Inovio Partners with National Cancer Institute to Initiate Hepatitis C Immunotherapy Clinical Trial

Inovio Pharmaceuticals {NASDAQ: INO} has announced they have partnered with the National Cancer Institute and the Mayo Clinic to initiate a Hepatitis C immunotherapy trial.

DNA based immunotherapy will be tested for safety and immune responses.

The object is to eliminate Hepatitis C.

Inovio Partners with National Cancer Institute and Mayo Clinic to Initiate Hepatitis C Immunotherapy Clinical Trial

DNA-based immunotherapy will be tested for safety and immune responses in quest to eliminate HCV infection
PLYMOUTH MEETING, Pa. – April 27, 2016. Inovio Pharmaceuticals {NASDAQ: INO}) announced today its immunotherapy for hepatitis C (INO-8000) will be evaluated in a phase I trial in chronically infected patients who are not receiving other hepatitis C virus (HCV) treatments.

The study will enroll patients who are in the early stages of chronic HCV infection to determine the therapy's ability to decrease and potentially eliminate HCV viral load, measure HCV specific immune responses and durability of these immune responses, and evaluate safety and tolerability. In this dose-

escalation study INO-8000 will be combined with increasing doses of DNA-based IL-12 (INO-9012), an immune activator, which in previous studies has been shown to increase the therapeutic immune response to DNA immunotherapies.

The study is funded by the National Cancer Institute's Division of Cancer Prevention and will be conducted at the Mayo Clinic and other U.S. sites.

Among those initially infected with HCV, 75 to 85 percent will go on to develop chronic illness. More than 170 million people around the world are chronically infected with HCV. According to the U.S. Centers for Disease Control (CDC) an estimated 3.5 million people in the US are chronically infected with HCV, with about 20,000 new cases of chronic HCV reported in the US in the last year. About 15,000 people in the US die each year of HCV-related causes.

Inovio's SynCon® DNA immunotherapy, INO-8000, is encoded for the antigens NS3/4A, NS4B, and NS5A of HCV genotypes 1a and 1b, the most difficult-to-treat genotypes. The product is designed to induce robust T cells to eliminate cells displaying these antigens and has been shown in published preclinical studies to generate powerful HCV-specific T cell responses throughout the body and in the liver.

Dr. Jeffrey Jacobson, the study's Principal Investigator, said "*Development of a vaccine therapy against hepatitis C would be important as a less expensive, simpler treatment alternative to several months of medication that should encourage better patient compliance, particularly in difficult-to-treat patient*

populations. It also holds the promise of inducing immunity protective against re-infection in patients who continue to be exposed, a not uncommon problem." Dr. Jacobson is Professor of Medicine, Neuroscience and Neurovirology at the Lewis Katz School of Medicine, Temple University.

Dr. J. Joseph Kim, President and CEO, said, "*Despite recent treatment advances, HCV infection remains a burden on our healthcare and payor system and continues to spread. Today's expensive drugs are highly effective in treating HCV but are not available to the majority of infected individuals. We are pleased to join the NCI and Mayo Clinic in this quest to develop an alternative medical solution to fight this disease, which remains one of the fastest-developing markets in healthcare*."

Inovio previously announced that it signed a collaborative agreement with GeneOne Life Sciences to develop INO-8000, along with a DNA IL-28 immune activator, in drug-resistant HCV patients in a phase I study in Korea. That study is on-going.

About Hepatitis C

Hepatitis C is a contagious liver disease that ranges in severity from a mild illness lasting a few weeks to a serious lifelong illness that attacks the liver. It results from infection with the hepatitis C virus, which is spread primarily through contact with the blood of an infected person. Hepatitis C can be either "acute" or "chronic." Acute hepatitis C virus infection is a short-term illness that occurs within the first six months after someone is exposed to the virus. For most people, acute infection leads to chronic infection, which can last a lifetime and lead to serious liver

problems including cirrhosis (scarring of the liver) or liver cancer.

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, 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

CONTACT:
Bernie Hertel

Inovio Pharmaceuticals

+1 858 410 3101

bhertel@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 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 and INO-3112, 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, 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, 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.