Inovio Pharmaceuticals Doses First Subject in Zika Vaccine Clinical Trial

Inovio Pharmaceuticals Incorporated {NASDAQ: INO} today announced the dosing of the first subject in its multi-center phase I trial to evaluate Inovio's Zika DNA vaccine (GLS-5700).

This initial study features 40 healthy adult volounteers.

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Phase I trial approved by US FDA and Health Canada
PLYMOUTH MEETING, PA – July 26, 2016 – **Inovio Pharmaceuticals Incorporated {NASDAQ: INO}** today announced the dosing of the first subject in its multi-center phase I trial to evaluate Inovio's Zika DNA vaccine (GLS-5700).

In addition to the previously announced US FDA approval for the conduct of the study, Health Canada's Health Products and Food Branch has also approved this study, which will be conducted at clinical sites in Miami, Philadelphia, and Quebec City.

This phase I, open-label, dose-ranging study of 40 healthy adult volunteers is evaluating the safety, tolerability and immunogenicity of GLS-5700 administered with the CELLECTRA®-3P device, Inovio's proprietary intradermal DNA delivery device. In preclinical testing, this synthetic vaccine induced robust antibody and T cell responses – the immune responses necessary

to fight viral infections – in small and large animal models.

Dr. J. Joseph Kim, Inovio's President & CEO, said, "*The WHO declared Zika a public health emergency in February 2016 and every week new insights suggest that, similarly to dengue and Chikungunya, its medical and economic impact may be significant, pervasive and long-lasting. The U.S. Centers for Disease Control (CDC) estimates that there are 30 to 40 million U.S. travelers to Zika-affected areas annually. The resident population in the Americas at higher risk of Zika exposure has been estimated at nearly 300 million. It is easy to see the potentially harmful effect Zika could have and why a safe and effective vaccine, brought to market as quickly as possible, is critical for public health.*

"*Inovio's synthetic vaccine technology allows rapid development of new products to stimulate effective immune responses against targeted infectious diseases and cancers. Our Zika product has established a record as the fastest-ever vaccine development from conceptualization through human application, demonstrating the potential of our SynCon® platform to respond rapidly to global health emergencies. With enrollment now started, we expect to complete subject dosing and report interim phase I results later this year.*"

Inovio is developing its Zika vaccine, GLS-5700, with GeneOne Life Science, Inc. (KSE: 011000) and academic collaborators from the US and Canada who are also working to advance Inovio's Ebola and MERS vaccines into clinical development.

About Zika Virus

First identified in Uganda, Zika virus subsequently spread to

equatorial Asia and over the past two years has rapidly spread through the South Pacific, Hawaii, South America, Central America, and the Caribbean.

Zika virus is a flavivirus, a family of viruses including yellow fever, dengue, and West Nile virus, which are introduced to people through mosquito bites. Because the Aedes species of mosquitoes that spreads Zika virus is found throughout the world there is concern that Zika will continue to spread to new countries and regions.

As of July 2016, 65 countries and territories reported continuing mosquito-borne transmission of the Zika virus, compared to 33 countries stated by WHO in their first Zika situation report in February 2016. Zika can also be sexually transmitted.

The most common symptoms of Zika virus are fever, rash, joint pain, and conjunctivitis. Zika has been linked to a severe birth defect called microcephaly which arises from infection during pregnancy. Microcephaly is marked by an abnormally small head and incomplete brain development.

Zika is also associated with Guillain-Barré syndrome, which causes muscle weakness of the limbs and in severe cases may cause almost total paralysis including the inability to breath. Recent reports suggest Zika may also be linked to other neurological abnormalities.

No vaccine or therapy currently exists for the prevention or

treatment of infection with the Zika virus.

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, Roche, The Wistar Institute, University of Pennsylvania, DARPA, GeneOne Life Science, Plumbline Life Sciences, Drexel University, NIH, HIV Vaccines Trial Network, National Cancer Institute, U.S. Military HIV Research Program, and University of Manitoba.

For more information, please visit www.inovio.com

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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 and 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 (including, but not limited to, the fact that pre-clinical and clinical results referenced in this release may not be indicative of results achievable in other trials or for other indications, that the studies or trials may not be successful or achieve the results desired, that pre-clinical studies and clinical trials may not commence or be completed in the time periods anticipated, that results from one study may not necessarily be reflected or supported by the results of other similar studies and that results from an animal study may not be indicative of results achievable in human studies), 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 broad pipeline of SynCon® active immunotherapy and vaccine products, our ability to advance our portfolio of immuno-oncology products independently, 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, our ability to enter into partnerships in conjunction with our research and development

programs, evaluation of potential opportunities, 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, 2015, our Form 10-Q for the quarter ended March 31, 2016, and other regulatory filings from time to time. There can be no assurance that any product in Inovio's pipeline will be successfully developed or manufactured, that final results of clinical studies 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.