# 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 May, 2012

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: May 14, 2012

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

**EXHIBIT INDEX**

| | |
|---|---|
| 99.1 | Material Change Report |
| 99.2 | Earning News Release |

**Form 51-102F3**
***Material Change Report***

**Item 1 Name and Address of Company**

Lorus Therapeutics Inc. ("**Lorus**")
2 Meridian Road
Toronto, ON
M9W 4Z7

**Item 2 Date of Material Change**

May 1, 2012

**Item 3 News Release**

The press release reporting the material change was issued by Lorus on May 1, 2012 in Canada through Marketwire and is attached hereto as Schedule "A".

**Item 4 Summary of Material Change**

The news release issued on May 1, 2012 by Lorus announced that Lorus had signed a global intellectual property license agreement for IL-17E in Cancer with Genentech.

**Item 5 Full Description of Material Change**

Lorus Therapeutics Inc. announced that it had entered into a global license with Genentech, a member of the Roche Group in respect of certain patents owned by Genentech for IL-17E. Detailed financial terms were not disclosed.

For more information regarding the material change, please see the news release filed on May 1, 2012 attached hereto as Schedule "A."

**Item 6 Reliance on subsection 7.1(2) or (3) of National Instrument 51-102**

Not Applicable.

**Item 7 Omitted Information**

Not Applicable.

**Item 8 Executive Officer**

For further information please contact:
Lorus Therapeutics Inc.
Elizabeth Williams
(416) 798-1200 ext. 372.

**Item 9 Date of Report**

May 11, 2012

**Schedule A**

**News Release**

News Release

**Lorus Therapeutics and Genentech Sign Global Intellectual Property License Agreement for IL-17E in Cancer**

**- Provides for Development and Commercialization of IL-17E for Cancer Therapy -**

**TORONTO, CANADA, May 1, 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, announced today that it has entered into a global license with Genentech, a member of the Roche Group (SIX: RO, ROG; OTCQX: RHHBY), in respect of certain patents owned by Genentech for IL-17E. Detailed financial terms were not disclosed.

"We are excited about obtaining this license from Genentech, which will enable Lorus to develop this program as a novel and exciting treatment for a large number of cancers. Lorus scientists were the first to discover the anticancer properties of IL-17E and we have patents pending for the use of IL-17E in cancer in the major world markets. IL-17E represents a unique immunotherapeutic approach to the treatment of some of the most important cancers, and preclinical data to date shows excellent efficacy with low toxicity; properties that we plan to demonstrate in the clinic in the near future" said Dr Aiping Young, President and CEO of Lorus.

**About IL-17E**
IL-17E (also known as IL-25) is a recently identified cytokine that plays an important role in inflammation. Lorus has discovered that human IL-17E has potent anticancer properties against a range of solid tumors, including human melanoma, pancreatic, colon, lung, ovarian and breast tumor models with very low toxicity. IL-17E is highly potent and does not require further modification or optimization before proceeding to the formal IND-enabling preclinical studies planned to support advancing to a Phase I clinical trial. Lorus has selected pancreatic cancer and malignant melanoma as the initial lead cancer indications for this agent. An estimated 43,920 new cases of pancreatic cancer will be diagnosed in the US this year and 37,390 Americans will to succumb to the disease, making it the fourth most common cause of cancer deaths in the US. Pancreatic cancer is a difficult-to-treat tumor type with an overall five-year survival rate of 4%, the lowest for any cancer. Melanoma is the fifth most common cancer in the US with an estimated 76,250 new cases expected to being diagnosed this year. Approximately 9,180 Americans are expected to die from malignant melanoma in 2012.

**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 fund future research, 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 continue as a going concern, our ability 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. For Lorus' regulatory filings on SEDAR, please go to www.Sedar.com.

**Enquiries:**

For further information, please contact:

Grace Tse, 416-798-1200 ext. 380; ir@lorusthera.com
Arash Shahi, 416-644-2020; ashahi@renmarkfinancial.com

NEWS RELEASE

**LORUS THERAPEUTICS REPORTS THIRD QUARTER RESULTS FOR FISCAL YEAR 2012**

**TORONTO, ONTARIO** – **April 12, 2012** – Lorus Therapeutics Inc. (TSX: LOR) ("Lorus" or the "Corporation"), a biopharmaceutical company specializing in the research and development of pharmaceutical products and technologies for the management of cancer, today reported financial results for the three and nine months ended February 29, 2012.

**Q3 2012 TO DATE HIGHLIGHTS**

- Allowed by the United States Patent and Trademark Office Lorus' patent for its lead small molecule anticancer drug, LOR-253. The patent, which was originally set to expire in May 2026, was granted a patent term adjustment that extends the patent expiry date to February 2028. The US patent covers LOR-253 composition of matter and methods of treating cancer. Specific cancers protected by the patent include colon, non-small cell lung, ovarian, kidney, and prostate tumors, as well as melanoma and cancers of the central nervous system.
- Announced the issuance by the Canadian Patent Office of Lorus' patent for its lead small molecule anticancer drug LOR-253. The patent provides Lorus with exclusive rights to LOR-253 in Canada until 2026. The Canadian patent covers LOR-253 composition of matter and its use in the treatment of a wide range of cancers, including non-small cell lung, colon, breast, and prostate tumors, as well as melanoma and leukemia
- Announced promising results obtained from preclinical studies on Lorus' lead antimicrobial small molecule compound LOR-220. The studies examined the antibacterial activity of LOR-220 against drug sensitive and drug resistant bacteria that had been isolated from patients with bacteremia and other bacterial infections. LOR-220 showed potent antibacterial activity against a panel of 330 clinical isolates of bacteria, including Streptococcus pneumoniae, methicillin-resistant Staphylococcus aureus (MRSA), and Vancomycin-resistant enterococci (VRE) among the so-called "superbugs". In addition, LOR-220 demonstrated higher antibacterial activity than that of Vancomycin and Linezolid, both of which are antibiotics currently used to treat serious bacterial infections. LOR-220 also significantly improved survival of mice infected with two different species of VRE, which, when left untreated, led to 100% lethality.
- Presented new preclinical data for LOR-253, at the American Association for Cancer Research annual meeting supporting the treatment of lung and colon cancers with LOR-253 in combination with a variety of chemotherapy agents. The studies examined the anticancer activities of LOR-253, given in combination with approved anticancer agents, at different doses and schedules. The preclinical data showed that initial treatment of non-small cell lung cancer (NSCLC) cells with chemotherapy drugs docetaxel, paclitaxel, or cisplatin, followed by treatment with LOR-253, had significant and synergistic anticancer activity compared to either drug given alone.

"Lorus continues to advance our rich product pipeline." said Dr. Aiping Young, President and CEO of Lorus Therapeutics. "We continue to work diligently to secure the funding we need to continue our ongoing development plan. We believe the combination of funds available under a promissory note, the potential exercise of outstanding warrants and our other financing efforts will provide the funding we need to succeed."

**FINANCIAL RESULTS**

Net loss for the three months ended February 29, 2012 was $1.0 million ($0.05 per share), compared to $1.5 million ($0.10 per share) in the same period in the prior year. The Company incurred a net loss of $3.6 million ($0.18 per share) for the nine months ended February 29, 2012, compared to $3.9 million ($0.32 per share) during the same period in the prior year.

The decrease in net loss in the three and nine month periods ended February 29, 2012 is due to lower general and administrative and research and development expenditures. In the three month period ended February 29, 2012, research and development costs were lower in the current period due to reduced program spending. General and administrative expenses were also lower in the current period due primarily to reduced stock based compensation expense related to option grants in November in the current year compared with December in the prior year. In the nine month period ended February 29, 2012 net loss was reduced due to lower research and development costs in the current year as a result of reduced program spending.

We utilized cash of $740 thousand in our operating activities in the three month period ended February 29, 2012, compared with $1.7 million during the same period in the prior year. For the nine months ended February 29, 2012 we utilized cash of $2.6 million, compared with $4.9 million in the same period last year. The decrease in cash utilized in the three and nine months ended February 29, 2012, compared with the same periods in the prior year, is due to lower cash spending in the current year as well as the advancement of promissory notes in the current year, compared with repayment of outstanding promissory notes in the prior year.

At February 29, 2012, we had cash and cash equivalents of $103 thousand, compared to $911 thousand at May 31, 2011. On November 28, 2011 , the Company issued a grid promissory note to Mr. Abramson, a director of Lorus, that allows Lorus to borrow funds of up to $1.8 million. The funds may be borrowed at a rate of up to $300,000 per month, incur interest at a rate of 10% per year and are due and payable on November 28, 2012. At February 29, 2012, $300 thousand had been drawn under the promissory note and subsequent to the quarter end an additional $300 thousand was drawn down for total balance owing of $600 thousand and $1.2 million available for use.

Research and development expenses totaled $543 thousand in the three month period ended February 29, 2012, compared to $847 thousand during the same period in the prior year, and totaled $1.8 million in the nine month period ended February 29, 2012, as compared to $2.0 million in the same period in the prior year. Research and development expenses consisted of the following:

| | Three months ended February 29/28 | | Nine months ended February 29/28 | |
|---|---|---|---|---|
| | **2012** | 2011 | **2012** | 2011 |
| Program costs (see below) | **524** | 760 | **1,622** | 1,852 |
| Stock based compensation | **11** | 78 | **132** | 100 |
| Depreciation of equipment | **8** | 9 | **25** | 29 |
| | **543** | 847 | **1,779** | 1,981 |

**Program costs by program:**

| | Three months ended | | Nine months ended | |
|---|---|---|---|---|
| | **Feb 29, 2012** | Feb 28, 2011 | **Feb 29, 2012** | Feb 28, 2011 |
| Small molecules | $ **524** | $ 540 | $ **1,622** | $ 1,344 |
| RNA-Targeted Therapies | **—** | 220 | **—** | 508 |
| Immunotherapy | **—** | — | **—** | — |
| **Total** | $ **524** | $ 760 | $ **1,622** | $ 1,852 |

The decrease in research and development costs during the three months ended February 29, 2012, compared with the prior year, is due to decreased stock based compensation expense related to options granted in November in the current year and December in the prior year, as well as lower program costs. After eliminating the effect of the non-cash stock based compensation expense, research and development expenses would be $532 thousand in the three months ended February 29, 2012, compared with $769 thousand in the same period in the prior year, The reduced program expenditures are due primarily to no further spending on our RNA-targeted therapies and subsequent lower personnel and development costs. In the prior year we incurred costs related to the development of a Phase III clinical trial protocol. Spending on our small molecule program is consistent year over year, as the Phase I clinical trial was initiated in January 2011 and is still ongoing.

For the nine month period ended February 29, 2012, research and development spending decreased to $1.8 million, compared with $2.0 million in the same period in the prior year. The decrease is attributable to a reduction in program spending to $1.6 million, compared with $1.9 million in the same period in the prior year. The decrease from the prior year is due to no further spending on our RNA-targeted therapies, compared with $508 thousand in the prior year. This reduction is offset by higher resources allocated to the development of our small molecule programs, in particular the ongoing Phase I clinical trial for LOR-253, and the LOR-500 discovery program.

General and administrative expenses totaled $479 thousand in the three-month period ended February 29, 2012, compared to $701 thousand in same period in the prior year. For the nine month period ended February 29, 2012, general and administrative expenses were $1.8 million, compared with $1.9 million in the same period in the prior year.

*Components of general and administrative expenses:*

| | Three months ended February 29/28 | | Nine months ended February 29/28 | |
|---|---|---|---|---|
| | **2012** | 2011 | **2012** | 2011 |
| General and administrative excluding salaries | **303** | 294 | **960** | 1,106 |
| Salaries | **163** | 232 | **521** | 573 |
| Stock based compensation | **10** | 170 | **336** | 183 |
| Depreciation of equipment | **3** | 5 | **8** | 13 |
| | **479** | 701 | **1,825** | 1,875 |

Stock based compensation expense was lower in the three month periods ended February 29, 2012, compared with the same period in the prior year, due to options issued in November in the current year. compared with December in the prior year. As a result of immediate vesting of certain options, the expense tends to be higher in the quarter the options are issued, compared with subsequent quarters. Stock based compensation expense was higher in the nine month periods ended February 29, 2012, compared with the same period in the prior year, due to certain one time grants in the current year and the cancellation of certain outstanding options (resulting in the acceleration of expense), which increased stock based compensation charges.

General and administrative expenses, excluding salaries, were consistent in the three months ended February 29, 2012, compared with the same period in the prior year. In the nine months ended February 29, 2012, general and administrative expenses, excluding salaries, were lower than the prior year, due to financing fees incurred in the prior year related to a terminated financing. This was partially offset by higher audit related fees due to additional review work and the transition to IFRS in the current year. In the three and nine month periods ended February 29, 2012, salary costs compared with the prior year were lower due to a reduction in headcount in the current year.

Management has forecasted that the Corporation's current level of cash, cash equivalents and short-term investments is not sufficient to execute its current planned expenditures for the next twelve months without further investment. The Corporation is currently in discussion with several potential investors to provide additional funding. The Corporation also continues to pursue partnership opportunities. Management believes that it will complete one or more of these arrangements in sufficient time to continue to execute its planned expenditures without interruption. However, there can be no assurance that the capital will be available as necessary to meet these continuing expenditures, or if the capital is available, that it will be on terms acceptable to the Corporation.

As of April 12, 2012, a total of $600,000 has been drawn on the grid promissory note issued to Mr. Abramson, leaving $1.2 million available for future use.

**Lorus Therapeutics Inc.**
**Condensed Consolidated Interim Statements of Loss and Comprehensive Loss - Unaudited**
*(amounts in 000's except for per common share data)*

| *(Canadian dollars)* | **Three months ended Feb. 29, 2012** | Three months ended Feb 28. 2011 | **Nine months ended Feb. 29, 2012** | Nine months ended Feb 28. 2011 |
|---|---|---|---|---|
| **REVENUE** | **$ -** | **$ -** | **$ -** | **$ -** |
| **EXPENSES** | | | | |
| Research and development | **543** | 847 | **1,779** | 1,981 |
| General and administrative | **479** | 701 | **1,825** | 1,875 |
| **Operating expenses** | **1,022** | 1,548 | **3,604** | 3,856 |
| Finance expense | **3** | - | **3** | 71 |
| Finance income | **(2)** | (6) | **(6)** | (10) |
| **Net financing expense (income)** | **1** | (6) | **(3)** | 61 |
| **Net loss and total comprehensive loss for the period** | **1,023** | 1,542 | **3,601** | 3,917 |
| **Basic and diluted loss per common share** | **$ 0.05** | $ 0.10 | **$ 0.18** | $ 0.32 |
| **Weighted average number of common shares outstanding used in the calculation of Basic and Diluted loss per common share** | **21,169** | 15,685 | **19,950** | 12,314 |

**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. 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: the ability of the company to continue as a going concern, the ability to find and secure future financing, the probability that warrants maybe exercised, that funds will continue to be available under the promissory note, the establishment of corporate alliances or partnerships, the Company's 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 continue to operate 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 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.

Lorus Therapeutics Inc.'s recent press releases are available through its website at www.lorusthera.com. For Lorus' regulatory filings on SEDAR, please go to www.Sedar.com.
For further information, please contact:

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