May 13, 2009

Tekmira Pharmaceuticals Corporation Announces First Quarter 2009 Operating Results and Provides Corporate Update

VANCOUVER, B.C. — Tekmira Pharmaceuticals Corporation (TSX: TKM) today announced its operating results for the first quarter of 2009.

Dr. Mark J. Murray, Tekmira's President and CEO, said, "We made excellent progress in all aspects of our business in the first quarter of 2009 including continued progress with our internal product development programs, significant scientific and technical achievements with our SNALP technology as well as business development success. This progress continues to support Tekmira's leadership position in the advancement of RNAi therapeutics and provides us with the financial strength to execute our business strategy into mid-2011."

Key achievements during the first quarter of 2009 and recent highlights include:

- The completion of all the necessary work to file an Investigational New Drug (IND) application for Tekmira's lead product ApoB SNALP as a treatment for elevated low-density lipoprotein (LDL) cholesterol. Early in the second quarter, the IND filing was completed and we received approval from the United States Food and Drug Administration (FDA) to initiate a Phase 1 human clinical trial;

- The initiation by Alnylam of a Phase 1 clinical trial for ALN-VSP, which represents the first human clinical trial that uses Tekmira's SNALP technology and also triggered a milestone payment from Alnylam to Tekmira;

- Tekmira presented new data highlighting further improvements in both the potency and tolerability of its SNALP formulation technology that result in a wider therapeutic index for systemically delivered siRNA drugs. Improvements in therapeutic index have the potential to broaden the therapeutic applications for Tekmira's SNALP technology. This data, presented at the Asia TIDES Oligonucleotide and Peptide® Technology and Product Development Conference in Tokyo, Japan, demonstrated improvements in the therapeutic index of new SNALP formulations of 5-10 times over that of formulations previously in use. These improvements were made by incorporating novel proprietary lipids in Tekmira's SNALP formulations;

- Data published in the Journal of Clinical Investigation that demonstrate Tekmira product candidate PLK1 SNALP can effectively kill cancer cells and decrease tumor burden in preclinical studies of liver cancer and other solid tumors. PLK1 SNALP is targeted against PLK1 (polo-like kinase 1), a protein involved in tumor cell growth and an important oncology target. The publication also highlighted new SNALP formulations designed to prolong the circulation of SNALP for delivery to distal tumor sites. The new SNALP formulations resulted in potent anti-tumor efficacy in preclinical models of distal tumors outside the liver;

- The signing of an exclusive manufacturing agreement with Alnylam Pharmaceuticals, Inc. (Nasdaq: ALNY) that will pay Tekmira a minimum of $11.2 million over the next three years to support the advancement of Alnylam's products that use Tekmira's SNALP technology; The signing of a product development agreement with global healthcare company Roche (SWX: ROG.VX; RO.S, OTCQX: RHHBY) under which Roche will pay Tekmira up to US$18.4 million to support preclinical development of Roche's first two RNAi products that use Tekmira's SNALP technology;

- The extension of a research collaborative agreement with Bristol-Myers Squibb Company (NYSE: BMY) through 2009. The collaboration focuses on validating certain gene targets using siRNA provided by Bristol-Myers Squibb and employing Tekmira's SNALP formulations to deliver the siRNA;

- The initiation of a research collaboration with Takeda Pharmaceutical Company Limited. The collaboration focuses on Takeda's evaluation of Tekmira's SNALP technology; and

- Ending the first quarter with $30 million in cash through prudent management of expenses and strong revenue from Tekmira's pharmaceutical partners. Tekmira believes the current cash on hand and the estimated revenue from pharmaceutical partners will enable Tekmira to execute its business strategy through mid-2011 without the need for additional financing.

FINANCIAL RESULTS
For Q1 2009 net loss was $2.1 million ($0.04 per common share, basic and fully diluted) as compared to a net loss of $0.4 million ($0.02 per common share, basic and fully diluted) for Q1 2008.

There are a number of factors contributing to changes in results including the expansion of Tekmira's business following the combination with Protiva on May 30, 2008.

Revenue / Revenue from research and development collaborations was $2.9 million for Q1 2009 as compared to $0.6 million for Q1 2008. The increase is largely a result of an expansion in Tekmira's manufacturing and research collaboration with Alnylam. Revenue from licensing fees and milestone payments was nil for Q1 2009 as compared to $1.3 million for Q1 2008 and relates to the amortization of up-front payments from Alnylam.

Alnylam revenue / Research and development collaborations revenue from Alnylam was $2.4 million for Q1 2009 as compared to $0.6 million for Q1 2008. Up until December 31, 2008, Alnylam was making collaborative payments under agreements with both Tekmira and Protiva. Effective January 1, 2009, all collaborative research with Alnylam is to be performed under the Protiva Cross-License and manufacturing is to be performed under the Manufacturing Agreement. Under the Cross-License, Alnylam is required to make collaborative research payments at a minimum rate of US$2.0 million per annum for the provision of the Company's research staff until August 13, 2009. Under the Manufacturing Agreement Tekmira continues to be the exclusive manufacturer of any products required by Alnylam through to the end of phase 2 clinical trials that utilize Tekmira's technology. Under the new Manufacturing Agreement there is a contractual minimum payment for the provision of staff of $11.2 million for the three years from 2009 to 2011. Alnylam also reimburses Tekmira for any external costs incurred.

Tekmira is eligible to receive from Alnylam up to US$16.0 million in milestones for each RNAi therapeutic advanced by Alnylam or its partners, including Roche and Takeda, that utilize Tekmira's intellectual property, and royalties on product sales.

Other RNAi collaborators / Research and development collaborations revenue from other RNAi collaborators was $0.5 million for Q1 2009 as compared to nil for Q1 2008. Tekmira has active revenue generating research agreements with a number of other RNAi collaborators including Roche, Bristol-Myers Squibb and Takeda.

Expenses / Research, development and collaborations / Research, development and collaborations expenses increased to $3.6 million in Q1 2009 as compared to $2.0 million in Q1 2008. As a result of the business combination with Protiva on May 30, 2008, the level of research and development activities have increased. Research and development staff numbers have increased to 60 at March 31, 2009 (total staff 72) as compared to 39 (total staff 49) at March 31, 2008. Tekmira now occupies the majority of its leased facility whereas in Q1 2008 the Company was receiving sub-lease income for two-thirds of the facility. Program expenses for ApoB SNALP and PLK1 SNALP also contributed to the increase in research and development expenses. Also, in the first quarter of 2008, Tekmira did not perform any manufacturing work for Alnylam whereas in the first quarter of 2009 the Company produced a number of batches and incurred related costs that are being charged through to Alnylam.

Intellectual property legal expenses increased from $0.1 million in Q1 2008 to $0.3 million in Q1 2009 due to the expansion of Tekmira's patent portfolio following the business combination with Protiva.

General and administrative / General and administrative expenses were $1.0 million for Q1 2009 as compared to $0.7 million for Q1 2008. The increase partially relates to higher salary costs and higher facility costs as discussed above as the Company apportions facility costs between research, development and collaborations and general and administrative expense categories. Legal costs in the first quarter of 2009 include costs to negotiate research agreements with collaborative partners whereas legal costs incurred in the first quarter of 2008 related mostly to the business combination with Protiva and were capitalized.

LIQUIDITY AND CAPITAL RESOURCES
At March 31, 2009, Tekmira had cash and cash equivalents of approximately $30.0 million as compared to $31.9 million at December 31, 2008.

In Tekmira's 2008 Annual Report there was guidance provided that the Company had sufficient funds on hand to continue product development until some time in the second half of 2010. As a result of signing the Roche product development agreement the Company now believes that current funds on hand plus expected interest income and the contractually payable further funds from collaborators will be sufficient to continue product development until mid-2011 (see Forward-Looking Statements for a discussion of assumptions made in arriving at this estimate).

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.

More particularly and without limitation, this press release contains forward-looking statements, assumptions and information concerning the Company's potential, the potential of RNAi therapeutics as a treatment for disease, product development plans, the number and timing of advancement of products into clinical development, the plans of collaborative partners and the impact of those collaborations on product development activities and financial resources. There are circumstances and factors that may cause assessments included in these forward-looking statements to materially change. Such circumstances and factors include the failure of RNAi therapies to become commercially viable, Tekmira's inability or a collaborative partner's inability to develop commercially viable RNAi therapies and changes to the product development plans of collaboration partners.

Also included in this press release is an estimate of the length of time that Tekmira's business will be funded by its anticipated financial resources. There are circumstances and factors that may cause actual cash usage to be materially different from Tekmira's current estimate of the adequacy of its cash resources. Such circumstances and factors include the following: preclinical trials may not be completed, or clinical trials started, when anticipated; preclinical and clinical trials may be more costly or take longer to complete than currently anticipated; preclinical or clinical trials may not generate results that warrant future development of the tested drug candidate; funding and milestone payments from research and product development partners may not be provided when required under agreements with those partners; decisions to in-license or acquire additional products for development; Tekmira may become subject to product liability or other legal claims for which the Company has made no accrual in its financial statements; the sufficiency of budgeted capital expenditures in carrying out planned activities; and the availability and cost of labour and services.

Tekmira's business is also subject to other risks and 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 impact of the global economic downturn, the need to obtain regulatory approval to commence further clinical trials, risks associated with the completion of clinical trials and obtaining regulatory approval to market the Company's products, the safety and efficacy of Tekmira's products, the ability to protect its 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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