



Lorus is a clinical stage drug development company focused on the discovery, research and development of innovative and effective anticancer therapies with high safety profiles.

BUSINESS STRATEGY

Lorus' R&D programs include an exceptionally robust pipeline in various stages of development, ranging from preclinical programs to an advanced Phase II clinical program. Lorus' strategy is to continue the development of its products using several therapeutic approaches. Each approach is dependent on a different technology, thereby mitigating the development risks associated with a single technology platform.

INVESTMENT CONSIDERATIONS

• Robust pipeline:

Lorus has a focused drug pipeline that addresses novel and validated cancer targets using RNA-targeted and Small Molecule platform technologies.

• Unique Positioning:

Lorus develops safe, novel and efficacious drugs for the treatment of cancer with unmet medical needs.

• Multiple Platform Technologies:

Cancer progression is a complex process, which is why we believe it will continue to be treated by many different drugs with a variety of mechanisms of action. This multi-mechanistic approach for the treatment of cancer essentially reduces the risks inherent in the drug development process.

RECENT MILESTONES

LOR-2040 Program

- Initiated an advanced Phase II clinical trial in order to further the development of LOR-2040 for the treatment of AML patients
- Initiated a development program to examine direct (intravesical) administration of LOR-2040 into the bladder as a treatment for superficial or non-invasive bladder cancer
- EMEA granted an orphan drug status to LOR-2040 for AML
- Announced Publication of a Clinical Study Demonstrating Encouraging Results with LOR-2040 in Combination with Cytarabine in Patients with AML
- Announced allowance of a new United States patent to protect methods of treating leukemia and other cancers with LOR-2040
- Announced the Identification of a Potential Novel Biomarker in Patient Samples from a Clinical Trial of LOR-2040 Combined with Capecitabine in Breast Cancer

Virulizin®

- Announced Publication of two research studies on the mode of action for Virulizin® and the issuance of a new patent in Mexico
- Secured an exclusive multinational license agreement with Zoticon Bioventures

LOR-253 Program

- Announced initiation of IND-enabling toxicology studies for the lead small molecule drug candidate, LOR-253, which induces a novel tumor suppressor target, KLF-4
- Presented new findings at the 99th annual meeting of the American Association for Cancer Research (AACR)

FINANCIAL HIGHLIGHTS

Ticker Symbol	TSX: LOR
Shares Outstanding	248 Million
Price per Share	\$0.08
Market Capitalization	\$19.8 Million
Average Volume (3m)	180,700
Cash Available (estimated as at August 31, 2008)	~\$11.3 Million
Burn Rate	\$1.8 Million per quarter (Q1 2009)

* All figures in Canadian dollars at August 31, 2008

Drug Candidate (Indication)	Target	Preclinical	Phase 1	Phase 2	Phase 3
LOR-2040 (AML)	RNR R2				
LOR-2040 (Bladder Cancer)	RNR R2				
LOR-253 (Oncology)	KLF-4				
Virulizin (Pancreatic Cancer)	In partnership with ZOR Pharma				

TECHNOLOGY OVERVIEW

Lorus' drug pipeline addresses novel and validated cancer targets using RNA-targeted, Small Molecule and Immunotherapy technologies with high safety profiles.

CLINICAL DEVELOPMENT FOCUS

LOR-2040: Acute Myeloid Leukemia (AML) and Bladder Cancer

- LOR-2040 dramatically decreases expression of the R2 subunit of ribonucleotide reductase (RNR).
- Lorus has demonstrated that targeting the R2 subunit with LOR-2040 can inhibit RNR activity in cancer cells.
- Extensive preclinical studies have shown that LOR-2040 has significant antitumor activity that correlates with decreased expression of R2 mRNA and protein levels.
- These studies have shown that LOR-2040 is a selective and specific anticancer agent against a broad range of human cancers including renal, breast, non-small cell lung (NSCL), colon and prostate cancers, as well as leukemia, and have provided support for clinical use of LOR-2040 in solid tumors and hematological cancers.
- LOR-2040 has shown a high safety profile in clinical trials with minimal adverse side effects to patients.

Status:

- LOR-2040 is in an advanced Phase II clinical trial in combination with high dose Ara-C (HiDAC) as salvage therapy in refractory/relapsed AML patients of 60 years of age or younger.
- LOR-2040 is also in a Phase I trial as a monotherapy or single agent in patients with high grade Myelodysplastic Syndromes (MDS) and Acute Leukemias (AL), as well as in five pilot Phase I/II trials in combination with approved chemotherapies in a variety of solid tumors.
- Clinical studies in MDS/AL and solid tumors are sponsored by the US-NCI under a Clinical Trials Agreement.

Next steps:

- The ongoing Phase II study in relapsed/refractory AML is expected to proceed to interim evaluation of Stage 1 efficacy and evaluation of pharmacodynamic and pharmacokinetic predictors of combination activity in Q2 2009 with top-line results expected by Q4 2009
- The solid tumor program sponsored NCI-CTEP is nearing completion. Future development in solid tumors will require selection of the best indication from the study programs in NSCLC, prostate cancer, breast cancer, colon cancer, and solid tumors, with various chemotherapies in combination with LOR-2040 and strategies for optimizing the combination dose schedule.
- The preclinical GLP-toxicology program of LOR-2040 in support of the bladder cancer program was completed in Q3 2008 and will be followed by regulatory submission of a pilot study of LOR-2040 as a single agent administered intravesically in patients with superficial and non-invasive bladder cancer in Q1 2009. Top-line results of this pilot study are anticipated in Q3/Q4 2009.

VIRULIZIN®: Pancreatic Cancer

- Virulizin®, Lorus' lead immunotherapy drug is a novel immunotherapy agent that stimulates the body's immune system through several mechanisms, including the activation of macrophages, and the infiltration of natural killer cells into tumors.

- Virulizin® also induces the expression of several cytokine proteins such as IL-12 and IL-17E, which act as chemical messengers to boost the cellular immune response against cancer.

- These combined activities have significant antitumor effects, while showing a high safety margin.

Status:

- Virulizin® is approved for the treatment of malignant melanoma in Mexico.

- Results of a Phase III clinical trial in patients with locally advanced or metastatic pancreatic cancer who were treated with Virulizin plus gemcitabine (an approved drug for pancreatic cancer) indicated that overall survival data did not reach statistical

- Exploratory analysis of the Phase III trial data showed a survival advantage of almost 4 months in a subgroup of patients who continued with Virulizin® in second line therapy, supporting the potential for further clinical studies in these patients.

- In April 2008, we signed an exclusive multinational license agreement with Zor Pharmaceuticals, LLC formed as a subsidiary of Zoticon Bioventures Inc., to further develop and commercialize Virulizin® for human therapeutic applications.

LOR-253: Solid Tumors, Leukemia

- LOR-253 (formerly LT-253) is a proprietary lead small molecule compound discovered at Lorus and optimized for its anticancer properties.

- It acts through a cascade of intracellular effects, including alteration of zinc homeostasis resulting in the induction of the tumor suppressor KLF4 that leads to downregulation of cyclin D1, which is an important regulator of cell cycle progression and cell proliferation.

- Alterations in regulatory pathway involving KLF4 expression have been linked to the development of several cancers.

- In preclinical studies LOR-253 has shown to be a very potent, yet highly selective growth inhibitor of many cancer types, including non-small cell lung cancer, colon cancer, prostate and leukemia.

- LOR-253 is currently in IND-enabling GLP toxicology studies, scheduled for completion by Q3 08, and planning for a Phase I clinical trial in cancer indications is in progress.

SENIOR MANAGEMENT TEAM

Aiping H. Young, MD, PhD,
President and Chief Executive Officer

Saeid Babaei, PhD, MBA,
Vice President, Business Development

Yoon Lee, PhD,
Vice President, Research

Elizabeth Williams, CA,
Director of Finance and Acting CFO

Peter Murray
Director, Clinical Development

BOARD OF DIRECTORS

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- CEO, Sarissa, Inc.

Dr. Jim A. Wright
- CEO, NuQuest Bio Inc.

Dr. Aiping H Young
- President & CEO, Lorus Therapeutics Inc.

PRECLINICAL DRUG CANDIDATES

Drug Candidate	Technology	Target	Discovery	Lead Iden.	Preclinical	Phase 1
LOR-220	Small Molecule	PI3K/mTOR	████████████████████			
LOR-264	Small Molecule	KLF-4	██			
LOR-500	Small Molecule	Multi-Kinases	████████████████████			
LOR-1284	siRNA	RNR R2	██			
IL-17E	Cytokine	Immune-modulation	██			

- Lorus has developed small molecule drug screening technologies and preclinical scientific expertise, which we are using to identify several groups of novel small molecules that have potential to be “first in class” and/or “best in class” with strong anticancer activity and a high therapeutic index due to low toxicity.

- Our proprietary group of novel small molecule compounds have unique structures and modes of action, and are promising candidates for the development of novel anticancer agents with high safety profiles.

- LOR-220** is a novel compound that targets PI3 Kinases/mTOR pathways that are critical in a major signal pathway involved in tumorigenesis and malignancy. Structural optimization of LOR-220 has yielded several novel drug candidates that show potent anticancer activity.

- LOR-264** is an orally active second-generation derivative of LOR-253 that has also demonstrated potent anticancer activity in animal studies. Derivatives of LOR-264 are currently being assessed for anticancer activity as part of our lead optimization process.

- 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.

- LOR-1284** targets the R2 subunit of ribonucleotide reductase and has demonstrated strong antitumor activity in several human tumor models including renal cell carcinoma, melanoma and colon adenocarcinoma.

- Interleukin-17E (IL-17E)** is an inflammatory cytokine that Lorus' scientists were the first to discover with an anticancer activity against several human tumor types, including colon cancer, melanoma, and pancreatic cancer, with low toxicity. Additional preclinical studies are being done with IL-17E to further evaluate its efficacy and toxicity profile in comparison to other cytokines that are approved for cancer therapy, including interferon alpha and interleukin-2.



Contact Information

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