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 financial year ended May 31, 2005

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 Form 20-F or Form 40-F.]

Form 20-F ___X___ Form 40-F __X__

[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 ____X___

[If "Yes" is marked, indicate below the file number
assigned to the registrant in connection with Rule 12g3-2(b): 82- _____

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: October 20, 2004

By: "Shane Ellis"
Shane Ellis
Vice President, Legal Affairs
Corporate Secretary

LORUS THERAPEUTICS INC.

FIRST QUARTER

June 1, 2004 to August 31, 2004

THE TRANSFORMATION

LORUS

LETTER TO SHAREHOLDERS

Dear Shareholder:

We are pleased to review with you the operating highlights of the first fiscal quarter of 2005.

This quarter was very important to our clinical development progress with full enrollment being achieved in our pivotal Phase III clinical trial of Virulizin® treating advanced or metastatic pancreatic cancer in combination with gemcitabine. Full enrollment in this registration clinical trial represents an important milestone delivered approximately six months ahead of our original schedule.

In other clinical progress we expanded our Phase II clinical trial using GTI-2501, in combination with chemotherapy, to treat hormone refractory prostate cancer to two additional clinical sites in Canada, the London Regional Cancer Centre in London, Ontario and the Cross Cancer Institute in Edmonton, Alberta.

We were pleased to announce positive findings from the dose escalation stage of our ongoing Phase II clinical trial of our novel antisense drug, GTI-2040 combined with capecitabine in metastatic kidney cancer. These findings, presented at the First International Congress on Kidney and Bladder Cancer, demonstrated that GTI-2040 is well tolerated in combination with capecitabine, with no reduction in the starting capecitabine dose required, up to and including the target GTI-2040 dose that was previously established as a monotherapy in a Phase I clinical investigation.

We unveiled our new novel series of anti-cancer small molecules at the International Business Communications ["IBC"] 9th Annual World Congress Drug Discovery Technology® 2004 conference. This novel series of compounds has demonstrated potent anti-proliferative activity against a variety of human cancer cell types. Promising cancer cell growth inhibition was demonstrated in the National Cancer Institute's ["NCI"] 60-cell line tumor panel. Moreover, in animal models of human colon cancer and liver cancer, treatment with several leading compounds from this series resulted in significant inhibition of tumor growth. These new small molecules are an exciting addition to our already strong and well-diversified product pipeline.

Subsequent to the quarter end we announced an agreement to raise net proceeds of $14.4 million through the issuance of $15 million in secured convertible debentures. We received $4.4 million on October 6, 2004 and will receive $9.0 million on January 14 and on April 15, 2005. This additional funding will be used to finance the Company's research and development and on-going operations.

Important additions to our management team occurred subsequent to the end of the quarter. In September, Paul Van Damme joined Lorus in the capacity of Chief Financial Officer. Paul is an experienced biotechnology executive whose presence on the senior management team at Lorus will have an immediate impact. Also in September, Dr. Shafik Ghabrial began his duties as Lorus' Director of Medical Affairs. Dr. Ghabrial's previous experience includes positions as director, clinical research and director, study operations with clinical research organizations in Canada.

The quarter ended August 31, 2004 was a busy period for important international conferences in which Lorus played an active role. Lorus' clinical and pre-clinical programs including Virulizin®, GTI-2040 and our new small molecule program were presented at these meetings. There were seven conferences during this quarter, including the American Society of Clinical Oncology in June, where an abstract titled, "*Stimulation of Natural Killer (NK) Cells and Macrophage Infiltration in Pancreatic Cancer with Virulizin®, an Immunotherapeutic Agent*" was presented. Later in June, Lorus was a sponsor of the 6th Annual Lustgarten Foundation Scientific Conference. This conference targets clinical researchers, oncologists, post-doctorate fellows and allied medical professionals worldwide. The Lustgarten Foundation for Pancreatic Cancer Research is the largest private foundation exclusively dedicated to supporting pancreatic cancer research. In July, Lorus' scientists presented a study titled "*Virulizin®, a novel biological response modifier, activates NK cells and induces antitumor activity*" at the joint 12th International Congress of Immunology and the 4th Annual Conference of the Federation of Clinical Immunology Societies in Montreal. Early in August at the IBC's 9th Annual World Congress Drug Discovery Technology® 2004, Lorus scientists presented an abstract titled "*Anti-proliferative activity of novel aryl-imidazoles and their possible mechanism of action.*" This technology represents a significant new pre-clinical asset at Lorus and is the culmination of approximately three years of work in the laboratory by Lorus' scientists. Finally in August, as mentioned earlier, at the First International Congress on Kidney and Bladder Cancer, Dr. Apurva Desai from the University of Chicago, an investigator from our ongoing Phase II clinical trial, presented findings from the dose escalation stage of the Phase II clinical trial of GTI-2040 combined with capecitabine in metastatic kidney cancer.

Our intellectual property portfolio was strengthened during the quarter with the allowance of a European patent protecting our unique tumor suppressor. The patent titled "*Suppression of Malignancy Utilizing Ribonucleotide Reductase R1*" protects an innovative approach to inhibiting tumor growth.

We look forward to further advancing our anti-cancer drug candidates throughout the balance of 2005, as we anticipate the results of our pivotal Virulizin® Phase III clinical trial as well as results from our GTI-2040 Phase II clinical trial with renal cell carcinoma, and continue to work towards transforming Lorus on the path to commercialization.

MANAGEMENT'S DISCUSSION AND ANALYSIS

The following information should be read in conjunction with the unaudited consolidated financial statements and notes prepared in accordance with Canadian generally accepted accounting principles ["GAAP"] in this quarterly report and should also be read in conjunction with the audited consolidated financial statements and notes and management's discussion and analysis contained in the Company's annual report for the year ended May 31, 2004. All amounts are expressed in Canadian dollars unless otherwise noted.

Results of Operations

Research and Development

Research and development expenses for the quarter ended August 31, 2004 decreased to $5.0 million compared to $7.3 million for the same quarter last year. The decrease in costs was anticipated due to lower clinical trial costs for the fully enrolled Phase III clinical trial of Virulizin® in comparison to the prior year when significant start up costs were incurred. As well in the first quarter of fiscal 2004 the Company incurred initial costs of supplying the GTI-2040 drug to the National Cancer Institute for the NCI sponsored Phase II clinical trial program for which Lorus continues to have a sufficient drug supply on hand to complete the clinical trials.

General and Administrative

General and administrative expenses for the first quarter of fiscal 2005 decreased $290,000 to $1.0 million compared with $1.2 million in 2004. The decrease is primarily due to severance payments made in the first quarter of 2004.

Stock-Based Compensation

Stock-based compensation expense of $211,000 for the quarter ended August 31, 2004 represents the amortization of the estimated fair value of stock options granted since June 1, 2002 applicable to the current period. The retroactive application of Canadian Institute of Chartered Accountants ["CICA"] Handbook Section 3870, 'Stock-Based Compensation and Other Stock-Based Payments' with respect to recognition of stock compensation expense for the 2003 and 2004 fiscal years resulted in a $2.0 million charge to the deficit and credit to the contributed surplus accounts on June 1, 2004. Both the $211,000 and the $2.0 million represent non-cash charges to the Company.

Interest Income

Interest income for the quarter ended August 31, 2004 decreased to $145,000 from $298,000 for the same quarter last year. The decrease is attributable to a lower cash and short-term investment balance during the first quarter of 2005.

Net Loss

Net loss for the quarter ended August 31, 2004 totaled $6.2 million ($0.04 per share) compared to a loss of $8.2 million ($0.05 per share) for the same quarter last year. The decrease in net loss is due to a reduction of $2.2 million in research and development expenses and of $280,000 in administrative expenses. These reductions were offset by lower interest income of $248,000 and the recognition of stock-based compensation expense of $211,000 resulting from the adoption of the CICA revised Handbook Section 3870.

Subsequent Event

On October 6, 2004, Lorus entered into an agreement to raise net proceeds of $14.4 million through the issuance of $15 million in secured convertible debentures. Lorus received $4.4 million on October 6, 2004 and will receive $5 million on January 14 and on April 15, 2005. The debentures will expire on October 6, 2009 and interest will accrue and be paid monthly at a rate of prime + 1% until Lorus' share price reaches $1.75 for 60 consecutive trading days, at which time interest will no longer accrue. The initial $5 million principal amount is convertible at the holder's option into common shares of Lorus with an exercise price of $1.00. The $10 million principal amount issued thereafter is convertible at an exercise price equal to the greater of $1.00 per share and the weighted average trading price of Lorus' shares for the twenty-day period prior to investment of the funds less the maximum discount permitted by the Toronto Stock Exchange. The agreement also provides for the issuance of up to 4 million warrants, with a term of five years, to buy common shares at a price per share of $1.00.

Liquidity and Capital Resources

Since inception, Lorus has financed its operations and technology acquisitions primarily from equity financing, the exercise of warrants and stock options, convertible debt offerings and interest income on funds held for future investment. The Company believes that its available cash, cash equivalents and short-term investments, along with the financing entered into subsequent to the quarter-end discussed above and the interest earned thereon, is sufficient to finance its operations and capital needs for more than the next twelve months.

Operating Cash Requirements

Lorus' cash used in operating activities for the first quarter of fiscal 2005 remained virtually unchanged at $5.0 million compared to $5.9 million for the same quarter last year. The small change in cash used in operating activities despite a significant change in net loss is primarily due to minimal changes in working capital for the quarter of 2005 compared to a positive change in working capital of $1.7 million in the first quarter of 2004.

Cash Position

At August 31, 2004 Lorus had cash and cash equivalents and short-term investments totaling $20.7 million compared to $26.7 million at May 31, 2004. Working capital was $17.0 million at August 31, 2004 compared to $22.6 million at May 31, 2004. Lorus will receive $14.4 million in funds during fiscal 2005 as a result of the convertible debenture agreement discussed above.

Contractual Obligations and Off-Balance Sheet Financing

There have been no material changes with respect to the contractual obligations requiring payments during the quarter ended August 31, 2004 that are outside the ordinary course of our business.

Please refer to the MD&A included in our 2004 Annual Report.

Outlook

Until one of our drug candidates receives regulatory approval and is successfully commercialized, Lorus will continue to incur operating losses. The magnitude of these operating losses will be largely affected by the timing and scope of future clinical trials and pre-launch activities related to the Company's lead products, as well as any new initiatives. Finally, the duration of the pre-operating losses will depend on the scientific results of such clinical trials.

Changes in Accounting Policies and Accounting Estimates

Effective June 1, 2004, Lorus adopted the fair value method of accounting for stock options which were granted to employees on or after June 1, 2002 as required by the CICA amended CICA Handbook Section 3870 "Stock-Based Compensation and Other Stock-Based Payments" ["Section 3870"]. The change was adopted retroactively without restatement as allowed under the revised section. Under Section 3870, the fair value of stock options is recognized over the applicable vesting period as a charge to stock-based compensation expense and a credit to contributed surplus. When options are exercised, the proceeds are credited to share capital, and the applicable fair value reclassified from contributed surplus to share capital. Retroactive application of Section 3870 resulted in the opening balance of deficit and contributed surplus being increased by $2,777,000 as though the fair value method had been applied since June 1, 2002.

For U.S. GAAP, Lorus will continue measuring compensation expense using the intrinsic value based method for stock options granted to employees. Lorus will continue to provide pro-forma disclosure of compensation expense as if the fair value method had been applied for awards granted after September 1, 1995.

Updated Share Information

As at September 30, 2004, the number of issued and outstanding common shares of the Company was 171,694,989. In addition, there were 13,116,000 warrants to purchase 13,116,000 common shares of the Company, 1,835,820 compensation options and 8,333,475 stock options outstanding that are potentially convertible into an equal number of common shares.

Dr. Jim A. Wright

President and Chief Executive Officer

Forward Looking Statements

Except for historical information, this quarterly report contains forward-looking statements, which reflect the Company's current expectations and assumptions, and are subject to a number of risks and uncertainties that could cause actual results to differ materially from those anticipated. These forward-looking statements involve risks and uncertainties, including, but not limited to, changing market conditions, the Company's ability to obtain patent protection and protect its intellectual property rights, commercialization limitations imposed by intellectual property rights owned or controlled by third parties, intellectual property liability rights and liability claims asserted against the Company, the successful and timely completion of clinical studies, the establishment of corporate alliances, the impact of competitive products and pricing, new product development, uncertainties related to the regulatory approval process, product development delays, the Company's ability to attract and retain business partners and key personnel, future levels of government funding, the Company's ability to obtain the capital required for research, operations and marketing and other risks detailed from time-to-time in the Company's ongoing quarterly filings, annual information forms, annual reports and 40-F filings. We undertake no obligation to publicly update or revise any forward looking statements, whether as a result of new information, future events or otherwise.

For more information:

Grace Tse

Lorus Therapeutics Inc.

T 416 798 1200 ext. 280

F 416 798 2200

E ir@lorusthera.com

W: www.lorusthera.com

CONSOLIDATED STATEMENTS OF LOSS AND DEFICIT
(unaudited)

(amounts in 000's except per common share data) (Canadian Dollars)	Three months ended Aug. 31, 2004	Three months ended Aug. 31, 2003	Period from inception Sept. 5 1986 to Aug. 31, 2004
Revenues	$ 2	$ 29	$ 676
Expenses			
Cost of Sales	–	–	83
Research and development	5,049	7,262	96,893
General and administrative	1,035	1,231	33,818
Stock-based compensation (note 4)	211	–	2,988
Depreciation and amortization	107	99	8,888
Operating Expenses	6,392	8,598	141,670
Interest income	(145)	(283)	(10,168)
Loss for the period	6,245	8,171	130,826
Deficit, beginning of period	124,581	91,503	–
Deficit, end of period	$ 130,826	$ 99,674	$ 130,826
Basic and diluted loss per common share	$ 0.04	$ 0.05	
Weighted average number of common shares outstanding used in the calculation of basic and diluted loss per share	171,801	171,517	

See accompanying notes to unaudited consolidated financial statements

CONSOLIDATED STATEMENTS OF CASH FLOWS
(unaudited)

(amounts in 000's) (Canadian Dollars)	Three months ended Aug. 31, 2004	Three months ended Aug. 31, 2003	Period from inception Sept. 5 1986 to Aug. 31, 2004
Operating Activities			
Loss for the period	$ (6,245)	$ (8,171)	$ (130,826)
Add items not requiring a current outlay of cash:			
Depreciation and amortization	544	532	16,671
Stock-based compensation (note 4)	211	4	4,281
Other	–	–	745
Net change in non-cash working capital balances related to operations	(378)	1,746	2,950
Cash used in operating activities	(5,868)	(5,889)	(106,379)
Investing Activities			
Sale (purchase) of short-term investments, net	12,382	(4,952)	(13,415)
Business acquisition, net of cash received	–	–	(235)
Acquired research and development	–	–	(715)
Additions to fixed assets	(180)	(71)	(5,533)
Cash proceeds on sale of fixed assets	–	–	348
Cash provided by (used in) investing activities	12,202	(5,023)	(19,550)
Financing Activities			
Issuance of warrants	–	4,537	26,414
Issuance of common shares	5	25,336	97,264
Additions to deferred financing costs	–	–	(245)
Cash provided by financing activities	5	29,873	123,433
Increase in cash and cash equivalents during the period	6,337	18,961	7,398
Cash and cash equivalents, beginning of period	1,071	905	–
Cash and cash equivalents, end of period	$ 7,398	$ 19,866	$ 7,398

See accompanying notes to unaudited consolidated financial statements

CONSOLIDATED BALANCE SHEETS
(unaudited)

(amounts in 000's) (Canadian Dollars)	Aug. 31, 2004	May 31, 2004
Assets		
Current assets		
Cash and cash equivalents	$ 7,398	$ 1,071
Short-term investments	13,415	25,657
Prepaid expenses and amounts receivable	1,544	1,697
Total current assets	22,357	28,425
Fixed assets	1,534	1,471
Goodwill	606	606
Acquired research and development	3,685	3,922
	$ 28,182	$ 34,424
Liabilities and Shareholders' Equity		
Current liabilities		
Accounts payable	$ 2,635	$ 2,429
Accrued liabilities	2,977	3,396
Total current liabilities	5,612	5,825
Shareholders' equity		
Share capital (note 3)		
Common shares		
Authorized: unlimited number of shares;		
Issued and outstanding (000's):		
August 31, 2004 - 171,805		
May 31, 2004 - 171,794	144,678	144,673
Contributed surplus (notes 2 and 4)	2,988	–
Warrants (note 3)	4,325	4,325
Compensation options	1,405	1,405
Deficit accumulated during development stage	(130,826)	(121,804)
Total shareholders' equity	22,570	28,599
	$ 28,182	$ 34,424

See accompanying notes to unaudited consolidated financial statements

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(unaudited)

1. Basis of presentation

These unaudited consolidated interim financial statements of Lorus Therapeutics Inc. ("the Company") have been prepared by the Company in accordance with accounting principles generally accepted in Canada and follow the same accounting policies and methods of application as the audited annual financial statements for the year ended May 31, 2004. These statements should be read in conjunction with the audited consolidated financial statements for the year ended May 31, 2004.

The information furnished as at and for the three months ended August 31, 2004 and August 31, 2003 reflect, in the opinion of management, all adjustments consisting only of normal recurring adjustments, necessary for a fair presentation of the results of the interim periods presented. Interim results are not necessarily indicative of results for a full year.

2. Change in accounting policy

Effective June 1, 2004, the Company adopted the fair value based method of accounting for stock options which were granted to employees on or after June 1, 2002 as required by the Canadian Institute of Chartered Accountants ["CICA"] amended Handbook Section 3870 "Stock-Based Compensation and Other Stock-Based Payments" ["Section 3870"]. The change was adopted retroactively without restatement as allowed under the revised section.

Under the fair value method, the estimated fair value of stock options granted is recognized over the applicable vesting period as a charge to stock compensation expense and a credit to contributed surplus. When options granted on or after June 1, 2002 are exercised, the proceeds received and the related amount in contributed surplus are credited to share capital. For options granted prior to June 1, 2002, the Company continues to provide pro forma disclosure of net loss and net loss per share. When these options are exercised, the proceeds are credited to share capital. The impact to the financial statements arising from adoption of the fair value method was an increase to the deficit and contributed surplus balances of $2,777,000 at June 1, 2004.

3. Share Capital

(a) Continuity of common shares and warrants

(amounts and units in 000's)	Common Shares Number	Common Shares Amount	Warrants Number	Warrants Amount
Balance at May 31, 2003	145,265	$ 120,441	–	$ –
Share issuance	26,220	24,121	13,110	4,325
Exercise of stock options	289	171	–	–
Stock-based compensation	–	(88)	–	–
Other	–	28	–	–
Balance at May 31, 2004	171,794	144,673	13,110	4,325
Exercise of stock options	11	5	–	–
Balance at August 31, 2004	171,805	$ 144,678	13,110	$ 4,325

(b) Stock options

(amounts in 000's)	Three months ended Aug. 31, 2004	Year Ended May 31, 2004
Outstanding at beginning of period	6,372	5,378
Granted	2,878	2,029
Exercised	(11)	(289)
Forfeited	(903)	(1,308)
Outstanding at end of period	8,336	6,372

(c) Loss per share

The Company has excluded from the calculation of diluted loss per share all common shares potentially issuable upon the exercise of stock options, warrants and compensation options that could dilute basic loss per share, because to do so would be anti-dilutive.

4. Stock-Based Compensation

Retroactive adoption of Section 3870

Effective June 1, 2004, the Company adopted the fair value based method of accounting for employee stock options granted on or after June 1, 2002. The Company adopted this new accounting policy using the retroactive without restatement method as allowed for under the transitional provisions of Section 3870.

For the first quarter of 2005, stock compensation expense of $211,000 was recognized, representing the amortization applicable to the current period of the estimated fair value of options granted since June 1, 2002.

The following assumptions were used in the Black-Scholes option-pricing model for valuation of stock options:

	2005
Risk free interest rate	2.25%
Expected dividend yield	0%
Expected volatility	90%
Expected life of options	5 years
Weighted average grant date fair value of options	$0.55

(a) Pro forma information – Stock-based compensation

The following pro forma financial information presents the loss for the period and pro forma loss per common share had the Company recognized stock-based compensation for stock options granted to employees and directors using a fair value based method for all stock-based transactions prior to June 1, 2002. The fair value for these options was estimated at the date of grant using a Black-Scholes option-pricing model for pro forma assumptions.

Applying the above, supplemental disclosure of pro forma loss and loss per share is as follows:

(amounts in 000's)	Three months ended Aug. 31, 2004
Loss for the period	$ 6,245
Additional compensation expense related to the fair value of stock options	21
Pro forma loss for the period	$ 6,266
Pro forma loss per common share	$ 0.04

5. Subsequent event

On October 6, 2004, Lorus entered into an agreement to raise aggregate net proceeds of $14.4 million through the issuance of $15 million of secured convertible debentures. The debentures are secured by a first charge over all of the assets of the Company. Lorus received $4.4 million on October 6, 2004, and will receive $5.0 million on January 14, 2005 and on April 15, 2005. The debentures will mature on October 6, 2009 and interest will accrue and be paid monthly at a rate of prime + 1% until the Company's share price reaches $1.75 for 60 consecutive trading days, at which time interest will no longer accrue. Interest is to be payable in common shares of Lorus until such shares trade at a price of $1.00 or more after which interest will be payable in cash or common shares at the option of the debenture holder. Common shares issued in payment of interest will be issued at a price equal to the weighted average trading price of such shares for the ten trading days immediately preceding their issue in respect of each interest payment. The $5.0 million principal amount of debentures issued on October 6, 2004 are convertible at the holder's option into common shares of the Company with an exercise price per share of $1.00 and the $10.0 million principal amount of debentures issued thereafter is convertible at an exercise price per share equal to the greater of $1.00 and the weighted average trading price for the twenty-day period prior to the investment of the funds, less the maximum discount permitted by the Toronto Stock Exchange. The agreement also provides for the issuance of up to 4 million warrants, with a term of five years, to buy common shares at a price per share of $1.00.