Inovio announces large phase 2 cancer trial

Inovio Pharma {NASDAQ: INO} announced a collaboration with the EORTC to evaluate Inovio's immunotherapy INO-3112 in respect of cervical cancer treatment.

Dr. J. Joseph Kim, President and CEO, said, "*Inovio is focused on taking immunotherapy to the next level"*

PLYMOUTH MEETING, Pa., July 23, 2015 **Inovio Pharmaceuticals Inc. {NASDAQ: INO}** announced today that it is collaborating with the European Organization for Research and Treatment of Cancer (EORTC) to evaluate Inovio's immunotherapy, INO-3112, in combination with traditional chemo-radiotherapy for the treatment of patients with locally advanced stage cervical cancer.

The trial, primarily funded by the EORTC, is expected to begin by the end of the year.

Partnership with the EORTC will offer Inovio clinical trial efficiency and speed in recruiting patients in Europe and in obtaining and analyzing results. The EORTC encompasses all aspects of cancer research, from translational research and new drug development to large phase III clinical trials and meta-analyses. EORTC is the only organisation which carries out clinical studies throughout Europe for all types of cancer. Collaboration with the EORTC also leverages their connections to a network of more than 2,500 pre-clinical scientists and oncologists in more than 300 hospitals in over 30 countries.

Dr. J. Joseph Kim, President and CEO, said, "*Inovio is focused on taking immunotherapy to the next level. We are the only*

immunotherapy company that is generating, in vivo, T cells in high quantity that are fully functional and which have demonstrated killing capability correlated with relevant clinical outcomes. We are very pleased that Inovio's approach attracted the attention of a premier cancer organization like the EORTC to sponsor this important study in women with cervical cancer."

INO-3112 consists of Inovio's HPV 16 and 18 immunotherapy (VGX-3100) and its IL-12-based immune activator (INO-9012). In this prospective, randomized, three arm phase II study, INO-3112 will be administered during standard chemo-radiotherapy (CRT) or during and after standard CRT as an adjuvant in patients with locally advanced cervical cancer. The primary endpoint is to demonstrate sufficient activity in the experimental combination arms to warrant a further pivotal phase III trial based on progression free survival (PFS) at 18 months. Efficacy will be assessed within each experimental arm while the standard arm will serve as a reference arm to check the reliability of the results. PFS at 18 months will be determined via RECIST criteria as assessed by the local investigator. The co-primary investigators are Georges Coukos, M.D. and Fernanda G. Herrera, M.D., both of whom are with the Centre Hospitalier Universitaire Vaudois in Lausanne, Switzerland.

Secondary endpoints include overall survival, clinical response, immunogenicity, tolerability and safety.

This international study will enroll patients in several European countries and will complement and build on an Inovio-sponsored study already underway at several centers in the United States (Phase I/IIA, Open-Label, Safety, Tolerability,

and Immunogenicity Study of INO-3112 Delivered by Electroporation in Women with Cervical Cancer after Chemoradiation for Newly Diagnosed Disease or Therapy for Recurrent and/or Persistent Disease).

The efficacy and immunogenicity of VGX-3100, the basis of INO-3112, in patients with the precursor to cervical cancer (high grade cervical dysplasia) has already been demonstrated in a large, prospective, randomized, double blind, placebo-controlled phase II study, HPV-003. Treatment with VGX-3100 resulted in histopathological regression of high grade cervical dysplasia to low grade or no disease, meeting the study's primary endpoint. In addition, the trial demonstrated clearance of the HPV virus in conjunction with regression of cervical lesions, meeting the secondary endpoint. Robust T-cell activity was observed in subjects who received VGX-3100 compared to those who received placebo.

About the EORTC

The EORTC is a vibrant example of the fact that academic science and research know no national boundaries. Established in 1962, the EORTC is a non-profit European research organization operating as an international association under Belgian law. The EORTC currently links a network of more than 2,500 pre-clinical scientists and oncologists in more than 300 hospitals in over 30 countries. It encompasses all aspects of cancer research, from translational research and new drug development to large phase III clinical trials and meta-analyses. The 170 members of the EORTC Headquarters staff handle some 6,000 new patients enrolled each year in cancer clinical trials, approximately 30 protocols that are permanently open to patient entry, over 50,000 patients who

are in follow-up, and a database of more than 180,000 patients. The ultimate goal of the EORTC is to improve the future of cancer therapy by developing new agents and innovative approaches and to test more effective treatment strategies using commercially available drugs, or surgery and radiotherapy. For more information, visit www.eortc.org

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, Gene One Life Science, Drexel University, NIH, HIV Vaccines Trial Network, National Cancer Institute, EORTC, U.S. Military HIV Research Program, and University of Manitoba.

For more information, visit www.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, 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(R) 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.

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