March 17, 2010

Tekmira Pharmaceuticals Provides Corporate Update and Reports 2009 Audited Results

Vancouver, BC — Tekmira Pharmaceuticals Corporation (TSX: TKM), a leading developer of RNA interference (RNAi) therapeutics, today reported its 2009 audited operating results, including a summary of 2009 corporate and product development achievements as well as recent corporate highlights.

Dr. Mark J. Murray, Tekmira's President and CEO, said, "In 2009 Tekmira strengthened its leadership in the promising field of RNAi therapeutics through the advancement of our own RNAi product candidates, the advancement of product candidates by our partners Alnylam and Roche, and through continued scientific advances, most notably the improvements we have made to the potency of SNALP. Today, we believe SNALP is the leading RNAi delivery technology and the only technology enabling the clinical development of multiple RNAi product candidates delivered systemically.

In 2010, we anticipate that five SNALP-based RNAi therapeutics will be in clinical development, including our own product candidates, ApoB SNALP and PLK1 SNALP, and three others from our partners. We continue to expand the utility of our platform with technical advances and publish our results in high quality, peer reviewed scientific journals, which supports the expansion of our collaborative relationships, including the research collaboration we recently initiated with Pfizer."

On the strength of its growing portfolio of collaborative agreements, Tekmira generated $14.4 million in revenue in 2009. The company has cash resources to fund its product development plan into mid-2011.

2009 Key Achievements and Recent Corporate Highlights

Internal Product Development Highlights

- Completion of a 23 subject Phase 1 human clinical trial evaluating the safety, tolerability and pharmacokinetics of Tekmira's lead RNAi therapeutic product candidate ApoB SNALP as a treatment for high LDL cholesterol, or "bad" cholesterol. It is estimated that up to 60 million patients in the U.S. have high cholesterol and over 10 million patients are unable to adequately control their cholesterol levels with current therapy. Tekmira plans to initiate a Phase 1/2 human clinical trial in the second half of 2010 with a more potent second generation ApoB SNALP. Tekmira believes that ApoB SNALP is the most advanced RNAi therapeutic targeting a metabolic condition.

- Publication of PLK1 SNALP data in the Journal of Clinical Investigation supporting the development of PLK1 SNALP to treat solid tumor cancers outside the liver. Tekmira expects to file an investigational new drug (IND) application and initiate a Phase 1 human clinical trial for PLK1 SNALP in the second half of 2010. PLK1 SNALP has been shown in preclinical studies to potently and selectively kill cancer cells causing tumor regression. PLK1 SNALP is targeted against PLK1 (polo-like kinase 1), a protein involved in tumor cell proliferation. Inhibition of PLK1 prevents the tumor cell from completing cell division, resulting in cell cycle arrest and cell death.

- Publication of SNALP (stable nucleic acid-lipid particles) potency improvements broadening the utility of Tekmira's leading RNAi delivery platform. Tekmira recently published in Nature Biotechnology the development of a new lipid component that provides as much as a ten-fold improvement in SNALP potency over first generation SNALP formulations. Addressing the challenge of delivery is widely believed to be the most important technical advancement needed for broad application of RNAi therapeutics.

- Tekmira also recently presented at the AsiaTIDES scientific conference advances in siRNA structures to eliminate any stimulation of the human immune system, which is critical to the RNAi field. Tekmira expects to publish additional research in 2010 supporting the company's leadership position in the RNAi field.

Partner Product Development Highlights

- Alnylam Pharmaceuticals Inc. (Nasdaq: ALNY) initiated a Phase 1 human clinical trial evaluating RNAi drug candidate ALN-VSP, a product that utilizes Tekmira's SNALP technology, as a treatment for advanced liver cancers, including hepatocellular carcinoma and other solid tumors with liver involvement. Alnylam is expected to present preliminary data from the Phase 1 clinical trial in mid-2010. A milestone payment was paid to Tekmira upon the initiation of the Phase 1

trial and additional milestone payments become due as ALN-VSP is advanced through development. Tekmira is also manufacturing ALN-VSP and other Alnylam product candidates under a manufacturing agreement that will provide Tekmira a minimum of $11.2 million over three years from 2009-2011.

- Alnylam is expected to initiate a Phase 1 human clinical trial of ALN-TTR01 in transthyretin (TTR)-mediated amyloidosis patients in the first half of 2010. Alnylam will be advancing two ALN-TTR formulations, ALN-TTR01 and ALN-TTR02. Both ALN-TTR01 and ALN-TTR02 will be manufactured by Tekmira using SNALP technology.

- Entered into a product development agreement with global healthcare company Roche (SWX: ROG.VX; RO.S, OTCQX: RHHBY) to advance up to two Roche RNAi product candidates into human clinical trials using Tekmira's SNALP technology. Under the terms of the product development agreement, Roche will pay Tekmira up to US$18.4 million to support the advancement of up to two product candidates to the filing of IND applications. Tekmira is also eligible to receive up to US$32 million in milestones plus royalties on product sales as the first two products are advanced through development and commercialization based on Roche's access to Tekmira's intellectual property under previously announced agreements. Roche expects to file an IND for the first product candidate before the end of 2010.

- Extension of a research collaboration between Tekmira and Bristol-Myers Squibb Company (NYSE: BMY). The collaboration focuses on validating certain gene targets using small interfering RNA (siRNA) provided by Bristol-Myers Squibb and employing Tekmira's SNALP formulations to deliver the siRNA.

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

2009 Financial Results

For the fiscal year ended December 31, 2009, Tekmira's net loss was $9.8 million ($0.19 per common share, basic and fully diluted) as compared to a net loss of $14.3 million ($0.35 per common share, basic and fully diluted) for 2008.

There are a number of factors contributing to changes in Tekmira's results including some one time 2008 expenses linked to the business combination with Protiva and a loss due to the impairment of goodwill.

Revenue / Revenue from research and development collaborations, licensing fees and milestone payments was $14.4 million in 2009 as compared to $11.7 million in 2008. Collaborations revenue more than doubled in 2009 as the expiration of Tekmira's research collaboration with Alnylam was more than offset by the expansion of manufacturing services provided to Alnylam and the expansion of the collaboration with Roche.

Licensing fees and milestone payments revenue is lower in 2009 as compared to 2008 as up-front payments from Alnylam were fully amortized into revenue by the end of 2008 and the only 2009 receipt was an Alnylam milestone payment in respect of the ALN-VSP Phase 1 trial.

Expenses / Research, development and collaborations / Research and development expenses increased to $17.8 million in 2009 as compared to $16.1 million in 2008 due, in part, to the following factors:

- As a result of the business combination with Protiva completed on May 30, 2008, the level and cost of research and development activities generally increased.
- With the business combination, intellectual property portfolio and related expenses expanded.
- Spending on the ApoB SNALP program was significantly higher in 2008 as compared to 2009. In 2008 ApoB SNALP went through preclinical toxicology studies and the manufacture of drug product for human clinical trials. In 2009 the ApoB SNALP program moved into a Phase 1 clinical trial.
- In 2009 PLK1 SNALP spending increased significantly over 2008 with the commencement of preclinical toxicology studies and the manufacture of human clinical trial drug product.
- Costs marked up and passed through to collaborators were higher in 2009 as Tekmira supported a number of Alnylam products that utilize SNALP technology and in May 2009 Tekmira's collaboration with Roche expanded into product development.
- Research and development wage expenses increased significantly following the Protiva business combination and continued to be higher in 2009 as staffing levels were maintained to support Tekmia's two lead internal programs and collaborative partners.

Research, development and collaboration expenses and laboratory equipment costs are reported net of funding from the US government of $0.8 million in 2009 and $0.2 million in 2008.

Research and development staff numbers have increased to 64 at December 31, 2009 (total staff 78) as compared to 61 (total staff 76) at December 31, 2008.

Research, development and collaborations expenses guidance for 2010 / Research and development expenses are expected to increase in 2010 as development continues on PLK1 SNALP and ApoB SNALP.

General and administrative / General and administrative expenses decreased to $4.2 million in 2009 as compared to $4.4 million in 2008.

General and administrative expenses guidance for 2010 / General and administrative expenses are expected to decrease in 2010 largely as a result of the reclassification of information systems to research and development.

Liquidity and capital resources / At December 31, 2009, Tekmira had cash, cash equivalents and short-term investments of approximately $24.4 million as compared to $31.9 million at December 31, 2008.

Tekmira believes that current funds on hand plus expected interest income and funds that are contractually due from Alnylam, Roche and other collaborators will be sufficient to continue product development until mid-2011 (see Forward-Looking Statements).

About RNAi and SNALP
RNAi therapeutics have the potential to treat a broad number of 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 therapeutics, such as siRNA, require delivery technology to be effective systemically. Lipid nanoparticles (LNPs) represent one of most widely used delivery approaches for systemic administration and Tekmira's SNALP (stable nucleic acid-lipid particles), a family of LNPs, is the leading technology in the development of systemic RNAi therapeutics. In preclinical studies, SNALP technology has been shown to be a safe and effective way to deliver RNAi therapeutics 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 LNPs. The systemic RNAi product candidates being advanced by Tekmira, Alnylam and Roche employ SNALP technology.

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.

The forward-looking statements in this release include the status of SNALP as a leading RNAi delivery technology, estimates of the number of clinical development programs to be undertaken by Tekmira and its product development partners, selection of additional product candidates, development of continued SNALP technology improvements, timing of release of clinical data, use of SNALP technology by Tekmira's licensees and estimates of the length of time Tekmira's business will be funded by its anticipated financial resources.

With respect to the statement of SNALP's status as a leading RNAi delivery technology, such statement is made based upon Tekmira's knowledge of publicly announced RNAi product development programs and publicly announced clinical trials. There may, however, be organizations that have made advancements in RNAi delivery technology that have not been publicly disclosed.

With respect to statements on clinical programs, such statements are based upon Tekmira's assessment of its research and development capabilities and resources, the statements made by its development partners and its understanding of the regulatory approval process. However, FDA consent is required to commence a clinical trial and there is no guarantee that the FDA will approve the use of a new product candidate in a clinical trial.

With respect to statements on continued SNALP improvements, such statements are based upon Tekmira's assessment of its

research and development capabilities, however there is no guarantee that Tekmira will be able to make the necessary changes to develop technology improvements.

With respect to statements as to the release of clinical data and use of SNALP technology by Tekmira's development partners and licensees, such statements are based upon the statements made by its development partners and licensees. However, as these clinical trial and development programs are being conducted by
third parties they are not in the control of Tekmira.

This press release contains our estimate of the length of time that Tekmira's business will be funded by its anticipated financial resources. This estimate is based upon Tekmira's assessment of the time to complete its research and product development activities, the announced programs of its collaborative partners, and estimates of the timing of payments be received under contracts. However, there are circumstances and factors that may cause actual cash burn to be materially different from the current estimate of the adequacy of cash resources. Such circumstances and factors include the following: pre-clinical trials may not be completed, or clinical trials started, when anticipated; pre-clinical and clinical trials may be more costly or take longer to complete than currently anticipated; pre-clinical or 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; Tekmira may become subject to product liability or other legal claims for which the company has made no accrual on its financial statements; the sufficiency of budgeted capital expenditures in carrying out planned activities; and the availability and cost of labour and services.

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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