
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 July, 2014

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-_____.

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: July 28, 2014

By: /s/ "Gregory Chow"

Gregory Chow

Senior Vice President and Chief Financial Officer

EXHIBIT INDEX

- 99.1 Press Release dated July 28, 2014 - Lorus Therapeutics Receives FDA Clearance of IND to Initiate LOR-253 Clinical Program in Patients with AML, MDS and other Blood Cancers

Lorus Therapeutics Receives FDA Clearance of IND to Initiate LOR-253 Clinical Program in Patients with AML, MDS and other Blood Cancers

TORONTO, July 28, 2014 /CNW/ - Lorus Therapeutics Inc. (TSX: LOR) today announced that the Food and Drug Administration (FDA) completed its review and cleared the company's Investigational New Drug (IND) application of LOR-253 for the treatment of hematologic malignancies including acute myeloid leukemia (AML), high-risk myelodysplastic syndromes (MDS), lymphomas and multiple myeloma.

Clearance of the IND allows Lorus to initiate a Phase 1b, multi-center, open-label, clinical study of LOR-253 in patients with relapsed or refractory hematologic malignancies. The Phase 1b trial will evaluate safety, tolerability, pharmacokinetics, pharmacodynamic responses and efficacy of LOR-253 as a single agent. The trial is expected to enroll 45-60 patients as part of a dose-escalation program and two separate disease-specific single-agent expansion cohorts.

LOR-253 is the only clinical-stage compound known to induce the KLF4 gene. The suppression of KLF4 has been reported as a key transforming event in AML and high-risk MDS, and Lorus believes that LOR-253 may represent a targeted therapeutic solution for a very difficult-to-treat cancer.

About Lorus

Lorus is a clinical-stage biotechnology company with a commitment to discovering and developing targeted therapies addressing unmet medical needs in oncology. We aim to develop therapeutics focused on novel cellular targets on the leading edge of cancer research coupled to companion diagnostics to identify the optimal patient population for our products. Our pipeline of cancer drug candidates includes small molecule products and immunotherapies providing additive or synergistic efficacy without leading to overlapping toxicities with existing anti-cancer regimens, facilitating the adoption of combination therapies. Lorus Therapeutics Inc. is listed on the Toronto Stock Exchange under the symbol LOR.

Forward Looking Statements

This press release contains 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 plans, objectives, expectations and intentions and other statements including words such as "continue", "expect", "intend", "will", "should", "would", "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 described in this press release. Such expressed or implied forward looking statements could include, 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 filings with Canadian securities regulators and the United States Securities and Exchange Commission 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.

SOURCE Lorus Therapeutics Inc.

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For further information:

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