



**MANAGEMENT DISCUSSION AND ANALYSIS**

**MAY 31, 2014**

# MANAGEMENT'S DISCUSSION AND ANALYSIS

July 15, 2014

This management's discussion and analysis of Lorus Therapeutics Inc. ("Lorus", the "Company", "we", "our", "us" and similar expressions) should be read in conjunction with the Company's annual audited financial statements for the year ended May 31, 2014, and the annual information form of the Company for the year ended May 31, 2014 which can be found on SEDAR at [www.sedar.com](http://www.sedar.com).

## CAUTION REGARDING FORWARD-LOOKING STATEMENTS

This management's 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 business strategy;
- our ability to obtain the substantial capital we require to fund research and operations;
- our plans to secure strategic partnerships to assist in the further development of our product candidates;
- our plans to conduct clinical trials and preclinical programs;
- our expectations regarding the progress and the successful and timely completion of the various stages of our drug discovery, preclinical and clinical studies and the regulatory approval process;
- our 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.

The forward-looking statements reflect our current views with respect to future events, are subject to risks and uncertainties, and are 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 obtain the substantial capital we require 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;
- 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 recruit patients for clinical trials;
- the progress of our clinical trials;
- our liability associated with the indemnification of our predecessor and its directors, officers and employees in respect of an arrangement completed in 2007;
- our ability to find and enter into agreements with potential partners;
- our ability to attract and retain key personnel;
- our ability to obtain and maintain patent protection;
- our ability to protect our intellectual property rights and 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 or have access to greater financial resources than us;
- commercialization limitations imposed by intellectual property rights owned or controlled by third parties;
- potential product liability and other claims;
- our ability to maintain adequate insurance at acceptable costs;
- further equity financing, which may substantially dilute the interests of our shareholders;
- changing market conditions; and
- other risks detailed from time-to-time in our on-going quarterly filings, annual information forms, annual reports and annual filings with Canadian securities regulators and the United States Securities and Exchange Commission ("SEC"), and those which are discussed under the heading "Risk Factors" in this document.

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's 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.

## **DEVELOPMENT UPDATE**

### **STRATEGIC REVIEW PROCESS**

On September 12, 2013, the Company formed a special committee composed of independent directors to review strategic alternatives available to the Company and secure the long-term financial and operational sustainability of the Company with a view to enhance shareholder value (the "Special Committee"). On October 28, 2013, the Special Committee, after having considered and reviewed a number of options, concluded its review. The special committee recommended that the board of directors of Lorus (the "Board") approve the appointments of William G. Rice, Ph.D. as Chief Executive Officer and Chairman of the Board and of Daniel D. Von Hoff, M.D., to serve as a special advisor to fulfill the functions of the Company's Senior Vice President of Medical Affairs. Additionally, on October 29, 2013, Lorus announced the addition of Brian Druker, M.D. as the Chair of the Company's newly formed Scientific Advisory Board.

### **CHANGES IN MANAGEMENT**

On October 28, 2013, William G. Rice, Ph.D., was appointed as Chief Executive Officer and Chairman of the Board while Dr. Aiping Young continued as President and Chief Operating Officer of the Company until she departed the Company on March 18, 2014. Lorus also appointed Daniel D. Von Hoff, M.D., to serve as a special advisor to fulfill the functions of the Company's Senior Vice President of Medical Affairs. Dr. Von Hoff is an independent contractor and advisor but is not an employee of Lorus. The Board, after receiving the recommendation of the Special Committee, unanimously approved the appointments. In doing so, the Board determined that such appointments were in the best interest of Lorus, as they were considered to enhance the management team and advisory team with the addition of two seasoned and experienced biotechnology executives bringing extensive clinical development and capital raising experience and improving the awareness and presence of the Company in the United States. On April 10, 2014, Dr. Rice was additionally appointed as President of the Company.

On October 29, 2013, Brian Druker, M.D., was appointed as the Chair of the Company's Scientific Advisory Board. Like Dr. Von Hoff, Dr. Druker is an independent contractor and advisor but not an employee of Lorus.

On December 2, 2013, Avanish Vellanki was appointed as Chief Business Officer of the Company, to manage global business development, licensing and corporate strategy, and Gregory K. Chow was appointed as Chief Financial Officer, and has responsibility for corporate finance and accounting functions for the Company. On April 10, 2014, Messrs. Vellanki and Chow were additionally appointed as Senior Vice Presidents of the Company.

### **PROGRAM UPDATES**

Lorus is a clinical stage biotechnology company with a commitment to discovering and developing targeted therapies addressing unmet medical needs in oncology. We aim to develop therapeutics focused on novel cellular targets on the leading edge of cancer research coupled to companion diagnostics to identify the optimal patient population for our products. Our pipeline of cancer drug candidates includes small molecule products and immunotherapies providing additive or synergistic efficacy without leading to overlapping toxicities with existing anti-cancer regimens, facilitating the adoption of doublet or possibly triplet therapies.

We believe the future of cancer treatment and management lies in the prospective selection and treatment of patients predisposed to response based on a drug's unique mechanism of action. We are of the view that many drugs currently approved for the treatment and management of cancer are not selective for the specific genetic alterations (targets) that cause the patient's tumor and hence lead to significant toxicities due to off-target effects. Lorus' strategy is to continue the development of our programs that address a common underlying pathway within a patient population, and we intend to apply this strategy across several therapeutic indications in oncology, including hematologic malignancies and solid tumor indications. Our lead program, LOR-253, is a first-in-class inducer of the Krüppel-like factor 4 gene (the "Klf4 Gene") for patients with advanced hematologic malignancies, including acute myeloid leukemia ("AML") and myelodysplastic syndromes ("MDS").

Our lead program is LOR-253, a small molecule found to induce the transcription of the Klf4 Gene in vitro studies. LOR-253 was discovered and identified by Lorus scientists based upon the magnitude of its anti-proliferative and anti-metastatic activity across a multitude of cell lines. In vitro studies conducted at Lorus have demonstrated significant potency of LOR-253 in AML cell lines, and ten to 1000 times greater potency than in solid tumor cell lines. In vitro analyses with relevant AML cell lines, have demonstrated that LOR-253 led to significant elevation of the Krüppel-like factor 4 protein (the "KLF4 Protein"), with the anticipated increase in cyclin-dependent kinase inhibitor 1 (p21, a protein that halts the cell cycle and prevents cells from proliferating), caspase-3 (an enzyme activated during programmed cell death to chop up other proteins), and Annexin-V (a protein used as a marker for the initiation of programmed cell death), leading to G1 cell cycle arrest and apoptosis (programmed cell death). LOR-253 is administered as an intravenous infusion in patients. We have reported initial results from the Phase I clinical study of LOR-253 in patients with various solid tumors, and in that study we observed evidence of anti-tumor activity as a single agent at doses that were safe and

well tolerated. Our plans are to advance LOR-253 to a Phase 1b clinical study in relapsed / refractory hematologic malignancies, including patients with AML, MDS and various lymphomas, based upon the common underlying, leukemia-causing profile of Klf4 Gene suppression. The development of LOR-253 currently represents the main focus of Lorus.

Lorus is currently pursuing the clinical development of LOR-253 in AML, based on in vitro data demonstrating significant sensitivity to AML cell lines and recent academic research implicating up-regulation of the protein CDX2 (the "CDX2 Protein"), and suppression of the KLF4 Protein, as a possible leukemogenic trigger in AML. This CDX2 Protein-KLF4 Protein signature has been observed to be absent in the normal hematopoietic stem and progenitor cells of healthy individuals. The CDX2 Protein is reported by Faber et. al. to epigenetically silence the Klf4 Gene tumor suppressor as a critical oncogenic event (transforming normal cells to cancer cells) in AML, and LOR-253 has demonstrated the ability in preclinical investigations to up-regulate the Klf4 Gene and induce tumor-killing effect. We believe these findings warrant investigation of the potential clinical utility of LOR-253 in the treatment of patients with suppressed Klf4 Gene in AML, MDS, and, potentially, other hematologic malignancies.

Lorus is currently developing and validating a companion diagnostic for LOR-253. The diagnostic will assess the extent of genetic expression of Cdx2 and Klf4 in patients as a potential predictor of response to therapy with LOR-253, as well as assess post-treatment expression levels as biomarkers of efficacy.

### ***Acute Myeloid Leukemia***

AML is a rapidly progressing cancer of the blood and bone marrow characterized by the uncontrolled proliferation of dysfunctional myeloblasts that do not mature into healthy blood cells. It is the most common form of acute leukemia in adults. The American Cancer Society estimates there were approximately 14,590 new cases of AML and approximately 10,370 deaths from AML in the U.S. in 2013 and that there will be approximately 18,860 new cases of AML and approximately 10,460 deaths from AML in the U.S. in 2014. Standard induction therapy with chemotherapy is successful in many AML patients, but the majority of these patients will relapse with treatment refractory disease. Typical relapse rates in patients less than, and greater than, 60 years of age are approximately 48% and 71% respectively, as reported by Datamonitor Healthcare.

### ***Myelodysplastic Syndromes***

MDS are a group of blood and bone marrow disorders. In MDS, stem cells do not mature normally, and the number of blasts (immature cells) and dysplastic (abnormally developed) cells increases. Also, the number of healthy mature cells decreases, meaning there are fewer normal red blood cells, white blood cells, and platelets. The numbers of blood cells are often called blood cell counts. Because of the decrease in healthy cells, people with MDS often have anemia (a low red blood cell count), and may have neutropenia (a low white blood cell count) and thrombocytopenia (a low platelet count). Also, the chromosomes (long strands of genes) in the bone marrow cells may be abnormal. According to the American Cancer Society there are approximately 13,000 new cases of MDS annually in the US. Additionally, Datamonitor Healthcare reports median survival in higher risk MDS patients may range between five months and two years. There are several subtypes of MDS, and some subtypes of MDS may eventually turn into AML.

### ***Solid Tumors***

Phase 1 data with LOR-253 in patients with solid tumors and extensive preclinical data in solid tumor cells, including non-small cell lung cancer ("NSCLC"), have identified an opportunity for LOR-253 in patients possessing cancers with reduced Klf4 Gene expression. Our prior Phase 1 study with LOR-253 also exhibited a favorable safety profile for LOR-253 without an identified maximally tolerated dose over a 28-day cycle. Various solid tumors have exhibited suppressed levels of Klf4 Gene in scientific publications, including colorectal, gastric, pancreatic and cervical cancers, as well as NSCLC. NSCLC is an indication that we consider has a large market potential and important unmet need worldwide, in which the Klf4 Gene is a tumor suppressor that is present in case-matched normal cells but depressed in NSCLC tumor cells. In the future, Lorus may evaluate the clinical utility of LOR-253 in additional studies in a subset of NSCLC patients that may be predisposed to a response with a therapeutic activating the Klf4 Gene.

### ***Small Molecular Program***

In April 2013, Lorus entered into a research and license option agreement with Elanco, the animal health division of Eli Lilly and Company ("**Elanco**"), to investigate a new proprietary series of Lorus' compounds for veterinary medicine. Pursuant to the agreement, Elanco will fund the research program and was granted an exclusive option to license the worldwide rights for selected compounds for veterinary use; the terms of which will be negotiated if the option is exercised by Elanco. Lorus retains the rights to develop and commercialize these compounds for human use and intends to use the animal data from the collaboration as a basis for a partnership with a third party that will seek to develop the technology for the treatment of patients with cancer. Lead optimization is underway and the next goal is to identify a clinical drug candidate which can be developed for both human and animal use.

## FINANCING ACTIVITIES

### EQUITY FINANCING'S

#### April 2014

In April 2014, we completed a public offering of common shares. Lorus issued 56,500,000 common shares at a purchase price of \$0.50 per common share, including 6,500,000 common shares pursuant to the partial exercise of the over-allotment option, for aggregate gross proceeds of \$28.3 million. The total costs associated with the transaction were approximately \$2.7 million which includes a cash commission of \$2.0 million based on 7% of the gross proceeds received as part of the offering.

Mr. Sheldon Inwentash and his joint actors ("Mr. Inwentash") a related party of Lorus by virtue of exercising control or direction over more than 10% of the common shares of Lorus participated in this offering and acquired an aggregate of 1.3 million common shares.

#### December 2013

On December 10, 2013, we completed a public offering of common shares. Lorus issued a total of 12,730,000 common shares at a price of \$0.55 per common share, for aggregate gross proceeds of \$7.0 million as part of such offering.

The total costs associated with the transaction were approximately \$999 thousand which includes a cash commission of \$420 thousand based on 6% of the gross proceeds received as part of the offering, and the issuance of 763,800 broker warrants with an estimated fair value of \$304 thousand using the Black Scholes model. Each broker warrant is exercisable into one common share of the Company at a price of \$0.55 for a period of twenty four months following closing of the offering.

Mr. Inwentash, a related party of the Company by virtue of exercising control or direction over more than 10% of the common shares of the Company participated in this offering and acquired an aggregate of 1,820,000 common shares.

On January 8, 2014, the underwriters conducting the offering exercised in full their over-allotment option to purchase an additional 1,909,500 common shares of the Company at a price of \$0.55 per common share for additional gross proceeds of \$1.0 million. The total costs associated with the exercise of the over-allotment option were approximately \$125 thousand based on 6% of the gross proceeds received as part of the exercise of the over-allotment option, and the issuance of 114,570 broker warrants with an estimated fair value of \$46 thousand using the Black Scholes model. Each broker warrant is exercisable into one common share of the Company at a price of \$0.55 for a period of twenty four months following the closing of the over-allotment option exercise.

### WARRANT EXERCISES

During the year ended May 31, 2014, 10,419,246 warrants (May 31, 2013 – 398 thousand) were exercised for proceeds of \$4.5 million (May 31, 2013 – \$180 thousand).

#### *Warrants exercised during the year ended May 31, 2014:*

<i>(in thousands)</i>	<i>Number</i>	<i>Proceeds</i>
August 2011 warrants (i)	3,920	\$ 1,764
June 2012 private placement warrants (ii)	4,911	\$ 2,210
June 2012 broker warrants (iii)	1,238	\$ 396
June 2013 private placement warrants (iv)	350	\$ 88
Total	10,419	\$ 4,458

#### *Summary of outstanding warrants:*

<i>(in thousands)</i>	<i>2014</i>	<i>2013</i>
August 2011 warrants (i)	1,166	5,086
August 2011 broker warrants (i)	–	194
June 2012 private placement warrants (ii)	16,952	20,625
June 2012 broker warrants (iii)	–	1,238
June 2013 private placement warrants (iv)	568	–
December 2013 broker warrants (v)	878	–
Number of warrants outstanding, end of year	19,564	27,143

- (i) August 2011 warrants are exercisable into common share of Lorus at a price per share of \$0.45 and expire in August 2016. During the year ended May 31, 2014, 3.9 million warrants were exercised. In August 2013, 194 thousand broker warrants associated with this transaction expired unexercised.
- (ii) June 2012 warrants are exercisable into common shares of Lorus at a price per share of \$0.45 and expired on June 8, 2014. During the year 3.674 million were exercised. Subsequent to the year end in June an additional 14.7 million warrants were exercised with the remaining 2.2 million expiring unexercised.
- (iii) June 2012 broker warrants were exercisable into common shares of Lorus at a price per share of \$0.32 per unit. Each unit was comprised of 1 common share of Lorus and 1 common share purchase warrant exercisable at a price per share of \$0.45 and expire on June 8, 2014. In May 2014 the broker warrants were exercised and an additional 1.238 million common share purchase warrants were issued.
- (iv) June 2013 private placement warrants are exercisable into common shares of Lorus at a price per share of \$0.25 and expiring in June 2015.
- (v) December 2013 broker warrants are exercisable into common shares of Lorus at a price per share of \$0.55 and expiring in December 2015.

### **PROMISSORY NOTES AND WARRANTS**

In June 2013, we completed a private placement of units at a price of \$1 thousand per unit, for aggregate gross proceeds of \$918 thousand.

Each unit consisted of (i) a \$1,000 principal amount of unsecured promissory note and (ii) 1,000 common share purchase warrants. The promissory notes bore interest at a rate of 10% per annum, payable monthly and were due June 19, 2014. Each warrant entitled the holder to purchase one common share of Lorus at a price per common share equal to \$0.25 at any time until June 19, 2015.

Certain related parties participated in the transaction. Directors and officers (including Dr. Aiping Young, Dr. Jim Wright and Dr. Mark Vincent) acquired an aggregate of \$68 thousand of the promissory notes. A company related to Mr. Abramson, a former director of Lorus acquired \$250 thousand of the promissory notes and Mr. Inwentash acquired \$100 thousand of the promissory notes.

The units contained a liability component and an equity component represented by the warrants to purchase common shares. The fair value of the liability component was estimated by discounting the future cash flows associated with the debt at a discounted rate of approximately 19% which represents the estimated borrowing cost to Lorus for similar promissory notes with no warrants. The residual value was allocated to the warrants. The Company incurred costs associated with the financing of \$23 thousand. These costs were amortized using the effective interest rate method over the 12 month life of the notes.

The notes and interest accrued thereon were repaid in full in April 2014.

### **CONVERTIBLE PROMISSORY NOTES**

In September 2013, we completed a private placement of convertible promissory notes for aggregate gross proceeds of \$600 thousand.

Each convertible promissory note consists of a \$1,000 principal amount of unsecured promissory note convertible into common shares of the Company at a price per share of \$0.30. The promissory notes bear interest at a rate of 10% per annum, payable quarterly and are due September 26, 2015.

Certain related parties participated in the transaction. A company related to Mr. Abramson, a former director of Lorus acquired \$100 thousand of the promissory notes, Mr. Inwentash acquired \$150 thousand of the promissory notes and Sprott Asset Management which held more than 10% of the common shares of Lorus and the ability to acquire control of more than 20% of Lorus acquired \$112 thousand of the promissory notes.

The promissory notes are a compound financial instrument containing a liability component and an equity component represented by the conversion feature. The fair value of the liability component was estimated by discounting the future cash flows associated with the debt at a discounted rate of approximately 19% which represents the estimated borrowing cost to Lorus for similar promissory notes with no conversion. The residual value of \$88 thousand was allocated to the

conversion feature. Subsequent to initial recognition, the notes are being accounted for at amortized cost using the effective interest rate method.

Lorus incurred costs associated with the financing of \$17 thousand. These costs along with the adjustment for the conversion feature are being accreted using the effective interest rate method over the 24 month life of the notes.

	<b>May 31, 2014</b>	<b>May 31, 2013</b>
Promissory Notes	\$ 600	\$ —
Less: Equity component of notes	(88)	—
Less: Issue costs	(17)	—
	<b>495</b>	—
Accretion in carrying value of notes	33	—
Balance, end of period	\$ 528	\$ —

## LOANS PAYABLE

In September 2013 we entered into loan agreements for proceeds of \$150 thousand. The loans were unsecured, bore interest at a rate of 10% per annum payable quarterly and were due September 30, 2015. We repaid the loans and all accrued and unpaid interest thereon on April 25, 2014.

## JUNE 2012 PRIVATE PLACEMENT

On June 8, 2012 we completed a private placement of 20,625,000 units at a subscription price of \$0.32 per unit and each unit consisted of one common share and one common share purchase warrant for gross proceeds to Lorus of \$6.6 million.

Each warrant was exercisable for a period of 24 months from the date of issuance at an exercise price of \$0.45.

We paid a cash finder's fee of \$396 thousand based on 6% of the gross proceeds of the private placement and issued 1,237,500 finder's warrants at an exercise price of \$0.32 each. Each finder's warrant was exercisable into units consisting of 1,237,500 common shares and 1,237,500 warrants.

## WARRANT EXPIRY

Broker warrants with a carrying amount of \$25 thousand expired unexercised in August 2013. The impact of the expiry was a reclassification of the amount from Warrants to Contributed Surplus.

## LIQUIDITY AND CAPITAL RESOURCES

Since its inception, Lorus has financed its operations and technology acquisitions primarily from equity and debt financing, proceeds from the exercise of warrants and stock options, and interest income on funds held for future investment. We plan to continue our development programs from internal resources as they are available.

We currently do not earn any 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 significant payments from strategic partners.

## CASH POSITION

At May 31, 2014, we had cash and cash equivalents and short term investments of \$30.4 million compared to \$653 thousand at May 31, 2013. We generally invest our cash in excess of current operations requirements in highly rated and liquid instruments. Investment decisions are made in accordance with an established investment policy administered by senior management and overseen by the Board. As at May 31, 2014 our cash was invested in cash of \$2.3 million (May 31, 2013 - \$144 thousand) and funds deposited into High Interest Savings Accounts totaling \$17.1 million (May 31, 2013 - \$509 thousand). Working capital (representing primarily cash, cash equivalents and short term investments other current assets less current liabilities) at May 31, 2014 was \$28.9 million (May 31, 2013 - negative \$798 thousand).

We do not expect to generate positive cash flow from operations for the foreseeable future 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. It is expected that negative cash flow will continue until such time, if ever, that we receive regulatory approval to commercialize any of our products under development and/or royalty or milestone revenue from any such products exceeds expenses.

## RESULTS OF OPERATIONS

Our net loss and comprehensive loss for the year ended May 31, 2014 increased to \$10.6 million (\$0.17 per share) compared to \$5.6 million (\$0.13 per share) for the year ended May 31, 2013. The increase in net loss and comprehensive loss for the year ended May 31, 2014 compared with the prior year is due to increased general and administrative costs of \$5.1 million associated with the hiring of three new executives, increased stock based compensation expense, severance costs of \$1.1 million paid to the former President and COO as well as increased legal, patent, travel, Board and consulting costs associated with a significant increase in corporate activity.

We utilized cash of \$8.5 million in our operating activities in the year ended May 31, 2014 compared with \$5.1 million in the prior year. The increase in the current year is the result of higher due to an increased net loss associated with adding new members of management, severance payments to the former President and COO and generally increased levels of corporate activity.

At May 31, 2014, we had cash and cash equivalents and short term investments of \$30.4 million compared to \$653 thousand at May 31, 2013.

### 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, 2014 which are prepared in accordance with IFRS.

#### Consolidated Statements of Loss and Comprehensive Loss

Years ended May 31,

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

	2014	2013	2012
<b>REVENUE</b>	\$ —	\$ —	\$ —
<b>EXPENSES</b>			
Research and development	3,015	3,317	2,170
General and administrative	7,355	2,272	2,430
<b>Operating expenses</b>	<b>10,370</b>	5,589	4,600
Finance expense	259	6	20
Finance income	(76)	(30)	(6)
<b>Net finance expense (income)</b>	<b>183</b>	(24)	14
<b>Net loss and total comprehensive loss for the year</b>	<b>10,553</b>	5,565	4,614
<b>Basic and diluted loss per common share</b>	<b>\$ 0.17</b>	\$0.13	\$ 0.23
<b>Weighted average number of common shares outstanding used in the calculation of:</b>			
<b>Basic and diluted loss per share</b>	<b>62,592</b>	42,251	20,260
<b>Total Assets</b>	<b>\$ 30,899</b>	\$ 1,035	\$ 668
<b>Total Long-term liabilities</b>	<b>\$ 528</b>	\$ —	\$ —

#### Research and Development

Research and development expenses totaled \$3.0 million in the year ended May 31, 2014 compared to \$3.3 million during the prior year. Research and development expenses consist of the following:

	2014	2013
Program costs (see below)	\$ 2,287	3,126
Severance cost for former President & COO	326	—
Deferred share unit costs	90	(40)
Stock based compensation	296	198
Depreciation of equipment	16	33
	<b>\$ 3,015</b>	3,317

**Program costs by program:**

		<b>2014</b>	2013
Small molecule program	\$	<b>2,199</b>	2,701
Immunotherapy		<b>88</b>	425
	\$	<b>2,287</b>	3,126

Research and development expenditures have decreased by \$302 thousand in the current year to \$3.0 million compared with \$3.3 million in the year ended May 31, 2013. The reduced spending is primarily the result of lower program costs.

Spending on the LOR-253 program was reduced in the current year as a Phase I trial in patients with advanced solid tumors has been completed and further clinical development and expenditures were paused while the appropriate strategic and clinical direction for the drug candidate was determined and additional financing was secured. In addition, further spending on the IL-17E program was also paused during that period. We expect a significant increase in spending on the LOR-253 program in fiscal 2015 as we anticipate commencing clinical trials.

The severance cost for our former President and COO was paid in full in April 2014. The total severance amount of \$1.1 million was allocated between general and administrative (\$762 thousand) and research and development (\$326 thousand). There are no ongoing obligations related to the severance payment. The allocation was based upon the time spent by the former President and COO on research and development vs. general and administrative activities.

Deferred share unit costs increased in the year ended May 31, 2014 due to an increase in the share price of Lorus and the associated fair value of the units. A recovery of deferred share unit costs was recorded in the year ended May 31, 2013, which resulted from a reduction in our share price during the year. In April 2014, 780,000 common shares of Lorus were issued in payment of the outstanding DSU liability with a fair value of \$445 thousand. There were no outstanding DSU's as of May 31, 2014.

Stock based compensation costs were higher in the year ended May 31, 2014 compared with the prior year due to grants issued to new consultants and Scientific Advisory Board members.

**General and Administrative**

General and administrative expenses totaled \$7.4 million for the year ended May 31, 2014 compared to \$2.3 million in the prior year. General and administrative expenses consisted of the following:

		<b>2014</b>	2013
General and administrative excluding salaries	\$	<b>2,658</b>	1,368
Salaries		<b>2,217</b>	675
Severance cost for former President and COO		<b>762</b>	-
Deferred share unit costs		<b>183</b>	(92)
Stock based compensation		<b>1,530</b>	316
Depreciation of equipment		<b>5</b>	5
	\$	<b>7,355</b>	2,272

General and administrative expenses excluding salaries increased in the current year due to increased travel, consulting and corporate legal costs associated with the change in strategic direction, additional members of management and generally increased corporate and financing activities. In addition there were increased costs for both director fees primarily due to the strategic review and patent costs due to new patents filed and a review of our existing patent portfolio.

Salary charges in the year ended May 31, 2014 increased over the prior year period due to costs associated with the appointment of additional members of management and bonuses granted on the date of employment as well as upon the closing of the December 2013 and April 2014 equity offerings as described above.

The severance cost for our former President and COO was paid in full in April 2014 and the details are described under 'Research and Development' above.

Deferred share unit costs increased as described under 'Research and Development' above.

Stock based compensation expense was significantly higher in the year ended May 31, 2014 compared with the prior year due to option grants to new members of management, some of which vested immediately resulting in the entire fair value of the options being recognized in the current year compared with fewer option grants in the prior year periods which

vested over a longer period of time. In addition stock options were granted in April 2014 to directors, officers and employees following the close of the equity financing described above.

### **Finance Expense**

Finance expense totaled \$259 thousand for the year ended May 31, 2014 compared with \$6 thousand in the prior year. Finance expense incurred in the year ended May 31, 2014 relates to the 10% promissory notes issued in June 2013 described above and repaid in April 2014 as well as the 10% convertible promissory notes and non-convertible promissory notes issued in September 2013 described above. The non-convertible promissory notes were repaid in April 2014. Finance expense incurred in the year ended May 31, 2013 relates to interest accrued at a rate of 10% on the related party promissory notes repaid in June 2012. There were no interest-bearing liabilities outstanding at May 31, 2013.

### **Finance Income**

Finance income totaled \$76 thousand in the year ended May 31, 2014, compared to \$30 thousand in the same period in the prior year. Finance income represents interest earned on our cash and cash equivalent and short term investment balances and the increase in finance income during the current year is the result of a higher average cash and cash equivalents balance throughout the year ended May 31, 2014 compared with the prior year.

### **Net loss and total comprehensive loss for the year**

Our net loss and total comprehensive loss for the year ended May 31, 2014 was \$10.6 million (\$0.17 per share) compared to \$5.6 million (\$0.13 per share) in the year ended May 31, 2013. The increase in net loss and total comprehensive loss of \$5.0 million in the year ended May 31, 2014 compared with the prior year is due primarily to an increase in general and administrative expenses of \$5.1 million in the current year offset by lower research and development expenses of \$302 thousand.

## **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 in the fiscal 2014 quarters are lower compared with the same quarters in the prior year due to reduced activity on the LOR-253 clinical program as it was completed in early 2014 and we focused on the strategic review and securing additional cash resources. In the fourth quarter of 2014 expenditures increased due to the allocation of severance costs related to the former President and COO to research and development of \$326 thousand. It is expected that research and development costs will increase in fiscal 2015.

The increased general and administrative costs in the quarter ended November 30, 2013 is due to stock option grants during the quarter which vested immediately and resulted in higher than normal stock based compensation expense. In addition costs associated with hiring three new executives during the quarter increased salary related costs. In the three months ended February 28, 2014 general and administrative expenses were higher due to additional members of management, bonuses and increased travel, consulting and legal costs. General and administrative expenses were lower in the quarters of August 31, 2013, May 31, 2013 and February 28, 2013 due to the reduction of previously recorded Deferred Share Unit ("DSU") expense. The DSU was 'marked to market' and as our share price declined during the last three quarters so did the associated liability resulting in a reduction of expense.

The increase in general and administrative expense in the three months ended May 31, 2014 is due to severance costs associated with the former President and COO (\$762 thousand), bonus costs, and increased Board, consulting and legal fees associated with activities during the quarter.

Cash used in operating activities fluctuates significantly due primarily to losses and the timing of payments and increases and decreases in the accounts payables and accrued liabilities balances. Cash used in operating activities in the quarters ended May 31, 2013 and August 31, 2013 were lower as we delayed making payments to suppliers in order to conserve cash resources.

	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1
<i>(Amounts in 000's except for per common share data)</i>	May 31, 2014	Feb 28, 2014	Nov 30, 2013	Aug 31, 2013	May 31, 2013	Feb 28, 2013	Nov 30, 2012	Aug 31, 2012
(unaudited)								
Revenue	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —
Research and development expense	1,012	597	791	615	860	889	910	658
General and administrative expense	3,195	1,771	1,938	451	462	491	714	605
Net loss	(4,221)	(2,433)	(2,798)	(1,101)	(1,318)	(1,371)	(1,613)	(1,263)
Basic and diluted								
net loss per share	\$(0.04)	\$(0.04)	\$(0.06)	\$(0.03)	\$(0.03)	\$(0.03)	\$(0.04)	\$(0.03)
Cash (used in) operating activities	\$(3,928)	\$(2,191)	\$(1,484)	\$(933)	\$(904)	\$(1,273)	\$(1,336)	\$(1,576)

#### **FOURTH QUARTER 2014 AND 2013 (UNAUDITED)**

Our net loss and comprehensive loss for the three months ended May 31, 2014 increased to \$4.2 million compared with \$1.3 million in the three months ended May 31, 2013. The increase in net loss is primarily attributable to increased general and administrative costs of \$2.7 million in the three months ended May 31, 2014 compared with the prior year.

General and administrative expenses increased to \$3.2 million in the three months ended May 31, 2014 compared with \$462 thousand in the three months ended May 31, 2013. The increase is due to:

- Severance payments to the former President and CEO of \$1.1 million of which \$762 thousand were allocated to general and administrative expenses;
- Increased stock based compensation expense of \$323 thousand related to stock options granted in the fourth quarter;
- Increased salary, benefit and travel costs associated with three new members of management; and
- Increased legal, patent, Board and consulting costs associated with increased levels of corporate activity.

Cash used in operating activities in the three months ended May 31, 2014 increased to \$3.9 million compared with \$904 thousand in the three months ended May 31, 2013 which is primarily due to the increased loss in the current three month period.

#### **SUBSEQUENT EVENTS**

In June 2014, 14,667,124 warrants related to the June 2012 private placement at a price of \$0.45 were exercised for proceeds of \$6.6 million. The remaining 2.2 million warrants expired unexercised.

On June 16, 2014 5,283,550 stock options were granted to officers of the Company at an exercise price of \$0.475. The options vest over a three year term and have a contractual life of ten years.

These transactions will be accounted for in the first quarter of fiscal 2015.

#### **CRITICAL ACCOUNTING POLICIES**

##### ***Critical Accounting Policies and Estimates***

The Company periodically reviews its financial reporting and disclosure practices and accounting policies to ensure that they provide accurate and transparent information relative to the current economic and business environment. As part of this process, the Company has reviewed its selection, application and communication of critical accounting policies and financial disclosures. Management has discussed the development and selection of the critical accounting policies with the Audit Committee of the Board of Directors and the Audit Committee has reviewed the disclosure relating to critical accounting policies in this MD&A. Other important accounting policies are described in note 3 of the Financial Statements.

##### **(a) Valuation of contingent liabilities:**

The Company utilizes considerable judgment in the measurement and recognition of provisions and the Company's exposure to contingent liabilities. Judgment is required to assess and determine the likelihood that any potential or pending litigation or any and all potential claims against the Company may be successful. The Company must estimate if an obligation is probable as well as quantify the possible economic cost of any claim or contingent liability. Such judgments and assumptions are inherently uncertain. The increase or decrease of one of these assumptions could materially increase or decrease the fair value of the liability and the associated expense.

**(b) Valuation of tax accounts:**

Uncertainties exist with respect to the interpretation of complex tax regulations and the amount and timing of future taxable income. Currently, the Company has deductible temporary differences which would create a deferred tax asset. Deferred tax assets are recognized for all deductible temporary differences to the extent that it is probable that future taxable profit will be available against which the deductible temporary differences can be utilized. Management judgment is required to determine the amount of deferred tax assets that can be recognized, based upon the likely timing and the level of future taxable profits together with future tax planning strategies. To date, the Company has determined that none of its deferred tax assets should be recognized. The Company's deferred tax assets are mainly comprised of its net operating losses from prior years and prior year research and development expenses. These tax pools relate to entities that have a history of losses, have varying expiry dates, and may not be used to offset taxable income. As well, there are no taxable temporary differences or any tax planning opportunities available that could partly support the recognition of these losses as deferred tax assets. The generation of future taxable income could result in the recognition of some portion or all of the remaining benefits, which could result in an improvement in the Company's results of operations through the recovery of future income taxes.

**(c) Valuation of share-based compensation and share purchase warrants:**

Management measures the costs for share-based payments and share purchase warrants using market-based option valuation techniques. Assumptions are made and judgment is used in applying valuation techniques. These assumptions and judgments include estimating the future volatility of the share price, expected dividend yield, future employee turnover rates and future share option and share purchase warrant behaviours and corporate performance. Such judgments and assumptions are inherently uncertain. The increase or decrease of one of these assumptions could materially increase or decrease the fair value of share-based payments and share purchase warrants issued and the associated expense.

**RECENT ACCOUNTING PRONOUNCEMENTS NOT YET ADOPTED****IFRS 9, Financial Instruments ("IFRS 9"):**

IFRS 9, Financial Instruments, was issued in November 2009. It addresses classification and measurement of financial assets and financial liabilities. In November 2013, the IASB issued a new general hedge accounting standard, which forms part of IFRS 9 Financial Instruments (2013). In February 2014, a tentative decision established the mandatory effective application of IFRS 9 for annual periods beginning on or after January 1, 2018. The Company has not yet assessed the impact of adoption of IFRS 9 and does not intend to early adopt IFRS 9 in its financial statements.

**RELATED PARTY TRANSACTIONS**

See 'Financing Activities' for additional related party transactions and details.

These transactions were in the normal course of business and have been measured at the exchange amount, which is the amount of consideration established and agreed to by the related parties.

See note 13 to the Financial Statements for disclosures of key management personnel compensation and directors compensation.

**CONTRACTUAL OBLIGATIONS AND OFF-BALANCE SHEET FINANCING**

At May 31, 2014, we had contractual obligations requiring annual payments as follows:

*(Amounts in 000's)*

	<b>Less than 1 year</b>	<b>1-3 years</b>	<b>3-5 years</b>	<b>Total</b>
<b>Operating leases</b>	149	5	nil	154

The Company's current facility lease expires in March 2015.

We hold a non-exclusive license from Genentech Inc. to certain patent rights to develop and sub-license a certain polypeptide. We do not expect to make any milestone or royalty payments under this agreement in the fiscal years ended May 31, 2014 or 2015, and cannot reasonably predict when such milestones and royalties will become payable, if at all.

As at May 31, 2014, we have not entered into any off- balance sheet arrangements.

**Indemnification**

On July 10, 2007, we completed a plan of arrangement and corporate reorganization. As part of the arrangement, we agreed to indemnify the other party 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 the arrangement.

We have recorded a liability of \$50 thousand, which we believe to be a reasonable estimate of the fair value of the obligation for the indemnifications provided as at May 31, 2014. There have been no claims on this indemnification to date.

## FINANCIAL INSTRUMENTS

### (a) Financial instruments

We have classified our financial instruments as follows:

	As at May 31, 2014	As at May 31, 2013
<b><u>Financial assets</u></b>		
Cash and cash equivalents, consisting of high interest savings accounts, measured at amortized cost	\$ 19,367	\$ 653
Short term investments, consisting of guaranteed investment certificates, measured at amortized cost	11,019	–
<b><u>Financial liabilities</u></b>		
Accounts payable, measured at amortized cost	649	713
Accrued liabilities, measured at amortized cost	1,283	1,103
Convertible promissory note, measured at amortized	528	–

At May 31, 2014, there are no significant differences between the carrying values of these amounts and their estimated market values due to their short-term nature, with the exception of the convertible promissory notes. The fair value of the convertible promissory notes has been determined to be substantially the same as the carrying amount based on management's assessment of market conditions which have not changed substantially since the issuance of the notes.

### (b) Financial risk management

We have exposure to credit risk, liquidity risk and market risk. Our Board of Directors has the overall responsibility for the oversight of these risks and reviews our 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 us if a customer, partner or counterparty to a financial instrument fails to meet its contractual obligations, and arises principally from our cash and cash equivalents. The carrying amount of the financial assets represents the maximum credit exposure.

We manage credit risk for our cash and cash equivalents by maintaining minimum standards of R1-low or A-low investments and we invest 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 we will not be able to meet our financial obligations as they come due. To the extent that we do not believe we have sufficient liquidity to meet our current obligations, the Board considers securing additional funds through equity, debt or partnering transactions. We manage our liquidity risk by continuously monitoring forecasts and actual cash flows. All of our financial liabilities are due within the current operating period with the exception of the convertible promissory notes which are due in September 2015.

#### (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 our income or the value of our financial instruments.

We are subject to interest rate risk on our cash and cash equivalents however we do 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. We do not have any material interest bearing liabilities subject to interest rate fluctuations.

Financial instruments potentially exposing us to foreign exchange risk consist principally of accounts payable and accrued liabilities. We hold minimal amounts of U.S. dollar denominated cash, purchasing on an as-needed basis to cover U.S. dollar denominated payments. At May 31, 2014, U.S. dollar denominated accounts payable and accrued liabilities amounted to \$769 thousand (May 31, 2013 - \$448 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 \$77 thousand (May 31, 2013 - \$45 thousand). We do not have any forward exchange contracts to hedge this risk.

We do not invest in equity instruments of other corporations.

### **(c) Capital management**

Our primary objective when managing capital is to ensure that we have sufficient cash resources to fund our development and commercialization activities and to maintain our ongoing operations. To secure the additional capital necessary to pursue these plans, we may attempt to raise additional funds through the issuance of equity or by securing strategic partners.

We include cash and cash equivalents and short-term deposits in the definition of capital.

We are not subject to externally imposed capital requirements and there has been no change with respect to the overall capital management strategy during the year ended May 31, 2014.

## **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 and ongoing working capital and/or establish effective partnerships to share the costs of development and clinical trials.

## **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 the most recently filed annual information form, as well as our historical consolidated financial statements and related notes. Management has reviewed the operations of the Company in conjunction with the Board of Directors and identified the following risk factors which are monitored on a bi-annual basis and reviewed with the Board of Directors. 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 and cash flows 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.

### ***We are an early stage development company.***

We are at an early stage of development. In the past five years, none of our potential products has obtained regulatory approval for commercial use and sale in any country and as such, no significant revenues have resulted from product sales. Significant additional investment will be necessary to complete the development of any of our product candidates. Preclinical and clinical trial work must be completed before our potential products could be ready for use within the markets that we have identified. We may fail to develop any products, obtain regulatory approvals, enter clinical trials or 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. We also do not know whether sales, license fees or related royalties will allow us to recoup any investment we make in the commercialization of our products.

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

Our product candidates require significant funding to reach regulatory approval assuming positive clinical results. For example, our lead product candidate LOR-253, has completed a Phase I clinical trial in patients with solid tumors, and we have reported initial results. Additional funding or a partnership will be necessary to complete, if required, a Phase II or Phase III clinical trial. Such funding may be very difficult, or impossible to raise in the public or private markets or through partnerships. If funding or partnerships are not attainable, the development of these product candidates may be

significantly delayed or stopped altogether. The announcement of a delay or discontinuation of development would likely have a negative impact on our share price.

***We need to raise additional capital.***

We have an ongoing need to raise additional capital. To obtain the necessary capital, we must rely on some or all of the following: additional share issues, debt issuances (including promissory notes), collaboration agreements or corporate partnerships and grants and tax credits to provide full or partial funding for our activities. Additional funding may not be available on terms that are acceptable to us or in amounts that will enable us to carry out our business plan.

Our need for capital may require us to:

- engage in equity financings that could 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. Under IFRS, we reported net losses of \$10.6 million and \$5.6 million for the fiscal years ended May 31, 2014 and 2013, respectively, and as of May 31, 2014, we had an accumulated deficit of \$211 million.

We have not generated any significant revenue 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 candidate LOR-253 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 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 may be unable to obtain partnerships for our product candidates, which could curtail future development and negatively affect our share price. In addition, our partners might not satisfy their contractual responsibilities or devote sufficient resources to our partnership.***

Our strategy for the research, development and commercialization of our products requires entering into various arrangements with corporate collaborators, licensors, 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. These third parties may not perform their obligations as expected and our collaborators may not 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, and our current or future collaborative arrangements may not be successful.

If we cannot negotiate collaboration, licence or partnering agreements, we may never achieve profitability and we may not be able to continue to develop our product candidates. Phase II and Phase III clinical trials for LOR-253 would require significant amounts of funding and such funding may not be available to us.

***Clinical trials are long, expensive and uncertain processes and Health Canada or the United States Food and Drug Administration (“FDA”) may ultimately not approve any of our product candidates. We may never develop any commercial drugs or other products that generate revenues.***

In the past five years 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. Approval in one country does not assure approval in another country. 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 Phase I clinical trials may not be repeated in larger Phase II or Phase III clinical trials.

Our preclinical studies and clinical trials may not generate positive results that will allow us to move towards the commercial use and sale of our product candidates. Furthermore, negative preclinical or clinical trial results may cause our business, financial condition, or results of operations to be materially adversely affected. For example, as our lead product candidate LOR-253 has completed the Phase I testing in patients with solid tumors, for which we previously reported initial data, there is still a long development path ahead which will take many years to complete and like all of our potential drug candidates is 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 is required if we are to complete development of our products.

Later stage clinical trials of our products require that we identify and enroll a large number of patients with the illness under investigation. We may not be able to enroll a sufficient number of appropriate patients to complete our clinical trials in a timely manner, particularly in smaller indications and indications where this is significant competition for patients. 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. Delays in planned patient enrolment or lower than anticipated event rates in our current clinical trials or future clinical trials also 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 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 have agreed to indemnify our predecessor, Old Lorus, and its directors, officers and employees.***

In connection with the reorganization that we undertook in fiscal year 2008, we have agreed to indemnify our predecessor, 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:

- prior to, at or after the effective time of the arrangement transaction, and directly or indirectly relating to any of the assets of Old Lorus transferred to us pursuant to the arrangement transaction (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 of the arrangement;

- 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 us under the arrangement; and
- 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 obligation could result in significant liability to us. To date no amount has been claimed on this indemnification obligation. Should a claim arise under this indemnification obligation it could result in significant liability to the Company which could have a negative impact on our liquidity, financial position, and ability to obtain future funding among other things.

***We may not achieve our projected development goals in the time frames we announce and expect.***

We set goals for, and make public statements regarding, the expected timing of the accomplishment of objectives material to our success, such as the commencement and completion of clinical trials, the partnership of our product candidates and our ability to secure the financing necessary to continue the development of our product candidates. The actual timing of these events can vary dramatically due to factors within and beyond our control, such as delays or failures in our clinical trials, the uncertainties inherent in the regulatory approval process, market conditions and interest by partners in our product candidates among other things. Our clinical trials may not be completed, and we may not make regulatory submissions or receive regulatory approvals as planned, or that we will secure partnerships for any of our product candidates. Any failure to achieve one or more of these milestones as planned would have a material adverse effect on our business, financial condition and results of operations.

***As a result of intense competition and technological change in the biotechnical and pharmaceutical industries, 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 the biotechnical and pharmaceutical fields;
- substantially greater financial, technical and management resources, stronger intellectual property positions and greater manufacturing, marketing and sales capabilities, areas in which we have limited or no experience; and
- 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.

Our competitor's existing and future products, therapies and technological approaches will compete directly with the products we seek to develop. Current and prospective competing products may be more effective than our existing and future products insofar as they 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 products may not gain market acceptance among physicians, patients, healthcare payers, insurers, the medical community and other stakeholders. 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 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 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 United States, 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.

Publication of discoveries in scientific or patent literature often lags behind actual discoveries. Patent applications filed in the United States 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 may not be aware of 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.

In addition, U.S. patent laws may change which could prevent or limit us from filing patent applications or patent claims in the United States to protect our products and/or technologies or limit the exclusivity periods that are available to patent holders for U.S. patents. For example, the Leahy-Smith America Invents Act, or the Leahy-Smith Act, was signed into law in 2011 and includes a number of significant changes to U.S. patent law. These include changes to transition from a “first-to-invent” system to a “first-to-file” system and to the way issued patents are challenged. These changes may favor larger and more established companies that have more resources to devote to patent application filing and prosecution. It is not clear what, if any, impact the Leahy-Smith Act will ultimately have on the cost of prosecuting our patent applications in the United States, our ability to obtain patents in the United States based on our discoveries and our ability to enforce or defend our U.S. issued patents.

#### *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 United States 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. Our pending patent applications, even if issued, may not be held valid or enforceable.

#### *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 or obtain adequate compensation for the damages caused by unauthorized disclosure or use of our trade secrets or know how. Our trade secrets or those of our collaborators also may be independently discovered by others.

***Our products and product candidates may infringe the intellectual property rights of others, or others may infringe on our intellectual property rights 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 LOR-253, our lead product candidate. In addition, third parties may assert infringement or other intellectual property claims against us. 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 third-party technology, a license under such patents and patent applications may not 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. We may also need to bring claims against others who we believe are infringing our rights in order to become or remain competitive and successful. Any such claims can be time consuming and expensive to pursue.

***If product liability, clinical trial liability or environmental liability claims are brought against us or we are unable to obtain or maintain product liability, clinical trial or environmental 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, clinical trial liability, environmental liability and other risks that are inherent in the testing, manufacturing and marketing of our products. These liabilities, if realized, could have a material adverse effect on the Company's business, results of operations and financial condition.

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. 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. In general, insurance will not protect us against some of our own actions, such as negligence.

As the Company's development activities progress towards the commercialization of product candidates, our liability coverage may not be adequate, and the Company may not be able to obtain adequate product liability insurance coverage at a reasonable cost, if at all. Even if the Company obtains product liability insurance, its financial position may be materially adversely affected by a product liability claim. A product liability claim could also significantly harm the Company's reputation and delay market acceptance of its product candidates. Additionally, product recalls may be issued at the direction of the FDA, other government agencies or other companies having regulatory control for pharmaceutical sales. If a product recall occurs in the future, such a recall could adversely affect our business, financial condition or reputation.

***We have no manufacturing capabilities and face supply risks. 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.***

Other than limited quantities for research purposes, we do not have manufacturing facilities to produce supplies of LOR-253 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 the supply of necessary components is interrupted, components from alternative suppliers may not be available in sufficient volumes or at acceptable quality levels within required timeframes, if at all, to meet the needs of the Company. An inability to contract for a sufficient supply of our product candidates on acceptable terms, or delays or difficulties in the manufacturing process or our relationships with our manufacturers, may lead to us not having sufficient product to conduct or complete our clinical trials or support preparations for the commercial launch of our product candidates, if approved. This may lead to substantial lost revenue opportunity and contract liability to third parties.

#### ***Reliance on Licensor(s) to Maintain Patent Rights***

The Company's commercial success depends, in part, on maintaining and defending patent rights related to products that the Company may market in the future. Since the Company may not fully control the patent prosecution of any licensed patent applications it is possible that the licensors will not devote the same resources or attention to the prosecution of the licensed patent applications as the Company would if it controlled the prosecution of the applications. The licensors may also not pursue and successfully prosecute, enforce or defend any potential patent infringement or invalidity claim, may fail to maintain their issued patents or prosecute or maintain their patent applications, or may pursue any litigation less aggressively than the Company would. Consequently, the resulting patent protection, if any, may not be as strong or comprehensive, which could have a material adverse effect on the Company.

## ***Extensive Government Regulation***

Government regulation is a significant factor in the development, production and marketing of the Company's products. Research and development, testing, manufacture, marketing and sales of pharmaceutical products or related products are subject to extensive regulatory oversight, often in multiple jurisdictions, which may cause significant additional costs and/or delays in bringing products to market, and in turn, may cause significant losses to investors. The regulations applicable to the Company's product candidates may change. Even if granted, regulatory approvals may include significant limitations on the uses for which products can be marketed or may be conditioned on the conduct of post-marketing surveillance studies. Failure to comply with applicable regulatory requirements can, among other things, result in warning letters, the imposition of civil penalties or other monetary payments, delay in approving or refusal to approve a product candidate, suspension or withdrawal of regulatory approval, product recall or seizure, operating restrictions, interruptions of clinical trials or manufacturing, injunctions or criminal prosecution. In addition, regulatory agencies may not approve the labeling claims that are necessary or desirable for the successful commercialization of the Company's product candidates.

Requirements for regulatory approval vary widely from country to country. Whether or not approved in Canada or the United States, regulatory authorities in other countries must approve a product prior to the commencement of marketing the product in those countries. The time required to obtain any such approval may be longer or shorter than in Canada or the United States. Approved drugs, as well as their manufacturers, are subject to continuing and ongoing review, and discovery of problems with these products or the failure to adhere to manufacturing or quality control requirements may result in regulatory restrictions being imposed.

## **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. This leads to a heightened risk of securities litigation pertaining to such volatility. Factors affecting our common share price include but are not limited to:

- our ability to raise additional capital;
- the progress of our clinical trials;
- our ability to obtain partners and collaborators to assist with the future development of our products;
- general market conditions;
- announcements of technological innovations or new product candidates by us, our collaborators or our competitors;
- published reports by securities analysts;
- developments in patent or other intellectual property rights;
- the cash and short term investments held by us and our ability to secure future financing;
- public concern as to the safety and efficacy of drugs that we and our competitors develop; and
- shareholder interest in our common shares.

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

The issuance of common shares by us could result in significant dilution in the equity interest of existing shareholders and adversely affect the market price of our common shares. Sales by existing shareholders of a large number of our common shares in the public market and the issuance 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 decline and have an undesirable impact on our ability to raise capital.

***We are susceptible to stress in the global economy and therefore, our business may be affected by the current and future global financial condition.***

If the increased level of volatility and market turmoil that have marked recent years continue, our operations, business, financial condition and the trading price of our common shares could be materially adversely affected. Furthermore, general economic conditions may have a great impact on us, including our ability to raise capital, our commercialization opportunities and our ability to establish and maintain arrangements with others for research, manufacturing, product development and sales.

***There is no assurance that an active trading market in our common shares will be sustained.***

Our common shares are listed for trading on the TSX. However, there can be no assurance that an active trading market in our common shares on the TSX will be sustained or that we will be able to maintain our listing.

**DISCLOSURE CONTROLS AND INTERNAL CONTROL 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. Our internal control system was designed to provide reasonable assurance that all transactions are accurately recorded, that transactions are recorded as necessary to permit preparation of financial statements in accordance with IFRS, and that our assets are safeguarded. 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 control over financial reporting means a process designed by or under the supervision of the Chief Executive Officer and the 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 IFRS. The internal controls are not expected to prevent and detect all misstatements due to error or fraud.

During the year ended May 31, 2014 the Company hired a Chief Financial Officer. The former acting Chief Financial Officer is continuing with the responsibilities as Director of Finance and the Chief Financial Officer provides an additional level of review over financial documents. Management believes that the addition of the Chief Financial Officer will strengthen the Company's internal controls over financial reporting on an ongoing basis.

As at May 31, 2014, the Company's management has assessed the effectiveness of our internal control over financial reporting and disclosure controls and procedures using the Committee of Sponsoring Organizations of the Treadway Commission's 1992 framework. Based on their evaluation, the Chief Executive Officer and the Chief Financial Officer have concluded that these controls and procedures are effective.

**UPDATED SHARE INFORMATION**

As at July 15, 2014, the Company had 139,324,451 common shares issued and outstanding. In addition, as of July 15, 2014 there were 15,167,496 common shares issuable upon the exercise of outstanding stock options, 2,00,000 shares issuable upon the conversion of outstanding promissory notes and 2,612,620 common shares issuable upon the exercise of common share purchase warrants. Of these warrants 1,166,250 are priced at \$0.45 and expire in August 2016, 568,000 are priced at \$0.25 and expire in June 2015 and 878,370 are priced at \$0.55 and expire in December 2015.

**ADDITIONAL INFORMATION**

Additional information relating to Lorus, including Lorus' 2014 annual information form and other disclosure documents, is available on SEDAR at [www.sedar.com](http://www.sedar.com).