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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 September, 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: September 13, 2010

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

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**EXHIBIT INDEX**

- 99.1 News Release dated September 13, 2010 - Lorus Therapeutics Announces Publication on Development of Novel Antibacterial Compounds from its Small Molecule Program



## NEWS RELEASE

### Lorus Therapeutics Announces Publication on Development of Novel Antibacterial Compounds from its Small Molecule Program

#### - Potent Antibacterial Activity Demonstrated in Multi-Drug Resistant Bacterial Strains -

**TORONTO, CANADA, Sept 13, 2010** - Lorus Therapeutics Inc. (TSX: LOR; OTCBB: LRUSF) ("Lorus"), a biopharmaceutical company specializing in the discovery and development of pharmaceutical products and technologies for the management of cancer, today 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 entitled "Potent antimicrobial activity of 3-(4,5-diaryl-1H-imidazol-2-yl)-1H-indole derivatives against methicillin-resistant *Staphylococcus aureus*" was published in the peer-reviewed journal *Bioorganic & Medicinal Chemistry Letters* and is available on the Journal's website.

The article reported the results of studies conducted by Lorus investigators on the chemical synthesis and *in vitro* activity of a series of new compounds against multi-drug resistant bacterial strains, including methicillin-resistant *Staphylococcus aureus* (MRSA). The studies showed that many of these compounds exhibited potent growth inhibition of MRSA strains, based on the low concentrations of compounds required to inhibit bacterial growth. 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.

Additional studies in the article showed that the compound with the most potent activity against MRSA was also active against a range of different Gram-positive bacteria, including strains of vancomycin-resistant enterococci (VRE). Further studies are currently underway to characterize the mode of action of the compounds, and to examine *in vivo* efficacy of selected compounds in animal models of infection.

"This publication demonstrates our commitment to identify effective drugs against life-threatening diseases including serious bacterial pathogens, such as MRSA and VRE. There is an urgent need for new treatments for multi-drug resistant bacterial infections, and we plan to fully explore the potential of these promising compounds to be developed as novel antibiotics", said Dr. Aiping Young, Lorus' President and CEO.

#### **About Lorus**

Lorus is a biopharmaceutical company focused on the discovery, 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.

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**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 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](http://www.lorusthera.com). For Lorus' regulatory filings on SEDAR, please go to [www.Sedar.com](http://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).

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