June 7, 2010

Tekmira Partner Alnylam Presents ALN-VSP Preliminary Phase 1 Clinical Trial Results at American Society of Clinical Oncology (ASCO) Annual Meeting

Vancouver, BC — Tekmira Pharmaceuticals Corporation (TSX: TKM), a leader in RNA interference (RNAi) therapeutics, announced today that one of the Company's pharmaceutical partners, Alnylam Pharmaceuticals, Inc. (Nasdaq: ALNY), presented preliminary data from an ongoing Phase 1 human clinical trial of ALN-VSP. ALN-VSP utilizes Tekmira's lipid nanoparticle technology (stable nucleic acid-lipid particles or SNALP) and is a systemically delivered novel RNAi product being developed as a treatment of advanced solid tumors with liver involvement.

Dr. Mark J. Murray, Tekmira's President and CEO, said "We are pleased to report that our partner Alnylam is presenting ALN-VSP data at ASCO. These results represent an important milestone in the advancement of RNAi therapeutic products that utilize our lipid nanoparticle technology. We continue to manufacture ALN-VSP drug product for Alnylam and will benefit as ALN-VSP advances through clinical development and commercialization by earning milestone payments as well as royalties on product sales."

"By the end of 2010 we expect there will be five RNAi therapeutics in clinical development using our leading lipid nanoparticle technology including our own product candidates, ApoB SNALP and PLK1 SNALP, along with three additional products being developed by our pharmaceutical partners," added Dr. Murray.

Alnylam's ALN-VSP data are being presented at the ASCO meeting in a poster titled "Interim safety and pharmacodynamic results for ALN-VSP02, a novel RNAi therapeutic for solid tumors with liver involvement," in the Developmental Therapeutics – Experimental Therapeutics poster session. The study results from the initial 19 patients in the first four dose cohorts demonstrate that ALN-VSP is well tolerated in most patients, and results from pharmacodynamic measurements provide preliminary evidence of clinical activity. The study has not yet reached a maximum tolerated dose and is continuing enrollment with dose escalation.

About RNAi and SNALP

RNAi therapeutics have the potential to treat a broad number of human diseases by "silencing" disease causing genes. The discoverers of RNAi, a gene silencing mechanism used by all cells, were awarded the 2006 Nobel Prize for Physiology or Medicine. RNAi therapeutics, such as "siRNAs," require delivery technology to be effective systemically. Lipid nanoparticles (LNPs) are one of the most widely used siRNA delivery approaches for systemic administration. Tekmira's SNALP (stable nucleic acid-lipid particles) technology is the leading class of LNPs being used in clinical development. SNALP technology encapsulates siRNAs with high efficiency in uniform lipid nanoparticles which are effective in delivering RNAi therapeutics to disease sites in numerous preclinical models. SNALP formulations are manufactured by a proprietary method which is robust, scalable and highly reproducible. SNALP-based products have been reviewed by multiple FDA divisions for use in clinical trials. SNALP formulations comprise several lipid components that can be adjusted to suit the specific application.

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. Tekmira has been working in the field of nucleic acid delivery for over a decade and has broad intellectual property covering SNALP and LNPs. Further information about Tekmira can be found at www.tekmirapharm.com. Tekmira is based in Vancouver, B.C.

Forward-looking Statements and Information

This press release contains "forward-looking statements" or "forward-looking information" within the meaning of applicable securities laws (collectively, "forward-looking statements"). Forward-looking statements are generally identifiable by use of the words "believes," "may," "plans," "will," "anticipates," "intends," "budgets", "could", "estimates", "expects", "forecasts", "projects" and similar expressions, and the negative of such expressions. Forward-looking statements in this news release include statements about Alnylam's ALN-VSP RNAi product development program as a treatment of advanced solid tumors with liver involvement; the advancement of products that utilize Tekmira's lipid nanoparticle technology; the advancement of ALN-VSP through clinical development and commercialization with corresponding milestone and royalty payments to Tekmira; the number

of RNAi therapeutics in clinical development by the end of 2010; and the use of SNALP technology by Tekmira's licensees.

With respect to the forward-looking statements contained in this news release, Tekmira has made numerous assumptions regarding, among other things: SNALP's status as a leading RNAi delivery technology; the timing and results of clinical data releases and use of SNALP technology by Tekmira's development partners and licensees; and payments to be received under contracts with Tekmira's collaborative partners. While Tekmira considers these assumptions to be reasonable, these assumptions are inherently subject to significant business, economic, competitive, market and social uncertainties and contingencies.

Additionally, there are known and unknown risk factors which could cause Tekmira's actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements contained herein. Known risk factors include, among others: the possibility that other organizations have made advancements in RNAi delivery technology that Tekmira is not aware of; Tekmira's development partners and licensees conducting clinical trials and development programs will not result in expected results on a timely basis, or at all; anticipated payments under contracts with Tekmira's collaborative partners will not be received by Tekmira on a timely basis, or at all, or in the quantum expected by Tekmira; there may be fewer RNAi therapeutics using Tekmira's lipid nanoparticle technology than expected in the anticipated time frame; clinical trials may not generate results that warrant future development of the tested drug candidate; funding from research and product development partners may not be provided when required under agreements with those partners.

A more complete discussion of the risks and uncertainties facing Tekmira appears in Tekmira's Annual Information Form dated March 31, 2010 available at www.sedar.com. All forward-looking statements herein are qualified in their entirety by this cautionary statement, and Tekmira disclaims any obligation to revise or update any such forward-looking statements or to publicly announce the result of any revisions to any of the forward-looking statements contained herein to reflect future results, events or developments, except as required by law.

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