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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 August, 2012

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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**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: August 14, 2012

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

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**EXHIBIT INDEX**

99.1 News Release Dated August 14, 2012 - Lorus Therapeutics Announces Issuance of Patent in Japan for Anticancer Drug LOR-253 and Antimicrobial Drug LOR-220



## Lorus Therapeutics Announces Issuance of Patent in Japan for Anticancer Drug LOR-253 and Antimicrobial Drug LOR-220

**TORONTO, CANADA, August 14, 2012** - Lorus Therapeutics Inc. (TSX: LOR) ("Lorus"), a biopharmaceutical company specializing in the discovery, research and development of pharmaceutical products and technologies for the management of cancer, today announced the issuance of Lorus' patent for its lead small molecule anticancer drug LOR-253. The patent provides Lorus with exclusive rights to LOR-253 in Japan until 2023.

The Japanese patent provides broad protection for LOR-253 composition of matter.

This is Lorus' first small molecule patent in Japan. Patents with similar protection for LOR-253 have also been issued in Canada, Australia, and China, and are pending in other major jurisdictions.

The patent also covers Lorus' lead antimicrobial small molecule LOR-220, both as a compound and as an antimicrobial composition for the treatment of drug resistant bacterial infections, including methicillin-resistant *Staphylococcus aureus* (MRSA) and vancomycin-resistant enterococci (VRE).

"This Japanese patent is a valuable addition to our global IP portfolio," said Dr. Aiping Young, Lorus' President and CEO. "Japan is a large and important market for drug therapies, and we believe this new patent should enhance partnering opportunities for both LOR-253 and LOR-220."

LOR-253 is in a Phase I clinical study in patients with advanced or metastatic solid tumors who are unresponsive to conventional therapy or for which no effective therapy is available. The main objectives of the study include assessment of the safety profile and antitumor activity of LOR-253, as well as determining the recommended Phase II dose for subsequent clinical trials. The clinical study is being conducted at Memorial Sloan-Kettering Cancer Center in New York. In June 2012, Lorus announced the addition of MD Anderson Cancer Center in Houston, Texas, as a second site for this study.

### 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 LOR-220

LOR-220 is a small molecule developed by Lorus that targets a class of novel bacterial proteins called kinases, which have recently emerged as critical signaling molecules in bacteria. Previous studies performed at Lorus using reference bacterial strains demonstrated activity of LOR-220 against multi-drug resistant Gram-positive bacteria such as methicillin-resistant *Staphylococcus aureus* (MRSA), vancomycin-resistant enterococci (VRE), and other pathogens that are emerging as a major cause of severe infections in hospitals and communities world-wide.

### 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.

### 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 ability to secure partnerships for LOR-253 and LOR-220, the successful and timely completion of clinical studies and the regulatory approval process, our ability to continue as a going concern, 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 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).

### Enquiries:

For further information, please contact:

Grace Tse, 416-798-1200 ext. 380; [ir@lorusthera.com](mailto:ir@lorusthera.com)

