics. "This is the first data in breast cancer patients demonstrating target specific down regulation by GTI-2040."

Dr. Wright also noted that, "one of the challenges facing development of antisense technology for cancer treatment is the need for more data demonstrating drug specificity through target down regulation in patient tumor tissue. The methods described in this publication and the target down regulation determined in tissue from a patient responding to drug therapy in this study, is an important achievement."

Dr. Yun Yen, who led the laboratory investigation, is head of the core laboratory for this clinical study at City of Hope National Medical Center in Duarte California and is also a co-investigator in the study. The protocol chair for the study is Dr. Helen Chew at Davis Cancer Center in Sacramento California.

About GTI-2040

GTI-2040 is an antisense oligonucleotide drug complementary to the R2 component of ribonucleotide reductase, an activity that is essential for DNA synthesis. R2 is frequently over-expressed in cancer cells, and has been shown to cooperate with a variety of oncogenes to increase the tumorigenic and malignant potential of cancer cells.

About Lorus

Lorus is a biopharmaceutical company focused on the research and development of cancer therapies. 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, 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. Late-stage clinical development and marketing may be done in cooperation with strategic pharmaceutical partners. Lorus currently has three products in human clinical trial assessment with a pipeline of eight clinical trials in phase II clinical trial programs and one recently completed phase III registration clinical trial. Lorus Therapeutics Inc. is a public company listed on

the Toronto Stock Exchange under the symbol LOR, and on the American Stock Exchange under the symbol LRP. Virulizin® is a registered trademark of Lorus Therapeutics Inc.

Forward Looking Statements

Except for historical information, this press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, which reflect the Company's current expectation and assumptions, and are subject to a number of risks and uncertainties that could cause actual results to differ materially from those anticipated. These forward-looking statements involve risks and uncertainties, including, but not limited to, changing market conditions, the Company's ability to obtain patent protection and protect its intellectual property rights, commercialization limitations imposed by intellectual property rights owned or controlled by third parties, intellectual property liability rights and liability claims asserted against the Company, the successful and timely completion of clinical studies, the establishment of corporate alliances, the impact of competitive products and pricing, new product development, uncertainties related to the regulatory approval process, product development delays, the Company's ability to attract and retain business partners and key personnel, future levels of government funding, the Company's ability to obtain the capital required for research, operations and marketing and other risks detailed from time-to-time in the Company's ongoing quarterly filings, annual information forms, annual reports and 40-F filings. We undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

Lorus Therapeutics Inc.'s press releases are available through the Company's Internet site: http://www.lorusthera.com.

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