October 21, 2010

Tekmira and Collaborators at the NCI Publish Promising Preclinical Data Demonstrating Anti-Tumor Activity of a Novel Cancer Target via RNA Interference

VANCOUVER, BC — Tekmira Pharmaceuticals Corporation (TSX: TKM), a leader in RNA interference (RNAi) therapeutics, announced today that, together with collaborators at the National Cancer Institute (NCI), it has published promising preclinical data in the prominent journal Cancer Research (Lee et al, Definition of Ubiquitination Modulator COP1 as a Novel Therapeutic Target in Human Hepatocellular Carcinoma. Cancer Res; 70(21); 8264-9). The data stem from the use of small interfering RNA (siRNA) enabled by Tekmira's lipid nanoparticle (LNP) technology in preclinical models of human hepatocellular carcinoma (HCC) or liver cancer.

Scientists at the NCI identified a novel oncology target called COP1 that is over-expressed in human liver cancers and can accurately predict patient survival. Tekmira and scientists at the NCI designed specific siRNA that, when delivered systemically with Tekmira's LNP technology (COP1-LNP), silence the COP1 gene. In preclinical studies, COP1-LNP demonstrated a greater than 12-fold decrease in liver cancer cell growth in tumor bearing mice. This tumor growth inhibition exceeds the National Cancer Institutes criteria for promising therapeutic compounds.

Dr. Mark J. Murray, Tekmira's President and CEO, said "This work is an illustration of one approach Tekmira is taking to identify targets of therapeutic interest which could lead to the development of product candidates. We are very encouraged by the results of this study and look forward to advancing this work with our collaborators at the NCI. By combining the NCI's expertise in identifying novel cancer targets and Tekmira's leadership in siRNA molecule design and delivery, we intend to build on what has been a very successful collaboration over the past several years."

COP1 has been identified as being over-expressed in human HCC and a predictor of patient survival. The silencing of COP1 via RNAi affects a number of genes in a cancer cell including restoring the expression of p53, a key tumor suppressor protein. The result is an inhibition of cancer cell proliferation and programmed cell death.

Primary liver cancer or HCC is associated with one of the poorest survival rates in oncology with only 30-40% of patients being eligible for curative treatment due to late diagnosis, underlying liver disease and lack of effective treatment options. HCC is the third most lethal cancer with an estimated 600,000 deaths annually.

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 effects of Tekmira's RNAi technology as a treatment of cancer; 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 cancer; results in preclinical studies are indicative of the potential effect in humans; Tekmira's research and development capabilities and resources; 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; preclinical trials may not be completed, or clinical trials started, when anticipated or at all; nonhuman preclinical study results may not be indicative of results in humans; and preclinical or clinical trials may not generate results that warrant future development of the tested drug candidate.

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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