

**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 March, 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: March 23, 2010

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

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**EXHIBIT INDEX**

99.1 Material Document

**AMENDMENT TO ASSIGNMENT, NOVATION AND AMENDMENT AGREEMENT AND CONSENT**

**THIS AMENDMENT TO ASSIGNMENT, NOVATION AND AMENDMENT AGREEMENT AND CONSENT** made as of the 28th day of June, 2007,

**AMONG:**

**LORUS THERAPEUTICS INC.**, a corporation continued under the laws of Canada ("**Lorus**")

- and -

**GENESENSE TECHNOLOGIES INC.**, a corporation incorporated under the laws of the Province of Ontario ("**GeneSense**")

- and -

**6650309 CANADA INC.**, a corporation incorporated under the laws of Canada (the "**Assignee**")

- and -

**THE ERIN MILLS INVESTMENT CORPORATION**, a corporation incorporated under the laws of the Province of Ontario ("**TEMIC**")

**WHEREAS** Lorus, GeneSense, the Assignee and TEMIC entered into an assignment, novation and amendment agreement and consent dated as of May 1, 2007 (the "**Assignment Agreement**");

**AND WHEREAS** the parties hereto wish to amend certain terms and conditions of the Assignment Agreement as set forth herein;

**NOW THEREFORE** in consideration of the premises hereto, the mutual covenants and agreements herein set forth and other good and valuable consideration (the receipt and sufficiency of which is hereby acknowledged by each of the parties hereto), the parties hereby agree as follows:

**ARTICLE 1 - AMENDMENT**

(1) The third recital to the Agreement is hereby deleted in its entirety and replaced with the following:

"**AND WHEREAS** as security for the Convertible Debentures, Lorus and TEMIC entered into a share pledge agreement dated as of October 6, 2004 and a share pledge agreement dated as of January 14, 2005 (collectively, the "**Share Pledge Agreements**") to secure the payment, performance and satisfaction of Lorus' obligations under the Convertible Debentures;"

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(a) All references to "Share Pledge Agreement" in the Assignment Agreement are hereby deleted in their entirety and replaced with a reference to "Share Pledge Agreements".

**ARTICLE 2 - GENERAL**

(1) Each of the parties severally covenants and agrees that it will, from time to time, and at all times hereafter, at the request of the requesting party, execute and deliver all such further documents and instruments and do and perform all such further acts and things (including the execution and delivery by the Assignee of any additional or replacement security documents requested by TEMIC and the delivery of legal opinions customary for transactions of this type) as may be reasonably required for the purpose of giving effect to the terms of this Agreement.

(2) This Agreement may be executed in as many counterparts as are necessary and by facsimile and such counterparts together shall constitute one agreement.

(3) This Agreement shall enure to the benefit of and be binding upon the parties hereto and their respective successors and assigns.

(4) This Agreement shall be construed in accordance with the laws of the Province of Ontario and the laws of Canada applicable therein.

(5) In the event that any one or more of the provisions contained in this Agreement shall for any reason be determined by a court of competent jurisdiction to be invalid, illegal or unenforceable in any respect, then to the maximum extent permitted by law, such invalidity, illegality or unenforceability shall not affect any other provision of this Agreement so long as the legal substance of the transactions contemplated hereby is not affected in any manner materially adverse to any of the parties.

(6) No modification, supplement or amendment to this Agreement will be binding unless made in writing and duly executed by all of the parties hereto.

(7) Capitalized terms used in this Agreement shall, unless otherwise defined in this Agreement, have the same meanings herein as in the Assignment Agreement.

[rest of page intentionally left blank]

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IN WITNESS WHEREOF the parties hereto have executed this Agreement.

**LORUS THERAPEUTICS INC.**

Per: "Aiping Young"  
Name: Aiping Young  
Title: President and Chief Executive Officer

**GENESENSE TECHNOLOGIES INC.**

Per: "Aiping Young"  
Name: Aiping Young  
Title: Director

**6650309 CANADA INC.**

Per: "Aiping Young"  
Name: Aiping Young  
Title: President and Chief Executive Officer

**THE ERIN MILLS INVESTMENT CORPORATION**

Per: "Gerry Quinn"  
Name: Gerry C. Quinn  
Title: President