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Tekmira Makes Significant Improvements in the Potency of its Leading RNAi Delivery Platform

-New research published in Nature Biotechnology confirms 10-fold improvements in SNALP potency-

Vancouver, BC — Tekmira Pharmaceuticals Corporation (TSX: TKM), a leading developer of RNA interference (RNAi) therapeutics and proprietary delivery technology, announced today that new research published in the journal *Nature Biotechnology* discloses the development of a new lipid component that provides a ten-fold improvement in the potency of the Company's SNALP delivery platform. The research was led by Tekmira scientists and conducted in collaboration with the University of British Columbia and Alnylam Pharmaceuticals, Inc.

Dr. Mark J. Murray, Tekmira's President and CEO, said "This work advances Tekmira's leadership position in the delivery of RNAi therapeutics and supports our strategy of expanding the tremendous potential for the development of SNALP-based products by Tekmira and its partners. Our scientists have been leading the field of nucleic acid delivery for the past decade and this research brings us one step closer to enabling the development of systemic RNAi products."

The *Nature Biotechnology* paper (Semple et al., *Nature Biotechnology* advance online publication, 17 January 2010 (doi:10.1038/nbt.1602)) describes the design of new cationic lipids suitable for incorporation into Tekmira's stable nucleic acid-lipid particles (SNALP) delivery platform. Tekmira and its collaborators designed the new cationic lipids utilizing an extensive understanding of lipid structure and the role these lipids play in the delivery of small interfering RNA (siRNA) to target cells. In particular, the publication reported a specific lipid known as DLin-KC2-DMA (KC2), which when incorporated into Tekmira's SNALP formulations results in significant improvements in potency, including gene silencing in rodents and primates at doses of 0.01 mg/kg and 0.1 mg/kg, respectively. The publication also reported that the KC2 SNALP formulations were well-tolerated.

Lipid nanoparticle delivery, such as SNALP, represents the most effective and widely adopted delivery strategy for the systemic delivery of RNAi therapeutics. Tekmira's SNALP platform, the most robust and advanced lipid nanoparticle delivery approach, is being utilized in multiple clinical trials by both Tekmira and its partners. Tekmira has broad intellectual property covering SNALP and related lipid nanoparticles.

Tekmira's research team continues to improve all aspects of its SNALP platform including the evaluation of novel lipid components and the introduction of cell targeting ligands. Tekmira's research efforts are also focused on improving the design of the molecules that mediate RNAi, including siRNAs, as well as chemical modifications of RNA that improve the safety and effectiveness of RNA-based drugs.

"With this research, we are continuing to improve our SNALP delivery technology, which is utilized in our RNAi product candidates and those of our partners, including Alnylam and Roche. Over the next 12 to 18 months, we expect to support up to six SNALP-based products in clinical development," added Dr. Murray.

Tekmira is advancing two RNAi therapeutic product candidates, ApoB SNALP and PLK1 SNALP. ApoB SNALP is being developed as a treatment for patients with elevated LDL cholesterol, or "bad" cholesterol, who are not well served by current therapy. ApoB SNALP recently completed a Phase 1 clinical trial. Tekmira is continuing the development of ApoB SNALP by advancing a new and more potent SNALP formulation with an improved siRNA payload, which is expected to enter an additional Phase 1 clinical trial in the second half of 2010. PLK1 SNALP is being developed as a treatment for cancer using a SNALP formulation designed to reach solid tumors outside the liver. Tekmira is planning to initiate a PLK1 SNALP Phase 1 clinical trial in the second half of 2010.

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. SNALP formulations are manufactured by a proprietary method which is scalable, reproducible and has been reviewed by the FDA for use in clinical trials. SNALP formulations are comprised of several lipid components that can be adjusted to suit the specific application. Tekmira has been working in the field of nucleic acid delivery

for over a decade and has broad intellectual property covering SNALP and related lipid nanoparticles.

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.

With respect to the statements in this news release related to our intention to begin Phase 1 clinical trials in the second half of 2010, such statements are based upon Tekmira's assessment of its research and development capabilities and resources, and its understanding of the regulatory approval process. Statements in this news release regarding the intention of our partners to commence clinical trials are based upon Tekmira's discussions with its development partners and public statements made by those partners. Regulatory consent is required to commence a clinical trial and there is no guarantee that the regulatory authorities, such as the FDA, will authorize the commencement of any trial proposed by us or our partners.

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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