

## **Lorus Therapeutics Announces a Cooperative Research and Development Agreement with the U.S. National Cancer Institute**

- Preclinical evaluation of Lorus' RNA-targeted drugs as part of a novel therapeutic strategy for Renal Cell Carcinomas -

**TORONTO, CANADA** – May 19, 2009 – Lorus Therapeutics Inc. (TSX: LOR) (“Lorus”), a biopharmaceutical company specializing in the research and development of pharmaceutical products and technologies for the management of cancer, today announced extension of a cooperative research program with the U.S. National Cancer Institute (NCI), National Institutes of Health (NIH), which includes its Ribonucleotide Reductase (RNR) targeted RNA-targeted drugs.

Under a Materials Cooperative Research and Development Agreement (MCRADA), the Laboratory of Cancer Biology & Genetics (LCBG) of the NCI will use Lorus' LOR-2501 and LOR-2040 (formerly known as GTI-2501 and GTI-2040, respectively), and LOR-1284 (a lead small interfering RNA (siRNA) candidate, formerly known as siRNA-1284), in combination with commercially-available drugs, to develop a drug cocktail(s) that is more effective for the treatment of Renal Cell Carcinoma tumors than for normal regenerating kidney. Of specific interest in this regard is the potential usage of this anti-tumor treatment approach in targeting the tumor and not the normal regenerating tissue.

The title of the MCRADA is “Renal Cell Carcinoma as Wounds that do not heal: Drug Combinational Therapy using Lorus Therapeutics' Antisense Oligonucleotides to Ribonucleotide Reductase M1 Polypeptide (RRM1) & RRM2, and siRNA to RRM2”. The studies are being conducted at the NCI by Dr. Joseph Riss and the NIH Principal Investigator Dr. Glenn Merlino.

All three drugs that are being evaluated in this cooperative research program have emerged from Lorus' oncology drug discovery program and have been extensively tested in many preclinical models. LOR-1284 is currently in preclinical development as the Lorus' lead siRNA drug targeting RRM2 (also known as R2). LOR-2501 and LOR-2040, the Lorus' lead antisense drugs targeting RRM1 and RRM2 respectively, are each in clinical development stage with the primary focus at present on the LOR-2040 Phase II program in Acute Myeloid Leukemia, among several cancer indications studied.

“This MCRADA is an example of the ongoing collaborative research that Lorus strives to undertake in parallel with each of its developmental programs”, said Dr. Aiping Young, Lorus' President and CEO. “Such partnership accelerates the knowledge generated by research activities into practical applications and provides a basis for future development opportunities over and above our core development program”.

### **About Lorus**

Lorus is a biopharmaceutical company focused on the research and development of novel therapeutics in cancer. Lorus' goal is to capitalize on its research, preclinical, clinical and regulatory expertise by developing new drug candidates that can be used, either alone, or in combination with other drugs, to successfully manage cancer. Lorus Therapeutics Inc. is listed on the Toronto Stock Exchange under the symbol LOR.

## **Forward Looking Statements**

This press release may contain forward-looking statements within the meaning of Canadian and U.S. securities laws. Such statements include, but are not limited to, statements relating to: our research program plans, our plans to conduct clinical trials, the successful and timely completion of clinical studies and the regulatory approval process, our ability to fund future research, our plans to obtain partners to assist in the further development of our product candidates, the establishment of corporate alliances, the Company's plans, objectives, expectations and intentions and other statements including words such as "continue", "believe", "plan", "expect", "intend", "will", "should", "may", and other similar expressions. Such statements reflect our current views with respect to future events and are subject to risks and uncertainties and are necessarily based upon a number of estimates and assumptions that, while considered reasonable by us are inherently subject to significant business, economic, competitive, political and social uncertainties and contingencies. Many factors could cause our actual results, performance or achievements to be materially different from any future results, performance, or achievements that may be expressed or implied by such forward-looking statements, including, among others: our ability to continue as a going concern, our ability to repay or refinance the convertible debentures by October 2009; our ability to obtain the capital required for research and operations, the inherent risks in early stage drug development including demonstrating efficacy, development time/cost and the regulatory approval process; the progress of our clinical trials; our ability to find and enter into agreements with potential partners; our ability to attract and retain key personnel; changing market conditions; and other risks detailed from time-to-time in our ongoing quarterly filings, annual information forms, annual reports and annual filings with Canadian securities regulators and the United States Securities and Exchange Commission.

Should one or more of these risks or uncertainties materialize, or should the assumptions set out in the section entitled "Risk Factors" in our Annual Information Form underlying those forward-looking statements prove incorrect, actual results may vary materially from those described herein. These forward-looking statements are made as of the date of this press release and we do not intend, and do not assume any obligation, to update these forward-looking statements, except as required by law. We cannot assure you that such statements will prove to be accurate as actual results and future events could differ materially from those anticipated in such statements. Investors are cautioned that forward-looking statements are not guarantees of future performance and accordingly investors are cautioned not to put undue reliance on forward-looking statements due to the inherent uncertainty therein.

Lorus Therapeutics Inc.'s recent press releases are available through the Company's website at [www.lorusthera.com](http://www.lorusthera.com). For Lorus' regulatory filings on SEDAR, please go to [www.Sedar.com](http://www.Sedar.com). For SEDAR filings prior to July 10, 2007 you will find these under the company profile for Global Summit Real Estate Inc. (Old Lorus).

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