October 13, 2010

Tekmira and Collaborators Awarded $2.4 Million NIH Grant for Development of RNAi Therapeutics to Treat Ebola and Marburg Viral Infections

VANCOUVER, BC — Tekmira Pharmaceuticals Corporation (TSX: TKM), a leader in RNA interference (RNAi) therapeutics, announced today that, together with collaborators at The University of Texas Medical Branch, it has been awarded a new United States National Institutes of Health (NIH) grant to support research to develop RNAi therapeutics to treat Ebola and Marburg hemorrhagic fever viral infections using Tekmira's lipid nanoparticle (LNP) delivery technology. The grant, worth US$2.4 million, will support work at Tekmira and the University of Texas Medical Branch at Galveston, Texas.

Dr. Mark J. Murray, Tekmira's President and CEO, said "We are pleased to receive this NIH grant with our collaborators at the University of Texas Medical Branch, who are leaders in the field of hemorrhagic fever virus research. This work builds upon our recently published work, where we reported that our TKM-Ebola product candidate provided complete protection of non-human primates from a lethal dose of Ebola virus. The NIH grant is consistent with our strategy of leveraging external funding to advance our LNP technology and product candidates in certain infectious diseases, including Ebola and Marburg."

Dr. Thomas W. Geisbert, Professor of Microbiology and Immunology, The University of Texas Medical Branch at Galveston, said "We are excited to continue our work with Tekmira developing RNAi therapeutics for the treatment of Marburg as well as non-Zaire species of Ebola virus. Our goal is to generate data that supports the development of product candidates to combat these devastating diseases."

Dr. Geisbert led the collaboration with Tekmira resulting in a paper published in The Lancet (Geisbert et al., "Post exposure protection of non-human primates against a lethal Ebola virus challenge with RNA interference: a proof of concept study", The Lancet, Vol 375, May 29, 2010) describing the antiviral activity of small interfering RNA (siRNA) enabled by Tekmira's LNP technology targeting the Ebola virus (TKM-Ebola). When used to treat previously infected non-human primates, TKM-Ebola resulted in 100% protection from an otherwise lethal dose of Zaire Ebola virus.

Tekmira is developing TKM-Ebola under a US$140 million contract awarded to Tekmira by the U.S. Government's Transformational Medical Technologies (TMT) Program. The TMT contract will support the development of TKM-Ebola through FDA approval. Tekmira expects to file an Investigational New Drug (IND) application for TKM-Ebola in the second half of 2011.

Tekmira believes its LNP technology represents the most widely adopted delivery technology for the systemic delivery of RNAi therapeutics. Tekmira's LNP platform is being utilized in multiple preclinical and clinical trials by both Tekmira and its partners.

About RNAi and Tekmira's LNP Technology
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. LNP technology is one of the most widely used siRNA delivery approaches for systemic administration. Tekmira's LNP technology (formerly referred to as stable nucleic acid-lipid particles or SNALP) encapsulates siRNAs with high efficiency in uniform lipid nanoparticles which are effective in delivering RNAi therapeutics to disease sites in numerous preclinical models. Tekmira's LNP formulations are manufactured by a proprietary method which is robust, scalable and highly reproducible and LNP-based products have been reviewed by multiple FDA divisions for use in clinical trials. LNP 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 LNP 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 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 Tekmira's strategy, future operations, clinical trials, prospects and the plans of management; RNAi (ribonucleic acid interference) product development programs; the quantum and timing of potential funding; the effects of Tekmira's products on the treatment of infectious diseases, including Ebola infection; and Tekmira's expectations with respect to existing and future agreements with third parties.

With respect to the forward-looking statements contained in this news release, Tekmira has made numerous assumptions regarding, among other things: LNP's status as a leading RNAi delivery technology; the effectiveness of Tekmira's products as a treatment for infectious disease, including Ebola infection; the developmental milestones and approvals required to trigger funding for TKM-Ebola from the Transformational Medical Technologies program; results in non-human primates are indicative of the potential effect in humans; Tekmira's research and development capabilities and resources; FDA approval with respect to commencing clinical trials; the time required to complete research and product development activities; the timing and quantum of payments to be received under contracts with Tekmira's collaborative partners including the U.S. Government; and the ability to succeed at establishing a successful commercialization program for any of Tekmira's products. 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; the FDA will not approve the commencement of Tekmira's planned clinical trials or approve the use of Tekmira's products and generally, difficulties or delays in the progress, timing and results of clinical trials and studies; future operating results are uncertain and likely to fluctuate; anticipated payments under contracts with Tekmira's collaborative partners including the U.S. Government will not be received by Tekmira on a timely basis, or at all, or in the quantum expected by Tekmira; pre-clinical trials may not be completed, or clinical trials started, when anticipated or at all; pre-clinical or clinical trials may not generate results that warrant future development of the tested drug candidate; and 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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