

Lorus Therapeutics Announces Settlement of Secured Convertible Debentures

TORONTO, CANADA – June 22, 2009 – Lorus Therapeutics Inc. (Lorus), a biopharmaceutical company specializing in the research and development of pharmaceutical products and technologies for the management of cancer, today reported that it has reached a settlement with the debenture holders, The Erin Mills Investment Corporation (TEMIC), with respect to the purchase and settlement of the \$15 million secured convertible debentures (the “Debentures”). Unless specified otherwise, all amounts are in Canadian dollars.

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

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

“The settlement announced today is a key turning point for Lorus and our shareholders”, said Dr. Aiping Young, President and CEO of Lorus, “We are now able to focus on the development of our promising pipeline together with establishing key partnerships and strategic alliances which have previously been difficult to execute with the overhang of such a significant liability. We are also pleased that this liability could be resolved with no dilution to our shareholders while allowing us to retain a significant portion of the future value of Virulizin.”

Agreement with ZOR Pharmaceuticals

As previously announced on April 8, 2008 Lorus entered into an exclusive multinational license agreement with ZOR formed as a subsidiary of Zoticon Bioventures Inc. Under the terms of the agreement, Lorus was entitled to receive payments in excess of U.S.\$12 million upon achievement of various milestone events and royalties that vary from 10-20% depending on achieving of sales of Virulizin® and subject to certain other adjustments. In addition, Lorus received 25% of the initial equity in ZOR. ZOR is responsible for the cost of all the clinical development, regulatory submissions and commercialization of Virulizin® in North, South and Central America, Europe and Israel (the “Territory”). Lorus had retained the rights in all other countries, including Japan, Australia and New Zealand. Lorus shall pay to Zor an amount equal to 10% of the amount of any royalty payments actually received by Lorus from a third party from the sale of any product for animal use in the Territory.

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. Through its own discovery efforts and an acquisition and in-licensing program, Lorus is building a portfolio of promising anticancer drugs. Lorus Therapeutics Inc. is listed on the Toronto Stock Exchange under the symbol LOR.

Forward Looking Statements

This press release contains forward-looking statements within the meaning of Canadian and U.S. securities laws. Such statements include, but are not limited to, statements relating to: financings and corporate reorganizations, the establishment of corporate alliances, the Company's plans, objectives, expectations and intentions and other statements including words such as "continue", "expect", "intend", "will", "should", "would", "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 described in this press release. Such expressed or implied forward looking statements could include, among others: our ability to continue as a going concern, 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 filings with Canadian securities regulators and the United States Securities and Exchange Commission (the "SEC").

Should one or more of these risks or uncertainties materialize, or should the assumptions set out in the section entitled "Risk Factors" in our filings with Canadian securities regulators and the SEC 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 applicable 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 its website at www.lorusthera.com. For Lorus' regulatory filings on SEDAR, please go to www.sedar.com. For SEDAR filings prior to July 10, 2007 you can find these under the company profile for Global Summit Real Estate Inc. (Old Lorus).

For further information, please contact:

Lorus Therapeutics Inc.

Dr. Saeid Babaei, 1-416-798-1200 ext. 490
ir@lorusthera.com