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Tekmira Reports Complete Protection from Deadly Ebola Virus in Nonhuman Primates with SNALP-RNAi

- **Data Reflects High Potency and Utility of RNAi in Infectious Disease Applications**

Vancouver, BC — Tekmira Pharmaceuticals Corporation (TSX: TKM), a leader in RNA interference (RNAi) therapeutics, today announced the publication of a series of studies demonstrating the ability of an RNAi therapeutic utilizing Tekmira's lipid nanoparticle technology, SNALP, to protect nonhuman primates from Ebola virus, a highly contagious and lethal human infectious disease.

Dr. Mark J. Murray, Tekmira's President and CEO, said, "These very striking data are the first demonstration that RNAi is efficacious in an otherwise lethal primate infectious disease setting. It is evidence of the profound potency which can be achieved with RNAi in that all of these animals survived what would have been a lethal dose of Ebola virus. We believe the results of these studies firmly establish that SNALP and RNAi therapeutics have broad utility in infectious diseases."

Tekmira conducted the studies in collaboration with leading infectious disease researchers from Boston University and the U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID) and funded in part by the U.S. government's Transformational Medical Technologies Initiative. The results, which have been published in the prominent medical journal *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) describe antiviral activity of small interfering RNAs (siRNA) in SNALP targeting the Ebola virus (Ebola SNALP). When used to treat infected nonhuman primates, Ebola SNALP resulted in complete protection from an otherwise lethal dose of Zaire Ebola virus. For many years, the Zaire species of Ebola virus (ZEBOV) has been associated with periodic outbreaks of hemorrhagic fever in human populations with mortality rates reaching 90%. There are currently no treatments for Ebola or other hemorrhagic fever viruses.

Dr. Thomas W. Geisbert, Associate Director, National Emerging Infectious Diseases Institute, Boston University School of Medicine and one of Tekmira's collaborators, said, "We are excited to publish the first demonstration of complete protection against a lethal human infectious disease in nonhuman primates using RNAi. We believe this work justifies the immediate development of Ebola SNALP as an agent to treat Ebola infected patients either in outbreaks or accidental laboratory exposures."

Dr. Lisa E. Hensley, Chief Viral Therapeutics, Virology Division, USAMRIID and one of Tekmira's collaborators, said, "Over the past decade, we have evaluated numerous therapeutic approaches for the treatment of lethal viruses, such as Ebola. With the exception of siRNA delivered using Tekmira's SNALP technology, none of them have conferred complete protection to Ebola virus infected nonhuman primates. We look forward to continuing our work with Tekmira as they advance this promising therapeutic approach."

In the published studies, non-human primates were infected with a lethal dose of ZEBOV and were then treated with seven daily doses of Ebola SNALP. The Ebola SNALP therapeutic delivered three different siRNAs targeting three separate viral gene products thereby inactivating the virus in three different parts of its life cycle. The three siRNAs were encapsulated in Tekmira's proprietary SNALP delivery technology engineered for delivery to the cells where the Ebola virus is known to replicate. All of the nonhuman primates treated with the Ebola SNALP survived the infection and were shown to be free of ZEBOV virus infection within 14 days after inoculation with a lethal dose of ZEBOV virus.

"These studies also illustrate the ability of SNALP technology to efficiently encapsulate and deliver multiple siRNAs, in this case three, designed to silence different cellular targets. Silencing multiple targets contributes to the potency of the effect," added Dr. Murray.

Tekmira is continuing to work with its collaborators in evaluating RNAi therapeutics targeting lethal hemorrhagic fever viruses, including Ebola virus. Tekmira has also applied for additional U.S. government funding to continue this work.

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

About RNAi and SNALP

RNAi therapeutics have the potential to treat a broad number of human diseases by "silencing" disease causing genes. The discoverers of RNAi, a natural gene silencing mechanism used by all cells, were awarded the 2006 Nobel Prize for Physiology or Medicine. RNAi therapeutics, such as small interfering RNAs or "siRNAs" require delivery technology to be effective. Lipid nanoparticles (LNPs) are the most widely used siRNA delivery approaches for systemic administration. Tekmira's SNALP (stable nucleic acid-lipid particles) technology is the leading class of LNPs being used in clinical development. SNALP technology encapsulates siRNAs with high efficiency in uniform lipid nanoparticles, which are safe and effective in delivering RNAi therapeutics to disease sites in numerous preclinical models. SNALP formulations comprise several lipid components that can be adjusted to suit the specific application and are manufactured by a proprietary method, which is robust, scalable and highly reproducible. SNALP-based products have been reviewed by multiple FDA divisions for use in clinical trials. The systemic RNAi product candidates being advanced by Tekmira, Alnylam Pharmaceuticals 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. Tekmira has been working in the field of nucleic acid delivery for over a decade and has broad intellectual property covering SNALP and LNPs. Further information about Tekmira can be found at www.tekmirapharm.com. Tekmira is based in Vancouver, B.C.

About Boston University

Established in 1873, Boston University School of Medicine is a leading academic and research institution, with an enrollment of nearly 630 students and more than 1,100 full and part-time faculty members. It is known for its programs in arthritis, cardiovascular disease, cancer, infectious diseases, pulmonary disease and dermatology, among others, and is one of the major biomedical research institutions in the United States. The School is affiliated with Boston Medical Center, its principal teaching hospital, and Boston Veterans Administration Medical Center. Along with Boston Medical Center and 15 community health centers, the School of Medicine is a partner in Boston HealthNet.

About USAMRIID

USAMRIID, located at Fort Detrick, Maryland, is the lead medical research laboratory for the U.S. Biological Defense Research Program, and plays a key role in national defense and in infectious disease research. The Institute's mission is to conduct basic and applied research on biological threats resulting in medical solutions (such as vaccines, drugs and diagnostics) to protect the warfighter. USAMRIID is a subordinate laboratory of the U.S. Army Medical Research and Materiel Command.

The information contained in this press release does not necessarily reflect the position or the policy of the Government and no official endorsement should be inferred.

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 RNAi and SNALP's ability to protect against Ebola virus, RNAi and SNALP's efficacy, potency and utility in treatment of infectious diseases, and the potential of RNAi and SNALP to treat a broad number of human diseases.

With respect to the forward-looking statements contained in this news release, Tekmira has made numerous assumptions regarding, among other things: the results in non human primates are indicative of the potential effect in humans, and the effectiveness of Tekmira's technology as a treatment for infectious diseases. While Tekmira considers these assumptions to be reasonable, these assumptions are inherently subject to significant 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: 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.

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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