NEWS RELEASE

LORUS THERAPEUTICS REPORTS THIRD QUARTER RESULTS FOR FISCAL YEAR 2011

TORONTO, ONTARIO – **April 12, 2011** – Lorus Therapeutics Inc. (TSX: LOR, PINK SHEETS: LRUSF) ("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 28, 2011.

Q3 2011 HIGHLIGHTS

- Closed a private placement of 1.6 million common shares of the Corporation at a price of C$1.05 per share for gross proceeds of approximately C$1.66 million. No commission was paid in connection with the private placement.
- Enrolled the first cancer patient in a Phase I clinical study evaluating Lorus' small molecule anticancer drug candidate LOR-253. The primary objectives of the study are to determine the maximum tolerated dose and recommended Phase II dose of LOR-253. The study is being conducted at the Memorial Sloan Kettering Cancer Center, which is a recognized world leader in the investigation of novel cancer therapies.
- Publication of a research article by investigators at Ohio State University demonstrating that Lorus' lead cancer drug LOR-2040, synergistically improves the anticancer effects of the chemotherapy drug Ara-C. The results in the article provide additional support and mechanistic justification for the continuing clinical program of LOR-2040 in combination with Ara-C in the treatment of relapsed and refractory acute myeloid leukemia.
- Presentation of new data related to Lorus' lead small molecule anti-cancer drug candidate LOR-253 at the 102nd Annual Meeting of the American Association for Cancer Research in Orlando, Florida. The presentation included preclinical results on the anticancer efficacy of LOR-253 in human lung cancer, as well as an overview of the ongoing Phase I clinical trial for LOR-253 in advanced or metastatic solid tumors.

FINANCIAL RESULTS

Net loss for the three months ended February 28, 2011 increased to $1.6 million ($0.10 per share) compared to $1.3 million ($0.14 per share) in the same period in the prior year. The Company had a net loss of $4.0 million ($0.32 per share) for the nine months ended February 28, 2011 compared to net earnings of $7.2 million (basic earnings $0.78 per share, diluted earnings of $0.77 per share) during the same period in the prior year. The year-to-date net earnings in fiscal 2010 were primarily a result of the $11.0 million gain on sale recognized on the extinguishment of Lorus' convertible debentures in June 2009. Loss from operations for the three and nine month periods ended February 28, 2011 (before the gain on repurchase of the convertible debentures) increased to $1.6 million and $4.0 million compared with $1.3 million and $3.9 million in the same periods in the prior year.

The increase in net loss for the three months ended February 28, 2011 compared with the prior year is primarily the result of increased stock based compensation expense of $193 thousand compared with the prior year as well as higher research and development spending of $42 thousand due to increased activity associated with the support and implementation of the LOR-253 Phase I clinical trial initiated during the quarter as well as costs associated with the protocol development of a potential Phase III clinical trial for LOR-2040. The higher clinical spending was offset by higher manufacturing costs in the prior year related to LOR-253 for which we continue to have a sufficient supply.

The increase in loss from operations for the nine months ended February 28, 2011 compared with the prior year is again primarily the result of increased stock based compensation expense of $257 thousand due to a higher level of grants in the current year and a recovery of expense in the second quarter of the prior year (due to the forfeiture of unvested options) offset by lower general and administrative spending of $111 thousand due to reduced personnel, lower patent costs due to one time charges in the prior year and lower

legal and board fees. These general and administrative savings were offset during the nine-month period ended February 28, 2011 by $156 thousand in expenses associated with a terminated financing.

Research and development expenses totaled $760 thousand in the three-month period ended February 28, 2011 compared to $718 thousand during the same period in the prior year and remained consistent at $1.9 million in the nine-month period ended February 28, 2011 as compared to $1.9 million in the same period in the prior year.

Research and development expenditures increased slightly in the three month period ended February 28, 2011 compared with the prior year due to increased activity associated with the support and implementation of the LOR-253 Phase I clinical trial initiated during the quarter as well as costs associated with the protocol development of a potential Phase III clinical trial for LOR-2040. The higher clinical spending was offset by higher manufacturing costs in the prior year related to LOR-253 for which we continue to have a sufficient supply.

For the nine month period ended February 28, 2011 research and development spending decreased slightly compared with the prior year due to the completion of the Phase II AML clinical trial in the prior year and higher manufacturing and compliance costs associated with LOR-253 in the prior year offset by higher spending in the current year on the LOR-253 Phase I clinical program initiated in the current quarter.

General and administrative expenses totaled $527 thousand in the three-month period ended February 28, 2011 compared to $515 thousand in same period in the prior year. For the nine month period ended February 28, 2011, general and administrative expenses were $1.7 million compared with $1.8 million in the same period in the prior year.

General and administrative expenses remained consistent during the three months ended February 28, 2011 compared with the prior year. Savings from lower spending on legal and patent costs compared with the prior year were offset by higher investor relation costs in the current year.

General and administrative expenses were lower for the nine-month period ended February 28, 2011 compared with the prior year. Cost savings due to reduced personnel, lower patent costs due to one time charges in the prior year and lower legal and board fees were offset during the nine-month period by $156 thousand in expenses associated with a terminated financing. We do not expect to incur any further expenses related to the terminated financing.

In the three-month period ended February 28, 2011, the Company recognized a stock-based compensation expense of $287 thousand compared with $94 thousand in the same period last year. The significant increase in the current three month period compared with the prior year is the result of an option grant during the quarter to certain officers and employees who received option grants and in turn agreed to the cancellation of the stock options previously held by them. In the nine-month period ended February 28, 2011, the Company recognized an expense of $367 thousand compared with $110 thousand for the same period in the prior year. Stock based compensation expense for the nine month period ended February 28, 2011 is higher than the same period in the prior year due to the option grants mentioned above as well as a recovery/reduction of expense of $89 thousand recorded in the second quarter of the prior year due to the forfeiture of unvested options.

At February 28, 2011, we had cash and cash equivalents and short-term investments totaling $1.8 million compared to $914 thousand at May 31, 2010.

Management has forecasted that the Company'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 Company is currently in discussion with several potential investors to provide additional funding. 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 Company.

Lorus Therapeutics Inc.
Consolidated Statements of (Loss) Earnings - Unaudited

(amounts in 000's except for per common share data) *(Canadian dollars)*	**Three months ended Feb. 28, 2011**	Three months ended Feb. 28, 2010	**Nine months ended Feb. 28, 2011**	Nine months ended Feb. 28, 2010
REVENUE	**$ -**	$ 3	**$ -**	$ 131
EXPENSES				
Research and development	**760**	718	**1,852**	1,916
General and administrative	**527**	515	**1,680**	1,791
Stock-based compensation	**287**	94	**367**	110
Depreciation and amortization of fixed assets	**13**	21	**41**	64
Operating expenses	**1,587**	1,348	**3,940**	3,881
Interest expense	**-**	-	**71**	41
Accretion in carrying value of convertible debentures	**-**	-	**-**	80
Interest income	**(6)**	(2)	**(10)**	(16)
Loss from operations for the period	**(1,581)**	(1,343)	**(4,001)**	(3,855)
Gain on repurchase of convertible debentures and transfer of assets	**-**	-	**-**	11,006
Net (loss) earnings and other comprehensive income for the period	**(1,581)**	(1,343)	**(4,001)**	7,151
Basic (loss) earnings per common share	**$ (0.10)**	$ (0.14)	**$ (0.32)**	$ 0.78
Diluted (loss) earnings per common share	**$ (0.10)**	$ (0.14)	**$ (0.32)**	$ 0.77
Weighted average number of common shares outstanding used in the calculation of				
Basic (loss) earnings per common share	**15,685**	9,933	**12,314**	9,174
Diluted (loss) earnings per common share	**15,685**	9,933	**12,314**	9,279

About Lorus

Lorus is a biopharmaceutical company focused on the 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.

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 future financing, the establishment of corporate alliances, 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.

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