NEWS RELEASE

Inovio and U.S. Army Co-developing Novel Vaccine That Completely Prevents Lethal Lassa Fever Infection in Pre-Clinical Study

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PLYMOUTH MEETING, Pa., Oct. 24, 2017 (GLOBE NEWSWIRE) -- Inovio Pharmaceuticals, Inc. (NASDAQ:INO) today announced results of a study in which a DNA vaccine provided 100% protection for non-human primates challenged with a lethal dose of the Lassa fever virus. Lassa is a virulent hemorrhagic virus, similar to Ebola, which infects approximately 300,000 people annually. These results were published in the most recent issue of Human Vaccines & Immunotherapeutics in an article entitled, "A DNA Vaccine Delivered by Dermal Electroporation Fully Protects Cynomolgus Macaques Against Lassa Fever," by Inovio researchers and U.S. Army collaborators.

In the study, funded by a previously awarded $3.5 million grant from the National Institute of Allergy and Infectious Diseases (NIAID), the animals first received Inovio's DNA vaccine against Lassa hemorrhagic fever via intradermal administration with CELLECTRA® delivery device. The animals were then challenged with a lethal dose of the Lassa virus. All of the animals survived; in fact, none of the vaccinated animals displayed any signs of disease.

Dr. J. Joseph Kim, Inovio's President and Chief Executive Officer, said, "Inovio demonstrates our full commitment to global public health in this innovative public/private partnership against a virulent virus with pandemic and bioterror potential. Our DNA-based platform is especially well-suited to rapidly respond to viral outbreaks and newly emerging pathogens due to its safety profile, ease and speed of development and manufacturing as well as the ability to be shipped and stored without a cold-chain environment. Inovio has shown these attributes most recently as the first organization to produce Zika and MERS vaccines and the first to report positive human data from these vaccine trials. Inovio will continue to lead in the global efforts to protect the world from multiple epidemic threats."

Inovio is collaborating with Dr. Connie Schmaljohn, Chief Scientist at the U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID) and her group. The goal of this public/private partnership is to develop vaccines that would facilitate rapid vaccination of U.S. troops stationed around the world against multiple deadly infectious diseases and protect civilian populations from pandemic and bioterror threats.

Lassa fever is an acute disease that annually infects up to 300,000 people, mostly in Central and West Africa regions. The disease can cause fever and hemorrhaging of various parts of the body -- including the eyes and nose -- and can be spread through contact with an infected rat. Person to person transmission is also possible, albeit less common. Immediate deaths from the infection are approximately 5,000 per year, but based on serologic surveys the estimated fatality rate is more than 50% of Lassa infected people because the infection can persist for at least one year after infection.

Because of rapid and wide global travel and commerce, Lassa is not only a major health threat in Africa, but throughout the world. Lassa virus has been classified as a Category A biological threat agent by the U.S. Centers for Disease Control and Prevention. Along with MERS and Nipah, Lassa virus has been selected as the top potential global epidemic targets for new vaccine development by the newly-formed multi-billion dollar, Coalition for Epidemic Preparedness Initiative (CEPI) in 2017.

About Inovio Pharmaceuticals, Inc.

Inovio is taking immunotherapy to the next level in the fight against cancer and infectious diseases. We are the only immunotherapy company that has reported generating T cells in vivo in high quantity that are fully functional and whose killing capacity correlates with relevant clinical outcomes with a favorable safety profile. With an expanding portfolio of immune therapies, the company is advancing a growing preclinical and clinical stage product pipeline. Partners and collaborators include MedImmune, The Wistar Institute, University of Pennsylvania, DARPA, GeneOne Life Science, Plumbline Life Sciences, ApolloBio Corporation, Drexel University, NIH, HIV Vaccines Trial Network, National Cancer Institute, U.S. Military HIV Research Program, and Laval University. For more information, visit **www.inovio.com**.

This press release contains certain forward-looking statements relating to our business, including our plans to develop electroporation-based drug and gene delivery technologies and DNA vaccines, our expectations regarding our research and development programs, including the planned initiation and conduct of clinical trials and the availability and timing of data from those trials, and the sufficiency of our capital resources. Actual events or results may differ from the expectations set forth herein as a result of a number of factors, including uncertainties inherent in pre-clinical studies, clinical trials and product development programs, the availability of funding to support continuing research and studies in an effort to prove safety and efficacy of electroporation technology as a delivery mechanism or develop viable DNA vaccines, our ability to support our pipeline of SynCon® active immunotherapy and vaccine products, the ability of our collaborators to attain development and commercial milestones for products we license and product sales that will enable us to receive future payments and royalties, the adequacy of our capital resources, the availability or potential availability of alternative therapies or treatments for the conditions targeted by the company or its collaborators, including alternatives that may be more efficacious or cost effective than any therapy or treatment that the company and its collaborators hope to develop, issues involving product liability, issues involving patents and whether they or licenses to them will provide the company with meaningful protection from others using the covered technologies, whether such proprietary rights are enforceable or defensible or infringe or allegedly infringe on rights of others or can withstand claims of

invalidity and whether the company can finance or devote other significant resources that may be necessary to prosecute, protect or defend them, the level of corporate expenditures, assessments of the company's technology by potential corporate or other partners or collaborators, capital market conditions, the impact of government healthcare proposals and other factors set forth in our Annual Report on Form 10-K for the year ended December 31, 2016, our Form 10-Q for the period ended June 30, 2017, and other regulatory filings we make from time to time. There can be no assurance that any product candidate in Inovio's pipeline will be successfully developed, manufactured or commercialized, that final results of clinical trials will be supportive of regulatory approvals required to market licensed products, or that any of the forward-looking information provided herein will be proven accurate. In addition, the forward-looking statements included in this press release represent Inovio's views as of the date hereof. Inovio anticipates that subsequent events and developments may cause its views to change. However, while Inovio may elect to update these forward-looking statements at some point in the future, the company specifically disclaims any obligation to do so, except as may be required by law. These forward-looking statements should not be relied upon as representing Inovio's views as of any date subsequent to the date of this release.

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