February 23, 2009

Tekmira Publishes PLK1 SNALP Anti-Tumor Efficacy Data

Vancouver, BC — Tekmira Pharmaceuticals Corporation (TSX: TKM) announced today that preclinical data published in the Journal of Clinical Investigation demonstrate that PLK1 SNALP can effectively kill cancer cells and decrease tumor burden in preclinical studies of liver cancer and other solid tumors.

The published work (Judge et al, Confirming the RNAi-mediated mechanism of action of siRNA-based cancer therapeutics. JCI. 23 Feb 09) was completed by a team of Tekmira scientists led by the company's Chief Scientific Officer, Dr. Ian MacLachlan. The work was published as a 'Technical Advance', a category in the Journal reserved for the reporting of new and important research tools and techniques that have broad impact.

Dr. Mark J. Murray, Tekmira's President and CEO, said "The published data is a rigorous demonstration that PLK1 SNALP has the potential to treat a variety of solid tumors. This represents a significant advance in the development of RNAi drugs to treat cancer."

PLK1 SNALP is targeted against PLK1 (polo-like kinase 1), a protein involved in tumor cell proliferation and an important oncology target. Inhibition of PLK1 prevents the tumor cell from completing cell division, resulting in cell cycle arrest and cell death.

Furthermore, the publication highlighted new SNALP formulations designed to prolong the circulation of SNALP for delivery to distal tumor sites. The new SNALP formulations provided potent anti-tumor efficacy in preclinical models of distal tumors outside the liver.

The published results demonstrate that systemic administration of PLK1 SNALP blocked PLK1 expression in liver tumors causing extensive mitotic disruption and tumor cell death, following a single intravenous administration. After repeat dosing, this result translated into significant inhibition of tumor growth and prolonged survival without evidence of toxicities often associated with oncology drugs. The PLK1 SNALP anti-tumor efficacy results were confirmed to be the result of silencing PLK1 via RNA inference and were not the result of non-specific immune stimulation.

About RNAi and SNALP
RNAi drugs have the potential to treat human diseases by "switching-off" disease causing genes. The technology, representing one of the most promising and rapidly advancing frontiers in biology and drug discovery, was awarded the 2006 Nobel Prize for Physiology or Medicine. RNAi drugs, such as siRNA, require delivery technology to be administered systemically. In preclinical studies, Tekmira's SNALP (stable nucleic acid-lipid particles) technology has been shown to be a safe and effective way to deliver RNAi drugs to disease sites. Tekmira believes it has a leading intellectual property position in the field of siRNA delivery.

About Tekmira
Tekmira Pharmaceuticals Corporation is a biopharmaceutical company focused on advancing novel RNAi therapeutics and providing its leading lipid nanoparticle delivery technology to pharmaceutical partners. Further information about Tekmira can be found at www.tekmirapharm.com. Tekmira is based in Vancouver, B.C.

Forward-Looking Statements and Information
There are forward-looking statements and information contained herein that are not based on historical fact, including, without limitation, statements containing the words "believes," "may," "plans," "will," "estimate," "continue," "anticipates," "intends," "expects," and similar expressions, and the negative of such expressions. These statements are only predictions.

Forward-looking statements and information should be considered carefully. Undue reliance should not be placed on forward-looking statements and information as there can be no assurance that the plans, intentions or expectations upon which they are based will occur. By their nature, forward-looking statements and information involve numerous assumptions, known and unknown risks and uncertainties, both general and specific, which contribute to the possibility that the predictions, forecasts, projections and other forward-looking statements and information will not occur and may cause actual results or events to differ materially from those anticipated in such forward-looking statements and information.

With respect to the pre-clinical results discussed in this news release, there are circumstances and factors that may cause

human clinical results to be materially different from any results that may be expressed or implied by information relating to the pre-clinical results. Such circumstances and factors include the following: clinical trials may not demonstrate safety and efficacy in humans or the drug candidates may fail in development or be delayed to a point where they do not become commercially viable.

The business of Tekmira is also subject to other risks and factors that may cause actual results, events or developments to be materially different from any future results, events or developments expressed or implied by any forward-looking statement and information. Such factors include, among others, the stage of development of Tekmira, lack of product revenues, additional capital requirements, the need to obtain regulatory approval to commence clinical trials, risks associated with the completion of clinical trials and obtaining regulatory approval to market Tekmira's products, the safety and efficacy of Tekmira's products, the ability to protect Tekmira's intellectual property and dependence on collaborative partners.

A more complete discussion of the risks and uncertainties facing Tekmira appears in Tekmira's management information circular dated May 1, 2008 and available at www.sedar.com. Tekmira disclaims any obligation to update any such factors or to publicly announce the result of any revisions to any of the forward-looking statements or information contained herein to reflect future results, events or developments, except as required by law.

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