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Tekmira Presents New Anti-Viral Efficacy Data Against the Marburg Hemorrhagic Fever Virus

Studies Achieved 100% Protection Against Most Deadly Strain of Marburg Virus When Dosed 24 Hours After Lethal Exposure Levels in Non-Human Primates Using RNAi Therapeutic Developed by Tekmira and Its Collaborators

VANCOUVER, British Columbia, Sept. 25, 2013 (GLOBE NEWSWIRE) -- Tekmira Pharmaceuticals Corporation (Nasdaq:TKMR) (TSX:TKM), a leading developer of RNA interference (RNAi) therapeutics, announced today that preclinical data demonstrating potent anti-viral activity of TKM-Marburg were presented at DIA/FDA Oligonucleotide-based Therapeutics Conference taking place in Washington, DC from September 25-27, 2013 by Tekmira's Chief Scientific Officer, Dr. Ian MacLachlan.

"Our collaborative work with Dr. Tom Geisbert and the team at UTMB has resulted in new data that builds upon our work in viral diseases and further validates the broad applicability of Tekmira's industry-leading LNP technology platform. We are excited to see promising new preclinical data showing complete protection of non-human primates from the most pathogenic strain of Marburg virus, Angola, even when the TKM-Marburg treatment regimen is not initiated until 24 hours after virus exposure," said Dr. Mark J. Murray, Tekmira's President and CEO.

"We expect to continue to build on these data and pursue additional funding opportunities for TKM-Marburg. In addition to TKM-Marburg, we are developing TKM-Ebola under a \$140 million contract awarded by the U.S. Government and we will enter a Phase I clinical trial early in 2014. Tekmira's leadership in the area of anti-viral therapy for hemorrhagic fever viruses has formed a strong foundation for future anti-viral therapeutics," added Dr. Murray.

In a presentation entitled "Medical Countermeasures for Filovirus Infection: Development of siRNA Therapeutics Under the Animal Rule" data were presented that showed successful anti-viral therapy with the application of Tekmira's LNP technology to hemorrhagic fever viruses, including multiple strains of the Ebola and Marburg viruses. Newly presented data resulting from a collaboration between Tekmira and the University of Texas Medical Branch (UTMB) showed 100% survival in non-human primates infected with the Angola strain of the Marburg virus in two separate studies. In the first study, 100% survival was achieved when dosing at 0.5 mg/kg TKM-Marburg began one hour after infection with otherwise lethal quantities of the virus. Dosing then continued once daily for seven days. In the second study, 100% survival was achieved even though treatment did not begin until 24 hours after infection.

Marburg and Ebola are members of the filovirus family of hemorrhagic fever viruses. Regularly occurring natural outbreaks with of the Marburg Angola strain have resulted in mortality in approximately 90% of infected individuals, matching that of the most lethal Ebola strains, while in laboratory settings experimental infection with either virus is uniformly lethal. There are currently no approved therapeutics available for the treatment of Marburg infection.

These new results build upon a study published last month in the *Journal of Infectious Disease* showing 100% protection in guinea pig models of infection with Angola, Ci67 and Ravn strains of the Marburg virus using a broad spectrum RNAi therapeutic enabled by Tekmira's LNP. In 2010, Tekmira and UTMB were awarded a National Institutes of Health (NIH) grant to support research to develop RNAi therapeutics to treat Ebola and Marburg hemorrhagic fever viral infections.

TKM-Ebola, an anti-Ebola viral therapeutic, is being developed under a contract with the U.S. Department of Defense's (DoD) Joint Project Manager Medical Countermeasure Systems (JPM-MCS), with a total contract value of approximately \$140 million. Earlier preclinical studies were published in the medical journal *The Lancet* and demonstrated that when siRNA targeting the Ebola virus and delivered by Tekmira's LNP technology were used to treat previously infected non-human primates, the result was 100 percent protection from an otherwise lethal dose of Zaire Ebola virus (Geisbert et al., *The Lancet*, Vol 375, May 29, 2010). Tekmira's productive collaboration with the JPM-MCS was recently modified and expanded to include significant advances in LNP formulation technology since the initiation of the program in 2010.

About Joint Project Manager Medical Countermeasure Systems (JPM-MCS)

JPM-MCS, a component of the Joint Program Executive Office for Chemical and Biological Defense, aims to provide U.S. military forces and the nation with safe, effective, and innovative medical solutions to counter chemical, biological, radiological,

and nuclear threats. JPM-MCS facilitates the advanced development and acquisition of medical countermeasures and systems to enhance U.S. biodefense response capability. For more information, visit www.jpeocbd.osd.mil.

About RNAi and Tekmira's LNP

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. 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 clinical trials by both Tekmira and its partners. 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.

Forward-Looking Statements and Information

This news 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 products on the treatment of viral disease, including the Marburg and Ebola members of the filovirus family of hemorrhagic fever viruses; Tekmira's plans to build on the TKM-Marburg data and pursue additional funding opportunities; the veracity of significant advances in Tekmira's LNP technology platform; the modifications to the TKM-Ebola contract with the U.S. DoD's JPM-MCS to integrate recent advancements in LNP formulation and manufacturing technology; timing of a Phase I clinical trial for TKM-Ebola; and, the quantum and timing of funding that may be provided to Tekmira pursuant to the TKM-Ebola contract with the U.S. DoD's JPM-MCS.

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, viral diseases, including the Marburg and Ebola members of the filovirus family of hemorrhagic fever viruses, or other diseases; the developmental milestones and approvals required to trigger funding for TKM-Ebola from the JPM-MCS; results in preclinical models 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 timing and obtaining of regulatory approvals for Tekmira's products; the timing and results of clinical data releases and use of LNP technology by Tekmira's development partners and licensees; the time required to complete research and product development activities; the timing and quantum of payments to be received under contracts with Tekmira's partners including the DoD, and others; Tekmira's financial position and its ability to execute on its business strategy; and Tekmira's ability to protect its intellectual property rights and not to infringe on the intellectual property rights of others. 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: Tekmira's research and development capabilities and resources may not meet current or expected demand; Tekmira's products may not prove to be effective in the treatment of cancer, viral diseases, including the Marburg and Ebola members of the filovirus family of hemorrhagic fever viruses, or other diseases; Tekmira may not obtain and protect intellectual property rights, and operate without infringing on the intellectual property rights of others; Tekmira may face competition from other pharmaceutical or biotechnology companies and the possibility that other organizations have made advancements in RNAi delivery technology that Tekmira is not aware of; pre-clinical and clinical trials may be more costly or take longer to complete than anticipated and may not generate results that warrant future development of the tested drug candidate; the FDA may determine that the design and planned analysis of Tekmira's clinical trials do not adequately address the trial objectives in support of Tekmira's regulatory submissions; the FDA may not approve the commencement of Tekmira's planned clinical trials or approve the use of Tekmira's products; Tekmira

may not build on the TKM-Marburg data or pursue additional funding opportunities; the DoD may reduce or cancel certain defense spending, including Tekmira's contract to develop TKM-Ebola; the FDA refuse to approve TKM-Ebola, or place restrictions on our ability to commercialize TKM-Ebola; Tekmira may not complete the work necessary for the submission of the new LNP formulation for TKM-Ebola to the FDA in the anticipated timeframe, or at all; a Phase I clinical trial for TKM-Ebola may not commence as planned, or at all; Tekmira's development partners and licensees conducting clinical trial, development programs and joint venture strategic alliances may not result in expected results on a timely basis, or at all; anticipated payments under contracts with Tekmira's collaborative partners may not be received by Tekmira on a timely basis, or at all, or in the quantum expected by Tekmira; payments received from third parties may not be sufficient to fund Tekmira's continued business plan as currently anticipated; future operating results are uncertain and likely to fluctuate; Tekmira may not be able to raise additional financing required to fund further research and development, clinical studies, and obtain regulatory approvals, on commercially acceptable terms or at all; economic and capital market conditions; Tekmira may become subject to product liability or other legal claims for which Tekmira has made no accrual in its financial statements; Tekmira's cash runway may not extend into 2015 as anticipated, and may be substantially less than required to continue current operations; and the possibility that Tekmira may not have sufficiently budgeted for expenditures necessary to carry out planned activities.

A more complete discussion of the risks and uncertainties facing Tekmira appears in Tekmira's annual report on Form 20-F for the year ended December 31, 2012 (Annual Report), which is available at www.sedar.com or at www.sec.gov/edgar.shtml. 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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