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Tekmira and Collaborators Demonstrate Efficacy of RNAi Against Hepatitis C Virus

Results Presented at the 7th Annual OTS Meeting in Copenhagen, Denmark

VANCOUVER, British Columbia, Sept. 12, 2011 (GLOBE NEWSWIRE) -- Tekmira Pharmaceuticals Corporation (Nasdaq:TKMR) (TSX:TKM), a leading developer of RNA interference (RNAi) therapeutics, announced today a presentation of data demonstrating, for the first time, *in vivo* efficacy of RNAi against the Hepatitis C virus (HCV).

Tekmira along with its collaborators at SomaGenics, Inc. and Roche, presented the results in a poster entitled "Synthetic Short shRNAs are Potent Inhibitors of Hepatitis C Virus in HCV-Infected Chimeric Mice" at the 7th Annual Meeting of the Oligonucleotide Therapeutics Society (OTS) held September 8-10, 2011 in Copenhagen, Denmark.

"Together with our collaborators, we are excited by these results, which represent the first demonstration of RNAi *in vivo* efficacy against the Hepatitis C virus. In this work, short hairpin RNAs that target a conserved region of the HCV genome were delivered systemically using Tekmira's lipid nanoparticle (LNP) technology, resulting in a significant and durable reduction in viral load in HCV-infected animals," said Dr. Mark J. Murray, Tekmira's President and CEO.

"This collaboration fits into our corporate strategy of working with a number of partners to combine novel RNA payload structures with our leading LNP delivery technology. We were also able to leverage our experience in infectious disease and the progress in our TKM-Ebola program, where we will file an investigational new drug application before the end of 2011," added Dr. Murray.

Some conclusions of the scientific presentation include:

- This represents the first demonstration of *in vivo* efficacy of RNAi against HCV infection;
- LNP-formulated sshRNAs were efficiently taken up by human liver cells in a chimeric mouse model;
- Significant HCV reduction after single IV dose;
- Maximal anti-viral effect (2.0 log₁₀ viral load reduction) was observed with a cocktail of 2 sshRNAs targeting two separate sites on the HCV genome, with additional knockdown (0.5 log₁₀ viral load reduction) after second dose administered producing a potent and durable effect; and,
- The LNP-formulated sshRNAs were well tolerated with no evidence of liver toxicity.

About Hepatitis C Virus

Hepatitis C Virus (HCV) is an infectious disease of the liver and is a leading cause of chronic liver disease and liver transplant. The number of individuals chronically infected with HCV globally has been estimated at 170 million — including some 3.2 million Americans — with 3 to 4 million new infections occurring each year. HCV is transmitted by blood-to-blood contact, and no vaccine against HCV is currently available. Approximately 85 percent of infected individuals develop chronic infection; some will progress to cirrhosis, liver failure, and liver cancer.

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 the most widely used siRNA delivery approach 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 that 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 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 LNPs. Further information about Tekmira can be found at www.tekmirapharm.com. Tekmira is based in Vancouver, B.C.

The Tekmira Pharmaceuticals logo is available at <http://www.globenewswire.com/newsroom/prs/?pkgid=8319>

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 the scientific poster at the OTS Annual Meeting in Copenhagen, Denmark; advances in RNAi payload technologies; the first demonstration of synthetic short shRNAs (sshRNAs) as inhibitors of the Hepatitis C virus; the timing of regulatory filings for LNP-enabled products, including TKM-Ebola; Tekmira's strategy, future operations, clinical trials, prospects and plans of management; and Tekmira's RNAi product development programs.

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 LNP delivery technology in delivering siRNA and other RNA payload technologies; the effectiveness of synthetic short sshRNAs as inhibitors of the Hepatitis C virus; and Tekmira's research, development and manufacturing capabilities and resources. 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 there will not be any additional applications of RNAi; clinical data from LNP-enabled products may not be presented on a timely basis or contain data favorable for our development and prospects; the possibility that other organizations have made advancements in RNAi delivery technology that Tekmira is not aware of; Tekmira's development programs, including its LNP delivery technology, will not result in expected results on a timely basis, or at all.

A more complete discussion of the risks and uncertainties facing Tekmira appears in Tekmira's Annual Information Form dated March 30, 2011 and 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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