Inovio Enrolls 160 Subjects in Puerto Rico for Second Zika Vaccine Phase 1 Trial

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.

This second phase 1 study (ZIKA-002) was designed to assess safety, tolerability, and immune responses in the setting of potentially ongoing disease transmission.

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

PLYMOUTH MEETING, Pa. – June 15, 2017 – **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, please visit www.inovio.com.

CONTACT:
Bernie Hertel
+1 858-410-3101
bhertel@inovio.com

.

.