NEWS RELEASE

Inovio Fully Enrolls 160 Subjects in Puerto Rico for Second Zika Vaccine Phase 1 Trial; Continues Leadership to Advance an Effective Preventive Solution

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PLYMOUTH MEETING, Pa., June 15, 2017 (GLOBE NEWSWIRE) -- Inovio Pharmaceuticals, Inc. (NASDAQ:INO) today announced that it has completed enrollment of its phase 1 clinical trial in Puerto Rico evaluating its Zika vaccine, GLS-5700. Inovio is developing this vaccine with GeneOne Life Science, Inc. (KSE:011000) and academic collaborators from the US and Canada. This second phase 1 study (ZIKA-002) was designed to assess safety, tolerability, and immune responses in the setting of potentially ongoing disease transmission.

ZIKA-002 study, initiated in 3Q 2016, is a placebo-controlled, double-blind trial involving 160 healthy adult volunteers (80 subjects received vaccine and 80 subjects received placebo) to evaluate GLS-5700 administered with Inovio's skin delivery system. Along with safety and immune responses, the study is also assessing differences in Zika infection rates in participants given either placebo or vaccine as part of an exploratory endpoint being evaluated over one year.

A recent CDC study found that upwards of 5% of children born to pregnant women with Zika infection had abnormalities and these were noted even with infections as late as the third trimester. Babies born with **congenital Zika syndrome** resulting from Zika infection of an expectant mother often have severe microcephaly, a neurological condition in which babies are born with abnormally small heads. Other abnormalities include diminished brain tissue and eye damage, as well as restricted joint movement and rigid muscle tone. Recent research suggests they may also suffer hearing problems and seizure disorders such as epilepsy.

Dr. J. Joseph Kim, Inovio's President and CEO, said, "Families and babies are terribly affected by Zika and there is no preventive vaccine or treatment. Similar diseases like dengue and chikungunya have persisted for decades and infected millions; while their medical symptoms are arguably less notable than Zika, their debilitating medical and economic impact has motivated continuing research and funding support to find viable immune-related solutions. Inovio is proud to be at the forefront of Zika vaccine development and to produce foundational data that clearly supports advancement of DNA technology and our vaccine candidate. We look forward to the prospect of securing funding for phase 2 efficacy studies and attaining clarity on the regulatory pathway necessary to potentially commercialize our Zika vaccine."

Inovio was the first in the race to take a vaccine candidate into clinical studies in 2016. Our ZIKA-001 phase 1 trial was conducted in the US and Canada in 40 healthy volunteers. In February 2017 Inovio was also the first group to report positive clinical data: high levels of binding antibodies were measured in 100% (39 of 39) of evaluated subjects; two doses or a single dose of vaccine generated a robust antibody response in 95% (37 of 39) and 40% (16 of 40) of evaluated subjects, respectively. The vaccine was well tolerated and no significant safety concerns were noted.

Preclinical data published in the peer-reviewed journals npg Vaccines (2016) and Nature Communications (2017) showed that GLS-5700 generated single-dose protection in 100% of mice and non-human primates from death as well as neurologic or testicular effects of the Zika virus.

About GLS-5700 Zika Vaccine

Inovio is developing GLS-5700, a DNA vaccine encoded for pre-membrane and envelope antigens, to provide broad protective antibody and therapeutic T cell responses against multiple strains of Zika virus.

About Inovio's DNA Immunotherapy Technology Platform

Inovio is advancing the medical potential of a unique class of immunotherapy technology. Its DNA-based platform, which is the foundation of all Inovio products, including GLS-5700, is unique in its ability to leverage the body's naturally existing mechanisms to generate robust, highly targeted immune responses to prevent and treat disease – and to do so in the body with a favorable safety profile. Its SynCon® immunotherapy design and CELLECTRA® delivery system transform novel genetic blueprints into functional antibody and killer T cell responses. Inovio has achieved significant antigen-specific immune responses against multiple diseases and is advancing a growing pipeline of cancer and infectious disease immunotherapies and vaccines.

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, Regeneron Pharmaceuticals, Genentech, GeneOne Life Science, Plumbline Life Sciences, ApolloBio Corporation, The Wistar Institute, Laval University, University of Pennsylvania, Drexel University, DARPA, NIH, HIV Vaccines Trial Network, National Cancer Institute, and U.S. Military HIV Research Program. For more information, visit **www.inovio.com**.

This press release contains certain forward-looking statements relating to our business, including our plans to develop the Zika vaccine GLS-5700, including the conduct of clinical trials involving this vaccine. Actual events or results may differ from the

expectations set forth herein as a result of a number of factors, including the availability and timing of data from ongoing clinical trials, uncertainties inherent in the completion of ongoing clinical trials and the initiation of future clinical trials, whether the results of earlier clinical trials will be indicative of the results of future trials, expectations for regulatory approvals, the availability of funding to support continuing research and studies, 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 and other factors discussed in the "Risk Factors" section of our Annual Report on Form 10-K for the year ended December 31, 2016, filed with the U.S. Securities and Exchange Commission (SEC) on March 15, 2017, our Form 10-Q for the quarter ended March 31, 2017, filed with the SEC on May 10, 2017, and other filings that Inovio makes with the SEC from time to time. There can be no assurance that any product candidate in Inovio's pipeline will be successfully developed or manufactured, 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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