

Tekmira Pharmaceuticals Corporation Announces Second Quarter 2008 Operating Results

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Vancouver, BC —Tekmira Pharmaceuticals Corporation (TSX: TKM) announced today its operating results for the second quarter of 2008.

Dr. Mark J. Murray, Tekmira's President and CEO, said, "With the business combination of Tekmira and Protiva Biotherapeutics completed during the quarter, the new Tekmira is positioned to be a leader in the rapidly emerging field of RNAi therapeutics. The company has a clear strategy, a strong balance sheet and partnerships with some of the world's leading pharmaceutical companies."

"Our primary focus is on developing products exclusively in the RNAi therapeutics field and our secondary focus is to support our industry partners as they advance products based on Tekmira's leading delivery technology," added Dr. Murray.

Subsequent to the end of the quarter, Tekmira announced that it had completed a strategic review of its product pipeline and had selected two lead RNA interference (RNAi) product candidates, with plans to advance both into clinical development in 2009. The two lead candidates are ApoB SNALP and PLK1 SNALP.

On August 13th, the Company announced a research collaboration with Bristol-Myers Squibb (NYSE: BMY) using Tekmira's SNALP (stable nucleic acid-lipid particles) technology to deliver small interfering RNAs (siRNAs) to specific organs and tissues outside of the liver. On August 6th, Alnylam Pharmaceuticals, Inc. (Nasdaq: ALNY), one of the Company's collaboration partners, announced that it is on schedule to file an Investigative New Drug (IND) application before the end of 2008 for a product candidate that includes SNALP technology.

In addition to Bristol-Myers and Alnylam, Tekmira has relationships with F. Hoffman-La Roche Ltd. ("Roche"; SWX: ROG) and Merck & Co. (NYSE:MRK). The company has the opportunity to receive near term revenues by providing research and manufacturing services to its collaborators as well as the prospect of longer-term revenue tied to successful development of products.

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.

Tekmira continues to manage its financial resources prudently and at June 30, 2008 had \$37.9 million in cash and equivalents — sufficient to fund Tekmira's business plan for approximately two years.

Product Candidates

ApoB SNALP

ApoB SNALP is expected to enter a Phase 1 human clinical trial in the first half of 2009 as a treatment for high cholesterol. ApoB SNALP has been shown in preclinical studies to eliminate diet-induced high cholesterol, returning blood cholesterol levels to normal with a single treatment. Tekmira's approach is to address the underlying cause by targeting ApoB, a protein synthesized in the liver that is essential to the assembly and secretion of very low density lipoprotein (VLDL), a precursor to LDL, both of which are required for the transport and metabolism of cholesterol.

PLK1 SNALP

PLK1 SNALP is expected to enter a Phase 1 human clinical trial in the second half of 2009 as a treatment for cancer. PLK1 SNALP has been shown in preclinical studies to selectively kill cancer cells, while sparing normal cells in healthy tissue. 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. Tekmira expects to select its third siRNA product candidate in 2009. The Company has the right to develop a total of seven siRNA products based on access to Alnylam's leading intellectual property in the RNAi field, two of which, ApoB SNALP and PLK1 SNALP, have already been selected.

FINANCIAL RESULTS

For the six months ended June 30, 2008, Tekmira's net loss was \$5.3 million (\$0.18 per common share) as compared to a net loss of \$4.4 million (\$0.19 per common share) for the comparative period of 2007. For the three months ended June 30, 2008, Tekmira's net loss was \$4.8 million (\$0.14 per common share) as compared to a net loss of \$5.1 million (\$0.21 per common share) for the second quarter of 2007.

There are a number of factors contributing to changes in the Company's results including changes to revenue streams, the inclusion of Protiva's results from May 30, 2008, the date Protiva was acquired, and a \$5.2 million loss in the second quarter of 2007 on the purchase and settlement of promissory notes.

Revenue / Revenue from research and development collaborations, licensing fees and milestone payments was \$2.5 million for the second quarter of 2008 as compared to \$3.0 million for the second quarter of 2007 and was \$4.4 million for the first half of 2008 as compared to \$5.9 million for the first half of 2007. Revenue in the first half of 2007 arises from licensing and collaboration payments from partnerships with Alnylam and Hana Biosciences, Inc. that began on March 25, 2006 and May 6, 2006, respectively. Revenue in the first half of 2008 arises almost entirely from the Alnylam collaboration.

Alnylam revenue / On March 25, 2006, Tekmira signed an exclusive research collaboration agreement with Alnylam to evaluate Alnylam's RNAi therapeutics with our systemic lipid-based technology. On January 8, 2007, the Company entered into a licensing and expanded collaboration agreement with Alnylam (the "Alnylam LCA") giving them a worldwide exclusive license to its lipid-based delivery formulation technology for the discovery, development, and commercialization of RNAi therapeutics, and expanding the existing research and manufacturing alliance. The

agreement includes a minimum of US\$2.0 million in research and development collaboration funding in both 2007 and 2008. This revenue is being recorded based on the time spent by scientific staff and costs incurred on Alnylam research and development projects and amounted to \$1.4 million year to date (2007 first half - \$1.0 million) and \$0.8 million in the second quarter (2007 second quarter - \$0.6 million). Under the Alnylam LCA, Tekmira is also providing contract manufacturing services to Alnylam and this income is being recorded as research and development collaborations revenue.

As a result of the acquisition of Protiva on May 30, 2008, Tekmira acquired a Cross-License agreement (the "Cross-License") with Alnylam which includes collaboration terms. Tekmira recorded \$0.4 million as research and development collaborations revenue in respect of external costs and personnel costs provided to Alnylam under the Cross-License from the date Protiva was acquired to June 30, 2008. Under the Cross-License, a minimum of seven scientists must be provided to Alnylam until August 13, 2009 and Alnylam will reimburse the Company at a fixed rate for all personnel provided.

Under the Alnylam LCA Tekmira received an up-front licensing payment of \$9.4 million (US\$8.0 million). This is being amortized to revenue on a straight-line basis over the period ending December 31, 2008 which is the period that the Company expects to provide research support under the Alnylam LCA.

Prior to the acquisition of Protiva, Tekmira was eligible to receive up to US\$13.0 million in potential milestone payments for each product developed by Alnylam or its licensees utilizing the Company's technology, including those developed by Alnylam licensees. These licensees include Roche, Regulus Therapeutics, LLC and Takeda Pharmaceutical Company Limited. As a result of the acquisition of Protiva, Tekmira is now eligible to receive US\$16.0 million in milestones per product. Of these potential milestone payments, US\$11.5 million are due upon regulatory approval and cumulative product sales of over US\$500 million. The Company is also eligible for royalties on product sales.

Expenses / Research and development / Research and development expenses increased to \$5.7 million for the second quarter of 2008 as compared to \$1.0 million for the second quarter of 2007 and increased to \$7.6 million for the first half of 2008 as compared to \$2.2 million for the first half of 2007. \$0.8 million of the increase relates to the inclusion of Protiva expenses from May 30, 2008, including PLK1 SNALP and ApoB SNALP project expenses. Spending on the TKM-0167 project was also up in 2008 although there will be no new spending on this project given that Tekmira's future strategic focus will be exclusively in the RNAi therapeutics field. Stock based compensation for research and development staff was \$1.0 million for the first half of 2008 as compared to \$0.1 million for the first half of 2007 as the Tekmira Board of Directors approved the accelerated vesting of all Tekmira stock options concurrent with the announcement of the business combination with Protiva. In the second quarter of 2008 Tekmira accrued \$2.0 million for payments due to its former CEO and this has been allocated 75% to research and development expenses and 25% to general and administrative expenses. Furthermore, at June 30, 2007, a significant portion of research and development salaries and materials costs related to Alnylam batch manufacture so were deferred in inventory.

Staff numbers increased in the first quarter of 2008 as compared to the first quarter of 2007 and were augmented again as a result of the business combination with Protiva on May 30, 2008. Internal research and development staff numbers were 77 at June 30, 2008 (total staff 93) as compared to 39 (total staff 51) at June 30, 2007.

General and administrative / General and administrative expenses increased to \$1.8 million for the second quarter of 2008 as compared to \$1.7 million for second quarter of 2007 and decreased to \$2.5 million for the first half of 2008 as compared to \$2.6 million for the first half of 2007. The 2008 expenses include \$0.1 million for Protiva from May 30, 2008. Stock based compensation for general and administrative staff was \$0.35 million for the first half of 2008 as compared to \$0.02 million for the first half of 2007 and in line with the increase noted above. Legal and professional fees were substantial in the first half of 2007 as the Company worked to complete a corporate reorganization on April 30, 2007. Legal and professional fees were similarly large in the period up to completion of the business combination with Protiva but these fees have been capitalized as they are a cost of acquisition of Protiva.

Tekmira's Second Quarter 2008 Financial Statements and Management's Discussion and Analysis are available at www.tekmirapharm.com.

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 products 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 assumptions made by Tekmira include the estimate of the length of time that Tekmira's development plan will be funded by its anticipated financial resources; the development of products; the actions of collaborative partners; the timing of receipt of regulatory approvals; the sufficiency of budgeted capital expenditures in carrying out planned activities; and the availability and cost of labor and services.

More particularly and without limitation, this news release contains forward-looking statements and information concerning the business combination of Tekmira and Protiva; the potential of Tekmira; the potential of RNAi therapeutics and nucleic acids as a treatment for disease; and the number and timing of advancement of its lead products into clinical development. There are also risks inherent in the nature of the business combination,

principally risks regarding the integration of the two entities.

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. In addition, the actual results expressed or implied by certain forward-looking statements contained in this discussion and analysis may be affected by our acquisition of Protiva which was completed on May 30, 2008, and the related transactions. There can be no assurance that the potential for future licensing transactions, collaborative partnerships or product development activities, all related to the acquisition of Protiva, will be realized in the amounts or times contemplated.

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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