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 August, 2009

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-_____.

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: August 31, 2009

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

EXHIBIT INDEX

99.1	Annual Financial Statements
99.2	Management Discussion and Analysis
99.3	Annual Information Form
99.4	CEO/CFO Certificate

Consolidated Financial Statements of

LORUS THERAPEUTICS INC.

Years ended May 31, 2009, 2008 and 2007

KPMG LLP
Chartered Accountants
Yonge Corporate Centre
4100 Yonge Street Suite 200
Toronto ON M2P 2H3
Canada

Telephone (416) 228-7000
Fax (416) 228-7123
Internet www.kpmg.ca

AUDITORS' REPORT TO THE SHAREHOLDERS

We have audited the consolidated balance sheets of Lorus Therapeutics Inc. as at May 31, 2009 and 2008 and the consolidated statements of operations and comprehensive income, deficit and cash flows for each of the years in the three-year period ended May 31, 2009 and for the period from inception on September 5, 1986 to May 31, 2009. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with Canadian generally accepted auditing standards. Those standards require that we plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In our opinion, these consolidated financial statements present fairly, in all material respects, the financial position of the Company as at May 31, 2009 and 2008 and the results of its operations and its cash flows for each of the years in the three-year period ended May 31, 2009 and for the period from inception on September 5, 1986 to May 31, 2009 in accordance with Canadian generally accepted accounting principles.

KPMG LLP

Chartered Accountants, Licensed Public Accountants

Toronto, Canada

August 26, 2009

LORUS THERAPEUTICS INC.

May 31, 2009 and 2008

	2009	2008
Assets		
Current assets:		
Cash and cash equivalents (notes 9 and 12)	$ 5,374	$ 2,652
Short-term investments (notes 4 and 9)	490	6,784
Prepaid expenses and other assets	826	721
Amount held in escrow (note 1(b))	-	600
	6,690	10,757
Fixed assets (note 5)	231	244
Goodwill	606	606
	$ 7,527	$ 11,607
Liabilities and Shareholders' Deficiency		
Current liabilities:		
Accounts payable	$ 299	$ 923
Deferred gain on sale of shares (notes 1(b) and 14(d))	-	600
Accrued liabilities	1,131	1,194
Secured convertible debentures (note 13)	14,448	-
	15,878	2,717
Secured convertible debentures (note 13)	-	12,742
Shareholders' deficiency:		
Share capital (note 6):		
Common shares	162,240	158,743
Equity portion of secured convertible debentures	3,814	3,814
Stock options	3,845	4,961
Contributed surplus	10,744	9,181
Warrants	417	-
Deficit accumulated during development stage	(189,411)	(180,551)
	(8,351)	(3,852)
Basis of presentation (note 1)		
Contingencies, commitments and guarantees (note 14)		
Subsequent events (note 18)		
	$ 7,527	$ 11,607

See accompanying notes to consolidated financial statements.

On behalf of the Board:

"Denis R. Burger" Director

"Aiping H. Young" Director

LORUS THERAPEUTICS INC.

Consolidated Statements of Operations and Comprehensive Income
(Expressed in thousands of Canadian dollars, except for per common share data)

	Years ended May 31,			Period from inception on September 5, 1986 to May 31,
	2009	2008	2007	2009
Revenue	$ 184	$ 43	$ 107	$ 1,040
Expenses:				
Cost of sales	-	2	16	105
Research and development (note 11)	3,757	6,260	3,505	123,997
General and administrative	2,958	3,715	3,727	57,875
Stock-based compensation (note 7)	446	719	503	8,418
Depreciation and amortization of fixed assets	189	317	402	9,731
	7,350	11,013	8,153	200,126
	(7,166)	(10,970)	(8,046)	(199,086)
Other expenses (income):				
Interest on convertible debentures	707	1,029	1,050	3,968
Accretion in carrying value of convertible debentures (notes 3(c)(iv) and 13)	1,707	1,176	935	4,903
Amortization of deferred financing costs (notes 3(c)(iv) and 13)	-	-	110	412
Interest	(270)	(542)	(503)	(12,236)
	2,144	1,663	1,592	(2,953)
	(9,310)	(12,633)	(9,638)	(196,133)
Gain on sale of shares (note 1(b))	450	6,299	-	6,749
Loss for the period and other comprehensive loss	$ (8,860)	$ (6,334)	$ (9,638)	$ (189,384)
Basic and diluted loss per common share	$ (0.04)	$ (0.03)	$ (0.05)	
Weighted average number of common shares outstanding used in the calculation of basic and diluted loss per share (in thousands)	247,084	215,084	204,860	

See accompanying notes to consolidated financial statements.

LORUS THERAPEUTICS INC.

Consolidated Statements of Deficit
(Expressed in thousands of Canadian dollars)

	Years ended May 31,			Period from inception on September 5, 1986 to May 31,
	2009	2008	2007	2009
Deficit, beginning of period:				
As previously reported	$ (180,551)	$ (174,190)	$ (164,552)	$ -
Change in accounting policy	-	(27)	-	(27)
As restated	(180,551)	(174,217)	(164,552)	(27)
Loss for the period	(8,860)	(6,334)	(9,638)	(189,384)
Deficit, end of period	$ (189,411)	$ (180,551)	$ (174,190)	$ (189,411)

See accompanying notes to consolidated financial statements.

LORUS THERAPEUTICS INC.

Consolidated Statements of Cash Flows
(Expressed in thousands of Canadian dollars)

	Years ended May 31, 2009	2008	2007	Period from inception on September 5, 1986 to May 31, 2008
Cash flows from operating activities:				
Loss for the period	$ (8,860)	$ (6,334)	$ (9,638)	$ (189,384)
Items not involving cash:				
Gain on sale of shares (note 1(b))	(450)	(6,299)	-	(6,749)
Stock-based compensation	446	719	503	8,418
Interest on convertible debentures	707	1,029	1,050	3,968
Accretion in carrying value of convertible debentures	1,707	1,176	935	4,903
Amortization of deferred financing costs	-	-	110	412
Depreciation, amortization and write-down of fixed assets and acquired patents and licenses	189	317	1,057	22,292
Other	(10)	(7)	-	445
Change in non-cash operating working capital (note 12)	(942)	(794)	(310)	(454)
Cash used in operating activities	(7,213)	(10,193)	(6,293)	(156,149)
Cash flows from financing activities:				
Issuance of debentures, net of issuance costs	-	-	-	12,948
Issuance (repurchase) of warrants (note 6)	-	(252)	-	37,153
Proceeds on sale of shares, net of amount held in escrow and arrangement costs (note 1(b))	600	7,561	(1,262)	6,899
Issuance of common shares and warrants, net of issuance costs (note 6)	3,207	-	11,654	112,232
Cash provided by financing activities	3,807	7,309	10,392	169,232
Cash flows from investing activities:				
Maturity (purchase) of investments, net	6,304	4,189	(5,366)	(500)
Business acquisition, net of cash received	-	-	-	(539)
Acquired patents and licenses	-	-	-	(715)
Additions to fixed assets	(176)	(58)	(20)	(6,303)
Proceeds on sale of fixed assets	-	-	-	348
Cash provided by (used in) investing activities	6,128	4,131	(5,386)	(7,709)
Increase (decrease) in cash and cash equivalents	2,722	1,247	(1,287)	5,374
Cash and cash equivalents, beginning of period	2,652	1,405	2,692	-
Cash and cash equivalents, end of period	$ 5,374	$ 2,652	$ 1,405	$ 5,374

Supplemental cash flow information (note 12)

See accompanying notes to consolidated financial statements.

1. Basis of presentation:

(a) Going concern:

The Company has not earned substantial revenue from its drug candidates and is therefore considered to be in the development stage. The continuation of the Company's research and development activities is dependent upon the Company's ability to successfully fund its cash requirements through a combination of equity financing and payments from strategic partners. The Company has no current sources of significant payments from strategic partners.

Subsequent to year end, the Company settled its secured convertible debentures and extinguished its liability in the amount of $15.0 million for consideration of cash and other assets (note 18).

Management has forecasted that the Company's current level of cash, cash equivalents and short-term investments after the extinguishment of the secured convertible debentures will not be 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. The issuance of common shares by the Company could result in significant dilution in the equity interest of existing shareholders. The Company is also considering alternatives to delay its research program until financing is available, amongst other cost savings measures. There can be no assurance that the Company will be able to obtain sufficient financing to meet future operational needs. As a result, there is a significant doubt as to whether the Company will be able to continue as a going concern and realize its assets and pay its liabilities as they fall due.

The consolidated financial statements do not reflect adjustments that would be necessary if the going concern assumption were not appropriate. If the going concern basis were not appropriate for these consolidated financial statements, then adjustments would be necessary in the carrying value of the assets and liabilities, the reported revenue and expenses and the balance sheet classifications used.

1. Basis of presentation (continued):

(b) Reorganization:

On November 1, 2006, Lorus Therapeutics Inc. ("Lorus", the "Company" or "New Lorus") was incorporated as 6650309 Canada Inc. pursuant to the provisions of the Canada Business Corporation Act and did not carry out any active business from the date of incorporation to July 10, 2007. From its incorporation to July 10, 2007, the Company was a wholly owned subsidiary of 4325231 Canada Inc., formerly Lorus Therapeutics Inc. ("Old Lorus").

On July 10, 2007, the Company and Old Lorus completed a plan of arrangement and corporate reorganization (the "Arrangement"). As part of the Arrangement, all of the assets and liabilities of Old Lorus (including all of the shares of its subsidiaries held by it), with the exception of certain future tax assets were transferred, directly or indirectly, from Old Lorus to the Company. Securityholders in Old Lorus exchanged their securities in Old Lorus for equivalent securities in New Lorus (the "Exchange") and the board of directors and management of Old Lorus continued as the board of directors and management of New Lorus.

In connection with the Arrangement, New Lorus received cash consideration of approximately $8.5 million less an escrowed amount of $600 thousand related to the indemnification discussed below, before transaction costs. After completion of the Arrangement, New Lorus is not related to Old Lorus, which was subsequently renamed Global Summit Real Estate Inc.

Under the Arrangement, New Lorus and its subsidiaries agreed to indemnify Old Lorus and its directors, officers and employees from and against all damages, losses, expenses (including fines and penalties), other third party costs and legal expenses, to which any of them may be subject arising out of various matters discussed in note 14. The escrowed amount of $600 thousand was subsequently released to Lorus on July 10, 2008.

As part of the Arrangement, the Company changed its name to Lorus Therapeutics Inc. and continued as a biopharmaceutical company, specializing in the research and development of pharmaceutical products and technologies for the management of cancer as a continuation of the business of Old Lorus.

1. Basis of presentation (continued):

The Arrangement has been accounted for on a continuity of interest basis and, accordingly, the consolidated financial statements of New Lorus reflect the financial position, results of operations and cash flows as if New Lorus has always carried on the business formerly carried on by Old Lorus. Consequently, all comparative figures presented in these consolidated financial statements include those of Old Lorus.

2. Changes in accounting policies:

(a) Accounting changes:

Effective June 1, 2008, the Company adopted the Accounting Standards Board's ("AcSB") replacement of Section 1506, Accounting Changes. The new standard allows for voluntary changes in accounting policy only when they result in the financial statements providing reliable and more relevant information; requires changes in accounting policy to be applied retrospectively unless doing so is impracticable; requires prior period errors to be corrected retrospectively; and calls for enhanced disclosures about the effects of changes in accounting policies, estimates and errors on the financial statements. The adoption of this standard did not have any impact on the Company's consolidated financial statements during the year ended May 31, 2009.

(b) Capital disclosures:

Effective June 1, 2008, the Company adopted the new recommendations of The Canadian Institute of Chartered Accountants ("CICA") Handbook Section 1535, Capital Disclosures ("Section 1535"). Section 1535 establishes standards for disclosing information about an entity's capital and how it is managed. It requires the disclosure of information about: (i) an entity's objectives, policies and processes for managing capital; complied with any capital requirements; and if it has not complied, the consequences of such non-compliance. The Company has included disclosures recommended by Section 1535 in note 8 to these consolidated financial statements.

2. Changes in accounting policies (continued):

(c) Financial instruments:

Effective June 1, 2008, the Company adopted the new recommendations of CICA Handbook Section 3862, Financial Instruments - Disclosures ("Section 3862"), and Handbook Section 3863, Financial Instruments - Presentation ("Section 3863"). Section 3862 requires entities to provide disclosures in their financial statements that enable users to evaluate the significance of financial instruments on the entity's financial position and its performance and the nature and extent of risks arising from financial instruments to which the entity is exposed during the period and at the balance sheet date, and how the entity manages those risks. Section 3863 establishes standards for presentation of financial instruments and non-financial derivatives. It deals with the classification of financial instruments, from the perspective of the issuer, between liabilities and equities, the classification of related interest, dividends, losses and gains, and circumstances in which financial assets and financial liabilities are offset. The adoption of these standards did not have any impact on the classification and valuation of the Company's financial instruments. The Company has included disclosures recommended by these new Handbook sections in note 9 to these consolidated financial statements.

(d) General standards of financial statement presentation:

In May 2007, the AcSB amended CICA Handbook Section 1400, General Standards of Financial Statement Presentation, to change the guidance related to management's responsibility to assess the ability of the entity to continue as a going concern.

The main features of the changes are as follows:

(i) management is required to make an assessment of an entity's ability to continue as a going concern;

(ii) in making its assessment, management takes into account all available information about the future, which is at least, but is not limited to, twelve months from the balance sheet date;

(iii) financial statements must be prepared on a going concern basis unless management either intends to liquidate the entity, to cease trading or cease operations, or has no realistic alternative but to do so;

2. Changes in accounting policies (continued):

(iv) disclosure is required of material uncertainties related to events or conditions that may cast significant doubt upon the entity's ability to continue as a going concern; and

(v) when financial statements are not prepared on a going concern basis, that fact should be disclosed, together with the basis on which the financial statements are prepared and the reason the entity is not regarded as a going concern.

The effective date of these amendments is for interim and annual financial statements relating to fiscal years beginning on or after January 1, 2008. The new disclosure requirements pertaining to this section are contained in note 1(a) to these consolidated financial statements.

3. Significant accounting policies:

(a) Principles of consolidation:

The consolidated financial statements include the accounts of Lorus, its 80% owned subsidiary, NuChem Pharmaceuticals Inc. ("NuChem"), and its wholly owned subsidiaries, GeneSense Technologies Inc. ("GeneSense") and Pharma Immune Inc. ("Pharma Immune"), which are substantially located in Canada. The results of operations for acquisitions are included in these consolidated financial statements from the date of acquisition. All significant intercompany balances and transactions have been eliminated on consolidation. Subsequent to year end, the Company disposed of the shares of Pharma Immune (note 18).

The consolidated financial statements have been prepared by management in accordance with Canadian generally accepted accounting principles ("Canadian GAAP").

3. Significant accounting policies (continued):

(b) Revenue recognition:

Revenue includes product sales, service, license and royalty revenue.

The Company recognizes revenue from product sales and provision of services when persuasive evidence of an arrangement exists, delivery has occurred, the Company's price to the customer is fixed or determinable and collectibility is reasonably assured. The Company allows customers to return product. Provisions for these returns are estimated based on historical return and exchange levels, and third-party data with respect to inventory levels in the Company's distribution channels.

Revenue from multiple element arrangements consisting of non-refundable license fees, receipt of milestone payments, royalty and delivery of services over a defined term are recognized in accordance with Emerging Issues Committee Abstract No. 142, Revenue Arrangements with Multiple Deliverables. The Company recognizes the non-refundable license fee as revenue when the technology license is delivered, the fee is fixed or determinable, collection of the amount was probable and there is no continuing involvement or obligation to perform under the arrangement. Any milestone payment subsequently received from the customer is recognized when the customer acknowledges achievement of the milestone, when the fee is fixed or determinable and collection of the amount is probable. If the multiple deliverables in an arrangement do not meet the criteria for separation, the proceeds from the entire arrangement are deferred and recognized as revenue on a proportionate performance basis, or over the term of the arrangement.

3. Significant accounting policies (continued):

(c) Financial instruments:

Upon adoption of CICA Handbook Section 3855, Financial Instruments - Recognition and Measurement ("Section 3855"), on June 1, 2007, the Company designates its financial assets and liabilities as follows:

(i) Cash and cash equivalents:

Cash and cash equivalents as at June 1, 2007 and acquired thereafter are classified as held-for-trading investments and measured at fair value. By virtue of the nature of these assets, fair value is generally equal to cost plus accrued interest. Where applicable, any significant change in market value would result in a gain or loss being recognized in the consolidated statements of operations. As a result of adopting the new standards, there was no material change in valuation of these assets.

The Company considers unrestricted cash on hand and in banks, term deposits and guaranteed investment certificates with original maturities of three months or less as cash and cash equivalents.

(ii) Short-term investments, marketable securities and other investments:

Short-term investments consist of fixed income government investments and corporate instruments. Any government and corporate investments with a stated maturity date that are not cash equivalents are classified as held-to-maturity investments, except where the Company does not intend to hold to maturity and, therefore, the investment is designated as held-for-trading. Held-to-maturity investments are measured at amortized cost using the effective interest rate method, while held-for-trading investments are measured at fair value and the resulting gain or loss is recognized in the consolidated statements of operations. The Company designated certain corporate instruments with maturities greater than one year previously carried at amortized cost as held-for-trading investments. This change in accounting policy resulted in a decrease in the carrying amount of these investments of $27 thousand and a corresponding increase in the opening deficit at June 1, 2007. The Company recognized a net unrealized gain in the consolidated statements of operations for the year ended May 31, 2009 of $10 thousand (2008 - $7 thousand).

3. Significant accounting policies (continued):

The Company invests in high-quality fixed income government and corporate investments with low credit risk.

Subsequent to the adoption of Section 3855, short-term investments, which consist of fixed income securities with a maturity of more than three months but less than one year, are recorded at their accreted value as they are held-to-maturity instruments. Certain corporate instruments have maturities greater than one year, however, the Company has designated these investments as held-for-trading, and have classified these investments as short-term investments on the consolidated balance sheets. These investments are carried at fair value.

(iii) Accounts payable and accrued liabilities:

Accounts payable and accrued liabilities are typically short-term in nature and classified as other financial liabilities. These liabilities are carried at amortized cost. As a result of adopting the new standards, there was no material change in the carrying value of these liabilities.

(iv) Secured convertible debentures:

The secured convertible debentures are classified as other financial liabilities and accounted for at amortized cost using the effective interest method, which is consistent with the Company's accounting policy prior to the adoption of Section 3855. The deferred financing charges related to the secured convertible debentures, formerly included in long-term assets, are now included as part of the carrying value of the secured convertible debentures and continue to be amortized using the effective interest method.

(v) Embedded derivatives:

Section 3855 requires that the Company identify embedded derivatives that require separation from the related host contract and measure those embedded derivatives at fair value. Subsequent change in fair value of embedded derivatives is recognized in the consolidated statements of operations in the period in which the change occurs.

3. Significant accounting policies (continued):

The Company did not identify any embedded derivatives that required separation from the related host contract and measured at fair value as at June 1, 2007.

(vi) Transaction costs:

Transaction costs that are directly attributable to the acquisition or issuance of financial assets or liabilities are accounted for as part of the respective asset or liability's carrying value at inception except for held-for-trading securities where the costs are expensed immediately.

(d) Fixed assets:

Fixed assets are recorded at cost less accumulated depreciation and amortization. The Company records depreciation and amortization at rates that charge operations with the cost of the assets over their estimated useful lives on a straight-line basis as follows:

Furniture and equipment	Over 3 to 5 years
Leasehold improvements	Over the lease term

(e) Research and development:

Research costs are charged to expense as incurred. Development costs, including the cost of drugs for use in clinical trials, are expensed as incurred unless they meet the criteria under Canadian GAAP for deferral and amortization. No development costs have been deferred to date.

(f) Goodwill and acquired patents and licenses:

Intangible assets with finite lives acquired in a business combination or other transaction are amortized over their estimated useful lives.

3. Significant accounting policies (continued):

Goodwill represents the excess of the purchase price over the fair value of net identifiable assets acquired in the GeneSense business combination. Goodwill acquired in a business combination is tested for impairment on an annual basis and at any other time if an event occurs or circumstances change that would indicate that impairment may exist. When the carrying value of a reporting unit's goodwill exceeds the residual fair value, an impairment loss is recognized in an amount equal to the excess.

The Company has identified no impairment relating to goodwill for 2009, 2008 and 2007.

The Company capitalized the cost of acquired patent and license assets on the acquisitions of GeneSense and the NuChem compounds. The nature of this asset is such that it was categorized as an intangible asset with a finite life. These assets have now been fully amortized.

(g) Impairment of long-lived assets:

The Company periodically reviews the useful lives and the carrying values of its long-lived assets. The Company reviews for impairment in long-lived assets whenever events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. If the sum of the undiscounted expected future cash flows expected to result from the use and eventual disposition of an asset is less than its carrying amount, it is considered to be impaired. An impairment loss is measured at the amount by which the carrying amount of the asset exceeds its fair value, which is estimated as the expected future cash flows discounted at a rate proportionate with the risks associated with the recovery of the asset.

3. Significant accounting policies (continued):

(h) Stock-based compensation:

The Company has a stock-based compensation plan, described in note 7. Prior to June 1, 2004, stock-based awards were accounted for using the intrinsic method with the exception of options with contingent vesting criteria for which the settlement method was used. On June 1, 2004, the Company adopted the fair value method of accounting for stock-based awards to employees, officers and directors granted or modified after June 1, 2004. This method requires the Company to expense, over the vesting period, the fair value of all employee stock-based awards granted or modified since June 1, 2002. Stock options and warrants awarded to non-employees are accounted for using the fair value method and expensed as the service or product is received. Consideration paid on the exercise of stock options and warrants is credited to common shares. The fair value of performance-based options is recognized over the estimated period to achieve the performance conditions. Fair value is determined using the Black-Scholes option pricing model.

The Company has a deferred share unit plan that provides directors the option of receiving payment for their services in the form of share units rather than common shares or cash. Share units entitle the director to elect to receive, on termination of his or her services with the Company, an equivalent number of common shares, or the cash equivalent of the market value of the common shares at that future date. Lorus records an expense and a liability equal to the market value of the shares issued. The accumulated liability is adjusted for market fluctuations on a quarterly basis.

(i) Investment tax credits:

The Company is entitled to Canadian federal and provincial investment tax credits, which are earned as a percentage of eligible research and development expenditures incurred in each taxation year. Investment tax credits are accounted for as a reduction of the related expenditure for items of a current nature and a reduction of the related asset cost for items of a long-term nature, provided that the Company has reasonable assurance that the tax credits will be realized. Investment tax credits receivable at May 31, 2009 of $600 thousand are classified as prepaid expenses and other assets (2008 - $400 thousand).

3. Significant accounting policies (continued):

(j) Income taxes:

Income taxes are accounted for using the asset and liability method. Under this method, future tax assets and liabilities are recorded for the future tax consequences attributable to differences between the financial statement carrying amounts of assets and liabilities and their respective tax bases, and operating loss and research and development expenditure carryforwards. Future tax assets and liabilities are measured using enacted or substantively enacted tax rates expected to apply when the asset is realized or the liability is settled. The effect on future tax assets and liabilities of a change in tax rates is recognized in income in the year that enactment or substantive enactment occurs. A valuation allowance is recorded if it is not more likely than not that some portion of or all of a future tax asset will be realized.

(k) Loss per share:

Basic loss per common share is calculated by dividing the loss for the year by the weighted average number of common shares outstanding during the year. Diluted loss per common share is calculated by dividing the loss for the year by the sum of the weighted average number of common shares outstanding and the dilutive common equivalent shares outstanding during the year. Common equivalent shares consist of the shares issuable upon exercise of stock options, warrants and conversion of the convertible debentures calculated using the treasury stock method. Common equivalent shares are not included in the calculation of the weighted average number of shares outstanding for diluted loss per common share when the effect would be anti-dilutive.

(l) Segmented information:

The Company is organized and operates as one operating segment, the research and development of pharmaceuticals. Substantially all of the Company's identifiable assets as at May 31, 2009 and 2008 are located in Canada.

3. Significant accounting policies (continued):

(m) Foreign currency translation:

Foreign currency transactions are translated into Canadian dollars at rates prevailing on the transaction dates. Monetary assets and liabilities are translated into Canadian dollars at the rates in effect on the balance sheet dates. Gains or losses resulting from these transactions are accounted for in the loss for the period and are not significant.

(n) Use of estimates:

The preparation of financial statements in accordance with Canadian GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenue and expenses during the years. Actual results may differ from those estimates. Significant estimates include the valuation of the convertible debentures, fair value of guarantees, the fair value of stock options granted and warrants issued and the useful lives of fixed and intangible assets.

(o) Recent Canadian accounting pronouncements not yet adopted:

(i) Section 3064, Goodwill and Intangible Assets, will be replacing Section 3062, Goodwill and Other Intangible Assets ("Section 3062"), and Section 3450, Research and Development Costs. This new section, issued in February 2008, will be applicable to financial statements relating to fiscal years beginning on or after October 1, 2008. Accordingly, the Company will adopt the new standards for its fiscal year beginning June 1, 2009. It establishes standards for the recognition, measurement, presentation and disclosure of goodwill subsequent to its initial recognition and of intangible assets by profit-oriented enterprises. Standards concerning goodwill are unchanged from the standards included in the previous Section 3062. The impact of adoption of this new section on the Company's consolidated financial statements has not been determined.

(ii) The CICA plans to converge Canadian GAAP with International Financial Reporting Standards ("IFRS") over a transition period expected to end in 2011. The Company will commence the IFRS conversion project in fiscal 2010.

(Tabular amounts in thousands of Canadian dollars, except per share amounts)

3. Significant accounting policies (continued):

(iii) In June 2009, the CICA amended Section 3862, Financial Instruments - Disclosures ("Section 3862"), to include additional disclosure requirements about fair value measurement for financial instruments and liquidity risk disclosures. These amendments require a three level hierarchy that reflects the significance of the inputs used in making the fair value measurements. Fair value of assets and liabilities included in Level 1 are determined by reference to quoted prices in active markets for identical assets and liabilities. Assets and liabilities in Level 2 include valuations using inputs other than the quoted prices for which all significant inputs are based on observable market data, either directly or indirectly. Level 3 valuations are based in inputs that are not based on observable market data. The amendments to Section 3862 apply for annual financial statements relating to fiscal years ending after September 30, 2009.

4. Short-term investments, marketable securities and other investments:

2009	Less than one year maturities	Greater than one year maturities	Total	Yield to maturity
Corporate investments (including guaranteed investment certificates)	$ 248	$ 242	$ 490	–

2008	Less than one year maturities	Greater than one year maturities	Total	Yield to maturity
Corporate investments (including guaranteed investment certificates, medium-term notes and fixed-term notes)	$ 6,304	$ 480	$ 6,784	3.89 - 4.60%

(Tabular amounts in thousands of Canadian dollars, except per share amounts)

4. Short-term investments, marketable securities and other investments (continued):

At May 31, 2008, investments with maturities of less than one year are classified as held-to-maturity investments and carried at amortized cost. These investments have maturities varying from one to two months. Certain corporate investments, totalling $490 thousand at May 31, 2009 (2008 - $480 thousand), have been designated as held-for-trading investments, and have been classified as short-term investments on the consolidated balance sheets. These investments are carried at fair value. The net increase in fair value for the year ended May 31, 2009 amounted to $10 thousand and has been included in the consolidated statements of operations in interest income.

At May 31, 2008, the carrying values of held-to-maturity investments approximated their quoted market values. These investments had varying maturities from one to two months.

5. Fixed assets:

2009	Cost	Accumulated depreciation and amortization	Net book value
Furniture and equipment	$ 2,905	$ 2,674	$ 231
Leasehold improvements	908	908	–
	$ 3,813	$ 3,582	$ 231

2008	Cost	Accumulated depreciation and amortization	Net book value
Furniture and equipment	$ 2,728	$ 2,557	$ 171
Leasehold improvements	908	835	73
	$ 3,636	$ 3,392	$ 244

6. Share capital:

(a) Continuity of common shares and warrants:

	Common shares		Warrants	
	Number	Amount	Number	Amount
	(In thousands)		(In thousands)	
Balance at May 31, 2006	174,694	$ 145,001	3,000	$ 991
Share issuance (e)	33,800	11,641	–	–
Interest payments (note 13)	3,726	1,050	–	–
Exercise of stock options	46	22	–	–
Repurchase of warrants (g)	–	–	(3,000)	(991)
Balance, May 31, 2007	212,266	157,714	–	–
Interest payments (note 13)	5,383	1,029	–	–
Balance, May 31, 2008	217,649	158,743	–	–
Interest payments (note 13)	10,620	707	–	–
Issuance of units (e)	28,539	2,790	14,269	417
Balance, May 31, 2009	256,808	$ 162,240	14,269	$ 417

(b) Contributed surplus:

	2009	2008	2007
Balance, beginning of year	$ 9,181	$ 8,525	$ 7,665
Forfeiture of stock options	1,563	656	121
Repurchase of warrants (g)	–	–	739
Balance, end of year	$ 10,744	$ 9,181	$ 8,525

(c) Continuity of stock options:

	2009	2008	2007
Balance, beginning of the year	$ 4,961	$ 4,898	$ 4,525
Stock option expense	446	719	494
Forfeiture of stock options	(1,562)	(656)	(121)
Balance, end of year	$ 3,845	$ 4,961	$ 4,898

6. Share capital (continued):

(d) Alternate compensation plans:

The Company also established a deferred share unit plan that provides directors the option of receiving payment for their services in the form of share units rather than common shares or cash. Share units entitle the directors to elect to receive, on termination of their services to the Company, an equivalent number of common shares, or the cash equivalent of the market value of the common shares at that future date. The share units are granted based on the market value of the common shares on the date of issue. No deferred share units were issued during the years ended May 31, 2009, 2008 and 2007.

(e) Share issuances:

On June 25, 2008, the Company filed a short-form prospectus for a rights offering to its shareholders. Under the rights offering, holders of the Company's common shares as of July 9, 2008 (the "Record Date") received one right for each common share held as of the Record Date. Each four rights entitled the holder thereof to purchase a unit of Lorus ("Unit"). Each Unit consists of one common share of Lorus at $0.13 and a one-half common share purchase warrant to purchase additional common shares of Lorus at $0.18 until August 7, 2010. All unexercised rights expired on August 7, 2008.

Pursuant to the rights offering, the Company issued 28,538,889 common shares and 14,269,444 common share purchase warrants in exchange for cash consideration of $3.7 million. The total costs associated with the transaction were approximately $500 thousand. The Company has allocated the net proceeds of $3.2 million received from the issuance of the Units to the common shares and the common share purchase warrants based on their relative fair values. The fair value of the common share purchase warrants has been determined based on an option-pricing model. The resulting allocation based on relative fair values resulted in the allocation of $2.8 million to the common shares and $417 thousand to the common share purchase warrants.

On July 10, 2007, as part of the Arrangement described in note 1(b), the Company surrendered its Original Share, and exchanged all of the shares in Old Lorus for an equivalent number of shares of the Company.

6. Share capital (continued):

(f) Employee share purchase plan:

The Company's employee share purchase plan ("ESPP") was established on January 1, 2005. The purpose of the ESPP is to assist the Company in retaining the services of its employees, to secure and retain the services of new employees and to provide incentives for such persons to exert maximum efforts for the success of the Company. The ESPP provides a means by which employees of the Company and its affiliates may purchase common shares of the Company at a discount through accumulated payroll deductions. Generally, each offering is of three months' duration with purchases occurring every month. Participants may authorize payroll deductions of up to 15% of their base compensation for the purchase of common shares under the ESPP. For the year ended May 31, 2009, 239,000 (2008 - 282,000; 2007 - 69,000) common shares have been purchased under the ESPP, and Lorus has recognized an expense of $3 thousand (2008 - $10 thousand; 2007 - $5 thousand) related to this plan in these consolidated financial statements.

(g) Repurchase of warrants:

In May 2007, the Company entered into an agreement with the holder of Lorus' $15.0 million secured convertible debenture to repurchase the outstanding 3,000,000 common share purchase warrants at a purchase price of $252 thousand upon close of the Arrangement. The equity-classified carrying value of the warrants was $991 thousand and the difference between the equity value and the purchase price was recorded as contributed surplus of $739 thousand.

7. Stock-based compensation:

Stock option plan:

Under the Company's stock option plan, options may be granted to directors, officers, employees and consultants of the Company to purchase up to a maximum of 15% of the total number of outstanding common shares, currently estimated at 38,500,000 options. Options are granted at the fair market value of the common shares on the date immediately preceding the date of the grant. Options vest at various rates (immediate to three years) and have a term of 10 years. Stock option transactions for the three years ended May 31, 2009 are summarized as follows:

	2009		2008		2007	
	Options	Weighted average exercise price	Options	Weighted average exercise price	Options	Weighted average exercise price
	(In thousands)		(In thousands)		(In thousands)	
Outstanding, beginning of year	16,438	$ 0.45	12,988	$ 0.59	10,300	$ 0.70
Granted	5,124	0.10	6,048	0.21	5,318	0.30
Exercised	–	–	–	–	(46)	0.30
Forfeited	(4,689)	0.66	(2,598)	0.58	(2,584)	0.44
Outstanding, end of year	16,873	0.29	16,438	0.45	12,988	0.59
Exercisable, end of year	9,708	$ 0.38	10,241	$ 0.58	9,796	$ 0.68

7. Stock-based compensation (continued):

The following table summarizes information about stock options outstanding at May 31, 2009:

	Options outstanding			Options exercisable	
Range of exercise prices	Options	Weighted average remaining contractual life (years)	Weighted average exercise price	Options	Weighted average exercise price
	(In thousands)			(In thousands)	
$0.08 - $0.24X	9,458	8.84	$ 0.16	3,598	$ 0.20
$0.25 - $0.49	5,701	6.55	0.29	4,397	0.29
$0.50 - $0.99	1,166	4.94	0.78	1,166	0.78
$1.00 - $2.50	548	3.23	1.42	547	1.42
	16,873	7.61	0.29	9,708	0.38

For the year ended May 31, 2009, stock option expense comprised $127 thousand (2008 - $171 thousand; 2007 - $216 thousand) related to research and development and $319 thousand (2008 - $548 thousand; 2007 - $287 thousand) related to general and administrative.

The following assumptions were used in the Black-Scholes option pricing model to determine the fair value of stock options granted during the year:

	2009	2008	2007
Risk-free interest rate	2.00% - 3.50%	3.75% - 4.70%	4.50%
Expected volatility	76%	77% - 80%	75% - 80%
Expected dividend yield	0%	0%	0%
Expected life of options	5 years	5 years	5 years
Weighted average fair value of options granted or modified during the year	$ 0.07	$ 0.14	$ 0.20

The Company has assumed no forfeiture rate as adjustments for actual forfeitures are made in the year they occur.

8. Capital risk management:

The Company's objectives when managing capital are to:

(a) maintain its ability to continue as a going concern in order to provide returns to shareholders and benefits to other stakeholders;

(b) maintain a flexible capital structure which optimizes the cost of capital at acceptable risk; and

(c) ensure sufficient cash resources to fund its research and development activity, to pursue partnership and collaboration opportunities and to maintain ongoing operations.

At May 31, 2009, the capital structure of the Company consisted of secured convertible debentures and equity comprised of share capital, warrants, the equity portion of the secured convertible debentures, stock options, contributed surplus and deficit. The Company manages its capital structure and makes adjustments to it in light of economic conditions. The Company, upon approval from its Board of Directors, will balance its overall capital structure through new share issuances, acquiring or disposing of assets, adjusting the amount of cash and short-term investments balances or by undertaking other activities as deemed appropriate under the specific circumstances. Subsequent to year end, the Company settled its secured convertible debentures and extinguished its liability in the amount of $15 million for consideration consisting of cash and other assets. The Company has forecasted that its current capital resources after extinguishment of the secured convertible debentures (note 18) will not be sufficient to carry its research and development plans and operations for the next twelve months (note 1(a)) without additional financing.

The Company is not subject to externally imposed capital requirements and the Company's overall strategy with respect to capital risk management remains unchanged from the year ended May 31, 2008.

(Tabular amounts in thousands of Canadian dollars, except per share amounts)

9. Financial Instruments:

(a) Financial instruments:

The Company has classified its financial instruments as follows:

	2009	2008
Financial assets:		
Cash and cash equivalents, consisting of term deposits and guaranteed investment certificates, held-for-trading, at fair value	$ 5,374	$ 2,652
Short-term investments, held-to-maturity, recorded at amortized cost	–	6,304
Short-term investments, held-for-trading, recorded at fair value	490	480
Amount held in escrow, measured at amortized cost	–	600
Financial liabilities:		
Accounts payable, measured at amortized cost	299	923
Accrued liabilities, measured at amortized cost	1,131	1,194
Secured convertible debentures, measured at amortized cost	14,448	12,742

(b) Financial risk management:

The Company has exposure to credit risk, liquidity risk and market risk. The Company's Board of Directors has the overall responsibility for the oversight of these risks and reviews the Company's policies on an ongoing basis to ensure that these risks are appropriately managed.

(i) Credit risk:

Credit risk is the risk of financial loss to the Company if a customer, partner or counterparty to a financial instrument fails to meet its contractual obligations, and arises principally from the Company's cash and cash equivalents and short-term investments. The carrying amount of the financial assets represents the maximum credit exposure.

9. Financial Instruments (continued):

The Company manages credit risk for its cash and cash equivalents and short-term investments by maintaining minimum standards of R1 low or A low investments and Lorus invests only in highly rated Canadian corporations with debt securities that are traded on active markets and are capable of prompt liquidation.

(ii) Liquidity risk:

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they come due. To the extent that the Company does not believe it has sufficient liquidity to meet its current obligations, the Board considers securing additional funds through equity, debt or partnering transactions. The Company manages its liquidity risk by continuously monitoring forecasts and actual cash flows. Refer to note 1(a) for further discussion on the Company's ability to continue as a going concern.

(iii) Market risk:

Market risk is the risk that changes in market prices, such as interest rates, foreign exchange rates and equity prices will affect the Company's income or the value of its financial instruments.

The Company is subject to interest rate risk on its cash and cash equivalents, short-term investments and secured convertible debentures. The Company does not believe that the results of operations or cash flows would be affected to any significant degree by a sudden change in market interest rates relative to interest rates on the investments, owing to the relative short-term nature of the investments. The secured convertible debentures accrue interest at a rate of prime plus 1%. A change of 100 basis points in the prime interest rate would have increased (decreased) equity and loss for the year by approximately $150 thousand for the year ended May 31, 2009. This analysis assumes all other variables remain constant.

9. Financial Instruments (continued):

Financial instruments potentially exposing the Company to foreign exchange risk consist principally of accounts payable and accrued liabilities. The Company holds minimal amounts of U.S. dollar denominated cash, purchasing on an as needed basis to cover U.S. dollar denominated payments. At May 31, 2009, U.S. dollar denominated accounts payable and accrued liabilities amounted to $70 thousand. Assuming all other variables remain constant, a 10% depreciation or appreciation of the Canadian dollar against the U.S. dollar would result in an increase or decrease in loss for the year and comprehensive loss of $7 thousand. The Company does not have any forward exchange contracts to hedge this risk.

The Company does not invest in equity instruments of other corporations other than a 19% interest held in Zor Pharmaceuticals, LLC ("ZOR") that is the licensee of Virulizin. The Company paid a nominal amount for this equity interest and is not exposed to any losses in excess of this nominal amount. This equity interest in Zor Pharmaceuticals was disposed of subsequent to the year end (note 18).

10. Income taxes:

Income tax recoveries attributable to losses from operations differ from the amounts computed by applying the combined Canadian federal and provincial income tax rates to pre-tax income from operations primarily as a result of the provision of a valuation allowance on net future income tax benefits.

(Tabular amounts in thousands of Canadian dollars, except per share amounts)

10. Income taxes (continued):

Significant components of the Company's future tax assets are as follows:

	2009	2008
Non-capital loss carryforwards	$ 3,099	$ 1,571
Capital loss carryforwards	218	218
Research and development expenditures	4,518	3,275
Book over tax depreciation	749	631
Intangible asset	3,386	3,386
Ontario harmonization tax credit	179	–
Future tax assets	12,149	9,081
Valuation allowance	(12,149)	(9,081)
	$ –	$ –

As a result of the harmonization of the Ontario provincial income tax system with the Canadian federal income tax system, the Company has recorded the benefit of a transitional credit of $179 thousand. This non-refundable credit will be available to reduce future Ontario income taxes over the next five years.

During the year ended May 31, 2009, for purposes of its provincial tax carryforwards, the Company recognized research and development tax expenditures that were incurred in a prior year. Consequently, the Company increased the related future tax assets as at May 31, 2009 by $856 thousand, offset by a valuation allowance of the same amount, with no resulting net impact on the consolidated balance sheet, consolidated statement of operations and comprehensive income or consolidated statement of deficit, in the current year or any prior period.

During the year ended May 31, 2008, under the Arrangement, numerous steps were undertaken as part of a taxable reorganization. However, these steps did not result in any taxes payable as the tax benefit of income tax attributes was applied to eliminate any taxes otherwise payable. Of the total unrecognized future tax assets available at the time of the Arrangement, approximately $7.0 million was transferred to New Lorus and the balance remained with Old Lorus and is subject to the indemnification agreement (note 1(b)). Those tax attributes remaining with Old Lorus are no longer available to the Company.

(Tabular amounts in thousands of Canadian dollars, except per share amounts)

10. Income taxes (continued):

In assessing the realizable benefit from future tax assets, management considers whether it is more likely than not that some portion or all of the future tax assets will not be realized. The ultimate realization of future tax assets is dependent on the generation of future taxable income during the years in which those temporary differences become deductible. Management considers projected future taxable income, uncertainties related to the industry in which the Company operates and tax planning strategies in making this assessment. Due to the Company's stage of development and operations, and uncertainties related to the industry in which the Company operates, the tax benefit of the above amounts has been completely offset by a valuation allowance.

The Company has undeducted research and development expenditures, totalling $15.6 million that can be carried forward indefinitely. In addition, the Company has non-capital loss and capital loss carryforwards of $10.7 million and $1.5 million, respectively. To the extent that the non-capital loss carryforwards are not used, they expire as follows:

2010	$ 142
2015	10
2026	11
2027	4
2028	6,653
2029	3,868
	$ 10,688

Income tax rate reconciliation:

	2009	2008	2007
Recovery of income taxes based on statutory rate of 33%	$ (2,950)	$ (2,217)	$ (3,481)
Expiry of losses	247	127	1,311
Change in valuation allowance subsequent to the Arrangement	3,068	2,048	(3,168)
Non deductible accretion, stock-based compensation and capital gains	582	(1,880)	519
Ontario harmonization tax credit	(260)	–	–
Change in substantively enacted tax rates	299	1,585	4,437
Adjustment of prior year research and development expenditures	(856)	–	–
Other	(130)	337	382
	$ –	$ –	$ –

11. Research and development programs:

The Company's cancer drug research and development programs focus primarily on the following technology platforms:

(a) Antisense**:**

Antisense drugs are genetic molecules that inhibit the production of disease-causing proteins. LOR-2040 (formerly GTI-2040) is the Company's lead antisense drug, and has shown preclinical anticancer activity across a broad range of cancers and is currently in various Phase I/II trials in several solid tumor types, which are sponsored by the U.S. National Cancer Institute. Lorus has selected Acute Myeloid Leukemia ("AML") as a lead cancer indication for clinical development of LOR-2040. LOR-2040 is currently in a Company-sponsored advanced Phase II clinical trial in combination with high dose Ara-C as salvage therapy in refractory and relapsed AML patients under 60 years of age.

(b) Small molecules**:**

The Company is utilizing its small molecule drug screening technologies and preclinical scientific expertise to identify several groups of novel small molecules that show strong anticancer activity and a high therapeutic index due to low toxicity.

The Company's proprietary group of novel small molecule compounds, which include lead compounds LOR-253 and LOR-220, have unique structures and modes of action, and are promising candidates for the development of novel anticancer agents with high safety profiles.

(c) Immunotherapy**:**

This clinical approach stimulates the body's natural defences against cancer. The Company's lead immunotherapeutic drug, Virulizin ®, completed a global Phase III clinical trial for the treatment of pancreatic cancer during 2005 and, although overall survival data did not reach statistical significance there was sufficient justification for further development of a favourable subgroup. In April 2008, the Company signed an exclusive multinational license agreement with ZOR to further develop and market the drug in certain territories. In June 2009, as discussed in note 18, the Company transferred this license agreement as part of its agreement to repurchase the secured convertible debentures.

(Tabular amounts in thousands of Canadian dollars, except per share amounts)

11. Research and development programs (continued):

	Years ended May 31, 2009	2008	2007	Period from inception on September 5, 1986 to May 31, 2009
Antisense:				
Expensed	$ 1,123	$ 3,291	$ 1,736	$ 35,959
Acquired	–	–	–	11,000
Small molecules:				
Expensed	2,634	2,821	1,678	12,841
Acquired	–	–	–	1,228
Immunotherapy:				
Expensed	–	148	91	75,197
Total expensed	$ 3,757	$ 6,260	$ 3,505	$ 123,997
Total acquired	$ –	$ –	$ –	$ 12,228

Amortization of the acquired patents and licenses is included in the 'Expensed' line of the table.

12. Supplemental cash flow and other information:

Cash and cash equivalents consist of:

	2009	2008
Cash	$ 2,676	$ 143
Term deposits and guaranteed investment certificates	2,698	2,509
	$ 5,374	$ 2,652

(Tabular amounts in thousands of Canadian dollars, except per share amounts)

12. Supplemental cash flow and other information (continued):

Change in non-cash operating working capital is summarized as follows:

	Years ended May 31,			Period from inception on September 5, 1986 to May 31,
	2009	2008	2007	2009
Prepaid expenses and other assets	$ (105)	$ (386)	$ 180	$ (250)
Accounts payable	(624)	(181)	549	(945)
Accrued liabilities	(213)	(227)	(1,039)	741
	$ (942)	$ (794)	$ (310)	$ (454)

During the year ended May 31, 2009, the Company received interest of $367 thousand (2008 -$519 thousand; 2007 - $412 thousand).

Supplementary disclosure relating to non-cash financing activities during May 31, 2008 consists of $252 thousand related to the liability to repurchase warrants.

13. Convertible debentures:

On October 6, 2004, the Company entered into a Subscription Agreement (the "Agreement") to issue an aggregate of $15.0 million of secured convertible debentures (the "debentures") to The Erin Mills Investment Corporation ("TEMIC" or the "debenture holder"). The debentures are secured by a first charge over all of the assets of the Company.

13. Convertible debentures (continued):

The Company received $4.4 million on October 6, 2004 (representing a $5.0 million debenture less an investor fee representing 4% of the $15.0 million to be received under the Agreement), and $5.0 million on each of January 14 and April 15, 2005. All debentures issued under this Agreement are due on October 6, 2009 and are subject to interest payable monthly at a rate of prime plus 1% until such time as the Company's share price reaches $1.75 for 60 consecutive trading days, at which time interest will no longer be charged. Interest is payable in common shares of Lorus until Lorus' shares trade at a price of $1.00 or more after which interest would be payable in cash or common shares at the option of the debenture holder. Common shares issued in payment of interest are issued at a price equal to the weighted average trading price of such shares for the 10 trading days immediately preceding their issue in respect of each interest payment. For the year ended May 31, 2009, the Company issued 10,620,000 (2008 - 5,383,000; 2006 - 3,726,000) shares in settlement of approximately $707 thousand (2008 - $1.0 million; 2007 - $1.0 million) in interest.

The $15.0 million principal amount of debentures issued on October 6, 2004, January 14, 2005 and April 15, 2005 is convertible at the holder's option at any time into common shares of the Company with a conversion price per share of $1.00.

With the issuance of each $5.0 million debenture, the Company issued to the debenture holder from escrow 1,000,000 purchase warrants expiring October 6, 2009 to buy common shares of the Company at a price per share equal to $1.00. In May 2007, the 3,000,000 common share purchase warrants were repurchased in connection with the Arrangement (note 6(g)).

Prior to the adoption of Section 3855, deferred financing costs were amortized over the five-year life of the Agreement. For the year ended May 31, 2007, the Company recognized $110 thousand in amortization expense. As a consequence of the adoption of Section 3855, deferred financing costs at June 1, 2007 were reclassified and reduced the carrying value of the debentures. Deferred financing costs are recognized in the consolidated statements of operations as accretion expense.

Each reporting period, the Company is required to accrete the carrying value of the convertible debentures such that at maturity on October 6, 2009, the carrying value of the debentures will be their face value of $15.0 million. For the year ended May 31, 2009, the Company has recognized $1.7 million (2007 - $1.2 million; 2007 - $935 thousand) in accretion expense. The convertible debentures were settled subsequent to the year end (note 18).

14. Contingencies, commitments and guarantees:

(a) Operating lease commitments:

The Company has entered into operating leases for premises and equipment under which it is obligated to make minimum annual payments of approximately $148 thousand in 2010, $129 thousand in 2011 and $9 thousand in 2012.

During the year ended May 31, 2009, operating lease expenses were $143 thousand (2008 - $140 thousand; 2007 - $139 thousand).

(b) Other contractual commitments:

In December 1997, the Company acquired certain patent rights and a sub-license to develop and commercialize the anticancer application of certain compounds in exchange for:

(i) a 20% share interest in NuChem;

(ii) a payment of U.S. $350 thousand in shares of Lorus; and

(iii) up to U.S. $3.5 million in cash.

To date, the Company has made cash payments of U.S. $500 thousand. The remaining balance of up to U.S. $3.0 million remains payable upon the achievement of certain milestones based on the commencement and completion of clinical trials. Additional amounts paid will be classified as acquired patents and licenses and will be amortized over the estimated useful life of the licensed asset.

The Company did not meet any of these milestones during the current year and does not currently expect to achieve any of the above milestones in fiscal years ended May 31, 2010 or 2011 and cannot reasonably predict when such milestones will be achieved, if at all.

14. Contingencies, commitments and guarantees (continued):

The Company holds an exclusive world-wide license from the University of Manitoba (the "University") and Cancer Care Manitoba ("CCM") to certain patent rights to develop and sub-license certain oligonucleotide technologies. In consideration for the exclusive license of the patent rights, the University and CCM are entitled to an aggregate of 1.67% of the net sales received by the Company from the sale of products or processes derived from the patent rights and 1.67% of all monies received by the Company from sub-licenses of the patent rights. Any and all improvements to any of the patent rights derived in whole or in part by the Company after the date of the license agreement, being June 20, 1997, are not included within the scope of the agreement and do not trigger any payment of royalties.

The Company has not yet earned any revenue from the products covered under this agreement and, therefore, has not paid any royalties thereunder and cannot reasonably predict the timing and amount of any future payment. The Company does not expect to make any royalty payments under this agreement in fiscal years ended May 31, 2010 or 2011, and cannot reasonably predict when such royalties will become payable, if at all.

(c) Guarantees:

The Company entered into various contracts, whereby contractors perform certain services for the Company. The Company indemnifies the contractors against costs, charges and expenses in respect of legal actions or proceedings against the contractors in their capacity of servicing the Company. The maximum amounts payable from these guarantees cannot be reasonably estimated. Historically, the Company has not made significant payments related to these guarantees.

The Company indemnifies its directors and officers against any and all claims or losses reasonably incurred in the performance of their service to the Company to the extent permitted by law. The Company has acquired and maintains liability insurance for its directors and officers. The fair value of this indemnification is not determinable.

14. Contingencies, commitments and guarantees (continued):

(d) Indemnification on Arrangement:

Under the Arrangement (note 1(b)), the Company has agreed to indemnify Old Lorus and its directors, officers and employees from and against all damages, losses, expenses (including fines and penalties), other third party costs and legal expenses, to which any of them may be subject arising out of any matter occurring:

(i) prior to, at or after the effective time of the Arrangement ("Effective Time") and directly or indirectly relating to any of the assets of Old Lorus transferred to New Lorus pursuant to the Arrangement (including losses for income, sales, excise and other taxes arising in connection with the transfer of any such asset) or conduct of the business prior to the Effective Time;

(ii) prior to, at or after the Effective Time as a result of any and all interests, rights, liabilities and other matters relating to the assets transferred by Old Lorus to New Lorus pursuant to the Arrangement; and

(iii) prior to or at the Effective Time and directly or indirectly relating to, with certain exceptions, any of the activities of Old Lorus or the Arrangement.

Subsequent to the release of the escrowed amount of $600 thousand in July 2008, the Company has recorded a liability of $150 thousand, which it believes is a reasonable estimate of the fair value of the obligation for the indemnifications provided. There have been no claims under this indemnification to date. This amount is included on the balance sheet in accrued liabilities as at May 31, 2009.

(e) Regulatory matter:

On October 31, 2008, Lorus voluntarily delisted its common shares from trading on the NYSE Alternext US LLC (formerly the American Stock Exchange or AMEX). Lorus is eligible to apply for deregistration from the Securities Exchange Commission one year after delisting from AMEX. Lorus intends to submit this application by October 31, 2009.

15. Financial instruments:

Fair value estimates are made at a specific point in time, based on relevant market information and information about the financial instrument. These estimates are subjective in nature and involve uncertainties and matters of significant judgment and, therefore, cannot be determined with precision. Changes in assumptions could significantly affect the estimates.

(a) Cash and cash equivalents, short-term investments, other assets, amount held in escrow, accounts payable and accrued liabilities:

Due to the short period to maturity of the financial instruments, the carrying values as presented in the consolidated balance sheets are reasonable estimates of fair value.

(b) Convertible debentures:

The fair value of the convertible debentures at May 31, 2009 is $14.5 million (2008 - $13.9 million).

Financial instruments potentially exposing the Company to a concentration of credit risk consist principally of cash equivalents and short-term investments. The Company mitigates this risk by investing in high grade fixed income securities.

Prior to extinguishment of the Company's convertible debentures, it was exposed to interest rate risk due to the convertible debentures that require interest payments at a variable rate of interest. The convertible debentures were settled subsequent to the year end (note 18) and the Company does not have other interest bearing debt at May 31, 2009.

16. License agreement:

Effective April 8, 2008, the Company entered into a non-exclusive multinational license agreement with ZOR, formed as a subsidiary of Zoticon Bioventures Inc., to further develop and commercialize Virulizin® for human therapeutic applications.

16. License agreement (continued):

Under the terms of the agreement, the Company received an upfront licensing fee of $100 thousand, and may receive certain milestone payments totalling approximately U.S. $10 million based on progress through financing and clinical development, and royalties on net sales that vary from 10% to 20% depending on the level of sales of Virulizin® achieved in those territories covered by the license and subject to certain other adjustments. ZOR will assume all future costs for the development of the licensed technology. In 2009, the Company received an additional payment of $178 thousand (U.S. $150 thousand).

The Company has also entered into a service agreement with ZOR to assist in the transfer of knowledge. Under this agreement, the Company has agreed to provide ZOR with 300 hours of consulting service during a period of 18 months.

The initial fee of $100 thousand and a milestone payment of $178 thousand (U.S. $150 thousand) have been deferred under this arrangement and revenue is recognized based on the measure of progress toward completion of the technical support services under this contract based on the actual hours provided relative to the total number of hours required to be provided, applied to the total of these initial fee and non-contingent contractual payments related to the support services. At any time, the amount of cumulative revenue recognized would not exceed the cumulative amount of non-refundable payments received under the arrangement.

In addition, Lorus acquired a 25% equity interest in ZOR in exchange for a capital contribution of $2,500. This investment has been accounted for as an equity investment. Lorus' equity is subject to dilution following receipt by ZOR of more than U.S. $5 million of equity financing in ZOR should the Company not to participate in the financing. During the year, the Company's equity interest was reduced to 19%.

As described in note 18, subsequent to year end, as part of the agreement to repurchase the convertible debentures, the Company disposed of its interest in ZOR and assigned the licence agreement to TEMIC.

17. Related party transaction:

During the year ended May 31, 2009, the Company expensed consulting fees of $25 thousand to a director of the Company (2008 - $31 thousand; 2007 - nil). There was no amount payable at May 31, 2009 (2008 - $30 thousand; 2007 - nil).

This transaction was in the normal course of business and has been measured at the exchange amount, which is the amount of consideration established and agreed to by the related parties.

18. Subsequent events:

On June 22, 2009, the Company reached a settlement with TEMIC with respect to the purchase and settlement of the $15.0 million secured convertible debentures.

Under the agreement, Lorus purchased all of the convertible debentures from TEMIC for a cash payment on close of the transaction of $3.3 million, the assignment of the rights under the license agreement with ZOR, sale of intellectual property associated with Virulizin and sale of Lorus' shares in its wholly owned subsidiary, Pharma Immune, which holds an equity interest in ZOR (the "Consideration"). Under the agreement, Lorus will be entitled to 50% of any royalties received under the ZOR license agreement and 50% of the value of any transaction completed in territories not covered by the ZOR license agreement. Lorus also retains a perpetual royalty free license for the animal use of Virulizin. TEMIC will be fully responsible for all clinical and regulatory costs associated with commercialization of Virulizin in territories not covered by the ZOR license agreement. Lorus will assist TEMIC with certain agreed upon services.

For receipt of this consideration, TEMIC has released all security interest in the assets of Lorus.

The purchase and settlement of the secured convertible debentures, the related equity portion of the secured convertible debentures and the gain/loss arising from this transaction will be recorded in the Company's interim financial statements for the quarter ending August 31, 2009.

19. Comparative figures:

Certain 2008 and 2007 figures have been reclassified to conform to the financial statement presentation adopted in 2009.

MANAGEMENT'S DISCUSSION AND ANALYSIS

August 26, 2009

CAUTION REGARDING FORWARD-LOOKING STATEMENTS

This management discussion and analysis may contain forward-looking statements within the meaning of securities laws. Such statements include, but are not limited to, statements relating to:

- *our ability to obtain the substantial capital required to fund research and operations;*
- *our plans to obtain partners to assist in the further development of our product candidates;*
- *our expectations with respect to existing and future corporate alliances and licensing transactions with third parties, and the receipt and timing of any payments to be made by us or to us in respect of such arrangements;*
- *our expectations regarding future financings;*
- *our plans to conduct clinical trials; and*
- *our expectations regarding the progress and the successful and timely completion of the various stages of our drug discovery, pre-clinical and clinical studies and the regulatory approval process*

the Company's plans, objectives, expectations and intentions and other statements including words such as "anticipate", "contemplate", "continue", "believe", "plan", "estimate", "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 to operate as a going concern;*
- *our ability to obtain the substantial capital required to fund research and operations;*
- *our lack of product revenues and history of operating losses;*
- *our early stage of development, particularly the inherent risks and uncertainties associated with (i) developing new drug candidates generally, (ii) demonstrating the safety and efficacy of these drug candidates in clinical studies in humans, and (iii) obtaining regulatory approval to commercialize these drug candidates;*
- *the progress of our clinical trials;*
- *our liability associated with the indemnification of Old Lorus and its directors, officers and employees*
- *our ability to find and enter into agreements with potential partners;*
- *our drug candidates require time-consuming and costly preclinical and clinical testing and regulatory approvals before commercialization;*
- *clinical studies and regulatory approvals of our drug candidates are subject to delays, and may not be completed or granted on expected timetables, if at all, and such delays may increase our costs and could delay our ability to generate revenue;*
- *the regulatory approval process;*
- *our ability to attract and retain key personnel;*
- *our ability to obtain patent protection and protect our intellectual property rights;*
- *our ability to protect our intellectual property rights and to not infringe on the intellectual property rights of others;*
- *our ability to comply with applicable governmental regulations and standards;*
- *development or commercialization of similar products by our competitors, many of which are more established and have greater financial resources than we do;*
- *commercialization limitations imposed by intellectual property rights owned or controlled by third parties;*
- *our business is subject to potential product liability and other claims;*
- *our ability to maintain adequate insurance at acceptable costs;*
- *further equity financing may substantially dilute the interests of our shareholders;*
- *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, and those which are discussed under the heading "Risk Factors".*

Should one or more of these risks or uncertainties materialize, or should the assumptions set out in the section entitled "Risk Factors" 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 management, discussion and analysis or, in the case of documents incorporated by reference herein, as of the date of such documents, 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.

LIQUIDITY AND CAPITAL RESOURCES

Since its inception, Lorus has financed its operations and technology acquisitions primarily from equity and debt financing, the proceeds from the exercise of warrants and stock options, and interest income on funds held for future investment. The remaining costs associated with the completion of the LOR-2040 Phase I/II clinical trial program with the US National Cancer Institute ("NCI") will be borne by the US NCI. Lorus has, in the past, undertaken additional LOR-2040 trials and acquired additional quantities of LOR-2040 drug to support this ongoing trial and any further development of LOR-2040 at its own cost. We will continue the development of our small molecule programs from internal resources.

We have not earned substantial revenues from our drug candidates and are therefore considered to be in the development stage. The continuation of our research and development activities and the commercialization of the targeted therapeutic products are dependent upon our ability to successfully finance and complete our research and development programs through a combination of equity financing and payments from strategic partners. We have no current sources of payments from strategic partners.

Subsequent to the year-end the Company settled its secured convertible debentures and extinguished its liability in the amount of $15.0 million for consideration consisting of cash and other assets.

Management has forecasted that the Company's current level of cash and cash equivalents and short-term investments after the extinguishment of the secured convertible debentures will not be 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. The issuance of common shares by the Company could result in significant dilution in the equity interest of existing shareholders. The Company is also considering alternatives to delay its research program until financing is available, amongst other cost savings measures. There can be no assurance that the Company will be able to obtain sufficient financing to meet future operational needs. As a result, there is a significant doubt as to whether the Company will be able to continue as a going concern and realize its assets and pay its liabilities as they fall due.

The financial statements do not reflect adjustments that would be necessary if the going concern assumption were not appropriate. If the going concern basis were not appropriate for these financial statements, then adjustments would be necessary in the carrying value of the assets and liabilities, the reported revenues and expenses and the balance sheet classifications used.

The following discussion should be read in conjunction with the audited financial statements for the year ended May 31, 2009 and the accompanying notes (the "Financial Statements") contained in the Company's annual report. The Financial Statements, and all financial information discussed below, have been prepared in accordance with Canadian generally accepted accounting principles ("GAAP"). All amounts are expressed in Canadian dollars unless otherwise noted. All comparative figures presented in these consolidated financial statements include those of those of Old Lorus prior to the Arrangement Date (as defined below) and the Company after the Arrangement Date. References in this Management's Discussion and Analysis to the "Company", "Lorus", "we", "our", "us" and similar expressions, unless otherwise stated, refers to Lorus Therapeutics Inc.

OVERVIEW

Lorus is a life sciences company focused on the discovery, research and development of effective anticancer therapies with a high safety profile. Lorus has worked to establish a diverse anticancer product pipeline, with products in various stages of development ranging from pre-clinical to an advanced Phase II clinical trial. A growing intellectual property portfolio supports our diverse product pipeline. Lorus' pipeline is a combination of internally developed products and products licensed in from other entities at a pre-clinical stage.

We believe that the future of cancer treatment and management lies in drugs that are effective, safe and have minimal side effects, and therefore improve a patient's quality of life. Many of the cancer drugs currently approved for the treatment and management of cancer are toxic with severe side effects, and we therefore believe that a product development plan based on effective and safe drugs could have broad applications in cancer treatment. Lorus' strategy is to continue the development of our product pipeline using several therapeutic approaches. Each therapeutic approach is dependent on different technologies, which we believe mitigates the development risks associated with a single technology platform. We evaluate the merits of each product throughout the clinical trial process and consider commercial viability as appropriate. The most advanced anticancer drugs in our pipeline, each of which flow from different platform technologies, are antisense, small molecules and immunotherapeutics.

Our business model is to take our product candidates through pre-clinical testing and into Phase I and Phase II clinical trials. It is our intention to then partner or co-develop these product candidates after successful completion of Phase I or II clinical trials. Lorus will give careful consideration in the selection of partners that can best advance the drug candidates into a pivotal Phase III clinical trial and, upon successful results, commercialization. Our objective is to receive cash for milestone payments and royalties from such partnerships which will support continued development of our product pipeline. We assess each product candidate and determine the optimal time to work towards partnering out that product candidate.

Our success is dependent upon several factors, including, maintaining sufficient levels of funding through public and/or private financing, establishing the efficacy and safety of our products in clinical trials and securing strategic partnerships.

Our loss from operations for the year ended May 31, 2009 decreased to $9.3 million ($0.04 per share) compared to $12.6 million ($0.06 per share) during the same period in fiscal 2008. During the year ended May 31, 2009 the Company recorded a gain on sale of shares related to the Arrangement (as described in the section titled “Plan of Arrangement and Corporate Reorganization”) of $450 thousand resulting in a net loss and other comprehensive loss for the period of $8.9 million ($0.04 per share). During the year ended May 31, 2008, the Company realized a gain on the sale of the shares related to the Arrangement in the amount of $6.3 million resulting in net loss and other comprehensive loss for the period of $6.3 million ($0.03 per share).

The decrease in net loss from operations for the year ended May 31, 2009 compared with the prior year is due primarily to lower research and development costs of $2.5 million resulting from less spending on GLP-toxicity studies as well as LOR-2040 drug manufacturing costs, lower general and administrative costs of $757 thousand due to reduced personnel, legal and corporate governance costs as well as lower stock based compensation costs of $273 thousand as a result of a lower share price in the current year and one time option grants in the third quarter of 2008 and option modification costs incurred in the second quarter of 2008. In addition, interest income decreased by $272 thousand in 2009 to $270 thousand as a result of lower cash and investment balances and lower prime rates of interest.

We utilized cash of $7.2 million in our operating activities in the year ended May 31, 2009 compared with $10.2 million in the prior year. The decrease is primarily a result of a reduced net loss offset by lower accounts payable and accrued liabilities balances in the current year.

At May 31, 2009, we had cash and cash equivalents and short-term investments of $5.9 million compared to $9.4 million at May 31, 2008.

As a result of the Company's current cash position, management is currently undertaking actions to reduce expenditures while at the same time pursuing investment and other opportunities aimed at funding its research and development programs. As part of its cost reduction strategies, management expects to reduce its research and development costs by limiting activities and reduce its general and administrative costs by limiting expenditures and reducing its labour costs, among other things, until such time as the Company has sufficient capital to support a full development program.

RESULTS OF OPERATIONS

Revenue
Revenue for the year ended May 31, 2009 increased to $184 thousand compared with revenue of $43 thousand for the prior year and $107 thousand in 2007. This increase in revenue is related to an increase in milestone revenues associated with the license of Virulizin to ZOR Pharmaceuticals and recognition of revenue on milestone payments received in prior periods. This revenue is recognized over the remaining period of a service contract whereby Lorus has agreed to provide consulting services to ZOR pharmaceuticals. There remains $105 thousand in deferred revenue which has been recorded in Accrued Liabilities on the balance sheet as at May 31, 2009. Management anticipates that this revenue will be recognizable over the remaining term of three months as services are provided. The decreased revenue in 2008 compared with 2007 is related to reduction in laboratory services work performed by Lorus personnel on behalf of other companies.

Research and Development
Research and development expenses totaled $3.8 million in the year ended May 31, 2009 compared to $6.3 million during the prior year and $3.5 million in 2007. The decrease in spending during the year ended May 31, 2009 compared with the prior year is due to the completion of GLP-toxicity studies for both our LOR-2040 bladder cancer and LOR-253 small molecule programs during the year. These research programs were ongoing in the prior year. In addition, during the year ended May 31, 2008 we manufactured LOR-2040 drug. In 2009, we manufactured LOR-253 drug, our lead small molecule, the manufacturing cost of which is significantly less than LOR-2040 contributing to the decrease in research spending. The increase in research and development expenditures in 2008 as compared to 2007 is due to a significant increase in activity in our LOR-2040 and small molecule development programs and LOR-2040 manufacturing costs

General and Administrative
General and administrative expenses totaled $3.0 million for the year ended May 31, 2009 compared to $3.7 million in the prior year and $3.7 million in 2007. The decrease in general and administrative costs for the current year is the result of lower personnel costs, reduced legal and patent costs and lower annual meeting costs.

Stock-Based Compensation
Stock-based compensation expense, net of forfeitures, totaled $446 thousand for the year ended May 31, 2009 compared with $719 thousand in the prior year and $503 thousand in 2007. The lower stock based compensation for the year ending May 31, 2009 is due primarily to a lower share price in the current year and one-time increase in options granted during 2008 that vested immediately in order to bring option granting practices in line with industry standards. No similar transaction occurred in 2009 or 2007. Also in 2008, the Company recorded an expense of $83 thousand relating to the extension of options to directors not standing for re-election at the Company’s annual general meeting and Dr. Wright for options granted in his capacity as President and CEO. A similar extension was made in 2009 for directors not seeking re-election resulting in a $3 thousand additional expense.

Depreciation and Amortization
Depreciation and amortization expenses decreased to $189 thousand in the year ended May 31, 2009 as compared to $317 thousand in the prior year and $402 thousand in 2007. The decrease in depreciation and amortization expense is the result of reduced capital asset purchases over the past three fiscal years. During the current year, we acquired research and development equipment that provides us with the ability to do certain testing in house that was previously outsourced.

Interest Expense
Non-cash interest expense was $707 thousand in the year ended May 31, 2009 compared with $1.0 million in the prior year and $1.0 million in 2007. These amounts represent interest at a rate of prime plus 1% on the $15.0 million convertible debentures. The decrease in interest expense in fiscal 2009 compared with fiscal 2008 and 2007 is a function of significantly lower prime rates in comparison with the prior years. All interest accrued on the debentures to date has been paid in common shares of the Company.

Accretion in Carrying Value of Secured Convertible Debentures
Accretion in the carrying value of the Company's secured convertible debentures was $1.7 million in the year May 31, 2009 compared with $1.2 million in the prior year and $935 thousand in 2007. The accretion charges arise as under GAAP the Company has allocated the proceeds from each tranche of the debentures to the debt and equity instruments issued on a relative fair value basis resulting in the $15.0 million debentures having an initial cumulative carrying value of $9.8 million as of their dates of issuance. Each reporting period, the Company is required to accrete the carrying value of the convertible debentures such that at maturity on October 6, 2009, the carrying value of the debentures would be the face value of $15.0 million. The increase in expense year ended May 31, 2009 compared with the prior year and 2008 compared with 2007 is due to the increasing principal balance to which the implicit interest is applied in determining the accretion amount. Subsequent to the year-end the Company settled its secured convertible debentures and extinguished its liability in the amount of $15.0 million for consideration of cash and other assets.

Interest Income
Interest income totaled $270 thousand in the year ended May 31, 2009 compared to $542 thousand in the prior year and $503 thousand in 2007. The decrease in interest income during the current year is due to lower average cash and marketable securities balances and significantly lower interest rates available on investments in comparison with the prior years.

Loss from operations for the period
For the reasons discussed above, our loss from operations for the year ended May 31, 2009 decreased to $9.3 million ($0.04 per share) compared to $12.6 million ($0.06 per share) in the prior year and $9.6 million in 2007. During the year ended May 31, 2009 the Company recorded a gain on sale of shares related to the Arrangement of $450 thousand which resulted in a net loss and other comprehensive loss of $8.9 million ($0.04 per share). During the year ended May 31, 2008, the Company realized a gain related to the Arrangement in the amount of $6.3 million resulting in a net loss and other comprehensive loss for the period of $6.3 million ($0.03 per share). The decrease in loss in 2008 compared to 2007 is a result of the impact of the gain on sale of shares related to the Arrangement partly offset by increased research and development costs.

Gain on sale of shares
As a result of the Arrangement described below, the Company recognized a gain on the sale of the shares of Old Lorus to the investor of approximately $6.3 million for the year ended May 31, 2008. In the year ended May 31, 2009 the Company recognized a gain on sale of $450 thousand which represents the $600 thousand released from escrow less $150 thousand accrued as management's estimate of the fair value of the liability associated with the indemnification described below. This liability is included on the balance sheet in Accrued Liabilities as at May 31, 2009.

Under the Arrangement, New Lorus and its subsidiaries have agreed to indemnify Old Lorus and its directors, officers and employees from and against all damages, losses, expenses (including fines and penalties), other third party costs and legal expenses, to which any of them may be subject arising out of any matter occurring (i) prior to, at or after the effective time of the Arrangement ("Effective Time") and directly or indirectly relating to any of the assets of Old Lorus transferred to New Lorus pursuant to the Arrangement (including losses for income, sales, excise and other taxes arising in connection with the transfer of any such asset) or conduct of the business prior to the Effective Time; (ii) prior to, at or after the Effective Time as a result of any and all interests, rights, liabilities and other matters relating to the assets transferred by Old Lorus to New Lorus pursuant to the Arrangement; and (iii) prior to or at the Effective Time and directly or indirectly relating to, with certain exceptions, any of the activities of Old Lorus or the Arrangement.

In reference to those indemnifications, $600 thousand of the proceeds on the transaction were held in escrow until the first anniversary of the transaction and were released to Lorus in July 2008. There have been no claims under this indemnification to date.

PLAN OF ARRANGEMENT AND CORPORATE REORGANIZATION

On July 10, 2007 (the "Arrangement Date"), Lorus Therapeutics Inc. (the "Company", "Lorus" or "New Lorus") completed a plan of arrangement and corporate reorganization with, among others, 4325231 Canada Inc., formerly Lorus Therapeutics Inc. ("Old Lorus"), 6707157 Canada Inc. and Pinnacle International Lands, Inc (the "Arrangement"). As a result of the plan of arrangement and reorganization, among other things, each common share of Old Lorus was exchanged for one common share of the Company and the assets (excluding certain future tax attributes and related valuation allowance) and liabilities of Old Lorus (including all of the shares of its subsidiaries held by it) were transferred, directly or indirectly, to the Company and/or its subsidiaries. The Company continued the business of Old Lorus after the Arrangement Date with the same officers and employees and continued to be governed by the same directors as Old Lorus prior to the Arrangement Date. Therefore, the Company's operations have been accounted for on a continuity of interest basis and accordingly, the consolidated financial statement information included in this MD&A reflect that of the Company as if it had always carried on the business formerly carried on by Old Lorus.

REGULATORY MATTERS

On October 31, 2008 Lorus voluntarily delisted its common shares from trading on the NYSE Alternext US LLC (formerly the American Stock Exchange or AMEX). Lorus is eligible to apply for deregistration from the Securities Exchange Commission one year after delisting from AMEX. Lorus intends to submit this application by October 31, 2009.

SELECTED ANNUAL FINANCIAL DATA

The following selected consolidated financial data have been derived from, and should be read in conjunction with, the accompanying audited consolidated financial statements for the year ended May 31, 2009 which are prepared in accordance with Canadian GAAP.

Consolidated Statements of Loss and Deficit

(amounts in Canadian 000's except for per common share data)

	Years Ended May 31		
	2009	2008	2007
REVENUE	**$ 184**	$ 43	$ 107
EXPENSES			
Cost of sales	**-**	2	16
Research and development	**3,757**	6,260	3,505
General and administrative	**2,958**	3,715	3,727
Stock-based compensation	**446**	719	503
Depreciation and amortization	**189**	317	402
Operating expenses	**7,350**	11,013	8,153
Interest expense on convertible debentures	**707**	1,029	1,050
Accretion in carrying value of secured convertible debentures	**1,707**	1,176	935
Amortization of deferred financing charges	**-**	-	110
Interest income	**(270)**	(542)	(503)
Loss from operations for the period	**9,310**	12,633	9,638
Gain on sale of shares	**(450)**	(6,299)	-
Net loss and other comprehensive income	**8,860**	6,334	9,638
Basic and diluted loss per common share	**$ 0.04**	$ 0.03	$ 0.05
Weighted average number of common shares outstanding used in the calculation of basic and diluted loss per share	**247,084**	215,084	204,860
Total Assets	**$ 7,527**	$ 11,607	$ 15,104
Total Long-term liabilities	**$ -**	$ 12,742	$ 11,566

QUARTERLY FINANCIAL INFORMATION (UNAUDITED)

The selected financial information provided below is derived from the Company's unaudited quarterly financial statements for each of the last eight quarters.

Research and development expenditures were higher in the four quarters ended August 31, 2008 in comparison to the most recent three quarters as a result of increased activity related to the LOR-2040 and LOR-253 programs for which development during these periods. In particular research and development costs were significantly higher during the quarter ended May 31, 2008 as the Company incurred manufacturing costs associated with production of additional quantities of LOR-2040 to support the ongoing Phase II clinical trial in AML. Research and development expenditures were lower in the quarter ended August 31, 2007 as the Company was in between wrapping up the Virulizin® Phase III clinical trial and escalating development within the LOR-2040 and LOR-253 programs.

Overall, research and development expenditures has been lower in the most recent three quarters ended compared with the prior periods due to reduced spending on the small molecule and LOR-204 studies as a result of the completion/reduction in third party research and toxicity testing costs.

General and administrative expenses have remained relatively consistent across last eight quarters with the exception of the following quarters:

- the quarter ended November 30, 2007 reflecting corporate governance costs and increased corporate communication costs over the previous periods, and
- the quarter ended May 31, 2008 resulting from increased legal, professional and internal control compliance fees.

The Company recognized a gain on sale of shares of $6.1 million on the close of the Arrangement as discussed above in the quarter ended August 31, 2007. For the quarter ended August 31, 2008 the Company recognized an additional gain on sale of shares of $450 thousand related to the release of funds from escrow net of the estimated value of the indemnifications provided under the Arrangement, as discussed above.

(Amounts in 000's except for per common share data)	**May 31, 2009**	**Feb 28, 2009**	**Nov. 30, 2008**	**Aug. 31, 2008**	**May 31, 2008**	**Feb. 29, 2008**	**Nov. 30, 2007**	**Aug. 31, 2007**
Revenue	$ 78	$ 64	$ 39	$ 3	$ 13	$ 3	$ 1	$ 26
Research and development expense [(1)]	701	1,090	741	1,225	1,880	2,265	1,290	825
General and administrative expense [(1)]	516	775	873	794	1,142	820	1,060	693
Net loss	(1,895)	(2,469)	(2,284)	(2,212)	(3,650)	(3,850)	(2,825)	3,991
Basic and diluted net (loss) profit per share	$ (0.01)	$ (0.01)	$ (0.01)	$ (0.01)	$ (0.02)	$ (0.02)	$ (0.01)	$ 0.02
Cash used in operating activities	$ (1,544)	$ (1,789)	$ (2,080)	$ (1,800)	$ (2,722)	$ (2,586)	(2,537)	$ (2,348)

[(1)]Prior quarter amounts have been reclassified to conform to the financial statement presentation subsequent to that date.

CAPITAL RISK MANAGEMENT

The Company's objectives when managing capital are to:

- Maintain its ability to continue as a going concern in order to provide returns to shareholders and benefits to other stakeholders;
- Maintain a flexible capital structure which optimizes the cost of capital at acceptable risk;
- Ensure sufficient cash resources to fund its research and development activity, to pursue partnership and collaboration opportunities and to maintain ongoing operations.

At May 31, 2009, the capital structure of the Company consisted of secured convertible debentures and equity comprised of share capital, warrants, the equity portion of our secured convertible debentures, stock options, contributed surplus and deficit. The Company manages its capital structure and makes adjustments to it in light of economic conditions. The Company, upon approval from its Board of Directors, will balance its overall capital structure through new share issuances, acquiring or disposing of assets, adjusting the amount of cash and short-term investments balances or by undertaking other activities as deemed appropriate under the specific circumstances. Subsequent to the year-end the Company settled its secured convertible debentures and extinguished its liability in the amount of $15.0 million for consideration consisting of cash and other assets. The Company expects that its current capital resources will not be sufficient to carry out its research and development plans and operations for the next twelve months without further investment. (See "Liquidity and Capital Resources")

The Company is not subject to externally imposed capital requirements and the Company's overall strategy with respect to capital risk management remains unchanged from the year ended May 31, 2008.

Rights Offering

On June 25, 2008, the Company filed a short-form prospectus for a rights offering to its shareholders.

Under the rights offering, holders of the Company's common shares as of July 9, 2008 (the "Record Date") received one right for each common share held as of the Record Date. Each four rights entitled the holder thereof to purchase a unit of Lorus ("Unit"). Each Unit consists of one common share of Lorus at $0.13 and a one-half common share purchase warrant to purchase additional common shares of Lorus at $0.18 per common share until August 7, 2010. All unexercised rights expired on August 7, 2008.

Pursuant to the rights offering the Company issued 28,538,889 common shares and 14,269,444 common share purchase warrants in exchange for cash consideration of $3.7 million. The total costs associated with the transaction were $500 thousand. The Company has allocated the net proceeds of $3.2 million received from the issuance of the units to the common shares and the common share purchase warrants based on their relative fair values. The fair value of the common share purchase warrants has been determined based on an option pricing model. The allocation based on relative fair values resulted in the allocation of $2.8 million to the common shares and $417 thousand to the common share purchase warrants.

Cash Position

At May 31, 2009, Lorus had cash and cash equivalents and short-term investments totaling $5.9 million compared to $9.4 million at May 31, 2008. The Company invests in highly rated and liquid debt instruments. Investment decisions are made in accordance with an established investment policy administered by senior management and overseen by the board of directors. Working capital (representing primarily cash, cash equivalents, short term investments and other current assets less current liabilities which included $14.4 million of secured convertible debentures that were due October 6, 2009) at May 31, 2009 was a deficiency of $9.2 million as compared to a surplus of $8.0 million at May 31, 2008. Subsequent to the year end we repurchased the secured convertible debentures and extinguished our liability. The purchase consideration consisted of $3.3 million in cash paid on the closing of the transaction and the balance in other assets. Following this payment, the Company had approximately $2.6 million in cash and cash equivalents and short-term investments.

We do not expect to generate positive cash flow from operations in the next several years due to additional research and development costs, including costs related to drug discovery, preclinical testing, clinical trials, manufacturing costs and operating expenses associated with supporting these activities. Negative cash flow will continue until such time, if ever, that we receive regulatory approval to commercialize any of our products under development and revenue from any such products exceeds expenses.

If we able to secure additional financing, we intend to use these resources to fund our existing drug development programs and develop new programs from our portfolio of preclinical research technologies. The amounts actually expended for research and drug development activities and the timing of such expenditures will depend on many factors, including the ability of the Company to raise additional capital, the progress of the Company's research and drug development programs, the results of preclinical and clinical trials, the timing of regulatory submissions and approvals, the impact of any internally developed, licensed or acquired technologies, our ability to find suitable partnership agreements to assist financially with future development, the impact from technological advances, determinations as to the commercial potential of the Company's compounds and the timing and development status of competitive products.

As discussed above, management has forecasted that the Company's current level of cash, cash equivalents and short-term investments after the extinguishment of the secured convertible debentures will not be sufficient to execute its current planned expenditures for the next twelve months without further investment.

Contractual Obligations and Off-Balance Sheet Financing
At May 31, 2009, we had contractual obligations requiring annual payments as follows:

(Amounts in 000's)

	Less than 1 year	1-3 years	Total
Operating leases	148	138	286
Convertible debentures[1]	15,000	-	15,000
Total	**15,148**	**138**	**15,286**

(1) The convertible debentures were due on October 6, 2009. On June 22, 2009 the Company settled its secured convertible debentures and extinguished its liability in the amount of $15 million for consideration of cash and other assets.

In addition, the Company is party to certain licensing agreements that require it to pay a proportion of any fees that it may receive from future revenues or milestone payments. As of May 31, 2009 no amounts have been received by the Company relating to these licensing agreements and therefore, no amounts are owing and the amount of future fees is not determinable.

The Company has entered into various consulting agreements that upon execution of a partnership agreement could result in liabilities owing to such consultants. The amounts payable in these agreements are contingent on the amounts receivable by Lorus under such partnership agreements. As of May 31, 2009 no amounts were owing and the amount of future fees payable to the consultants are not determinable.

As at May 31, 2009, we have not entered into any off- balance sheet arrangements.

Indemnification
Under the Arrangement, Lorus agreed to indemnify Old Lorus and its directors, officers and employees from and against all damages, losses, expenses (including fines and penalties), other third party costs and legal expenses, to which any of them may be subject arising out of any matter occurring:

(i) prior to, at or after the Effective Time of the Arrangement and directly or indirectly relating to any of the assets of Old Lorus transferred to New Lorus pursuant to the Arrangement (including losses for income, sales, excise and other taxes arising in connection with the transfer of any such asset) or conduct of the business prior to the Effective Time;

(ii) prior to, at or after the Effective Time as a result of any and all interests, rights, liabilities and other matters relating to the assets transferred by Old Lorus to New Lorus pursuant to the Arrangement; and

(iii) prior to or at the Effective Time and directly or indirectly relating to, with certain exceptions, any of the activities of Old Lorus or the Arrangement.

Lorus has recorded a liability of $150 thousand, which we believe is a reasonable estimate of the fair value of the obligation for the indemnifications provided. There have been no claims under this indemnification to date. This amount is included on the balance sheet in Accrued Liabilities at May 31, 2009.

FINANCIAL INSTRUMENTS

The Company has classified its financial instruments as follows:

	May 31, 2009	May 31, 2008
Financial assets		
Cash and cash equivalents, consisting of term deposits, and guaranteed investment certificates, held for trading, measured at fair value	**$ 5,374**	$ 2,652
Short-term investments, held-to-maturity, recorded at amortized cost	**-**	6,304
Short-term investments, held-for-trading, recorded at fair value	**490**	480
Amount held in escrow, measured at amortized cost	**-**	600
Financial liabilities		
Accounts payable, measured at amortized cost	**299**	923
Accrued liabilities, measured at amortized cost	**1,131**	1,194
Secured convertible debentures, measured at amortized cost	**14,448**	12,742

Financial risk management

The Company has exposure to credit risk, liquidity risk and market risk. The Company's Board of Directors has the overall responsibility for the oversight of these risks and reviews the Company's policies on an ongoing basis to ensure that these risks are appropriately managed.

Credit risk

Credit risk is the risk of financial loss to the Company if a customer, partner or counterparty to a financial instrument fails to meet its contractual obligations, and arises principally from the Company's cash and cash equivalents and short-term investments. The carrying amount of the financial assets represents the maximum credit exposure.

The Company manages credit risk for its cash and cash equivalents and short-term investments by maintaining minimum standards of R1 low or A low investments and invests only in highly rated Canadian securities with debt securities that are traded on active markets and are capable of prompt liquidation.

Liquidity risk

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they come due. To the extent that the Company does not believe it has sufficient liquidity to meet its current obligations, the Board considers securing additional funds through equity, debt or partnering transactions. The Company manages its liquidity risk by continuously monitoring forecasts and actual cash flows. Refer to note 1 of the financial statements for further discussion on the Company's ability to continue as a going concern.

Market risk

Market risk is the risk that changes in market prices, such as interest rates, foreign exchange rates, and equity prices will affect the Company's income or the value of its financial instruments.

The Company is subject to interest rate risk on its cash and cash equivalents, short-term investments and secured convertible debentures. The Company does not believe that the results of operations or cash flows would be affected to any significant degree by a sudden change in market interest rates relative to interest rates on the investments, owing to the relative short-term nature of the investments. Following the year end, the Company extinguished its secured convertible debentures and does not currently have any interest bearing debt.

Financial instruments potentially exposing the Company to foreign exchange risk consist principally of accounts payable and accrued liabilities. The Company holds minimal amounts of U.S. dollar denominated cash, purchasing on an as needed basis to cover U.S. dollar denominated payments. At May 31, 2009 U.S. dollar denominated accounts payable and accrued liabilities amounted to $70 thousand. Assuming all other variables remain constant, a 10% depreciation or appreciation of the Canadian dollar against the U.S. dollar would result in an increase or decrease in net loss and comprehensive loss of $7 thousand. The Company does not have any forward exchange contracts to hedge this risk.

The Company does not invest in equity instruments of other corporations other than its 19% interest (at May 31, 2009) held in Zor Pharmaceuticals, the licensee of Virulizin. The Company paid a nominal amount for this equity interest and is not exposed to any losses in excess of this nominal amount. Subsequent to the year end, the Company disposed of the shares of Pharma Immune as part of the consideration in extinguishing its secured convertible debentures.

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 research and development, clinical trials and the Company's ability to raise additional working capital and/or establish effective partnerships to share the costs of development and clinical trials.

As a result of the Company's current cash position, management is currently undertaking actions to reduce expenditures while at the same time pursuing investment and other opportunities aimed at funding its research and development programs. As part of its cost reduction strategies, management expects to reduce its research and development costs by limiting activities and reduce its general and administrative costs by limiting expenditures and reducing its labour costs, among other things, until such time as the Company has sufficient capital to support a full development program. 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.

TRANSACTIONS WITH RELATED PARTIES

During the year ended May 31, 2009 the Company expensed consulting fees of $25 thousand (2008 - $31 thousand, 2007 - $nil) to a director of the Company. At May 31, 2009 no amounts remained unpaid and included in Accrued Liabilities (2008 - $30 thousand, 2007 - $nil).

This transaction was in the normal course of business and has been measured at the exchange amount, which is the amount of consideration established and agreed to by the related parties.

RISK FACTORS

Investing in our securities involves a high degree of risk. Before making an investment decision with respect to our common shares, you should carefully consider the following risk factors, in addition to the other information included or incorporated by reference into this annual information form, as well as our historical consolidated financial statements and related notes. The risks set out below are not the only risks we face. If any of the following risks occur, our business, financial condition, prospects or results of operations would likely suffer. In that case, the trading price of our common shares could decline and you may lose all or part of the money you paid to buy our common shares.

Going concern
Management has forecasted that the Company's current level of cash and cash equivalents and short-term investments after the extinguishment of the secured convertible debentures will not be 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 expenditure, or if the capital is available, that it will be on terms acceptable to the Company. The issuance of common shares by the Company could result in significant dilution in the equity interest of existing shareholders. The Company is also considering alternatives to delay its research program until financing is available, amongst other cost savings measures. There can be no assurance that the Company will be able to obtain sufficient financing to meet future operational needs. As a result, there is a significant doubt as to whether the Company will be able to continue as a going concern and realize its assets and pay its liabilities as they become due.

We need to raise additional capital
We need to raise additional capital. To obtain the necessary capital, we must rely on any or all of; grants and tax credits, additional share issues and collaboration agreements or corporate partnerships to provide full or partial funding for our activities. We cannot assure you that additional funding will be available on terms that are acceptable to us or in amounts that will enable us to carry out our business plan.

If we cannot obtain the necessary capital, we will have to:

- engage in equity financings that would result in significant dilution to existing investors;
- delay or reduce the scope of or eliminate one or more of our development programs;
- obtain funds through arrangements with collaborators or others that may require us to relinquish rights to technologies, product candidates or products that we would otherwise seek to develop or commercialize ourselves; or license rights to technologies, product candidates or products on terms that are less favourable to us than might otherwise be available;
- considerably reduce our operations or
- cease our operations

We have a history of operating losses. We expect to incur net losses and we may never achieve or maintain profitability
We have not been profitable since our inception in 1986. We reported net losses of $8.9 million; $6.3 million and $9.6 million for the years ended May 31, 2009, 2008 and 2007, respectively. As of May 31, 2009, we had an accumulated deficit of $189.4 million.

To date we have only generated nominal revenues from the sale of Virulizin® in Mexico and revenues associated with the Zor Agreement. We stopped selling Virulizin® in Mexico in July 2005 and assigned the rights under the Zor Agreement to TEMIC in June 2009. We have not generated any other revenue from product sales to date and it is possible that we will never have sufficient product sales revenue to achieve profitability. We expect to continue to incur losses for at least the next several years as we or our collaborators and licensees pursue clinical trials and research and development efforts. To become profitable, we, either alone or with our collaborators and licensees, must successfully develop, manufacture and market our current product candidates, LOR-2040, as well as continue to identify, develop, manufacture and market new product candidates. It is possible that we will never have significant product sales revenue or receive significant royalties on our licensed product candidates. If funding is insufficient at any time in the future, we may not be able to develop or commercialize our products, take advantage of business opportunities or respond to competitive pressures.

We are an early stage development company
We are at an early stage of development. Significant additional investment will be necessary to complete the development of any of our products. Pre-clinical and clinical trial work must be completed before our products could be ready for use within the market that we have identified. We may fail to develop any products, to obtain regulatory approvals, to enter clinical trials or to commercialize any products. We do not know whether any of our potential product development efforts will prove to be effective, meet applicable regulatory standards, obtain the requisite regulatory approvals, be capable of being manufactured at a reasonable cost or be accepted in the marketplace.

The product candidates we are currently developing are not expected to be commercially viable for several years and we may encounter unforeseen difficulties or delays in commercializing our product candidates. In addition, our products may cause undesirable side effects.

Our product candidates require significant funding to reach regulatory approval assuming positive clinical results. Such funding will be very difficult, or impossible to raise in the public markets. If such partnerships are not attainable, the development of these product candidates maybe significantly delayed or stopped altogether. The announcement of such delay or discontinuation of development may have a negative impact on our share price.

The Company has indemnified Old Lorus and its directors, officers and employees in respect of the Arrangement
Under the Arrangement, we have agreed to indemnify Old Lorus and its directors, officers and employees from and against all damages, losses, expenses (including fines and penalties), other third party costs and legal expenses, to which any of them may be subject arising out of any matter occurring

(i) prior to, at or after the Effective Time of the Arrangement and directly or indirectly relating to any of the assets of Old Lorus transferred to New Lorus pursuant to the Arrangement (including losses for income, sales, excise and other taxes arising in connection with the transfer of any such asset) or conduct of the business prior to the Effective Time;
(ii) prior to, at or after the Effective Time as a result of any and all interests, rights, liabilities and other matters relating to the assets transferred by Old Lorus to New Lorus pursuant to the Arrangement; and
(iii) prior to or at the Effective Time and directly or indirectly relating to, with certain exceptions, any of the activities of Old Lorus or the Arrangement.

This indemnification could result in significant liability to us.

We may be unable to obtain partnerships for one or more of our product candidates which could curtail future development and negatively impact our share price
Our strategy for the research, development and commercialization of our products requires entering into various arrangements with corporate collaborators, licensers, licensees and others, and our commercial success is dependent upon these outside parties performing their respective contractual responsibilities. The amount and timing of resources that such third parties will devote to these activities may not be within our control. We cannot assure you that such parties will perform their obligations as expected. We also cannot assure you that our collaborators will devote adequate resources to our programs. In addition, we could become involved in disputes with our collaborators, which could result in a delay or termination of the related development programs or result in litigation. We intend to seek additional collaborative arrangements to develop and commercialize some of our products. We may not be able to negotiate collaborative arrangements on favourable terms, or at all, in the future, or that our current or future collaborative arrangements will be successful.

If we cannot negotiate collaboration, licence or partnering agreements, we may never achieve profitability.

Clinical trials are long, expensive and uncertain processes and Health Canada or the FDA may ultimately not approve any of our product candidates. We may never develop any commercial drugs or other products that generate revenues
None of our product candidates has received regulatory approval for commercial use and sale in North America. We cannot market a pharmaceutical product in any jurisdiction until it has completed thorough preclinical testing and clinical trials in addition to that jurisdiction's extensive regulatory approval process. In general, significant research and development and clinical studies are required to demonstrate the safety and effectiveness of our product candidates before we can submit any regulatory applications.

Clinical trials are long, expensive and uncertain processes. Clinical trials may not be commenced or completed on schedule, and Health Canada or the FDA or any other regulatory body may not ultimately approve our product candidates for commercial sale.

The clinical trials of any of our drug candidates could be unsuccessful, which would prevent us from advancing, commercializing or partnering the drug.

Even if the results of our preclinical studies or clinical trials are initially positive, it is possible that we will obtain different results in the later stages of drug development or that results seen in clinical trials will not continue with longer term treatment. Positive results in early Phase I or Phase II clinical trials may not be repeated in larger Phase II or Phase III clinical trials. For example, results of our Phase III clinical trial of Virulizinâ did not meet the primary endpoint of the study despite promising preclinical and early stage clinical data. All of our potential drug candidates are prone to the risks of failure inherent in drug development.

Preparing, submitting and advancing applications for regulatory approval is complex, expensive and time intensive and entails significant uncertainty. A commitment of substantial resources to conduct time-consuming research, preclinical studies and clinical trials will be required if we are to complete development of our products.

Clinical trials of our products require that we identify and enrol a large number of patients with the illness under investigation. We may not be able to enrol a sufficient number of appropriate patients to complete our clinical trials in a timely manner particularly in smaller indications such as acute myeloid leukemia. If we experience difficulty in enrolling a sufficient number of patients to conduct our clinical trials, we may need to delay or terminate ongoing clinical trials and will not accomplish objectives material to our success that could affect the price of our common shares. Delays in planned patient enrolment or lower than anticipated event rates in our current clinical trials or future clinical trials may result in increased costs, program delays, or both.

In addition, unacceptable toxicities or adverse side effects may occur at any time in the course of preclinical studies or human clinical trials or, if any product candidates are successfully developed and approved for marketing, during commercial use of any approved products. The appearance of any such unacceptable toxicities or adverse side effects could interrupt, limit, delay or abort the development of any of our product candidates or, if previously approved, necessitate their withdrawal from the market. Furthermore, disease resistance or other unforeseen factors may limit the effectiveness of our potential products.

Our failure to develop safe, commercially viable drugs would substantially impair our ability to generate revenues and sustain our operations and would materially harm our business and adversely affect our share price. We may never achieve profitability.

As a result of intense competition and technological change in the pharmaceutical industry, the marketplace may not accept our products or product candidates, and we may not be able to compete successfully against other companies in our industry and achieve profitability
Many of our competitors have:

- drug products that have already been approved or are in development, and operate large, well-funded research and development programs in these fields;
- substantially greater financial and management resources, stronger intellectual property positions and greater manufacturing, marketing and sales capabilities, areas in which we have limited or no experience;
- significantly greater experience than we do in undertaking preclinical testing and clinical trials of new or improved pharmaceutical products and obtaining required regulatory approvals;
- Consequently, our competitors may obtain Health Canada, FDA and other regulatory approvals for product candidates sooner and may be more successful in manufacturing and marketing their products than we or our collaborators are;
- Existing and future products, therapies and technological approaches will compete directly with the products we seek to develop. Current and prospective competing products may provide greater therapeutic benefits for a specific problem or may offer easier delivery or comparable performance at a lower cost;
- Any product candidate that we develop and that obtains regulatory approval must then compete for market acceptance and market share. Our product candidates may not gain market acceptance among physicians, patients, healthcare payers and the medical community. Further, any products we develop may become obsolete before we recover any expenses we incurred in connection with the development of these products.

As a result, we may never achieve profitability.

If we fail to attract and retain key employees, the development and commercialization of our products may be adversely affected.
We depend heavily on the principal members of our scientific and management staff. If we lose any of these persons, our ability to develop products and become profitable could suffer. The risk of being unable to retain key personnel may be increased by the fact that we have not executed long-term employment contracts with our employees, except for our senior executives. Our future success will also depend in large part on our ability to attract and retain other highly qualified scientific and management personnel. We face competition for personnel from other companies, academic institutions, government entities and other organizations.

We may be unable to obtain patents to protect our technologies from other companies with competitive products, and patents of other companies could prevent us from manufacturing, developing or marketing our products

Patent protection:
The patent positions of pharmaceutical and biotechnology companies are uncertain and involve complex legal and factual questions.

The United States (U.S.) Patent and Trademark Office and many other patent offices in the world have not established a consistent policy regarding the breadth of claims that they will allow in biotechnology patents.

Allowable patentable subject matter and the scope of patent protection obtainable may differ between jurisdictions. If a patent office allows broad claims, the number and cost of patent interference proceedings in the U.S. or analogous proceedings in other jurisdictions and the risk of infringement litigation may increase. If it allows narrow claims, the risk of infringement may decrease, but the value of our rights under our patents, licenses and patent applications may also decrease.

The scope of the claims in a patent application can be significantly modified during prosecution before the patent is issued. Consequently, we cannot know whether our pending applications will result in the issuance of patents or, if any patents are issued, whether they will provide us with significant proprietary protection or will be circumvented, invalidated or found to be unenforceable.

Until recently, patent applications in the U.S. were maintained in secrecy until the patents issued, and publication of discoveries in scientific or patent literature often lags behind actual discoveries. Patent applications filed in the United States after November 2000 generally will be published 18 months after the filing date unless the applicant certifies that the invention will not be the subject of a foreign patent application. In many other jurisdictions, such as Canada, patent applications are published 18 months from the priority date. We cannot assure you that, even if published, we will be aware of all such literature. Accordingly, we cannot be certain that the named inventors of our products and processes were the first to invent that product or process or that we were the first to pursue patent coverage for our inventions.

Enforcement of intellectual property rights:
Protection of the rights revealed in published patent applications can be complex, costly and uncertain. Our commercial success depends in part on our ability to maintain and enforce our proprietary rights. If third parties engage in activities that infringe our proprietary rights, our management's focus will be diverted and we may incur significant costs in asserting our rights. We may not be successful in asserting our proprietary rights, which could result in our patents being held invalid or a court holding that the third party is not infringing, either of which would harm our competitive position.

Others may design around our patented technology. We may have to participate in interference proceedings declared by the U.S. Patent and Trademark Office, European opposition proceedings, or other analogous proceedings in other parts of the world to determine priority of invention and the validity of patent rights granted or applied for, which could result in substantial cost and delay, even if the eventual outcome is favourable to us. We cannot assure you that our pending patent applications, if issued, would be held valid or enforceable.

Trademark protection:
In order to protect goodwill associated with our company and product names, we rely on trademark protection for our marks. For example, we have registered the Virulizin® trademark with the U.S. Patent and Trademark Office. A third party may assert a claim that the Virulizin® mark is confusingly similar to its mark and such claims or the failure to timely register the Virulizin® mark or objections by the FDA could force us to select a new name for Virulizin®, which could cause us to incur additional expense.

Trade secrets:
We also rely on trade secrets, know-how and confidentiality provisions in our agreements with our collaborators, employees and consultants to protect our intellectual property. However, these and other parties may not comply with the terms of their agreements with us, and we might be unable to adequately enforce our rights against these people or obtain adequate compensation for the damages caused by their unauthorized disclosure or use of our trade secrets or know how. Our trade secrets or those of our collaborators may become known or may be independently discovered by others.

Our products and product candidates may infringe the intellectual property rights of others, which could increase our costs
Our success also depends on avoiding infringement of the proprietary technologies of others. In particular, there may be certain issued patents and patent applications claiming subject matter which we or our collaborators may be required to license in order to research, develop or commercialize at least some of our product candidates, including Virulizin®, LOR-2040 and small molecules. In addition, third-parties may assert infringement or other intellectual property claims against us based on our patents or other intellectual property rights. An adverse outcome in these proceedings could subject us to significant liabilities to third-parties, require disputed rights to be licensed from third-parties or require us to cease or modify our use of the technology. If we are required to license such technology, we cannot assure you that a license under such patents and patent applications will be available on acceptable terms or at all. Further, we may incur substantial costs defending ourselves in lawsuits against charges of patent infringement or other unlawful use of another's proprietary technology.

If product liability claims are brought against us or we are unable to obtain or maintain product liability insurance, we may incur substantial liabilities that could reduce our financial resources
The clinical testing and commercial use of pharmaceutical products involves significant exposure to product liability claims. We have obtained limited product liability insurance coverage for our clinical trials on humans; however, our insurance coverage may be insufficient to protect us against all product liability damages. Further, liability insurance coverage is becoming increasingly expensive and we might not be able to obtain or maintain product liability insurance in the future on acceptable terms or in sufficient amounts to protect us against product liability damages. Regardless of merit or eventual outcome, liability claims may result in decreased demand for a future product, injury to reputation, withdrawal of clinical trial volunteers, loss of revenue, costs of litigation, distraction of management and substantial monetary awards to plaintiffs. Additionally, if we are required to pay a product liability claim, we may not have sufficient financial resources to complete development or commercialization of any of our product candidates and our business and results of operations will be adversely affected.

We have no manufacturing capabilities. We depend on third-parties, including a number of sole suppliers, for manufacturing and storage of our product candidates used in our clinical trials. Product introductions may be delayed or suspended if the manufacture of our products is interrupted or discontinued
We do not have manufacturing facilities to produce supplies of LOR-2040, small molecule or any of our other product candidates to support clinical trials or commercial launch of these products, if they are approved. We are dependent on third parties for manufacturing and storage of our product candidates. If we are unable to contract for a sufficient supply of our product candidates on acceptable terms, or if we encounter delays or difficulties in the manufacturing process or our relationships with our manufacturers, we may not have sufficient product to conduct or complete our clinical trials or support preparations for the commercial launch of our product candidates, if approved.

Our operations involve hazardous materials and we must comply with environmental laws and regulations, which can he expensive and restrict how we do business

Our research and development activities involve the controlled use of hazardous materials, radioactive compounds and other potentially dangerous chemicals and biological agents. Although we believe our safety procedures for these materials comply with governmental standards, we cannot entirely eliminate the risk of accidental contamination or injury from these materials. We currently have insurance, in amounts and on terms typical for companies in businesses that are similarly situated that could cover all or a portion of a damage claim arising from our use of hazardous and other materials. However, if an accident or environmental discharge occurs, and we are held liable for any resulting damages, the associated liability could exceed our insurance coverage and our financial resources.

Our interest income is subject to fluctuations of interest rates in our investment portfolio

Our investments are held to maturity and have staggered maturities to minimize interest rate risk. We cannot assure you that interest income fluctuations will not have an adverse impact on our financial condition. We maintain all our accounts in Canadian dollars, but a portion of our expenditures are in foreign currencies. We do not currently engage in hedging our foreign currency requirements to reduce exchange rate risk.

RISKS RELATED TO OUR COMMON SHARES

Our share price has been and may continue to be volatile and an investment in our common shares could suffer a decline in value

You should consider an investment in our common shares as risky and invest only if you can withstand a significant loss and wide fluctuations in the market value of your investment. We receive only limited attention by securities analysts and frequently experience an imbalance between supply and demand for our common shares. The market price of our common shares has been highly volatile and is likely to continue to be volatile. Factors affecting our common share price include but are not limited to:

- Our financial position and doubt as to whether we will be able to continue as a going concern;
- the progress of our and our collaborators' clinical trials, including our and our collaborators' ability to produce clinical supplies of our product candidates on a timely basis and in sufficient quantities to meet our clinical trial requirements;
- announcements of technological innovations or new product candidates by us, our collaborators or our competitors;
- fluctuations in our operating results;
- published reports by securities analysts;
- developments in patent or other intellectual property rights;
- publicity concerning discovery and development activities by our licensees;
- the cash and short term investments held us and our ability to secure future financing;
- public concern as to the safety and efficacy of drugs that we and our competitors develop;
- governmental regulation and changes in medical and pharmaceutical product reimbursement policies; and
- general market conditions.

Future sales of our common shares by us or by our existing shareholders could cause our share price to fall

Additional equity financings or other share issuances by us could adversely affect the market price of our common shares. Sales by existing shareholders of a large number of shares of our common shares in the public market and the sale of shares issued in connection with strategic alliances, or the perception that such additional sales could occur, could cause the market price of our common shares to drop.

CRITICAL ACCOUNTING POLICIES

Critical Accounting Policies and Estimates

Our accounting policies are in accordance with Canadian GAAP including some that require management to make assumptions and estimates that could significantly affect the results of operations and financial position. The significant accounting policies that we believe are the most critical in fully understanding and evaluating the reported financial results are disclosed in the MD&A section of our 2009 annual report. As well, our significant accounting policies are disclosed in Note 3, *Significant Accounting Policies,* of the notes to the financial statements of Lorus provided in our annual report for the fiscal year ended May 31, 2009.

Recently Adopted Accounting Recommendations

Effective June 1, 2008, the Company adopted the following accounting policies:

Accounting changes:

Effective June 1, 2008, the Company adopted the Accounting Standards Board's ("AcSB") replacement of Section 1506, Accounting Changes. The new standard allows for voluntary changes in accounting policy only when they result in the financial statements providing reliable and more relevant information; requires changes in accounting policy to be applied retrospectively unless doing so is impracticable; requires prior period errors to be corrected retrospectively; and calls for enhanced disclosures about the effects of changes in accounting policies, estimates and errors on the financial statements. The adoption of this standard did not have any impact on the Company's financial statements year ended May 31, 2009.

Capital disclosures:
Effective June 1, 2008, the Company adopted the new recommendations of the Canadian Institute of Chartered Accountants ("CICA") Handbook Section 1535, Capital Disclosures ("Section 1535"). Section 1535 establishes standards for disclosing information about an entity's capital and how it is managed. It requires the disclosure of information about: (i) an entity's objectives, policies and processes for managing capital; complied with any capital requirements; and if it has not complied, the consequences of such non-compliance. The Company has included disclosures recommended by Section 1535 in note 8 of the financial statements.

Financial instruments:
Effective June 1, 2008, the Company adopted the new recommendations of CICA Handbook Section 3862, Financial Instruments - Disclosures ("Section 3862") and Handbook Section 3863, Financial Instruments - Presentation ("Section 3863"). Section 3862 requires entities to provide disclosures in their financial statements that enable users to evaluate the significance of financial instruments on the entity's financial position and its performance and the nature and extent of risks arising from financial instruments to which the entity is exposed during the period and at the balance sheet date, and how the entity manages those risks. Section 3863 establishes standards for presentation of financial instruments and non-financial derivatives. It deals with the classification of financial instruments, from the perspective of the issuer, between liabilities and equities, the classification of related interest, dividends, losses and gains, and circumstances in which financial assets and financial liabilities are offset. The adoption of these standards did not have any impact on the classification and valuation of the Company's financial instruments. The Company has included disclosures recommended by these new Handbook Sections in note 9 of the financial statements.

General standards of financial statement presentation:
In May 2007, the AcSB amended CICA Handbook Section 1400 "General Standards of Financial Statement Presentation", to change the guidance related to management's responsibility to assess the ability of the entity to continue as a going concern.

The main features of the changes are as follows:

(i) management is required to make an assessment of an entity's ability to continue as a going concern;
(ii) in making its assessment, management takes into account all available information about the future, which is at least, but is not limited to, twelve months from the balance sheet date;
(iii) financial statements must be prepared on a going concern basis unless management either intends to liquidate the entity, to cease trading or cease operations, or has no realistic alternative but to do so;
(iv) disclosure is required of material uncertainties related to events or conditions that may cast significant doubt upon the entity's ability to continue as a going concern; and
(v) when financial statements are not prepared on a going concern basis, that fact should be disclosed, together with the basis on which the financial statements are prepared and the reason the entity is not regarded as a going concern.

The effective date of these amendments is for interim and annual financial statements relating to fiscal years beginning on or after January 1, 2008, specifically June 1, 2008 for the Company. The new disclosure requirements pertaining to this Section are contained in note 1 of the financial statements.

Recent Accounting Recommendations not yet adopted
The CICA plans to converge Canadian GAAP with International Financial Reporting Standards (IFRS) over a transition period expected to end in 2011. The Company has begun to assess the impact of the transition to IFRS on the Company's financial statements but has yet to determine the extent to which it will affect the financial statements when these standards are implemented.

Section 3064, "Goodwill and intangible assets", will be replacing Section 3062, "Goodwill and other intangible assets" and Section 3450, "Research and development costs". This new section, issued in February 2008, will be applicable to financial statements relating to fiscal years beginning on or after October 1, 2008. Accordingly, the Company will adopt the new standards for its fiscal year beginning June 1, 2009. It establishes standards for the recognition, measurement, presentation and disclosure of goodwill subsequent to its initial recognition and of intangible assets by profit-oriented enterprises. Standards concerning goodwill are unchanged from the standards included in the previous Section 3062. The impact of adoption of this new section on the Company's financial statements has not been determined.

In June 2009, the CICA amended section 3862, "Financial Instruments - Disclosures", to include additional disclosure requirements about fair value measurement for financial instruments and liquidity risk disclosures. These amendments require a three level hierarchy that reflects the significance of the inputs used in making the fair value measurements. Fair value of assets and liabilities included in Level 1 are determined by reference to quoted prices in active markets for identical assets and liabilities. Assets and liabilities in Level 2 include valuations using inputs other than the quoted prices for which all significant inputs are based on observable market data, either directly or indirectly. Level 3 valuations are based on inputs that are not based on observable market data. The amendments to Section 3862 apply for annual financial statements relating to fiscal years ending after September 30, 2009.

DISCLOSURE CONTROLS AND INTERNAL CONTROLS OVER FINANCIAL REPORTING
The Company has implemented a system of internal controls that it believes adequately protects the assets of the Company and is appropriate for the nature of its business and the size of its operations. These internal controls include disclosure controls and procedures designed to ensure that information required to be disclosed by the Company is accumulated and communicated as appropriate to allow timely decisions regarding required disclosure.

Internal controls over financial reporting means a process designed by or under the supervision of the Chief Executive Officer and the acting Chief Financial Officer, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with GAAP. The internal controls are not expected to prevent and detect all misstatements due to error or fraud. Management advises that there have been no changes in the Corporation's internal controls over financial reporting during 2009 that have materially affected or are reasonably likely to materially affect the Corporation's internal control over financial reporting.

As at May 31, 2009, the Company's management evaluated the effectiveness of the design and operation of its disclosure controls and procedures and operation of its internal controls over financial reporting using the Committee of Sponsoring Organizations of the Treadway Commission (COSO) framework. Based on their evaluation, the Chief Executive Officer and the acting Chief Financial Officer have concluded that these controls and procedures are effective to provide reasonable assurance that material information is made known to them by others in the Company. Management has identified the following two areas of concern, but believes that the Company's limited number of transactions, day-to-day management involvement in operations and reporting and access to third party experts are sufficient compensating controls to limit our risk of material misstatement.

Segregation of Duties

Given our limited staff, certain duties within the accounting and finance department cannot be properly segregated. We believe that none of the segregation of duty concerns has resulted in a misstatement to the financial statements as we rely on certain compensating controls, including substantive periodic review of the financial statements by the Chief Executive Officer and Audit Committee. This weakness is considered to be a common area of deficiency for many smaller listed companies in Canada. We continue to evaluate whether additional accounting staff should be hired to deal with this weakness.

Complex and Non-Routine Transactions

As required, we record complex and non-routine transactions. These sometimes are extremely technical in nature and require an in-depth understanding of GAAP. Our accounting staff has only a fair and reasonable knowledge of the rules related to GAAP and reporting and the transactions may not be recorded correctly, potentially resulting in material misstatement of our financial statements.

To address this risk, we consult with our third-party expert advisors as needed in connection with the recording and reporting of complex and non-routine transactions. In addition, an annual audit is completed by our auditors, and presented to the Audit Committee for its review and approval. During the audit for the fiscal year ended May 31, 2009, no material misstatements were identified. At a future date, we may consider expanding the technical expertise within our accounting function. In the meantime, we will continue to work closely with our third party advisors.

UPDATED SHARE INFORMATION

As at August 26, 2009, the Company had 257,009,677 common shares issued and outstanding and 14,269,444 common share purchase warrants convertible into an equal number of common shares. In addition, the Company had issued and outstanding 20,655,000 stock options to purchase an equal number of common shares.

ADDITIONAL INFORMATION

Additional information relating to Lorus, including Lorus' 2009 annual information form and other disclosure documents, is available on SEDAR at www.sedar.com. For any information filed prior to July 10, 2007 please access the information on SEDAR for Global Summit Real Estate Inc. (Old Lorus).

ANNUAL INFORMATION FORM

Fiscal year ended May 31, 2009

August 26, 2009

2 Meridian Road, Toronto, Ontario M9W 4Z7
Telephone: (416) 798-1200
Fax: (416) 798-2200

TABLE OF CONTENTS

CAUTION REGARDING FORWARD-LOOKING STATEMENTS

This annual information form may contain forward-looking statements within the meaning of securities laws. Such statements include, but are not limited to, statements relating to:

- *our ability to obtain the substantial capital required to fund research and operations;*
- *our plans to obtain partners to assist in the further development of our product candidates;*
- *our expectations with respect to existing and future corporate alliances and licensing transactions with third parties, and the receipt and timing of any payments to be made by us or to us in respect of such arrangement;,*
- *our expectations regarding future financings;*
- *our plans to conduct clinical trials; and*
- *our expectations regarding the progress and the successful and timely completion of the various stages of our drug discovery, pre-clinical and clinical studies and the regulatory approval process;*

the Company's plans, objectives, expectations and intentions and other statements including words such as "anticipate", "contemplate", "continue", "believe", "plan", "estimate", "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 to operate as a going concern;*
- *our ability to obtain the substantial capital required to fund research and operations;*
- *our lack of product revenues and history of operating losses;*
- *our early stage of development, particularly the inherent risks and uncertainties associated with (i) developing new drug candidates generally, (ii) demonstrating the safety and efficacy of these drug candidates in clinical studies in humans, and (iii) obtaining regulatory approval to commercialize these drug candidates;*
- *the progress of our clinical trials;*
- *our liability associated with the indemnification of Old Lorus and its directors, officers and employees*
- *our ability to find and enter into agreements with potential partners;*
- *our drug candidates require time-consuming and costly preclinical and clinical testing and regulatory approvals before commercialization;*
- *clinical studies and regulatory approvals of our drug candidates are subject to delays, and may not be completed or granted on expected timetables, if at all, and such delays may increase our costs and could delay our ability to generate revenue;*
- *the regulatory approval process;*
- *our ability to attract and retain key personnel;*
- *our ability to obtain patent protection and protect our intellectual property rights;*
- *our ability to protect our intellectual property rights and to not infringe on the intellectual property rights of others;*
- *our ability to comply with applicable governmental regulations and standards;*
- *development or commercialization of similar products by our competitors, many of which are more established and have greater financial resources than we do;*
- *commercialization limitations imposed by intellectual property rights owned or controlled by third parties;*
- *our business is subject to potential product liability and other claims;*
- *our ability to maintain adequate insurance at acceptable costs;*
- *further equity financing may substantially dilute the interests of our shareholders;*
- *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, and those that are discussed under the heading "Risk Factors".*

Should one or more of these risks or uncertainties materialize, or should the assumptions set out in the section entitled "Risk Factors" 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 annual information form or, in the case of documents incorporated by reference herein, as of the date of such documents, 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.

Unless otherwise indicated, or the context requires otherwise, the information appearing in this annual information form is stated as at May 31, 2009 and references in this annual information form to "$" or "dollars" are to Canadian dollars.

For ease of reference, a glossary of terms used in this annual information form can be found beginning on page 38.

THE COMPANY

Lorus Therapeutics Inc. ("Old Lorus") was incorporated under the *Business Corporations Act* (Ontario) on September 5, 1986 under the name RML Medical Laboratories Inc. On October 28, 1991, RML Medical Laboratories Inc. amalgamated with Mint Gold Resources Ltd., resulting in Old Lorus becoming a reporting issuer (as defined under applicable securities law) in Ontario, on such date. On August 25, 1992, Old Lorus changed its name to IMUTEC Corporation. On November 27, 1996, Old Lorus changed its name to Imutec Pharma Inc., and on November 19, 1998, Old Lorus changed its name to Lorus Therapeutics Inc. On October 1, 2005, Old Lorus continued under the *Canada Business Corporations Act*.

On July 10, 2007 (the "Arrangement Date"), Old Lorus completed a plan of arrangement and corporate reorganization with, among others, 6650309 Canada Inc. ("New Lorus"), 6707157 Canada Inc. and Pinnacle International Lands, Inc. As a result of the plan of arrangement and reorganization each common share of Old Lorus was exchanged for one common share of New Lorus. New Lorus continued the business of Old Lorus after the Arrangement Date with the same officers and employees and continued to be governed by the same board of directors as Old Lorus prior to the Arrangement Date. References in this annual information form to the Company, Lorus, "we", "our", "us" and similar expressions, unless otherwise stated, are references to Old Lorus prior to the Arrangement Date and New Lorus after the Arrangement Date.

The address of the Company's head and registered office is 2 Meridian Road, Toronto, Ontario, Canada, M9W 4Z7. Our corporate website is www.lorusthera.com. The contents of the website are specifically not included in this annual information form by reference.

Our common shares are listed on the Toronto Stock Exchange under the symbol "LOR".

Lorus' subsidiaries are GeneSense Technologies Inc. ("GeneSense"), a corporation incorporated under the laws of Canada, of which Lorus owns 100% of the issued and outstanding share capital, and NuChem Pharmaceuticals Inc. ("NuChem"), a corporation incorporated under the laws of Ontario, of which Lorus owns 80% of the issued and outstanding voting share capital and 100% of the issued and outstanding non-voting preference share capital and Pharma Immune Inc. ("Pharma Immune"), a corporation incorporated under the laws of Delaware, of which Lorus owned 100% of the issued and outstanding share capital up to June 22, 2009 at which time it disposed of these shares (See "The Company - Secured Convertible Debentures"). The Corporation has initiated the process to wind up the operations of GeneSense into Lorus effective May 31, 2009.

Business Strategy

Our business strategy is based on the identification and development of novel therapies aimed at validated cancer targets. We believe that these target-based approaches hold the promise of more effective therapies with fewer side effects. A target-based approach is increasingly recognized as several targeted agents are already approved by regulatory authorities around the globe. In order to minimize single technology-related risks, we have adopted three different technology approaches:

1. RNA-targeted technologies such as antisense and siRNA.

2. Development of small molecules that recognize specific targets in cancer cells.

3. Immunotherapy using safe and efficacious products to stimulate the natural anticancer properties of the immune system.

The first two approaches utilize selection strategies for identification and development of highly specific targeted drug candidates, capitalizing on proprietary libraries of compounds developed in-house.

In our efforts to obtain the greatest return on our investment in each drug candidate, we separately evaluate the merits of each drug candidate throughout the clinical development process and consider commercialization opportunities when appropriate. In the next fiscal year, we intend to pursue partnerships for our lead compounds and further the development of our promising pipeline. More specifically, our main objectives are (i) to maximize the therapeutic value and potential commercial success of LOR-2040 by initiating a Phase IIb/III registration clinical trial in AML trial in collaboration with a co-development or licensing partner; (ii) to conduct a Phase I clinical trial of our lead small molecule drug, LOR-253, while also pursuing partnership opportunities for this product candidate; and (iii) to commit resources to advancing our in-house pipeline of novel small molecule drug candidates.

Financial Strategy

To meet future financing requirements, we intend to finance our operations through some or all of the following methods: public or private equity or debt financings, capital leases, and collaborative and licensing agreements. We intend to pursue financing opportunities as they arise.

Going concern

Management has forecasted that the Company's current level of cash and cash equivalents and short-term investments after the extinguishment of the secured convertible debentures will not be 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 expenditure, or if the capital is available, that it will be on terms acceptable to the Company. The issuance of common shares by the Company could result in significant dilution in the equity interest of existing shareholders. The Company is also considering alternatives to delay its research program until financing is available, amongst other cost savings measures. There can be no assurance that the Company will be able to obtain sufficient financing to meet future operational needs. As a result, there is a significant doubt as to whether the Company will be able to continue as a going concern and realize its assets and pay its liabilities as they become due.

Secured Convertible Debentures

On October 6, 2004, the Company entered into a Subscription Agreement (the "Agreement") with The Erin Mills Investment Corporation ("TEMIC") to issue an aggregate of $15.0 million of secured convertible debentures (the "Debentures") issuable in three tranches of $5.0 million each, in each of, October 2004, January 2005 and April 2005. The Debentures were due on October 6, 2009.

On June 22, 2009, the Company reached a settlement with TEMIC with respect to the purchase and settlement of the $15.0 million the Debentures.

Under the settlement agreement, Lorus purchased all of the Debentures from TEMIC for a cash payment of $3.3 million, the assignment of the rights under the license agreement with ZOR Pharmaceuticals, LLC (ZOR), sale of intellectual property associated with Virulizin and sale of Lorus' shares in its wholly owned subsidiary Pharma Immune Inc. which holds an equity interest in ZOR (the "Consideration"). Under the agreement, Lorus will be entitled to 50% of any royalties received under the ZOR license agreement and 50% of the deal value of any transaction completed in territories not covered by the ZOR license agreement. Lorus also retains a perpetual, royalty free license for the animal use of Virulizin. TEMIC will be fully responsible for all clinical and regulatory costs associated with commercialization of Virulizin in territories not covered by the ZOR license agreement. Lorus will assist TEMIC with certain agreed upon services.

For receipt of the Consideration TEMIC released all security interest in the assets of Lorus.

Share Issuances

On July 13, 2006 the company entered into an agreement with High Tech Beteiligungen GmbH & Co. KG ("High Tech") to issue 28.8 million common shares at $0.36 per share for gross proceeds of $10.4 million. The subscription price represented a premium of 7.5% over the closing price of the common shares on the Toronto Stock Exchange on July 13, 2006. The transaction closed on August 31, 2006. In connection with the transaction, High Tech received demand registration rights that will enable High Tech to request the registration or qualification of the common shares for resale in the United States and Canada, subject to certain restrictions. These demand registration rights expire on June 30, 2012. In addition, High Tech received the right to nominate one nominee to the board of directors of Lorus or, if it does not have a nominee, it will have the right to appoint an observer to the board. Upon completion of the transaction, High Tech held approximately 14% of the issued and outstanding common shares of Lorus. These agreements were assigned to New Lorus effective July 10, 2007.

On July 24, 2006 Lorus entered into an agreement with Technifund Inc. to issue on a private placement basis, 5 million common shares at $0.36 per share for gross proceeds of $1.8 million. The transaction closed on September 1, 2006.

Plan of Arrangement and Corporate Reorganization

On November 1, 2006, Lorus Therapeutics Inc. was incorporated as 6650309 Canada Inc. pursuant to the provisions of the Canada Business Corporations Act and did not carry out any active business from the date of incorporation to July 10, 2007. From its incorporation to July 10, 2007, the Company was a wholly owned subsidiary of 4325231 Canada Inc., formerly Lorus Therapeutics Inc.

On July 10, 2007, the Company and Old Lorus completed a plan of arrangement and corporate reorganization. As part of the Arrangement, all of the assets and liabilities of Old Lorus (including all of the shares of its subsidiaries held by it), with the exception of certain future tax assets were transferred, directly or indirectly, from Old Lorus to the Company. Securityholders in Old Lorus exchanged their securities in Old Lorus for equivalent securities in New Lorus (the "Exchange") and the board of directors and management of Old Lorus continued as the board of directors and management of New Lorus.

In connection with the Arrangement New Lorus received cash consideration of approximately $8.5 million less an escrowed amount of $600 thousand related to the indemnification discussed below, before transaction costs. After completion of the Arrangement, New Lorus is not related to Old Lorus, which was subsequently renamed Global Summit Real Estate Inc.

Under the Arrangement, New Lorus and its subsidiaries agreed to indemnify Old Lorus and its directors, officers and employees from and against all damages, losses, expenses (including fines and penalties), other third party costs and legal expenses, to which any of them may be subject arising out of various matters. The escrowed amount of $600 thousand was subsequently released to Lorus on July 10, 2008.
As part of the Arrangement, the Company changed its name to Lorus Therapeutics Inc. and continued as a biopharmaceutical company, specializing in the research and development of pharmaceutical products and technologies for the management of cancer as a continuation of the business of Old Lorus.

Rights Offering

On June 25, 2008, the Company filed a short-form prospectus for a rights offering to its shareholders.

Under the rights offering, holders of the Company's common shares as of July 9, 2008 (the "Record Date") received one right for each common share held as of the Record Date. Each four rights entitled the holder thereof to purchase a unit of Lorus ("Unit"). Each Unit consists of one common share of Lorus at $0.13 and a one-half common share purchase warrant to purchase additional common shares of Lorus at $0.18 until August 7, 2010. All unexercised rights expired on August 7, 2008.

Pursuant to the rights offering the Company issued 28,538,889 common shares and 14,269,444 common share purchase warrants in exchange for cash consideration of $3.7 million. The total costs associated with the transaction were approximately $500 thousand.

GENERAL DEVELOPMENT OF THE BUSINESS

Lorus Therapeutics Inc. is a biopharmaceutical company focused on the discovery, research and development of novel anticancer therapies with a high safety profile. Lorus has worked to establish a diverse, marketable anticancer product pipeline, with products in various stages of development ranging from discovery and pre-clinical to an advanced Phase II clinical trial. A growing intellectual property portfolio supports our diverse product pipeline.

Our success is dependent upon several factors, including establishing the efficacy and safety of our product candidates in clinical trials, securing strategic partnerships, obtaining the necessary regulatory approvals to market our products and maintaining sufficient levels of funding through public and/or private financing.

We believe that the future of cancer treatment and management lies in drugs that are effective, have minimal side effects, and therefore improve a patient's quality of life. Many of the cancer drugs currently approved for the treatment and management of cancer are toxic with severe side effects, and we believe that a product development plan based on effective and safe drugs could have broad applications in cancer treatment. Lorus' strategy is to continue the development of our product pipeline using several therapeutic approaches. Each therapeutic approach is dependent on different technologies, which we believe mitigates the development risks associated with a single technology platform. We evaluate the merits of each product candidate throughout the clinical trial process and consider partnership when appropriate.

Over the past three years, we have focused on advancing our product candidates through pre-clinical and clinical testing. It costs millions of dollars and takes many years before a product candidate may be approved for therapeutic use in humans and the risk exists that a product candidate may not meet the end points of any Phase I, Phase II or Phase III clinical trial. See “Risk Factors”.

RNA-Targeted Therapies

Lorus’ RNA-targeted therapeutics include LOR-2040, currently in Phase II clinical development, and LOR-1284, which is in the pre-clinical stage of development. See “-- Clinical Development” and “Business of the Company - DNA/RNA-based Therapeutics”.

Small Molecule

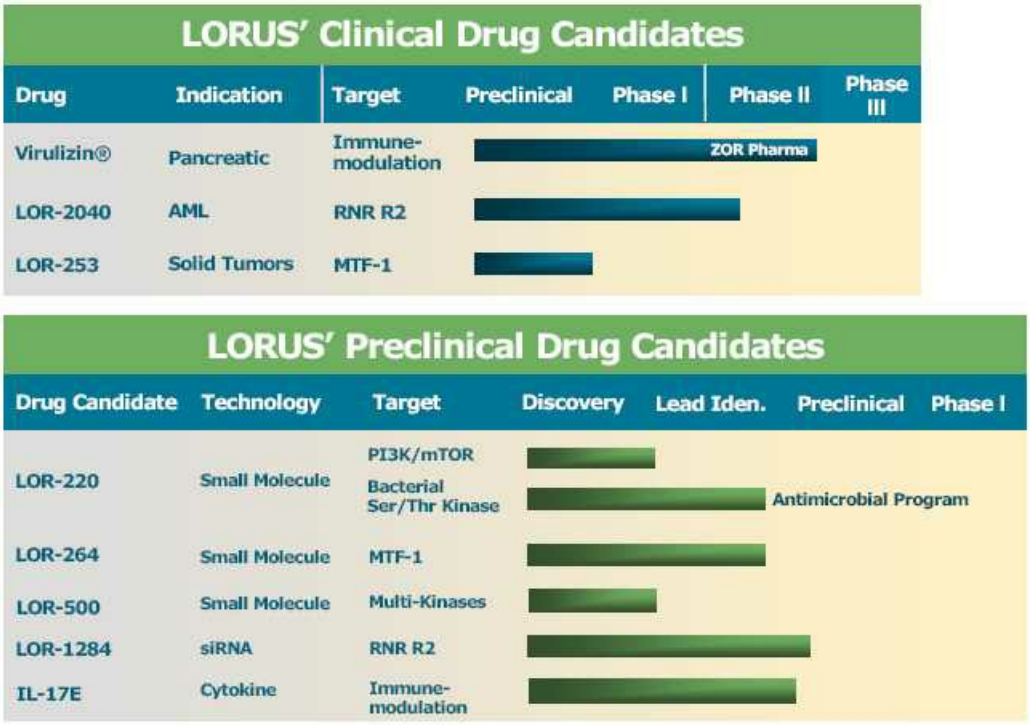
We have small molecule drug screening technologies and preclinical scientific expertise, which we are using to create a drug candidate pipeline. Our proprietary group of small molecule compounds, which include lead compounds LOR-253 and LOR-220, have unique structures and modes of action, and are promising candidates for the development of novel, targeted anticancer agents with high safety profiles. See “-- Clinical Development” and “Business of the Company - Small Molecule Therapies”.

Immunotherapy

In June 2009, as part of the consideration for the repurchase of the secured convertible debentures from TEMIC, Lorus’ assigned to TEMIC its rights under the license agreement with ZOR Pharmaceuticals, LLC, and sold to TEMIC its intellectual property rights associated with Virulizin® . See “-- Clinical Development” and “The Company - Secured Convertible Debentures” for more details.

Clinical Development

The chart below illustrates our current view of the clinical development stage of each of our products. This chart reflects the current regulatory approval process for biopharmaceuticals in Canada and the United States. See “Regulatory Requirements” for a description of the regulatory approval process in Canada and the United States. These qualitative estimates of the progress of our products are intended solely for illustrative purposes and this information is qualified in its entirety by the information appearing elsewhere or incorporated by reference in this annual information form.



REGULATORY REQUIREMENTS

Overview

Regulation by government authorities in Canada, the United States, and the European Union is a significant factor in our current research and drug development activities. To clinically test, manufacture and market drug products for therapeutic use, we must satisfy the rigorous mandatory procedures and standards established by the regulatory agencies in the countries in which we currently operate or intend to operate.

The laws of most of these countries require the licensing of manufacturing facilities, carefully controlled research and the extensive testing of products. Biotechnology companies must establish the safety and efficacy of their new products in clinical trials, they must establish current Good Manufacturing Practices or cGMP and control over marketing activities before being allowed to market their products. The safety and efficacy of a new drug must be shown through clinical trials of the drug carried out in accordance with the mandatory procedures and standards established by regulatory agencies.

The process of completing clinical trials and obtaining regulatory approval for a new drug takes a number of years and requires the expenditure of substantial resources. Once a new drug or product license application is submitted, we cannot assure you that a regulatory agency will review and approve the application in a timely manner. Even after initial approval has been obtained, further studies, including post-marketing studies, may be required to provide additional data on efficacy and safety necessary to confirm the approved indication or to gain approval for the use of the new drug as a treatment for clinical indications other than those for which the new drug was initially tested. Also, regulatory agencies require post-marketing surveillance programs to monitor a new drug's side effects. Results of post-marketing programs may limit or expand the further marketing of new drugs. A serious safety or effectiveness problem involving an approved new drug may result in a regulatory agency requiring withdrawal of the new drug from the market and possible civil action. We cannot assure you that we will not encounter such difficulties or excessive costs in our efforts to secure necessary approvals, which could delay or prevent us from manufacturing or marketing our products.

In addition to the regulatory product approval framework, biotechnology companies, including Lorus, are subject to regulation under local provincial, state and federal law, including requirements regarding occupational safety, laboratory practices, environmental protection and hazardous substance control, and may be subject to other present and future local, provincial, state, federal and foreign regulation, including possible future regulation of the biotechnology industry.

Canada

In Canada, the manufacture and sale of new drugs are controlled by Health Canada ("HC"). New drugs must pass through a number of testing stages, including pre-clinical testing and clinical trials. Pre-clinical testing involves testing the new drug's chemistry, pharmacology and toxicology *in vitro* and *in vivo*. Successful results (that is, potentially valuable pharmacological activity combined with an acceptable low level of toxicity) enable the developer of the new drug to file a clinical trial application ("CTA") to begin clinical trials involving humans.

To study a drug in Canadian patients, a CTA submission must be filed with HC. The CTA submission must contain specified information, including the results of the pre-clinical tests completed at the time of the submission and any available information regarding use of the drug in humans. In addition, since the method of manufacture may affect the efficacy and safety of a new drug, information on manufacturing methods and standards and the stability of the drug substance and dosage form must be presented. Production methods and quality control procedures must be in place to ensure an acceptably pure product, essentially free of contamination, and to ensure uniformity with respect to all quality aspects.

Provided HC does not reject a CTA submission, clinical trials can begin. Clinical trials for product candidates to treat cancer are generally carried out in three phases. Phase I involves studies to evaluate toxicity and ideal dose levels in humans. The new drug is administered to human patients who have met the clinical trial entry criteria to determine pharmacokinetics, human tolerance and prevalence of adverse side effects. Phases II and III involve therapeutic studies. In Phase II, efficacy, dosage, side effects and safety are established in a small number of patients who have the disease or disorder that the new drug is intended to treat. In Phase III, there are controlled clinical trials in which the new drug is administered to a large number of patients who are likely to receive benefit from the new drug. In Phase III, the effectiveness of the new drug is compared to that of standard accepted methods of treatment in order to provide sufficient data for the statistical proof of safety and efficacy for the new drug.

If clinical studies establish that a new drug has value, the manufacturer submits a new drug submission ("NDS") application to HC for marketing approval. The NDS contains all information known about the new drug, including the results of pre-clinical testing and clinical trials. Information about a substance contained in an NDS includes its proper name, its chemical name, and details on its method of manufacturing and purification, and its biological, pharmacological and toxicological properties. The NDS also provides information about the dosage form of the new drug, including a quantitative listing of all ingredients used in its formulation, its method of manufacture, manufacturing facility information, packaging and labelling, the results of stability tests, and its diagnostic or therapeutic claims and side effects, as well as details of the clinical trials to support the safety and efficacy of the new drug. Furthermore, for biological products, an on-site evaluation ("OSE") is completed to assess the production process and manufacturing facility. It is required prior to the issuance of a notice of compliance ("NOC"). All aspects of the NDS are critically reviewed by HC. If an NDS is found satisfactory, a NOC is issued permitting the new drug to be sold. In Canada an Establishment license must be obtained prior to marketing the product.

HC has a policy of priority evaluation of new drug submissions for all drugs intended for serious or life-threatening diseases for which no drug product has received regulatory approval in Canada and for which there is reasonable scientific evidence to indicate that the proposed new drug is safe and may provide effective treatment.

The monitoring of a new drug does not cease once it is on the market. For example, a manufacturer of a new drug must report any new information received concerning serious side effects, as well as the failure of the new drug to produce desired effects. As well, if HC determines it to be in the interest of public health, a notice of compliance for a new drug may be suspended and the new drug may be removed from the market.

A post surveillance program involves clinical trials conducted after a drug is marketed (referred to as phase 4 studies in the United States) and is an important source of information on as yet undetected adverse outcomes, especially in populations that may not have been involved in the premarketing trials (e.g., children, the elderly, pregnant women) and the drug's long-term morbidity and mortality profile. Regulatory authorities may require companies to conduct Phase 4 studies as a condition of market approval. Companies often conduct post-marketing studies in the absence of a regulatory mandate.

An exception to the foregoing requirements relating to the manufacture and sale of a new drug is the limited authorization that may be available in respect of the sale of new drugs for emergency treatment. Under the special access program, HC may authorize the sale of a quantity of a new drug for human use to a specific practitioner for the emergency treatment of a patient under the practitioner's care. Prior to authorization, the practitioner must supply HC with information concerning the medical emergency for which the new drug is required, such data as is in the possession of the practitioner with respect to the use, safety and efficacy of the new drug, the names of the institutions at which the new drug is to be used and such other information as may be requested by HC. In addition, the practitioner must agree to report to both the drug manufacturer and HC the results of the new drug's use in the medical emergency, including information concerning adverse reactions, and must account to HC for all quantities of the new drug made available.

The Canadian regulatory approval requirements for new drugs outlined above are similar to those of other major pharmaceutical markets. While the testing carried out in Canada is often acceptable for the purposes of regulatory submissions in other countries, individual regulatory authorities may request supplementary testing during their assessment of any submission. We cannot assure you that the clinical testing conducted under HC authorization or the approval of regulatory authorities of other countries will be accepted by regulatory authorities outside Canada or such other countries.

United States

In the United States, the Food & Drug Administration ("FDA") controls the manufacture and sale of new drugs. New drugs require FDA approval of a New Drug Application ("NDA") prior to commercial sale. In the case of a biological product, a biological license application ("BLA") must be obtained prior to marketing and batch releasing. To obtain marketing approval, data from adequate and well-controlled clinical investigations, demonstrating to the FDA's satisfaction a new drug's safety and effectiveness for its intended use, are required. Such data are generated in studies conducted pursuant to an IND submission, similar to that required for a CTA in Canada. As in Canada, clinical studies are characterized as Phase I, Phase II and Phase III trials or a combination thereof. In a marketing application, the manufacturer must also demonstrate the identity, potency, quality and purity of the active ingredients of the new drug involved, and the stability of those ingredients. Further, the manufacturing facilities, equipment, processes and quality controls for the new drug must comply with the FDA's cGMP regulations for drugs or biological products both in a pre-licensing inspection before product licensing and in subsequent periodic inspections after licensing. An establishment license ("EL") grants the sponsor permission to fabricate, package, label, distribute, import, wholesale or test of the newly approved drug.A five-year period of market exclusivity for a drug comprising a new chemical entity ("NCE") is available to an applicant that succeeds in obtaining FDA approval of a NCE, provided the active ingredient of the NCE has never before been approved in an NDA. During this exclusivity period, the FDA may not approve any abbreviated application filed by another sponsor for a generic version of the NCE. To extend this market protection, especially important when the original patent may be close to expiration, new indications or dosage forms of previously approved drugs can receive new use or new clinical study exclusivity- up to a three-year period of market exclusivity. During this time, the FDA may not approve an abbreviated application filed by another sponsor for a generic version of the product for that use or indication. For orphan drugs or biologics, a seven-year period exclusivity is granted to benefit the marketing of a drug, which treats rare diseases or conditions with less than 200,000 patients.

The FDA has "fast track" regulations intended to accelerate the approval process for the development, evaluation and marketing of new drugs used to diagnose or treat life-threatening and severely debilitating illnesses for which no satisfactory alternative therapies exist. "Fast track" designation affords early interaction with the FDA in terms of protocol design and eligibility for expedited review of an NDA. It also permits, although it does not require, the FDA to issue marketing approval based on a surrogate endpoint (a measurement intended to substitute for the clinical measurement of interest, usually prolongation of survival) although the FDA will often require subsequent clinical trials or even post-approval efficacy studies).

The above describes briefly what is necessary for a new drug to be approved for marketing in North America. The European Medicines Agency (EMEA) and Japanese Pharmaceuticals and Medical Devices Agency (PMDA) are also important regulatory authorities in drug development. Together with the FDA, they are the three International Conference on Harmonization ("ICH") parties which oversee the three largest markets for drug sales.

BUSINESS OF THE COMPANY

Overview

Chemotherapeutic drugs have been the mainstay medical treatment option for cancer, particularly metastatic cancer, for the past 30 years. More recently, a range of novel cancer drugs have been developed that are efficacious while improving patient quality of life. Unlike chemotherapies, which are typically based on chemical synthesis, these new drugs may be of biological origin, based on naturally occurring molecules, proteins or genetic material. While conventional chemotherapy drugs are relatively non-specific and as a result toxic to normal cells, these new generation agents specifically target individual molecules or genes that are involved in disease and are therefore preferentially toxic to tumor cells. The increased targeted specificity of these drugs may result in fewer and milder side effects, meaning that, in theory, larger and therefore, more effective doses can be administered. The current paradigm in cancer management is a multi-modal approach that combines multiple treatment options tailored to the specific indication and individual patient. As a result, targeted drug regimens that combine novel small molecule therapies with biological agents, based on emerging understanding of cancer development, are of considerable and growing interest.

Since cancer progression is a complex process involving the accumulation of multiple genetic alterations leading to changes in many specialized cell functions, Lorus believes that no single drug will emerge as a cure for all cancers. Instead, we believe that cancer will continue to be treated by many different drugs with a variety of mechanisms of action. Since Lorus takes a multi-mechanistic approach for the treatment of cancer, we concentrate on the discovery and the development of different classes of anticancer compounds.

All of the drugs being developed by the research team at Lorus have one similar characteristic: they are designed with the goal of being well tolerated by patients. These drugs will not only provide effective cancer treatment and contribute to an improved quality of life for cancer patients, but may also be commercially attractive as they could more easily be combined with other leading therapies without significantly adding to the current side effect profiles of existing drugs.

Lorus has product candidates in three classes of anticancer therapies: (i) RNA-targeted therapies; (ii) small molecule therapies; and (iii) immunotherapeutics. Lorus has certain commercial rights in Virulizin as described in "Immunotherapy".

RNA-Targeted Therapies

Introduction

Metabolism, cell growth and cell division are tightly controlled by complex protein signalling pathways in response to specific conditions, thereby maintaining normal function. Many human diseases, including cancer, can be traced to faulty protein production and/or regulation. As a result, traditional therapeutics is designed to interact with the disease-causing proteins and modify their function. A significant number of current anticancer drugs act by damaging either DNA or proteins within cells (*e.g*., chemotherapy) or by inhibiting the function of proteins or small molecules (*e.g.* estrogen blockers, such as Tamoxifen). RNA-targeted therapeutics offer a novel approach to treatment in that they are designed to prevent the production of proteins causing disease.

Our RNA-targeted drugs consist of antisense drugs and short-interfering RNA (siRNA). The premise of this therapeutic approach is to target an earlier stage of the biochemical process than is usually possible with conventional drugs. The blueprint for protein production is encoded in the DNA of each cell. To translate this code into protein the cell first produces mRNAs (messenger ribonucleic acids) specific to each protein and these act as intermediaries between the information encoded in DNA and production of the corresponding protein. Most traditional therapies interact with the final synthesized or processed protein. Often this interaction lacks specificity that would allow for interaction with only the intended target, resulting in undesired side effects. In contrast, this newer approach is based on altering gene expression at the mRNA level, prior to protein synthesis, and is intended to achieve better drug specificity towards the biochemical target. We believe that drugs based on this approach may have broad applicability, greater efficacy and fewer side effects than conventional drugs.

We have developed a number of antisense drugs, of which our lead product is LOR-2040 (formerly GTI-2040). LOR-2040 targets the R2 component of ribonucleotide reductase ("RNR"). RNR is a highly regulated, cell cycle-controlled protein required for DNA synthesis and repair. RNR is made up of two components, R1 and R2, encoded by different genes. RNR is essential for the formation of deoxyribonucleotides, which are the building blocks of DNA. Since RNR activity is highly elevated in tumor cell populations and is associated with tumor cell proliferation, we have developed antisense molecules specific for the mRNA of the R2 (LOR-2040) component of RNR. Furthermore, the R2 component also appears to be capable of acting as a signal molecule in cancer cells and its elevation is believed to modify a biochemical pathway that can increase the malignant properties of tumor cells. Consequently, reducing the expression of the RNR components in a tumor cell with antisense drugs is expected to have antitumor effects.

LOR-2040

Our lead antisense drug candidate is LOR-2040, which targets the R2 component of RNR and has exhibited antitumor properties against over a dozen different human cancers in standard mouse models, including chemotherapy resistant tumors. We have completed a Phase I/II clinical trial of LOR-2040 for advanced or metastatic renal cell carcinoma. We are also conducting or have completed multiple Phase I/II clinical trial programs in cooperation with the US National Cancer Institute (NCI), for the study of LOR-2040 for the treatment of Acute Myeloid Leukemia ("AML"), breast cancer, lung cancer, colon cancer, prostate cancer, a series of solid tumors and myelodysplastic syndrome and acute leukemia. In July 2008, we announced publication of a clinical study demonstrating encouraging results with LOR-2040 in combination with cytarabine in patients with AML. This study examined the relationship of the targeted activity of LOR-2040 to clinical responses in AML patients less than 60 years of age. Downregulation of R2, the target of LOR-2040, after 24 hours of LOR-2040 was statistically significant and was associated with complete remission. It was reported for the first time that outcomes of complete response were associated with high pre-treatment levels of R2, which were statistically significant compared to nonresponders. This finding suggested that pre-treatment R2 levels might be a predictor of response, and provided a possible basis for treatment stratification to LOR-2040 and high dose cytarabine combination. Favorable disease responses included complete responses in 35% of the 23 patients and significant cytoreduction of leukemic blasts in two others. This successful clinical study provided a detailed supporting rationale for Phase II development program which is presently ongoing to extend and confirm these findings in patients with refractory or relapsed AML. Furthermore, in April 2009 we announced a report of evidence of clinical activity in clinical trial of LOR-2040 combined with capecitabine and oxaliplatin in the treatment of advanced metastatic solid tumors. This trial demonstrated a potential therapeutic benefit of LOR-2040 in difficult-to treat cancer patients with different solid tumors, including heavily pre-treated nonsmall cell lung cancer patients for which there remains a significant unmet medical need.

LOR-2040 has demonstrated excellent anti-tumour activity in a number of murine models of human cancer including xenograft tumour growth, metastasis and survival models. Additional studies have demonstrated combination drug efficacy in xenograft tumour growth studies for human cancer cells, including drug resistant tumour cell lines. Studies on dose schedule optimization for LOR-2040 in combination with docetaxel demonstrated that the timing of these two drugs could be optimized for efficacy. These data, which were presented at the 2007 annual meeting of the American Association for Cancer Research (AACR), may have implications for the NCI sponsored clinical trials. More recent preclinical studies on the anticancer activity of LOR-2040 in combination with cytokine therapies were presented at the 2008 annual meeting of the AACR. These studies showed that LOR-2040 significantly improved the anticancer efficacy of an important group of cytokine immunotherapeutic agents, including interferon alpha and interleukin-2, both of which have been used in the treatment of solid tumors. These findings were published in January 2009 and may expand the potential avenues for development of LOR-2040. Formal pre-clinical development of LOR-2040, including GLP toxicology studies in standard animal models, has demonstrated that LOR-2040 is well tolerated at concentrations that exceed commensurate therapeutic doses in humans.

In April 2008 we announced the start of a development program aimed at expanding the therapeutic application of LOR-2040 for the treatment of superficial bladder cancer. The new development program will examine direct (intravesical) administration of LOR-2040 into the bladder as a treatment for superficial or non-invasive bladder cancer. In August 2008 we announced the successful completion of GLP toxicology studies with LOR-2040 to explore a novel route of administration. Two studies were conducted to assess toxicity of LOR-2040 when administered by direct administration into the bladder. In both studies, no evidence of toxicity was seen following single or repeated doses of LOR-2040 given with this method of administration. Toxicity was evaluated based on a wide range of observations including detailed examination of urinary tract tissues.

LOR-1284

In 2003, Lorus began development of an anticancer therapeutic based on siRNA-mediated inhibition of R2 expression. Early screening experiments have identified lead compounds and preliminary *in vitro* and *in vivo* characterization of these compounds has yielded promising results. LOR-1284 (formerly siRNA-1284), the lead compound identified from the screening study, specifically targets R2 expression. In *in vitro* studies, down-regulation of R2 expression by LOR-1284 resulted in decreased tumor cell growth (proliferation) with a concomitant block in cell cycle progression. Furthermore, LOR-1284 demonstrates anti-tumor activity against human kidney, skin and colon cancers in mouse experimental models of tumor growth. We feel that the results of these studies warrant further development of LOR-1284 as well as expansion of siRNA research to other cancer targets.

In March 2009, we announced that researchers at the Ohio State University (OSU) have received a grant of approximately US $2 million to explore the potential for applying OSU's proprietary tumor-targeted nanoparticle drug delivery technology with ribonucleotide reductase (RNR) targeted RNA-based drugs including LOR-1284. Although in published reports LOR-1284 has shown significant in vivo anti-tumor activity on its own, the novel nanotechnology approach in development by OSU has the potential to enhance uptake of the drug in tissues and to provide a selective affinity for specific tumors. Research is continuing to optimize delivery of siRNA in vivo and is expected to be the key to the future therapeutic promise of siRNA therapeutics to effectively target specific genes associated with cancer.

Clinical Development

Lorus Sponsored Trials

Acute Myeloid Leukemia:
In August 2007, we announced an expansion of the LOR-2040 development program in the AML indication with initiation of a more advanced Phase II clinical trial with LOR-2040 and high dose Ara-C (HiDAC) in refractory and relapsed AML. This Phase II study includes both an efficacy study and a novel additional study to measure intracellular target activities and pharmacological synergies between the two agents. In the first stage of the 60 patient trial, the pharmacologic and target related activity of LOR-2040 and HiDAC will be evaluated in two groups, to determine the contribution of each agent alone and in combination. The second stage of the trial will provide efficacy evaluation in a larger patient population. The decision to advance clinical development of LOR-2040 was based on the encouraging results from our completed proof of concept NCI-sponsored study of LOR-2040 in combination with HiDAC in patients with refractory and relapsed AML. In June 2008 Lorus announced that the European Medicines Agency (EMEA) had granted orphan drug designation to LOR-2040 for development in AML.

Advanced Renal Cell Cancer:
In April 2005, we announced completion of a Phase I/II clinical trial of LOR-2040 in combination with capecitabine, in patients with advanced, end-stage renal cell cancer in the United States. This trial was a single-arm pilot study examining the safety and efficacy of LOR-2040 used in combination with the anticancer agent capecitabine. The majority of patients had failed two or more prior therapies before entering the study, exhibited extensive metastases, and were representative of a population with very poor prognostic outcome in renal cell cancer. All 33 patients entering this study had advanced disease with multiple metastatic sites, with or without prior removal of the primary kidney tumor. However, more than half (52%) of the patients on the recommended dose exhibited disease stabilization or better, including one confirmed partial response. LOR-2040 was well tolerated when combined with a cytotoxic agent with expected adverse events. In April 2008 Lorus announced preclinical results from additional combination therapies in this indication identifying that LOR-2040 significantly improved the anticancer efficacy of an important group of cytokine immunotherapeutic agents, including interferon alpha and interleukin-2. In January 2009 Lorus announced publication in *International Journal of Oncology 34: 33-42* of its in-vivo preclinical research demonstrating that LOR-2040 improves the anticancer effects of interferon in kidney cancer. Lorus is actively searching for partnerships to assist with the further development of LOR-2040 for the treatment of renal cell cancer and other selected solid tumor indications.

NCI Sponsored Trials

Much of the clinical development for LOR-2040 was performed in conjunction with the US NCI, which paid for the cost of the sponsored clinical trials. See "-- Agreements - Collaboration Agreements - National Cancer Institute". To date we have substantially completed six clinical trials with the NCI for LOR-2040 in patients with AML, metastatic breast cancer, non-small cell lung cancer, solid tumors, unresectable colon cancer, hormone refractory prostate cancer and have one study ongoing in MDS and acute leukemia. These indications were selected based on the most promising results from our preclinical studies. Upon evaluation of the final clinical data emerging from the completed NCI clinical trials, Lorus will analyze and make decisions regarding the strategic direction of our antisense portfolio. We do not believe that the data obtained from these trials will be material nor impact our current development plan of focusing on LOR-2040 in AML. Lorus continues to search for partnerships for the future development of LOR-2040.

Acute Myeloid Leukemia:
In July 2003, we announced the FDA's approval of the NCI-sponsored IND application for a clinical trial of LOR-2040 in combination with cytarabine, in patients with refractory or relapsed AML. Cytarabine is the current established drug for treating AML patients. The study is part of a Phase II clinical program to be conducted under the sponsorship of the Cancer Treatment Evaluation Program of the NCI pursuant to a clinical trial agreement between Lorus and the NCI.

In August 2007, we announced the completion of this study. This clinical trial demonstrated safety and appropriate dosing of the combination regimen and showed promising clinical responses in patients under 60 years of age. Moreover, the clinical responses correlated with downregulation of R2, the cellular target of LOR-2040, and were further supported by demonstration of intracellular LOR-2040 in circulating and bone marrow leukemic cells. In July 2008 we announced publication of the final results of this clinical trial by the investigators in the journal *Clinical Cancer Research 14(12) 2008.* The results demonstrated safety and appropriate dosing of the combination regimen. Notably, promising clinical responses in patients under 60 years of age were obtained which included complete responses in 35% of the 23 patients and significant cytoreduction of the leukemic blasts in two others. Moreover, the clinical responses correlated with down regulation of R2, the cellular target of LOR-2040 in circulating and bone marrow leukemic cells. Additionally, outcomes of complete response were associated with high pre-treatment levels of R2, suggesting that pre-treatment R2 may be a predictor of response and a possible basis for treatment stratification to this LOR-2040 and cytarabine combination. This proof of concept study provided the basis for proceeding to the current larger Phase II study in with the same regimen in patients less than 60 years of age with refractory and relapsed AML.

Additional research in this program has continued to add scientific support for action of LOR-2040 in AML. In September 2008 Lorus announced a further publication by the investigators presenting results on the metabolism of LOR-2040 in these AML patients along with supporting experiments. This identified factors including activity of liver microsomes that together predicted the circulating drug levels and clearance rates. The investigators also performed additional studies to further elucidate the intracellular activity of LOR-2040 in AML which were announced by Lorus in April 2009 following the presentation to the American Association for Cancer Research, and in June 2009 following their final publication of this data in *Pharmaceutical Research 26(6) 2009.* A novel analytical method was used to monitor the intracellular activity of LOR-2040 in both preclinical models and in a patient's samples and confirm an important mechanism of action of the drug to reduce the dNTP molecules in tumor cells that are required for DNA synthesis.

Metastatic Breast Cancer:
In August 2003, we announced that the FDA had approved the NCI's IND to begin a Phase II clinical trial to investigate LOR-2040 as a treatment for metastatic breast cancer in combination with capecitabine (Xeloda, manufactured by Roche Laboratories Inc.). In support of continued studies aimed at demonstrating R2 target down-regulation in patient samples, this study group, in collaboration with Lorus, published preliminary results of RT-PCR studies in the May 2006 issue of *Oncology Reports*. The results demonstrate that the assay developed by Lorus can feasibly assess R2 levels in blood and tumour tissues from patients before and after treatment. In addition, as announced by Lorus in August 2008, a publication of preliminary proteomic data from the same study by the investigators in *Cancer Genomics and Proteomics 5, 2008*, identified a relationship between R2 levels and a protein, Skp-2, which may serve as a potential determinant of drug activity and resistance in these breast cancer patients. This study has completed and publication by the investigator of the full clinical results is anticipated in 2010.

Non-Small Cell Lung Cancer:
In September 2003, we received approval from Health Canada for initiation of a clinical trial of LOR-2040 in combination with docetaxel for the treatment of advanced non-small cell lung cancer ("NSCLC"), as part of a Phase I/II clinical program of LOR-2040 in collaboration with the NCI. Interim results from this study were announced in May 2005. Our interim results showed that the toxicity profile was determined to be acceptable for the specific combination therapy and the observed level of disease stabilizations was encouraging given the advanced stage of the disease in this subset of patients. The study group published a paper in the December 2005 issue of the Journal *of Chromatography,* outlining the development of a method for determination of LOR-2040 in human plasma samples. This highly sensitive method will be used for pharmacokinetic studies in patient samples from the trial. This study has completed and publication by the investigator of the final clinical results is anticipated in 2010.

Solid Tumors:
In February 2004, we announced the initiation of a Phase I clinical trial examining the use of LOR-2040 in combination with gemcitabine in patients with solid tumors. In June 2005, results from the trial were published. The trial was intended to identify the recommended dose of LOR-2040 and its toxicity profile. At the recommended dose LOR-2040 demonstrated a manageable toxicity profile and was generally well tolerated when given as a single agent. This study has completed and publication by the investigator of the final clinical results is anticipated in 2010.

Colon Cancer and other Solid Tumors:
In May 2004, we announced the initiation of a Phase I clinical trial examining LOR-2040 in combination with oxaliplatin and capecitabine in the treatment of advanced unresectable colon cancer and other solid tumors. This study is part of a clinical trials program sponsored by the NCI. This study has completed and in April 2009 Lorus announced publication of the final results by the investigator in *Cancer Chemotherapy Pharmacology, 2009.* This reported that the combination regimen was feasible and safe with evidence of clinical activity in patients with advanced incurable tumors including colorectal, lung and breast cancers despite the relatively low doses used in the study.

Hormone Refractory Prostate Cancer:
In November 2004, we announced the initiation of a Phase II clinical trial examining LOR-2040 in combination with docetaxel and prednisone in hormone refractory prostate cancer. In November 2005, we announced interim data from this trial. The data showed that along with an acceptable tolerability profile, nine of 22 PSA evaluable patients demonstrated a PSA response (reductions of greater than 50%). PSA is overproduced in prostate cancer cells and is commonly used to assess disease progression and response. These data were also presented at the 2006 annual meeting of the American Society of Clinical Oncology ("ASCO"). This study has completed and publication by the investigator of the full clinical results is anticipated in 2010.

High Grade Myelodysplastic Syndrome and acute leukemia:
Lorus announced in June 2006 a plan for a new clinical investigation of LOR-2040 as a single-agent in patients with high grade myelodysplastic syndrome and acute leukemia. This trial was initiated in mid 2007. This clinical study is designed to evaluate the safety and activity of LOR-2040 as a single agent for acute leukemia and MDS using a novel treatment schedule. The effect on leukemic blasts and blood count recovery will be assessed as part of a detailed investigation of the pharmacodynamic and pharmacokinetic effects, dose-response relationships and tolerability of LOR-2040 during multiple courses of treatment. This clinical trial is ongoing.

Other Research Initiatives
Ohio State University investigators at the American Association of Clinical Research meeting in April 2008 presented an abstract and data showing synergy of LOR-2040 when combined with azacytidine in in-vitro and in-vivo AML preclinical models. Azacytidine is a first line treatment for MDS which has not yet been evaluated clinically in combination.

In May 2009 Lorus announced the extension of a cooperative research agreement with the US National Cancer Institute for preclinical evaluation of LOR-2040 and other Lorus RNA-targeted drugs as part of a novel combination therapeutic strategy to target the renal tumor and not the normal regenerating kidney.

Orphan Drug Status

On March 12, 2003, the FDA awarded Orphan Drug Status to LOR-2040 for the treatment of renal cell carcinoma. In May 2005, Lorus received Orphan Drug designation from the FDA for LOR-2040 in the treatment of AML. In June 2008 the EMEA awarded Orphan Drug designation for LOR-2040 in the treatment of AML.

Small Molecule Therapies

Most anticancer chemotherapeutic treatments are DNA damaging, cytotoxic agents, designed to act on rapidly dividing cells. Treatment with these drugs is typically associated with unpleasant or even serious side effects due to the inability of these drugs to differentiate between normal and cancer cells and/or due to a lack of high specificity for the targeted protein. In addition, these drugs often lead to the development of tumor-acquired drug resistance. As a result of these limitations, a need exists for more effective anticancer drugs. One approach is to develop small molecules that have greater target specificity and are more selective against cancer cells. Chemical compounds weighing less than 1000 daltons (a unit of molecular weight) are designated as small or low molecular weight molecules. These molecules can be designed to target specific proteins or receptors that are known to be involved with disease.

LOR-253

In August 2005, Lorus announced the selection of two leading small molecule compounds from a series of novel small molecules discovered by Lorus scientists that exhibit potent anticancer activity in *in vitro* screens. The results of characterization studies of these compounds were presented at the 2006 annual meeting of the AACR and early formulation studies were published in the September 2006 issue of *Cancer Chemotherapy and Pharmacology.* Our studies identify the main mechanism of action of these compounds, which involves the induction of the tumor suppressor Krüppel-like factor 4. The down regulation of Krüppel-like factor 4 is believed to be critical in the development and progression of certain types of cancer and presents the possibility of exploiting a novel anticancer mechanism of action. From these two compounds, LOR-253 (formerly LT-253) was selected as the lead compound for development as a drug candidate for the treatment of colon carcinoma and non-small cell lung cancer. This decision was based on its potent *in vitro* anti-proliferative activity, its efficacy in *in vivo* xenograft models of human colon and lung cancer, and on its safety profile.

Recent preclinical data on LOR-253 was presented at the 2008 annual meeting of the AACR. In animal studies, LOR-253 showed a favorable pharmacokinetic profile following intravenous dosing. A key finding of the study was the tissue distribution of LOR-253, where the drug was detected in tumor tissues in animal models, with significant affinity for lung and colon tissues. These results strongly support the potential treatment of these cancers with LOR-253, which has shown selective and potent anticancer activity in animal models of non-small cell lung cancer and colon cancer.

In March 2008 we announced the start of GLP toxicology studies for LOR-253. The toxicology studies were designed to support the filing of an Investigational New Drug (IND) application with the U.S. FDA for LOR-253 to initiate a Phase I clinical study in cancer indications. In November 2008, we announced the successful completion of toxicology studies. The GLP, IND-enabling toxicology studies included maximum tolerated dose studies and repeat-dose toxicity studies in rodents and nonrodents. We expect to file an IND and initiate a Phase I dose-escalation trial in selected solid tumor indications by the end of the first quarter of fiscal 2010.

In April 2009, we announced the presentation of preclinical data at the Annual Meeting of the AACR where we provided new data regarding LOR-253's antiangiogenic role.

Lorus is also pursuing other candidates at earlier stages of development. These include:

- LOR-264, a second generation LOR-253 derivative, is being developed for oral administration. Like LOR-253, LOR-264 has demonstrated potent anticancer activity in animal studies and represents the lead oral drug in this development platform. Derivatives of LOR-264 are currently being assessed for anticancer activity and oral bioavailability as part of our lead optimization process.

- LOR-500 platform. LOR-500 targets multikinases including tyrosine kinase family members and a member of the calcium/calmodulin dependent protein kinase family. Hit-to-lead optimization of LOR-500 is being currently conducted to identify a lead drug candidate.

Immunotherapy

Immunotherapy is a form of treatment that stimulates the body's immune system to fight diseases including cancer. Immunotherapy may help the immune system to fight cancer by improving recognition of differences between healthy cells and cancer cells. Alternatively it may stimulate the production of specific cancer fighting cells.

Interleukin-17E

Interleukin-17E (IL-17E) is a protein-based therapeutic that Lorus is developing as an immunotherapy for cancer treatment. We believe that IL-17E has anticancer activity against a range of human cancers. Preliminary studies have revealed that IL-17E has strong in vivo efficacy against several human tumor types, including colon cancer, melanoma, and pancreatic cancer, with low toxicity. Additional preclinical studies are being done to further evaluate its efficacy and toxicity profile in comparison to other cancer-approved cytokines, including interferon-alpha and IL-2, and further non-clinical studies are planned to assess toxicity and optimize the therapeutic dose.

Virulizin®

In April 2008, Lorus entered into an exclusive licensing deal with the Zoticon Bioventures' subsidiary, Zor Pharmaceuticals LLC ("Zor"), for Virulizin®. The license, covering North and South America, Europe and Israel, granted Lorus the right to receive in excess of US$10 million in upfront and milestone payments as well as royalties on sales of between 10 and 20%. In addition, Lorus' wholly-owned subsidiary received a 25% equity interest in Zor. Zor is responsible for all future clinical developments, regulatory submissions, and all commercial activities. As discussed above, in June 2009, Lorus assigned these rights and the rights to the intellectual property associated with Virulizin® to TEMIC as part of the consideration for Lorus' repurchase of the secured convertible debentures. (See "The Company - - Secured Convertible Debentures")

Agreements

Manufacturing Agreements

We currently rely upon subcontractors for the manufacture of our drug candidates. The subcontractors manufacture clinical material according to current Good Manufacturing Practice ("GMP") at contract manufacturing organizations that have been approved by our quality assurance department, following audits in relation to the appropriate regulations.

Manufactured product for clinical purposes is tested for conformance with product specifications prior to release by our quality assurance department. GMP batches of our drug candidates are subjected to prospectively designed stability test protocols.

Licence Agreements

Ion Pharmaceuticals

In December 1997, Lorus, through NuChem, acquired certain patent rights and a sublicense from Ion to develop and commercialize the anticancer applications of CLT and new chemical entities related to CLT (the "NuChem Analogs"). To July 2006, NuChem had made cash payments totalling US $500,000 to Ion. The balance of up to US$3 million is payable upon the achievement of certain milestones based on the commencement and completion of clinical trials related to the NuChem Analogs. The company does not currently expect to achieve any of the above milestones in fiscal years ended May 31, 2010 or 2011 and cannot reasonably predict when such milestones will be achieved, if at all.

The NuChem Analog patents are ancillary to the Company's primary development activities and do not relate to our core research and development focus, namely LOR-2040, nor did they relate specifically to the development of Virulizin.

All research and development activities to be undertaken by NuChem are to be funded by us through subscriptions for non-participating preference shares of NuChem. As at May 31, 2009, we had provided a total of $5,779,000 of funding to NuChem.

University of Manitoba

The University of Manitoba (the "University"), Dr. Jim Wright, Dr. Aiping Young and Cancer Care entered into an exclusive license agreement (the "License Agreement") with GeneSense dated June 20, 1997 pursuant to which GeneSense was granted an exclusive worldwide license to certain patent rights with the right to sub-license. In consideration for the exclusive license to GeneSense of the patent rights, the University and Cancer Care are entitled to an aggregate of 1.67% of the net sales received by GeneSense from the sale of products or processes derived from the patent rights and 1.67% of all monies received by GeneSense from sub-licenses of the patent rights. GeneSense is solely responsible for the preparation, filing, prosecution and maintenance of all patent applications and patents included in the patent rights and all related expenses. Pursuant to the terms of the License Agreement, any and all improvements to any of the patent rights derived in whole or in part by GeneSense after the date of the License Agreement are not included within the scope of the License Agreement and do not trigger any payment of royalties.

The University of Manitoba agreement relates specifically to antisense and related technologies described in patent applications that were pending at the time of the agreement. Subsequent patent amendments or advancements to these patents remain as the property of Lorus, without license rights accruing back to the University of Manitoba. The Company is currently pursuing its antisense development program, primarily as a function of advancements and amendments to the original patents. We have not yet earned any revenue from the products covered under the agreement and have not paid any royalties under this agreement and cannot reasonably predict the timing and amount of any future payment. We do not expect to make any royalty payments under this agreement in fiscal years ended May 31, 2010 or 2011.

Effective May 31, 2009, this agreement was assigned from GeneSense to Lorus.

Collaboration Agreements

Zoticon Bioventures Inc.

In April 2008, Lorus through its wholly owned subsidiary GeneSense Technologies Inc. signed an exclusive multinational license agreement with Zor Pharmaceuticals LLC formed as a subsidiary of Zoticon Bioventures Inc. ("Zoticon"), a research-driven biopharmaceutical group, to further develop and commercialize Virulizin® for human therapeutic applications. The initial clinical development of Virulizin® under the agreement will be in advanced pancreatic cancer.

Under the terms of the agreement, GeneSense will be entitled to receive payments in excess of US$10 million upon achievement of various milestone events and royalties that vary from 10-20% depending on achieving of sales of Virulizin® and subject to certain other adjustments.

Zor Pharmaceuticals is be responsible for the cost of all the clinical development, regulatory submissions and commercialization of Virulizin® in North and South America, Europe and Israel. We retained rights in all other countries, including China, Japan, Australia and New Zealand. As discussed above, in June 2009, Lorus assigned these rights to TEMIC. (See "The Company - Secured Convertible Debentures")

As part of the Zoticon agreement, we entered into a service agreement in which we agreed to provide Zor with 120 hours of consulting service at its own expense and thereafter will provide services at an agreed upon rate. The agreement had an initial term of one year unless stated otherwise in any project assignment that extends beyond one year but no longer than the date of termination of the License Agreement for any reason. If we had not provided 300 hours of consulting services after one year the agreement will renew for an additional six months. This service agreement is expected to expire in October 2009.

National Cancer Institute

In February 2003, Lorus and the United States National Cancer Institute approved clinical protocols to conduct a series of clinical trials in a Phase I/II program to investigate the safety and efficacy of LOR-2040. Lorus and the NCI signed a formal clinical trial agreement in which the NCI financially sponsors the LOR-2040 clinical trials, while Lorus provides the clinical trial drug. The agreement was renewed in October 2007 for an additional three years.

NCI carries out clinical trials on behalf of the Company at its own cost. The rights to publish data remains with the NCI sponsored investigator generating the information. The commercial results of the studies, including commercialization of any products remain with Lorus with no financial, license, or intellectual property rights accruing to the Investigator or NCI for their participation. NCI has no rights to exploit the research results, except through the right of investigators to publish data accumulated by it during the testing, nor does it have any obligation to pay or receive royalties under the agreement. Any royalty rights on products derived from the work performed by NCI will need to be negotiated by Lorus under a marketing agreement with third parties (if not carried out by Lorus). It is not possible to reasonably estimate the amount and timing of any royalty receipts, if any.

In regards to future payment obligations, Lorus' obligations under this agreement are limited to the supply of drugs, the cost for which has been incurred. The company does not currently expect any significant costs associated with the supply of the drug in the future, depending on the outcome of the projects.

See "Clinical Development - NCI sponsored trials" for further detail.

Other

From time to time, we enter into other research and technology agreements with third parties under which research is conducted and monies expended. These agreements outline the responsibilities of each participant and the appropriate arrangements in the event the research produces a product candidate.

Intellectual Property and Protection of Confidential Information and Technology

We believe that our issued patents and pending applications are important in establishing and maintaining a competitive position with respect to our products and technology. As of May 31, 2009, we owned or had rights to 42 issued patents and 46 pending patent applications worldwide.

RNA-targeted Therapies

We have been issued two patents in Canada, nine patents in the United States and ten patents in other jurisdictions around the world relating to our DNA/RNA-based therapeutics, which includes antisense and siRNA molecules. We also have 16 pending patents worldwide for this class of therapies. These patents include composition of matter and method claims.

Small Molecule

We have been issued one patent in Israel relating to the NuChem small molecule platform. We also have 21 pending patents worldwide for out in-house small molecules. These patents cover composition of matter and method claims.

Immunotherapy

We have been issued two patents in Canada, three patents in the United States and 11 patents in other jurisdictions around the world relating to our immunotherapy (Virulizin) platform, which include composition of matter, method and process claims. All 16 issued patents for Virulizin, as well as six pending patents for Virulizin, were sold to TEMIC. Lorus retains ownership of three pending patents for our IL-17E immunotherapy program.

Risks Relating to Intellectual Property

We either own these issued patents or have the exclusive right to make, use, market, sell or otherwise commercialize products using these patents to diagnose and treat cancer. We cannot assure you that we will continue to have exclusive rights to these patents.

We cannot assure you that pending applications will result in issued patents, or that issued patents will be held valid and enforceable if challenged, or that a competitor will not be able to circumvent any such issued patents by adoption of a competitive, though non-infringing product or process. Interpretation and evaluation of pharmaceutical or biotechnology patent claims present complex and often novel legal and factual questions. Our business could be adversely affected by increased competition in the event that any patent granted to it is held to be invalid or unenforceable or is inadequate in scope to protect our operations.

While we believe that our products and technology do not infringe proprietary rights of others, we cannot assure you that third parties will not assert infringement claims in the future or that such claims will not be successful. Furthermore, we could incur substantial costs in defending ourselves against patent infringement claims brought by others or in prosecuting suits against others.

In addition, we cannot assure you that others will not obtain patents that we would need to license, or that if a license is required that it would be available to us on reasonable terms, or that if a license is not obtained that we would be able to circumvent, through a reasonable investment of time and expense, such outside patents. Whether we obtain a license would depend on the terms offered, the degree of risk of infringement, the vulnerability of the patent to invalidation and the ease of circumventing the patent.

Until such time, if ever, that further patents are issued to us, we will rely upon the law of trade secrets to the extent possible given the publication requirements under international patent treaty laws and/or requirements under foreign patent laws to protect our technology and our products incorporating the technology. In this regard, we have adopted certain confidentiality procedures. These include: limiting access to confidential information to certain key personnel; requiring all directors, officers, employees and consultants and others who may have access to our intellectual property to enter into confidentiality agreements which prohibit the use of or disclosure of confidential information to third parties; and implementing physical security measures designed to restrict access to such confidential information and products. Our ability to maintain the confidentiality of our technology is crucial to our ultimate possible commercial success. We cannot assure you that the procedures adopted by us to protect the confidentiality of our technology will be effective, that third parties will not gain access to our trade secrets or disclose the technology, or that we can meaningfully protect our rights to our technology. Further, by seeking the aforementioned patent protection in various countries, it is inevitable that a substantial portion of our technology will become available to our competitors, through publication of such patent applications.

Regulatory Strategy

Our overall regulatory strategy is to work with HC in Canada, the FDA in the United States, the EMEA in Europe, and any other local regulatory agencies to have drug applications approved for the use of LOR-2040, and small molecules in clinical trials (alone and/or in combination with chemotherapeutic compounds) and subsequently for sale in international markets. Where possible, we intend to take advantage of opportunities for accelerated consideration of drugs designed to treat rare and serious or life-threatening diseases. We also intend to pursue priority evaluation of any application for marketing approval filed in Canada, the United States or the European Union and to file additional drug applications in other markets where commercial opportunities exist. We cannot assure you that we will be able to pursue these opportunities successfully.

Competition

The biotechnology and pharmaceutical industries are characterized by rapidly evolving technology and intense competition. There are numerous players in both of these industries that are focusing their efforts on activities similar to ours. Some of these are companies with established positions in the pharmaceutical industry and may have substantially more financial and technical resources, more extensive research and development capabilities, and greater marketing, distribution, production and human resources than us. In addition, we may face competition from other companies for opportunities to enter into partnerships with biotechnology and pharmaceutical companies and academic institutions. Many of these other companies however are not solely focused on cancer, as is the mission of our drug development. We specialize in the development of drugs that we believe will manage cancer.

Competition with our products may include chemotherapeutic agents, monoclonal antibodies, antisense therapies, small molecules and immunotherapies with novel mechanisms of action. These are drugs that are delivered by specific means for treatment of cancer patients, with a potential to be used in non-cancer indications. We also expect that we may experience competition from established and emerging pharmaceutical and biotechnology companies that have other forms of treatment for the cancers that we target. There are many drugs currently in development for the treatment of cancer that employ a number of novel approaches for attacking these cancer targets. Cancer is a complex disease with more than 100 indications requiring drugs for treatment. The drugs in competition with our drugs have specific targets for attacking the disease, targets which are not necessarily the same as ours. These competitive drugs therefore could potentially also be used together in combination therapies with our drugs to manage the disease.

Human Resources

As at May 31, 2009, we employed 24 full-time persons and four part-time people in research and drug development and administration activities. Of our employees, seven hold Ph.D.s. To encourage a focus on achieving long-term performance, employees and members of the board of directors have the ability to acquire an ownership interest in the Company through Lorus' stock option plan and employees can participate in the employee share purchase plan.

Our ability to develop commercial products and to establish and maintain our competitive position in light of technological developments will depend, in part, on our ability to attract and retain qualified personnel. There is a significant level of competition in the marketplace for such personnel. We believe that to date we have been successful in attracting and retaining the highly skilled personnel critical to our business. We have also chosen to outsource activities where skills are in short supply or where it is economically prudent to do so.

None of our employees are unionized, and we consider our relations with our employees to be good.

Properties

Our head office, which occupies 20,500 square feet, is located at 2 Meridian Road, Toronto, Ontario. The leased premises include approximately 8,000 square feet of laboratory and research space. We believe that our existing facilities are adequate to meet our requirements for the near term. Our current lease expires on March 31, 2011.

RISK FACTORS

Investing in our securities involves a high degree of risk. Before making an investment decision with respect to our common shares, you should carefully consider the following risk factors, in addition to the other information included or incorporated by reference into this annual information form, as well as our historical consolidated financial statements and related notes. The risks set out below are not the only risks we face. If any of the following risks occur, our business, financial condition, prospects or results of operations would likely suffer. In that case, the trading price of our common shares could decline and you may lose all or part of the money you paid to buy our common shares.

Going concern.

Management has forecasted that the Company's current level of cash and cash equivalents and short-term investments after the extinguishment of the secured convertible debentures will not be 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, we can not assure you that the capital will be available as necessary to meet these continuing expenditure, or if the capital is available, that it will be on terms acceptable to the Company. The issuance of common shares by the Company could result in significant dilution in the equity interest of existing shareholders. The Company is also considering alternatives to delay its research program until financing is available, amongst other cost savings measures. We cannot assure you that the Company will be able to obtain sufficient financing to meet future operational needs. As a result, there is a significant doubt as to whether the Company will be able to continue as a going concern and realize its assets and pay its liabilities as they become due.

We need to raise additional capital.

We need to raise additional capital. To obtain the necessary capital, we must rely on any or all of; grants and tax credits, additional share issues and collaboration agreements or corporate partnerships to provide full or partial funding for our activities. We cannot assure you that additional funding will be available on terms that are acceptable to us or in amounts that will enable us to carry out our business plan.

If we cannot obtain the necessary capital, we will have to:

- engage in equity financings that would result in significant dilution to existing investors;
- delay or reduce the scope of or eliminate one or more of our development programs;
- obtain funds through arrangements with collaborators or others that may require us to relinquish rights to technologies, product candidates or products that we would otherwise seek to develop or commercialize ourselves; or license rights to technologies, product candidates or products on terms that are less favourable to us than might otherwise be available;
- considerably reduce operations; or
- cease our operations.

We have a history of operating losses. We expect to incur net losses and we may never achieve or maintain profitability.

We have not been profitable since our inception in 1986. We reported net losses of $8.9 million; $6.3 million and $9.6 million for the years ended May 31, 2009, 2008 and 2007, respectively. As of May 31, 2009, we had an accumulated deficit of $189.4 million.

To date we have only generated nominal revenues from the sale of Virulizin® in Mexico and revenues associated with the Zor Agreement. We stopped selling Virulizin® in Mexico in July 2005 and assigned the rights under the Zor Agreement to TEMIC in June 2009. We have not generated any other revenue from product sales to date and it is possible that we will never have sufficient product sales revenue to achieve profitability. We expect to continue to incur losses for at least the next several years as we or our collaborators and licensees pursue clinical trials and research and development efforts. To become profitable, we, either alone or with our collaborators and licensees, must successfully develop, manufacture and market our current product candidates, LOR-2040, as well as continue to identify, develop, manufacture and market new product candidates. It is possible that we will never have significant product sales revenue or receive significant royalties on our licensed product candidates. If funding is insufficient at any time in the future, we may not be able to develop or commercialize our products, take advantage of business opportunities or respond to competitive pressures.

We are an early stage development company.

We are at an early stage of development. Significant additional investment will be necessary to complete the development of any of our products. Pre-clinical and clinical trial work must be completed before our products could be ready for use within the market that we have identified. We may fail to develop any products, to obtain regulatory approvals, to enter clinical trials or to commercialize any products. We do not know whether any of our potential product development efforts will prove to be effective, meet applicable regulatory standards, obtain the requisite regulatory approvals, be capable of being manufactured at a reasonable cost or be accepted in the marketplace.

The product candidates we are currently developing are not expected to be commercially viable for several years and we may encounter unforeseen difficulties or delays in commercializing our product candidates. In addition, our products may cause undesirable side effects.

Our product candidates require significant funding to reach regulatory approval assuming positive clinical results. Such funding will be very difficult, or impossible to raise in the public markets. If such partnerships are not attainable, the development of these product candidates maybe significantly delayed or stopped altogether. The announcement of such delay or discontinuation of development may have a negative impact on our share price.

The Company has indemnified Old Lorus and its directors, officers and employees in respect of the Arrangement.

Under the Arrangement, we have agreed to indemnify Old Lorus and its directors, officers and employees from and against all damages, losses, expenses (including fines and penalties), other third party costs and legal expenses, to which any of them may be subject arising out of any matter occurring:

(i) prior to, at or after the effective time of the Arrangement ("Effective Time") and directly or indirectly relating to any of the assets of Old Lorus transferred to New Lorus pursuant to the Arrangement (including losses for income, sales, excise and other taxes arising in connection with the transfer of any such asset) or conduct of the business prior to the Effective Time;

(ii) prior to, at or after the Effective Time as a result of any and all interests, rights, liabilities and other matters relating to the assets transferred by Old Lorus to New Lorus pursuant to the Arrangement; and

(iii) prior to or at the Effective Time and directly or indirectly relating to, with certain exceptions, any of the activities of Old Lorus or the Arrangement.

This indemnification could result in significant liability to us.

We may be unable to obtain partnerships for one or more of our product candidates which could curtail future development and negatively impact our share price.

Our strategy for the research, development and commercialization of our products requires entering into various arrangements with corporate collaborators, licensers, licensees and others, and our commercial success is dependent upon these outside parties performing their respective contractual responsibilities. The amount and timing of resources that such third parties will devote to these activities may not be within our control. We cannot assure you that such parties will perform their obligations as expected. We also cannot assure you that our collaborators will devote adequate resources to our programs. In addition, we could become involved in disputes with our collaborators, which could result in a delay or termination of the related development programs or result in litigation. We intend to seek additional collaborative arrangements to develop and commercialize some of our products. We may not be able to negotiate collaborative arrangements on favourable terms, or at all, in the future, or that our current or future collaborative arrangements will be successful.

If we cannot negotiate collaboration, licence or partnering agreements, we may never achieve profitability.

Clinical trials are long, expensive and uncertain processes and Health Canada or the FDA may ultimately not approve any of our product candidates. We may never develop any commercial drugs or other products that generate revenues.

None of our product candidates has received regulatory approval for commercial use and sale in North America. We cannot market a pharmaceutical product in any jurisdiction until it has completed thorough preclinical testing and clinical trials in addition to that jurisdiction's extensive regulatory approval process. In general, significant research and development and clinical studies are required to demonstrate the safety and effectiveness of our product candidates before we can submit any regulatory applications.

Clinical trials are long, expensive and uncertain processes. Clinical trials may not be commenced or completed on schedule, and Health Canada or the FDA or any other regulatory body may not ultimately approve our product candidates for commercial sale.

The clinical trials of any of our drug candidates could be unsuccessful, which would prevent us from advancing, commercializing or partnering the drug.

Even if the results of our preclinical studies or clinical trials are initially positive, it is possible that we will obtain different results in the later stages of drug development or that results seen in clinical trials will not continue with longer term treatment. Positive results in early Phase I or Phase II clinical trials may not be repeated in larger Phase II or Phase III clinical trials. For example, results of our Phase III clinical trial of Virulizinâ did not meet the primary endpoint of the study despite promising preclinical and early stage clinical data. All of our potential drug candidates are prone to the risks of failure inherent in drug development.

Preparing, submitting and advancing applications for regulatory approval is complex, expensive and time intensive and entails significant uncertainty. A commitment of substantial resources to conduct time-consuming research, preclinical studies and clinical trials will be required if we are to complete development of our products.

Clinical trials of our products require that we identify and enrol a large number of patients with the illness under investigation. We may not be able to enrol a sufficient number of appropriate patients to complete our clinical trials in a timely manner particularly in smaller indications such as acute myeloid leukemia. If we experience difficulty in enrolling a sufficient number of patients to conduct our clinical trials, we may need to delay or terminate ongoing clinical trials and will not accomplish objectives material to our success that could affect the price of our common shares. Delays in planned patient enrolment or lower than anticipated event rates in our current clinical trials or future clinical trials may result in increased costs, program delays, or both.

In addition, unacceptable toxicities or adverse side effects may occur at any time in the course of preclinical studies or human clinical trials or, if any product candidates are successfully developed and approved for marketing, during commercial use of any approved products. The appearance of any such unacceptable toxicities or adverse side effects could interrupt, limit, delay or abort the development of any of our product candidates or, if previously approved, necessitate their withdrawal from the market. Furthermore, disease resistance or other unforeseen factors may limit the effectiveness of our potential products.

Our failure to develop safe, commercially viable drugs would substantially impair our ability to generate revenues and sustain our operations and would materially harm our business and adversely affect our share price. We may never achieve profitability.

As a result of intense competition and technological change in the pharmaceutical industry, the marketplace may not accept our products or product candidates, and we may not be able to compete successfully against other companies in our industry and achieve profitability.

Many of our competitors have:

- drug products that have already been approved or are in development, and operate large, well-funded research and development programs in these fields;
- substantially greater financial and management resources, stronger intellectual property positions and greater manufacturing, marketing and sales capabilities, areas in which we have limited or no experience;
- significantly greater experience than we do in undertaking preclinical testing and clinical trials of new or improved pharmaceutical products and obtaining required regulatory approvals;
- Consequently, our competitors may obtain Health Canada, FDA and other regulatory approvals for product candidates sooner and may be more successful in manufacturing and marketing their products than we or our collaborators are;
- Existing and future products, therapies and technological approaches will compete directly with the products we seek to develop. Current and prospective competing products may provide greater therapeutic benefits for a specific problem or may offer easier delivery or comparable performance at a lower cost;
- Any product candidate that we develop and that obtains regulatory approval must then compete for market acceptance and market share. Our product candidates may not gain market acceptance among physicians, patients, healthcare payers and the medical community. Further, any products we develop may become obsolete before we recover any expenses we incurred in connection with the development of these products.

As a result, we may never achieve profitability.

If we fail to attract and retain key employees, the development and commercialization of our products may be adversely affected.

We depend heavily on the principal members of our scientific and management staff. If we lose any of these persons, our ability to develop products and become profitable could suffer. The risk of being unable to retain key personnel may be increased by the fact that we have not executed long-term employment contracts with our employees, except for our senior executives. Our future success will also depend in large part on our ability to attract and retain other highly qualified scientific and management personnel. We face competition for personnel from other companies, academic institutions, government entities and other organizations.

We may be unable to obtain patents to protect our technologies from other companies with competitive products, and patents of other companies could prevent us from manufacturing, developing or marketing our products.

Patent protection:
The patent positions of pharmaceutical and biotechnology companies are uncertain and involve complex legal and factual questions.

The United States (U.S.) Patent and Trademark Office and many other patent offices in the world have not established a consistent policy regarding the breadth of claims that they will allow in biotechnology patents.

Allowable patentable subject matter and the scope of patent protection obtainable may differ between jurisdictions. If a patent office allows broad claims, the number and cost of patent interference proceedings in the U.S. or analogous proceedings in other jurisdictions and the risk of infringement litigation may increase. If it allows narrow claims, the risk of infringement may decrease, but the value of our rights under our patents, licenses and patent applications may also decrease.

The scope of the claims in a patent application can be significantly modified during prosecution before the patent is issued. Consequently, we cannot know whether our pending applications will result in the issuance of patents or, if any patents are issued, whether they will provide us with significant proprietary protection or will be circumvented, invalidated or found to be unenforceable.

Until recently, patent applications in the U.S. were maintained in secrecy until the patents issued, and publication of discoveries in scientific or patent literature often lags behind actual discoveries. Patent applications filed in the United States after November 2000 generally will be published 18 months after the filing date unless the applicant certifies that the invention will not be the subject of a foreign patent application. In many other jurisdictions, such as Canada, patent applications are published 18 months from the priority date. We cannot assure you that, even if published, we will be aware of all such literature. Accordingly, we cannot be certain that the named inventors of our products and processes were the first to invent that product or process or that we were the first to pursue patent coverage for our inventions.

Enforcement of intellectual property rights:
Protection of the rights revealed in published patent applications can be complex, costly and uncertain. Our commercial success depends in part on our ability to maintain and enforce our proprietary rights. If third parties engage in activities that infringe our proprietary rights, our management's focus will be diverted and we may incur significant costs in asserting our rights. We may not be successful in asserting our proprietary rights, which could result in our patents being held invalid or a court holding that the third party is not infringing, either of which would harm our competitive position.

Others may design around our patented technology. We may have to participate in interference proceedings declared by the U.S. Patent and Trademark Office, European opposition proceedings, or other analogous proceedings in other parts of the world to determine priority of invention and the validity of patent rights granted or applied for, which could result in substantial cost and delay, even if the eventual outcome is favourable to us. We cannot assure you that our pending patent applications, if issued, would be held valid or enforceable.

Trademark protection:
In order to protect goodwill associated with our company and product names, we rely on trademark protection for our marks. For example, we have registered the Virulizin® trademark with the U.S. Patent and Trademark Office. A third party may assert a claim that the Virulizin® mark is confusingly similar to its mark and such claims or the failure to timely register the Virulizin® mark or objections by the FDA could force us to select a new name for Virulizin®, which could cause us to incur additional expense.

Trade secrets:
We also rely on trade secrets, know-how and confidentiality provisions in our agreements with our collaborators, employees and consultants to protect our intellectual property. However, these and other parties may not comply with the terms of their agreements with us, and we might be unable to adequately enforce our rights against these people or obtain adequate compensation for the damages caused by their unauthorized disclosure or use of our trade secrets or know how. Our trade secrets or those of our collaborators may become known or may be independently discovered by others.

Our products and product candidates may infringe the intellectual property rights of others, which could increase our costs.

Our success also depends on avoiding infringement of the proprietary technologies of others. In particular, there may be certain issued patents and patent applications claiming subject matter which we or our collaborators may be required to license in order to research, develop or commercialize at least some of our product candidates, including Virulizin®, LOR-2040 and small molecules. In addition, third-parties may assert infringement or other intellectual property claims against us based on our patents or other intellectual property rights. An adverse outcome in these proceedings could subject us to significant liabilities to third-parties, require disputed rights to be licensed from third-parties or require us to cease or modify our use of the technology. If we are required to license such technology, we cannot assure you that a license under such patents and patent applications will be available on acceptable terms or at all. Further, we may incur substantial costs defending ourselves in lawsuits against charges of patent infringement or other unlawful use of another's proprietary technology.

If product liability claims are brought against us or we are unable to obtain or maintain product liability insurance, we may incur substantial liabilities that could reduce our financial resources.

The clinical testing and commercial use of pharmaceutical products involves significant exposure to product liability claims. We have obtained limited product liability insurance coverage for our clinical trials on humans; however, our insurance coverage may be insufficient to protect us against all product liability damages. Further, liability insurance coverage is becoming increasingly expensive and we might not be able to obtain or maintain product liability insurance in the future on acceptable terms or in sufficient amounts to protect us against product liability damages. Regardless of merit or eventual outcome, liability claims may result in decreased demand for a future product, injury to reputation, withdrawal of clinical trial volunteers, loss of revenue, costs of litigation, distraction of management and substantial monetary awards to plaintiffs. Additionally, if we are required to pay a product liability claim, we may not have sufficient financial resources to complete development or commercialization of any of our product candidates and our business and results of operations will be adversely affected.

We have no manufacturing capabilities. We depend on third-parties, including a number of sole suppliers, for manufacturing and storage of our product candidates used in our clinical trials. Product introductions may be delayed or suspended if the manufacture of our products is interrupted or discontinued.

We do not have manufacturing facilities to produce supplies of LOR-2040, small molecule or any of our other product candidates to support clinical trials or commercial launch of these products, if they are approved. We are dependent on third parties for manufacturing and storage of our product candidates. If we are unable to contract for a sufficient supply of our product candidates on acceptable terms, or if we encounter delays or difficulties in the manufacturing process or our relationships with our manufacturers, we may not have sufficient product to conduct or complete our clinical trials or support preparations for the commercial launch of our product candidates, if approved.

Our operations involve hazardous materials and we must comply with environmental laws and regulations, which can he expensive and restrict how we do business.

Our research and development activities involve the controlled use of hazardous materials, radioactive compounds and other potentially dangerous chemicals and biological agents. Although we believe our safety procedures for these materials comply with governmental standards, we cannot entirely eliminate the risk of accidental contamination or injury from these materials. We currently have insurance, in amounts and on terms typical for companies in businesses that are similarly situated that could cover all or a portion of a damage claim arising from our use of hazardous and other materials. However, if an accident or environmental discharge occurs, and we are held liable for any resulting damages, the associated liability could exceed our insurance coverage and our financial resources.

Our interest income is subject to fluctuations of interest rates in our investment portfolio.

Our investments are held to maturity and have staggered maturities to minimize interest rate risk. We cannot assure you that interest income fluctuations will not have an adverse impact on our financial condition. We maintain all our accounts in Canadian dollars, but a portion of our expenditures are in foreign currencies. We do not currently engage in hedging our foreign currency requirements to reduce exchange rate risk.

RISKS RELATED TO OUR COMMON SHARES

Our share price has been and may continue to be volatile and an investment in our common shares could suffer a decline in value.

You should consider an investment in our common shares as risky and invest only if you can withstand a significant loss and wide fluctuations in the market value of your investment. We receive only limited attention by securities analysts and frequently experience an imbalance between supply and demand for our common shares. The market price of our common shares has been highly volatile and is likely to continue to be volatile. Factors affecting our common share price include but are not limited to:

- our financial position and doubt as to whether we will be able to continue as a going concern;
- the progress of our and our collaborators' clinical trials, including our and our collaborators' ability to produce clinical supplies of our product candidates on a timely basis and in sufficient quantities to meet our clinical trial requirements;
- announcements of technological innovations or new product candidates by us, our collaborators or our competitors;
- fluctuations in our operating results;
- published reports by securities analysts;
- developments in patent or other intellectual property rights;
- publicity concerning discovery and development activities by our licensees;
- the cash and short term investments held us and our ability to secure future financing;
- public concern as to the safety and efficacy of drugs that we and our competitors develop;
- governmental regulation and changes in medical and pharmaceutical product reimbursement policies; and
- general market conditions.

Future sales of our common shares by us or by our existing shareholders could cause our share price to fall.

Additional equity financings or other share issuances by us could adversely affect the market price of our common shares. Sales by existing shareholders of a large number of shares of our common shares in the public market and the sale of shares issued in connection with strategic alliances, or the perception that such additional sales could occur, could cause the market price of our common shares to drop.

DIVIDENDS

Dividends on our common shares are declared at the discretion of our board of directors. To date, we have not paid any dividends and do not expect to do so in the foreseeable future.

SHARE CAPITAL AND MARKET FOR SECURITIES

Share Capital

We are authorized to issue an unlimited number of common shares. As of August 26, 2009, there were 257,009,677 common shares issued and outstanding. In addition, as of August 26, 2009 there were 20,654,993 common shares issuable upon the exercise of outstanding stock options and 14,269,444 common shares issuable upon the exercise of common share purchase warrants priced at $0.18 and expiring August 7, 2010. The holders of common shares are entitled to one vote per share at meetings of shareholders, to receive such dividends as declared by us and to receive our remaining property and assets upon our dissolution or winding up. Our common shares are not subject to any future call or assessment and there are no pre-emptive, conversion or redemption rights attached to such shares.

Market for Securities

Our common shares are currently listed on The Toronto Stock Exchange ("TSX") under the symbol "LOR".

On October 31, 2008 Lorus voluntarily delisted its common shares from trading on the NYSE Alternext US LLC (formerly the American Stock Exchange or AMEX). Lorus is eligible to apply for deregistration from the Securities Exchange Commission one year after delisting from AMEX. Lorus intends to submit this application by October 31, 2009.

The following table sets out the price ranges and trading volumes of our common shares on the TSX for the periods indicated:

	High ($)	Low ($)	Volume (#)
2009			
May	0.08	0.06	1,533,800
April	0.08	0.04	4,028,000
March	0.06	0.03	3,238,000
February	0.05	0.04	2,236,800
January	0.09	0.04	7,615,300

	High ($)	Low ($)	Volume (#)
2008			
December	0.07	0.04	3,091,100
November	0.07	0.05	7,489,400
October	0.09	0.05	2,663,000
September	0.10	0.08	1,930,400
August	0.13	0.08	5,530,700
July	0.14	0.10	2,465,700
June	0.17	0.08	2,063,700

Rights Offering

On June 25, 2008, the Company filed a short-form prospectus for a rights offering to its shareholders.

Under the rights offering, holders of the Company's common shares as of July 9, 2008 (the "Record Date") received one right for each common share held as of the Record Date. Each four rights entitled the holder thereof to purchase a unit of Lorus ("Unit"). Each Unit consists of one common share of Lorus at $0.13 and a one-half common share purchase warrant to purchase additional common shares of Lorus at $0.18 per common share until August 7, 2010. All unexercised rights expired on August 7, 2008.

Pursuant to the rights offering the Company issued 28,538,889 common shares and 14,269,444 common share purchase warrants in exchange for cash consideration of $3.7 million. The total costs associated with the transaction were $500 thousand. The Company has allocated the net proceeds of $3.2 million received from the issuance of the units to the common shares and the common share purchase warrants based on their relative fair values. The fair value of the common share purchase warrants has been determined based on an option pricing model. The allocation based on relative fair values resulted in the allocation of $2.8 million to the common shares and $417 thousand to the common share purchase warrants.

Principal Shareholders

To our knowledge, based on publicly available information, the only persons or entities that own more than 5% of our issued and outstanding common shares are Technifund Inc. and its related parties, which currently owns approximately 10.0% of our issued and outstanding common shares, High Tech that holds, approximately 14.1% of the issued and outstanding shares of the company and TEMIC which holds approximately 9.8% of the issued and outstanding shares of the company. See Business of the Company - Financial Strategy".

DIRECTORS AND OFFICERS

The following table and notes thereto provide the name, province or state and country of residence, positions with the Company and term of office of each person who serves as a director or executive officer of Lorus as at the date hereof.

Each director has been elected or appointed to serve until the next annual meeting or until a successor is elected or appointed. We have an Audit Committee, a Corporate Governance and Nominating Committee and a Compensation Committee the members of each such committee are shown below. As at May 31, 2009, our directors and executive officers, as a group, beneficially owned, directly or indirectly, or exercised control over approximately 67.6 million common shares or approximately 26% of our outstanding common shares.

Name and Province/State and Country of Residence	Position	Director or Officer Since
Directors:		
Herbert Abramson(3) (1) Ontario, Canada	Director	July 2007
Denis Burger(1)(2) Oregon, United States	Chairman, Director	September 2007
Georg Ludwig(1) Eschen, Liechtenstein	Director	September 2006
Dr. Mark Vincent(3) Ontario, Canada	Director	September 2007
Dr. Jim Wright(2) Ontario, Canada	Director, former President and Chief Executive Officer,	October 1999
Officers:		
Dr. Aiping Young Ontario, Canada	President and Chief Executive Officer, Director, and former Chief Operating Officer	October 1999
Dr. Saeid Babaei Ontario, Canada	Vice President, Business Development and former Director of Business Development	May 2008
Dr. Yoon Lee Ontario, Canada	Vice President Research and former Director, Research	May 2008
Elizabeth Williams Ontario, Canada	Acting Chief Financial Officer and Director of Finance	November 2005

(1) Member of Audit Committee.
(2) Member of the Compensation Committee.
(3) Member of the Corporate Governance and Nominating Committee.

The principal occupation and employment of each of the foregoing persons for the past five years is set forth below:

Herbert Abramson: Mr. Abramson is a co-founder, Chairman and CEO of Trapeze Capital Corp., an investment dealer and portfolio management company and is also Chairman of Trapeze Asset Management Inc., an affiliated investment counseling company. Mr. Abramson is a member of the Law Society of Upper Canada and practiced corporate/securities law for 12 years before going into the investment business.

Dr Denis Burger: Dr. Burger was the past Chairman, Chief Executive Officer and a director of AVI Biopharma Inc, an Oregon based biotechnology company from 1992 to March 2007. Dr. Burger is also a partner in Sovereign Ventures, a healthcare consulting and funding firm based in Portland, Oregon. Dr. Burger received his MSc and PhD in Microbiology and Immunology from the University of Arizona.

Georg Ludwig: Mr. Ludwig is Managing Director of ConPharm Anstalt a consulting and management company for life science funds, located in Liechtenstein.

Dr. Mark Vincent: Dr. Mark Vincent is the co-founder and Chief Executive Officer of Sarissa, Inc. since 2000. Dr. Vincent is an Associate Professor of Oncology at the University of Western Ontario and a staff medical oncologist at the London Regional Cancer Program.

Dr. Jim Wright: Dr. Wright is presently Chief Executive Officer of NuQuest Bio Inc. Dr. Wright co-founded GeneSense Technologies Inc. in 1996, and served as Lorus' President, Chief Scientific Officer and a member of the Board of Directors in October 1999 on a merger with GeneSense. In September 2006 he stepped down as the President and Chief Executive Officer of Lorus.

Dr. Aiping Young: Dr. Young has been our President and Chief Executive Officer since September 21, 2006 and was a cofounder with Dr. Wright of GeneSense Technologies Inc. Dr. Young previously held the position of Chief Operating Officer, Senior Vice President, Research and Development and Chief Technical Officer at Lorus.

Dr. Saeid Babaei: Dr. Babaei is currently Vice-President of Business Development. Dr Babaei joined Lorus in 2006 and has held progressive positions as Associate Director of Corporate Affairs and Director of Corporate Development. Prior to his employment with Lorus Dr. Babaei was the Director of Corporate Development at Northern Therapeutics Inc.

Dr. Yoon Lee: Dr. Lee is currently Vice President of Research. Dr. Lee has been with Lorus for ten years, most recently serving as the Director of Research. He joined Lorus in 1999 through the merger with GeneSense Technologies Inc., where he was a Research Scientist integrally involved in the development of GeneSense oligonucleotide therapeutics program.

Elizabeth Williams: Prior to joining Lorus in July 2004, Ms. Williams was an Audit Manager with Ernst and Young LLP. Ms. Williams is a chartered accountant and has received a bachelor’s degree in business administration.

AUDIT COMMITTEE INFORMATION

Audit Committee

The charter of our audit committee is attached as Schedule A. The current members of the audit committee are Herb Abramson, Denis Burger and Georg Ludwig. Pursuant to Canadian securities laws, our board of directors has determined that Messrs. Abramson, Burger and Ludwig are financially literate as all have experience in reviewing and analysing the financial reports and ascertaining the financial position of a corporation. Mr. Abramson is the chairman and portfolio manager of a number of investment companies and is educated and experienced in reading and analyzing financial statements. Mr. Burger, in his previous position as Chairman and CEO of AVI Biopharma, is educated and experienced in reading and analyzing financial statements. Mr. Burger has also served on the audit committee of three other publicly listed biotechnology companies. Mr. Ludwig has experience with reading and analysing financial statements as managing director of a number of fund management companies focused on the life sciences industry. Additionally, we believe that all three members of the audit committee qualify as "independent" as that term is defined in the relevant securities laws relating to the composition of the audit committee.

Independent Auditors

Auditor's Fees

The total fees billed for professional services by KPMG LLP (our independent auditors) for the years ended May 31, 2009 and 2008 are as follows:

		2009		**2008**
Audit Fees	$	252,000	$	283,000
Tax Fees	$	39,000	$	15,000
All Other Fees	$	19,000		-
Total	$	310,000	$	298,000

Audit fees consist of the fees paid with respect to the audit of our consolidated annual financial statements, quarterly reviews and accounting assistance and fees for services associated with the filing of the management proxy circular in May 2008 and other regulatory assistance. Tax fees relate to assistance provided with review of tax returns and assistance with specific tax issues. Other fees consist of advisory services related to financing alternatives.

Pre-Approval Policies and Procedures

The audit committee of our board of directors has, pursuant to the audit committee charter, adopted specific responsibilities and duties regarding the provision of services by our external auditors, currently KPMG LLP. Our charter requires audit committee pre-approval of all permitted audit and audit-related services. Any non-audit services must be submitted to the audit committee for review and approval. Under the charter, all permitted services to be provided by KPMG LLP must be pre-approved by the audit committee.

Subject to the charter, the audit committee may establish fee thresholds for a group of pre-approved services. The audit committee then recommends to the board of directors approval of the fees and other significant compensation to be paid to the independent auditors.

No services were provided by KPMG LLP under a *de minimus* exemption for our fiscal years ended May 31, 2009 and 2008.

LEGAL PROCEEDINGS AND REGULATORY ACTIONS

We are not a party to, nor the subject of, any outstanding legal proceedings, nor are we aware of any contemplated proceedings.

TRANSFER AGENT AND REGISTRAR

The transfer agent and registrar for our common shares is Computershare Investor Services Inc. at its principal office in the City of Toronto.

MATERIAL CONTRACTS

Other than the agreements described below, we have not, during our financial year ending May 31, 2009, entered into any material agreements other than contracts in the ordinary course of business. Agreements completed prior to July 10, 2007 are filed on SEDAR under Global Summit Real Estate and those completed after July 10, 2007 are filed on SEDAR under Lorus.

1. Share Purchase Warrant Indenture dated June 27, 2009 between the Company and Computershare Trust Company of Canada regarding the provision for issuance of common share purchase warrants.

2. Settlement Agreement dated June 19. 2009 between the Company and The Erin Mills Investment Corporation with respect to the purchase and settlement of $15 million secured convertible debentures.

3. Asset Purchase Agreement dated June 19, 2009 between the Company and The Erin Mills Investment Corporation under which the Company sold the intellectual property associated with Virulizin.

4. Supply and Services Agreement dated June 19, 2009 between the Company and Erin Mills Biotech Inc. under which the Company agreed to provide certain business development services associated with the Virulizin intellectual property sold.

5. Share Purchase Agreement dated June 19, 2009 between the Company and The Erin Mills Investment Corporation under which the Company sold the sale of Lorus' shares in its wholly-owned subsidiary Pharma Immune Inc.

6. Animal Rights License Agreement dated June 19, 2009 between the Company and Erin Mills Biotech Inc. under which the Company is granted certain rights to develop and market Virulizin for use in animals.

7. Amendment, Assignment, Assumption, Novation and Consent Agreement dated June 19, 2009 between the Company, Zor Pharmaceuticals, LLC, Erin Mills Biotech Inc. and The Erin Mills Investment Corporation under which the Company assigned its rights under the licence agreement with Zor Pharmaceuticals, LLC.

TRANSACTIONS WITH RELATED PARTIES

During the year ended May 31, 2009 the Company expensed consulting fees of $25 thousand to a director of the Company. At May 31, 2009 no amounts remained unpaid and included in Accrued Liabilities.

This transaction was in the normal course of business and has been measured at the exchange amount, which is the amount of consideration established and agreed to by the related parties

INTERESTS OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS

None of our directors, executive officers or to our knowledge, principal shareholders, or any associate or affiliate of the forgoing, has had any material interest, direct or indirect, in any transaction within the three most recently completed financial years or during the current financial year prior to the date of this annual information form that has materially affected or will materially affect us.

INTERESTS OF EXPERTS

KPMG LLP, the Company's external auditor, has reported on the consolidated financial statements of the Company for each of the years in the three-year period ended May 31, 2009. KPMG LLP is independent of Lorus in accordance with the applicable Rules of Professional Conduct/Code of Ethics of the Institute of Chartered Accountants of Ontario.

ADDITIONAL INFORMATION

Additional information relating to Lorus may be found on SEDAR at www.sedar.com. Certain additional information, including directors' and officers' remuneration and indebtedness, principal holders of our securities, and securities authorized for issuance under our stock option plan, will be contained in the Company's management information circular which will be filed on SEDAR at www.sedar.com in respect of the Company's annual meeting of shareholders for the fiscal year ended May 31, 2009.. Additional financial information is provided in our financial statements and management's discussion and analysis for the financial year ended May 31, 2009 (the "2009 Financial Statements"). Copies of:

- the 2009 Financial Statements and our most recent unaudited financial statements that have been filed, if any, for any period subsequent to the year ended May 31, 2009;
- this annual information form and any document or the pertinent pages of any document incorporated by reference in this annual information form; and
- any other documents that are incorporated by reference into a short form prospectus or preliminary short form prospectus otherwise not referred to therein when our securities are in the course of a distribution pursuant to a short form prospectus or a preliminary short form prospectus,

may be obtained upon request from our Director of Finance at our offices located at 2 Meridian Road, Toronto, Ontario, M9W 4Z7, Canada. If our securities are in the course of a distribution pursuant to a short form prospectus or a preliminary short form prospectus, copies of the foregoing documents are available free of charge. At all other times, a reasonable fee may be charged if a person who is not a security holder of Lorus makes the request for copies.

GLOSSARY

The following is a glossary of terms that are used in this annual information form:

Analog:	a chemical derivative or variation of a parent molecule
Anti-proliferative:	preventing cell division
Antianiogenic	a substance or action that inhibits angiogenesis - the growth of new blood vessels
Ara-C:	chemotherapy drug most commonly used in treatment of AML, chronic myeloid leukemia, acute lymphoid leukemia and lymphomas
Carcinoma:	any cancerous tumor that starts with the cells that cover the inner and outer body surfaces
Clinical trials:	the investigational use of a new drug in humans: Phase I clinical trials test a drug for safety, Phase II clinical further test for safety and may test for efficacy in a relatively small sample of patients and Phase III clinical trials test the drug for efficacy in larger numbers of patients and compares the drug with conventional therapies
cGMP:	current good manufacturing practices, as mandated from time to time by the HC and the FDA and EMEA
Calmodulin:	a calcium-binding protein expressed in all eukaryotic cells
Complete response:	When all signs of cancer disappear in response to treatment. This is based on symptoms, physical exam, and radiology and lab tests. This does not always mean the cancer has been cured. Also called complete remission.
CLT:	clotrimazole
Cytokine:	a generic term for a non-antibody protein released by a cell population (e.g., activated macrophages) of the immune system on contact with chemical or biological stimuli
Cytoreduction:	to reduce the number of cancer cells
Cytotoxic:	pertaining to the destruction of cells
Deoxyribonucleic acid (DNA):	DNA is the carrier of genetic information which exists in all cells of the body. The building blocks of DNA are called nucleotides
Deoxyribonucleotides:	a nucleotide having a purine or pyrimidine base bonded to deoxyribose, which in turn is bonded to a phosphate group.

Disease stabilization:	"no change" category for clinical response, that is, no increase or decrease in tumour dimensions or change in extent or severity of disease state as pre-defined in a clinical protocol. Usually requires more than one measurement of stable disease and/or stable disease over a pre-determined length of time
dNTD:	A deoxyribonucleotide is the monomer, or single unit, of DNA or deoxyribonucleic acid
ECOG:	Eastern Cooperative Oncology Group
Efficacy:	the ability of a drug to produce a desired result
Efficacy evaluable population:	patients that meet pre-defined protocol requirements (criteria usually found in the Statistical Analysis Plan) for inclusion in efficacy evaluation datasets.
EMEA:	European Medicines Agency
FDA:	Food and Drug Administration, the government agency which regulates the use and sale of diagnostic and therapeutic drug products in the United States
HC:	Health Canada, the federal government department which among other responsibilities regulates the use and sale of therapeutic drug products in Canada
Immune system:	the totality of organs and cells involved in the body's immunologic response to foreign antigens and malignant tissue
IND:	investigational new drug
In vitro:	in the test tube; referring to chemical reactions, fermentation, etc., occurring therein e.g., in cell-free extracts
In vivo:	in the living body; referring to chemical processes occurring within cells, etc., as distinguished from those occurring in cell-free extracts (*in vitro*)
Krüppel-like factor 4:	an epithelial cell-enriched, zinc finger-containing transcription factor, the expression of which is associated with growth arrest
Malignant/ malignancy:	describes a tumor that is cancerous. Two important qualities of malignancies are the tendency to invade surrounding tissues and to break off and spread elsewhere (metastasis)
Metabolism:	the overall biochemical reactions that take place in a living organism including the building up of complex molecules or breakdown of molecules to provide energy
Metastasis:	the process by which tumor cells are spread to other parts of the body
Microsomes:	vesicle-like artifacts formed from the endoplasmic reticulum (ER) when eukaryotic cells are broken-up in the laboratory and a valuable tool for investigating the metabolism of compounds

mRNA:	messenger, or mRNA, is a copy of the information carried by a gene on the DNA. The role of mRNA is to move the information contained in DNA to the translation machinery.
NDA:	new drug application, the application to obtain marketing approval filed with the FDA or BCD after completion of human clinical trials
NDS:	new drug submission, the application to obtain marketing approval filed with the HC after completion of human clinical trials
NOC:	Notice of Compliance
NuChem Analogs:	analogs of CLT licensed by us for anticancer indications
Nucleotide:	a compound consisting of a purine or pyrimidine base, a pentose sugar and a phosphoric acid; they are the building blocks from which nucleic acids (DNA or RNA) are constructed the division of pharmacology that studies the effects of drugs and their
Pharmacodynamic:	mechanisms of action in the body.
Pharmacokinetics:	the action of drugs in the body over a period of time, including the process of absorption, distribution, localization in tissues, biotransformation and excretion
Pre-clinical testing:	testing that is conducted in the laboratory (chemistry and pharmacology) and with animals to help determine a product's chemical, pharmacological and pharmaceutical characteristics (including mechanism of action), toxicity, efficacy and side effects
Proteins:	large molecules composed of long chains of sub-units of amino acids
PSA response:	a measured decrease in the levels of prostate specific antigen in patients receiving treatment for prostate cancer. Clinically significant response defined within a clinical protocol, i.e. 50% reduction in PSA levels measured at least twice over a defined period of time. PSA is a substance produced by the prostate that may be found in elevated amounts in the blood of men who have prostate cancer or other medical conditions affecting the prostate
R1 and R2:	components of ribonucleotide reductase
Ribonucleic acid (RNA):	a nucleic acid found in both the nucleus and the cytoplasm of all cells. It carries genetic information from the nucleus to the cytoplasm, where it also reacts as a template in association with ribosomes to synthesize proteins a protein complex that converts
ribonucleotide reductase (RNR):	ribonucleotide diphosphates (NDPs) into corresponding deoxyribonucleotide diphosphates (dNDPs).

Single-arm pilot study:	a pilot study is usually an initial study examining a new method or treatment. A single-arm clinical study is when a drug is administered to a single group of patients and the results are compared to historical data of untreated patients. These studies do not have a control arm and typically enrol a small number of patients.
siRNA:	a short sequence of RNA that can decrease gene expression in a highly specific manner (gene silencing).
Toxicity:	a condition that results from exposure to a substance at levels causing deleterious side effects which may be harmful to an organism
Tumor:	an abnormal swelling or lump in the body caused by the growth of new tissues which differ in structure from the part of the body in which they are growing. A tumor may be benign or malignant the process of initiation and progression of a tumor.
Tumorigenesis:	
Xenograft:	an implant of a foreign substance

SCHEDULE A

CHARTER OF THE AUDIT COMMITTEE OF THE BOARD OF DIRECTORS

OF LORUS THERAPEUTICS INC. (the "Company")

I. PURPOSE

The Audit Committee is a committee of the board of directors of the Company (the "Board"). The primary function of the Audit Committee is to assist the Board in fulfilling its oversight responsibilities. The Audit Committee's primary duties and responsibilities are to:

1. Serve as an independent and objective party to oversee the integrity of the Company's financial reporting process, audits of the Company's financial statements and systems of internal controls regarding finance, accounting, and legal compliance;

2. Identify and monitor the management of the principal risks that could impact the financial reporting of the Company;

3. Monitor the independence and performance of the Company's independent auditors;

4. Provide an avenue of communication among the independent auditors, management, and the Board; and

5. Encourage continuous improvement of, and foster adherence to, the Company's policies, procedures and practices at all levels.

The Audit Committee has the authority to conduct any investigation appropriate to fulfilling its responsibilities, and it has direct access to the independent auditors as well as anyone in the Company. The Audit Committee has the ability to retain, at the Company's expense, special legal, accounting, or other consultants or experts it deems necessary in the performance of its duties. The Company shall also provide appropriate funding, as determined by the Audit Committee, for payment of compensation to any external auditor engaged for the purpose of preparing or issuing an audit report or performing other audit, review or attest services for the Company, and ordinary administrative expenses of the Audit Committee that are necessary or appropriate in carrying out its duties.

II. COMPOSITION AND MEETINGS

Audit Committee members shall meet the requirements of the Canadian securities regulatory authorities, United States securities laws and applicable stock exchange requirements.

The Audit Committee shall be comprised of three or more directors as determined by the Board, each of whom shall be independent as defined by MI 52-110-Audit Committees, U.S. securities laws and applicable stock exchange rules. All members of the Audit Committee shall have a basic understanding of finance and accounting and be able to read and understand fundamental financial statements, including a balance sheet, income statement and cash flows statement and at least one member of the Committee shall have accounting or related financial management expertise and be "financially sophisticated" within the meaning of applicable stock exchange rules.

Audit Committee members shall be appointed by the Board. If an Audit Committee Chair is not designated or present, the members of the Audit Committee may designate a Chair by majority vote of the Audit Committee membership.

The Audit Committee shall meet at least four times annually, or more frequently as circumstances require. The Audit Committee Chair shall prepare and/or approve an agenda in advance of each meeting.

The Audit Committee may ask members of management or others to attend meetings and provide pertinent information as necessary. The Audit Committee should meet privately in executive session at least annually with management, the independent auditors, and as a committee to discuss any matters that the Audit Committee or each of these groups believe should be discussed. In addition, the Audit Committee should communicate with management and the external auditors at least quarterly to review the Company's financial statements.

III RESPONSIBILITIES AND DUTIES

A. Review Procedures

1) Maintain a Charter that sets out the Audit Committees mandate and responsibilities. Review and reassess the adequacy of this Charter at least annually.

2) Review and discuss with management and the external auditors the Company's financial statements, MD&A and annual and interim results press releases prior to filing or distribution. The Audit Committee must be satisfied that adequate procedures are in place for the review of the Company's public disclosure of financial information extracted or derived from the Company's financial statements (other than public disclosure of financial statements, MD&A and annual and interim results press releases), and must periodically assess the adequacy of those procedures. Consider the independent auditors' judgements about the quality and appropriateness, not just the acceptability, of the Company's accounting principles and financial disclosure practices, as applied in its financial reporting, particularly about the degree of aggressiveness or conservatism of its accounting principles and underlying estimates and whether those principles are common practices or minority practices.

3) Consider and approve, if appropriate, major changes to the Company's accounting principles and practices as suggested by the independent auditors or management and assure that the reasoning is described in determining the appropriateness of changes in accounting principles and disclosures.

4) In consultation with the management and the independent auditors, consider the integrity of the Company's financial reporting processes and controls. Discuss significant financial risk exposures and the steps management has taken to monitor, control, and report such exposures. Review significant findings prepared by the independent auditors together with management's responses.

5) The Audit Committee is directly responsible for overseeing the work of the independent auditors including the review of any disagreements among management and the independent auditors in connection with financial statements, and overseeing the resolution of any such disagreements.

6) Annually review policies and procedures as well as audit results associated with directors' and officers expense accounts and perquisites. Annually review a summary of director and officers' related party transactions and potential conflicts of interest.

7) Annually conduct self-assessment of Audit Committee performance including a review and discussion of the Audit Committee roles and responsibilities, seeking input from senior management, the full Board and others if needed.

B. Independent Auditors

1) The independent auditors are accountable to the Audit Committee and the Board and shall report directly to the Audit Committee. The Audit Committee shall review the independence and performance of the auditors and annually recommend to the Board:

    1) The external auditor to be nominated for the purpose of preparing or issuing an auditor's report and performing other audit, review and attest services for the Company as required;

    2) The compensation of such external auditor; and

    3) To approve any discharge of such external auditors when circumstances warrant.

2) Pre-approve all audit fees and terms and all permitted non-audit services (including the fees and terms thereof) to be provided by the external auditor, and consider whether these services are compatible with the auditors' independence. Any member of the Audit Committee may approve additional proposed non-audit services that arise between Audit Committee meetings provided that the decision to pre-approve the services is presented at the next scheduled Audit Committee meeting. The approval of all non-audit services will be evidenced by the completion and approval of the Non-Audit Services Request Form (attached as Schedule "A" hereto).

3) On an annual basis, the Audit Committee should review and discuss with the external auditors all relationships they have with the Company that could impair the auditors' independence. In particular, the Audit Committee is responsible for ensuring its receipt from the external auditors of a formal written statement delineating all relationships between the external auditors and the Company, consistent with applicable regulations, actively engaging in a dialogue with the external auditors with respect to any disclosed relationships or services that may impact the objectivity and independence of the external auditors, and taking, or recommending that the full Board take, appropriate action to oversee the independence of the outside auditors.

4) Review the external auditors' audit plan - discuss scope, staffing, locations, reliance upon management and general audit approach.

5) Consider the external auditors' judgments about the quality and appropriateness of the Company's accounting principles as applied in its financial reporting.

6) Prior to releasing the year-end results, discuss the results of the audit with the external auditors. Discuss with management and the external auditors matters required to be communicated to audit committees in accordance with the standards established by the Canadian Institute of Chartered Accountants.

7) Review and approve the Company's hiring policies regarding partners, employees and former partners and employees of the present and former independent auditors of the Company.

8) Review and discuss quarterly reports from the external auditors on:

i. All critical accounting policies and practices to be used;

ii. All alternative treatments of financial information within generally accepted accounting principles that have been discussed with management, ramifications of the use of such alternative disclosures and treatments, and the treatment preferred by the external auditor; and

iii. Other material written communications between the external auditor and management, such as any management letter or schedule of unadjusted differences.

C. Ethical and Legal Compliance

1) On at least an annual basis, review with the Company's counsel, any legal matters that could have a significant impact on the organization's financial statements, the Company's compliance with applicable laws and regulations, and inquiries received from regulators or governmental agencies.

2) Perform any other activities consistent with this Charter, the Company's by-laws, and governing law, as the Audit Committee or the Board deems necessary or appropriate.

D. Whistle Blowing

The Audit Committee shall put in place procedures for:

1) The receipt, retention, and treatment of complaints received by the Company regarding accounting, internal accounting controls, or auditing matters; and

2) The confidential, anonymous submission by employees of the Company of concerns regarding questionable accounting or auditing matters.

Other Audit Committee Responsibilities

1) Create an agenda for the ensuing year.

2) Describe in the Company's annual information form the Audit Committee's composition and responsibilities and how they were discharged in accordance with the requirements of 52-110F1.

3) Submit the minutes of all meetings of the Audit Committee to the Board.

4) Provide any other disclosure required to be included with respect to the Audit Committee or the Company's securities law filings.

Schedule "A"

Non-Audit Services Request Form

LORUS THERAPEUTICS INC.

Non-Audit Services Request Form

The Audit Committee pre-approves all audit fees and terms and all permitted non-audit services (including the fees and terms thereof) to be provided by the independent auditor and considers whether these services are compatible with the auditor's independence. Any member of the Audit Committee, subject to appropriate delegation, may approve additional proposed non-audit services that arise between Audit Committee meetings provided that the decision to approve the service is presented at the next scheduled Audit Committee meeting. This form documents the member's approval of the non-audit service in a form suitable for distribution at meetings of the Audit Committee.

Request Made By

Name, Title, Date:

Detailed Description of Non-Audit Service Requested *(including a general description of the nature of the services that may make up the project)*

Engagement Fee or Range of Fees for this Service

Prohibited Services

In this section please confirm that these services are not "prohibited services" under section 201 of the Sarbanes-Oxley Act of 2002 and other related rules or regulations.

These services would not be considered prohibited services

Issues considered in forming the conclusion above that should be considered by the Audit Committee

Compatibility with Auditors' Independence

In this section please state whether these services are compatible with the auditors' independence.

These services are compatible with the auditors' independence

Issues considered in forming the conclusion above that should be considered by the audit committee

Management Approval

This form must be reviewed and approved by one authorized member of management (either the CEO, CFO or Director of Finance before submitting this form to an Audit Committee member for final approval.

Name, Title, Date:

Audit Committee Member Approval

Name, Date:

FORM 52-109F1

CERTIFICATION OF ANNUAL FILINGS

FULL CERTIFICATE

I, *Aiping Young, Chief Executive Officer of Lorus Therapeutics Inc.* , certify the following:

1. ***Review:*** I have reviewed the AIF, if any, annual financial statements and annual MD&A, including, for greater certainty, all documents and information that are incorporated by reference in the AIF (together, the "annual filings") of Lorus Therapeutics Inc. (the "issuer") for the financial year ended *May 31, 2009*.

2. ***No misrepresentations:*** Based on my knowledge, having exercised reasonable diligence, the annual filings do not contain any untrue statement of a material fact or omit to state a material fact required to be stated or that is necessary to make a statement not misleading in light of the circumstances under which it was made, for the period covered by the annual filings.

3. ***Fair presentation:*** Based on my knowledge, having exercised reasonable diligence, the annual financial statements together with the other financial information included in the annual filings fairly present in all material respects the financial condition, results of operations and cash flows of the issuer, as of the date of and for the periods presented in the annual filings.

4. ***Responsibility:*** The issuer's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (DC&P) and internal control over financial reporting (ICFR), as those terms are defined in National Instrument 52-109 *Certification of Disclosure in Issuers' Annual and Interim Filings*, for the issuer.

5. ***Design:*** Subject to the limitations, if any, described in paragraphs 5.2 and 5.3, the issuer's other certifying officer(s) and I have, as at the financial year end

   (a) designed DC&P, or caused it to be designed under our supervision, to provide reasonable assurance that

      (i) material information relating to the issuer is made known to us by others, particularly during the period in which the annual filings are being prepared; and

      (ii) information required to be disclosed by the issuer in its annual filings, interim filings or other reports filed or submitted by it under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation; and

   (b) designed ICFR, or caused it to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with the issuer's GAAP.

5.1 ***Control framework:*** The control framework the issuer's other certifying officer(s) and I used to design the issuer's ICFR is the Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) framework.

5.2 ***ICFR - material weakness relating to design:*** The issuer has disclosed in its annual MD&A for each material weakness relating to design existing at the financial year end

(a) a description of the material weakness;

(b) the impact of the material weakness on the issuer's financial reporting and its ICFR; and

(c) the issuer's current plans, if any, or any actions already undertaken, for remediating the material weakness.

5.3 N/A

6. ***Evaluation:*** The issuer's other certifying officer(s) and I have

(a) evaluated, or caused to be evaluated under our supervision, the effectiveness of the issuer's DC&P at the financial year end and the issuer has disclosed in its annual MD&A our conclusions about the effectiveness of DC&P at the financial year end based on that evaluation; and

(b) evaluated, or caused to be evaluated under our supervision, the effectiveness of the issuer's ICFR at the financial year end and the issuer has disclosed in its annual MD&A

(i) our conclusions about the effectiveness of ICFR at the financial year end based on that evaluation; and

(ii) N/A

7. ***Reporting changes in ICFR:*** The issuer has disclosed in its annual MD&A any change in the issuer's ICFR that occurred during the period beginning on March 1, 2009 and ended on May 31, 2009 that has materially affected, or is reasonably likely to materially affect, the issuer's ICFR.

8. ***Reporting to the issuer's auditors and board of directors or audit committee:*** The issuer's other certifying officer(s) and I have disclosed, based on our most recent evaluation of ICFR, to the issuer's auditors, and the board of directors or the audit committee of the board of directors any fraud that involves management or other employees who have a significant role in the issuer's ICFR.

Date: ***August 28, 2009***

/s/ Aiping Young

_____

Aiping Young
Chief Executive Officer

FORM 52-109F1

CERTIFICATION OF ANNUAL FILINGS

FULL CERTIFICATE

I, *Elizabeth Williams, acting Chief Financial Officer of Lorus Therapeutics Inc.* , certify the following:

1. ***Review:*** I have reviewed the AIF, if any, annual financial statements and annual MD&A, including, for greater certainty, all documents and information that are incorporated by reference in the AIF (together, the "annual filings") of Lorus Therapeutics Inc. (the "issuer") for the financial year ended *May 31, 2009*.

2. ***No misrepresentations:*** Based on my knowledge, having exercised reasonable diligence, the annual filings do not contain any untrue statement of a material fact or omit to state a material fact required to be stated or that is necessary to make a statement not misleading in light of the circumstances under which it was made, for the period covered by the annual filings.

3. ***Fair presentation:*** Based on my knowledge, having exercised reasonable diligence, the annual financial statements together with the other financial information included in the annual filings fairly present in all material respects the financial condition, results of operations and cash flows of the issuer, as of the date of and for the periods presented in the annual filings.

4. ***Responsibility:*** The issuer's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (DC&P) and internal control over financial reporting (ICFR), as those terms are defined in National Instrument 52-109 *Certification of Disclosure in Issuers' Annual and Interim Filings*, for the issuer.

5. ***Design:*** Subject to the limitations, if any, described in paragraphs 5.2 and 5.3, the issuer's other certifying officer(s) and I have, as at the financial year end

   (a) designed DC&P, or caused it to be designed under our supervision, to provide reasonable assurance that

      (i) material information relating to the issuer is made known to us by others, particularly during the period in which the annual filings are being prepared; and

      (ii) information required to be disclosed by the issuer in its annual filings, interim filings or other reports filed or submitted by it under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation; and

   (b) designed ICFR, or caused it to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with the issuer's GAAP.

5.1 ***Control framework:*** The control framework the issuer's other certifying officer(s) and I used to design the issuer's ICFR is the Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) framework.

5.2 ***ICFR - material weakness relating to design:*** The issuer has disclosed in its annual MD&A for each material weakness relating to design existing at the financial year end

(a) a description of the material weakness;

(b) the impact of the material weakness on the issuer's financial reporting and its ICFR; and

(c) the issuer's current plans, if any, or any actions already undertaken, for remediating the material weakness.

5.3 N/A

6. ***Evaluation:*** The issuer's other certifying officer(s) and I have

(a) evaluated, or caused to be evaluated under our supervision, the effectiveness of the issuer's DC&P at the financial year end and the issuer has disclosed in its annual MD&A our conclusions about the effectiveness of DC&P at the financial year end based on that evaluation; and

(b) evaluated, or caused to be evaluated under our supervision, the effectiveness of the issuer's ICFR at the financial year end and the issuer has disclosed in its annual MD&A

(i) our conclusions about the effectiveness of ICFR at the financial year end based on that evaluation; and

(ii) N/A

7. ***Reporting changes in ICFR:*** The issuer has disclosed in its annual MD&A any change in the issuer's ICFR that occurred during the period beginning on March 1, 2009 and ended on May 31, 2009 that has materially affected, or is reasonably likely to materially affect, the issuer's ICFR.

8. ***Reporting to the issuer's auditors and board of directors or audit committee:*** The issuer's other certifying officer(s) and I have disclosed, based on our most recent evaluation of ICFR, to the issuer's auditors, and the board of directors or the audit committee of the board of directors any fraud that involves management or other employees who have a significant role in the issuer's ICFR.

Date: ***August 28, 2009***

/s/ Elizabeth Williams

_____
Elizabeth Williams
Acting Chief Financial Officer