Inovio initiates first step in Ebola program

Inovio Pharmaceuticals {NASDAQ: INO} have moved quickly to initiate their Ebola DNA immuotherapy program after being awarded the $45 million contract by DARPA.

This first stage is to evaluate safety, tolerablity, and immune responses of Inovio's DNA immunotherapy.

Inovio Initiates Clinical Trial with DNA Immunotherapies to Prevent and Treat Ebola

Announces the first Step in the DARPA-Funded $45 Million Program

PLYMOUTH MEETING, Pa. – May 12, 2015 – Inovio Pharmaceuticals, {NASDAQ: INO} announced today that the company has initiated a phase I trial to evaluate safety, tolerability and immune responses of Inovio's DNA immunotherapy for Ebola.

In previously published preclinical testing, Inovio's DNA-based Ebola immunotherapy protected 100% of immunized animals from death and sickness after being exposed to a lethal dose of the Ebola virus.

This is the first step in the Inovio-led consortium selected by the U.S. Defense Advanced Research Projects Agency (DARPA) to take a multi-faceted approach to develop products to both prevent and treat Ebola infection. These programs include development and early clinical testing of:
Inovio's DNA-based vaccine against Ebola, for which the first study was initiated this week.
Inovio's therapeutic DNA-based monoclonal antibody product dMAb™ against Ebola virus infection. This promising new

technology has properties that are best suited to respond to an Ebola outbreak in that they could be designed and manufactured expediently on a large scale using proven fermentation technology, are thermal-stable, and may provide more rapid therapeutic benefit; and a highly potent conventional protein-based therapeutic monoclonal antibody (mAb) product against Ebola virus infection.
This initial trial will evaluate Inovio's Ebola immunotherapy (INO-4212) in five groups of healthy subjects receiving INO-4212 and its components (INO-4201 and INO-4202) alone or in combination with INO-9012, delivered into muscle or skin using Inovio's proprietary DNA delivery technology.

Dr. J. Joseph Kim, President and CEO, said, "*The Inovio-led partnership is uniquely positioned to create and test methods to both prevent and treat Ebola virus infections. The global product development experts we have brought together coupled with Inovio's DNA-based vaccines and immunotherapies should meet and exceed the expected outcomes. Demonstrating our commitment and speed, we have begun our first trial just a few weeks after being selected by DARPA to advance this promising program*."

About the Ebola Virus

The Ebola virus causes periodic outbreaks of a highly contagious and lethal human infectious disease marked by severe hemorrhagic fever, with a mortality rate that ranges between 50% and 90%. The infection typically affects multiple organs in the body and is often accompanied by severe bleeding. The virus is transmitted to people from wild animals and spreads in the human population through human-to-human transmission. At present, there are no FDA-approved pre- or post-exposure interventions available in the event of an outbreak, laboratory accident, or deliberate misuse. The Ebola virus is classified as a Category A Priority Pathogen by the Centers for Disease Control and Prevention. This designation prescribes an accelerated development pathway for FDA approval

that determines efficacy based on two different validated animal studies followed by clinical evaluation in phase I and phase II trials to establish safety and immunogenicity for use in humans.

About Inovio Pharmaceuticals, Inc.

Inovio is revolutionizing the fight against cancer and infectious diseases. Our immunotherapies uniquely activate best-in-class immune responses to prevent and treat disease, and have shown clinically significant efficacy 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 Roche, MedImmune, University of Pennsylvania, DARPA, GeneOne Life Science, Drexel University, NIH, HIV Vaccines Trial Network, National Cancer Institute, U.S. Military HIV Research Program, and University of Manitoba.

For more information, 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, including safety and efficacy for VGX-3100, 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 immune therapy and vaccine products, our ability to advance our portfolio of immune-oncology products independently, including INO-5150, and to commence a phase I clinical trial for INO-5150 in the first half of 2015, 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, 2014, our Form 10-Q for the quarter ended March 31, 2015, 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.