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## **Tekmira's Anti-Ebola Program to Proceed in Clinical Study With More Potent Formulation**

### ***Supporting Studies Demonstrate Significant Increases in Potency***

VANCOUVER, British Columbia, Dec. 13, 2013 (GLOBE NEWSWIRE) --Tekmira Pharmaceuticals Corporation (Nasdaq:TKMR) (TSX:TKM), a leading developer of RNA interference (RNAi) therapeutics, today announced it has received clearance to proceed with the use of a more potent formulation in its TKM-Ebola Phase I clinical trial, which is expected to begin enrolling patients early next year.

"After receiving favorable U.S. FDA review of all of the information describing the improved formulation, including data from chemistry, manufacturing and control studies, we are pleased to report that we can now proceed with the use of an anti-Ebola therapeutic that integrates improvements in LNP technology within our Phase I clinical program. Our preclinical data indicate that the new formulation is significantly more potent, achieving greater levels of anti-viral activity and 100% survival at significantly lower doses than earlier generation products," said Dr. Mark J. Murray, Tekmira's President and CEO.

"Our next steps include IRB approval of the FDA approved clinical protocol before enrolling healthy volunteer subjects in a Phase I clinical trial. We remain on track to dose our first patient in the first quarter of 2014, with data available in the second half of the year," added Dr. Murray.

Other supply chain innovations have also been applied to the TKM-Ebola product, including the development of a lyophilized or "freeze dried" format. Lyophilization significantly increases the stability of LNP, even under extreme environmental conditions such as might be experienced in regions prone to naturally occurring Ebola outbreaks.

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). More recent preclinical data from the TKM-Ebola program has been generated showing survival in non-human primates despite delayed treatment after infection with the most lethal Zaire variant of Ebola virus.

### **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](http://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](http://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 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 Ebola member of the filovirus family of hemorrhagic fever viruses; the initiation of a Phase I clinical trial for TKM-Ebola and availability of data from such trial; improvements in LNP technology within the Phase I clinical trial for TKM-Ebola; IRB approval of the FDA approved clinical protocol for the Phase I clinical trial; 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; Tekmira's research and development capabilities and resources; and the time required for development partners and licensees to complete research and product development activities. 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 viral diseases, including the Ebola member of the filovirus family of hemorrhagic fever viruses, or other diseases; the DoD may reduce or cancel certain defense spending, including Tekmira's contract to develop TKM-Ebola; Tekmira may not initiate a Phase I clinical trial for TKM-Ebola in the anticipated timeframe, or at all, and may not have data from such trial in the anticipated timeframe, or at all; 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; Tekmira may become subject to product liability or other legal claims for which Tekmira has made no accrual in its financial statements; 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](http://www.sedar.com) or at [www.sec.gov/edgar.shtml](http://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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