December 23, 2008

Tekmira Partner Alnylam Files First IND for an RNAi Therapeutic Utilizing SNALP

Vancouver, BC — Tekmira Pharmaceuticals Corporation (TSX: TKM) announced today that one of the company's collaborators, Alnylam Pharmaceuticals Inc. (Nasdaq: ALNY), has filed an Investigational New Drug (IND) application with the United States Food and Drug Administration (FDA) seeking approval to begin a human clinical trial for a product candidate utilizing Tekmira's SNALP delivery technology.

The Alnylam product candidate, ALN-VSP, is being developed as a treatment for liver cancers, including hepatocellular carcinoma and other solid tumors with liver involvement. ALN-VSP contains small interfering RNA (siRNA) molecules formulated for systemic delivery with Tekmira's SNALP technology. Tekmira has supported Alnylam in their IND filing by generating ALN-VSP preclinical data, providing analytical services and in the manufacture of ALN-VSP for clinical trials. Alnylam expects to initiate the ALN-VSP Phase 1 clinical trial in the first half of 2009.

Mark J. Murray, Tekmira's President and CEO, said, "This is an important milestone for Tekmira as ALN-VSP represents the first RNAi therapeutic to enter a human clinical trial using our SNALP technology. We will continue to build on this work as we advance our own proprietary products, ApoB SNALP and PLK1 SNALP, to human clinical trials in 2009."

Barry Greene, President and Chief Operating Officer at Alnylam, said, "The ALN-VSP IND filing was a key goal for Alnylam in 2008 and meeting this goal is a testament to the strong working relationship and collaboration we have with Tekmira. In our view, SNALP is a promising, leading systemic delivery technology in the RNAi field and we are excited to be advancing this technology into clinical trials."

Tekmira is eligible to receive a milestone payment upon the dosing of the first patient in a ALN-VSP Phase 1 clinical trial. In aggregate, Tekmira is eligible to receive up to US$16M in milestones on

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 when 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.

There are also other factors that may cause the actual results, events or developments to be materially different from any future results, events or developments expressed or implied by such forward-looking statements 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 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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