April 3, 2009

Tekmira Partner Alnylam Initiates ALN-VSP Phase 1 Trial in Patients with Liver Cancer. First Clinical Trial Utilizing SNALP Triggers Milestone Payment

Vancouver, BC — Tekmira Pharmaceuticals Corporation (TSX: TKM) announced today that one of the company's collaborators, Alnylam Pharmaceuticals, Inc. (Nasdaq: ALNY), has initiated a Phase 1 human clinical trial of ALN-VSP in the United States. ALN-VSP, a product that utilizes Tekmira's SNALP technology, is being developed as a treatment for advanced liver cancers, including hepatocellular carcinoma and other solid tumors with liver involvement. A milestone payment is payable to Tekmira upon the initiation of the Phase 1 trial and additional milestone payments become due as ALN-VSP is advanced through development.

Dr. Mark J. Murray, Tekmira's President and CEO, said "We are pleased that Alnylam has initiated their Phase 1 clinical trial of ALN-VSP as this represents an important milestone in the advancement of our SNALP technology. We will continue to support Alnylam and the ALN-VSP product as we manufacture the ALN-VSP clinical supplies on behalf of Alnylam."

ALN-VSP contains small interfering RNA (siRNA) molecules formulated for systemic delivery with Tekmira's SNALP technology. Tekmira has supported Alnylam in their advancement of ALN-VSP by generating preclinical data, providing analytical services and in the manufacture of ALN-VSP for clinical trials. Pre-clinical data in mouse tumor model studies have demonstrated robust efficacy of ALN-VSP, including suppression of targeted genes, demonstration of an RNAi mechanism of action, tumor reduction, and extension of survival.

Alnylam's ALN-VSP Phase I trial, being conducted in the U.S., is a multi-center, open label, dose escalation study designed to enroll approximately 55 patients with advanced solid tumors with liver involvement, who have failed to respond to or have progressed after standard treatment. The primary objective is to evaluate the safety, tolerability, and pharmacokinetics of intravenous ALN-VSP, including demonstration of the maximum tolerated dose. Other exploratory objectives include the assessment of tumor response through Response Evaluation Criteria for Solid Tumors (RECIST), a set of published guidelines that define when cancer patients' disease improves, stabilizes or progresses during treatment; change in tumor blood flow or vascular permeability measured by DCE-MRI; and, change in plasma biomarkers of angiogenesis. In addition, the analysis of pharmacodynamic effects of ALN-VSP on tumors will be measured in patients electing to proceed with voluntary pre- and post-treatment biopsies.

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 announcement of our partner that they have initiated a Phase 1 trial that is discussed in this news release, we have relied solely on the information provided by our partner for information on the trial. There is no guarantee that the trial will generate results that are consistent with pre-clinical results, or that the results generated will justify the future clinical development of the product.

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 Annual Information Form dated March 31, 2009 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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