



NEWS RELEASE

Inovio Updates INO-3112 HPV Immunotherapy Development Plan

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PLYMOUTH MEETING, Pa., March 29, 2016 (GLOBE NEWSWIRE) -- Inovio Pharmaceuticals, Inc. (NASDAQ:INO) today announced a clinical strategy update to take its INO-3112 HPV immunotherapy into human studies in combination with selected immunotherapy molecules from MedImmune, the global biologics research & development arm of AstraZeneca, which is part of an existing partnership between the two companies.

The companies intend to advance combination immunotherapies in populations with continued unmet need, the potential for a registrable endpoint, and an expedient clinical path. With these goals in mind, planned enrollment of a European Organization for Research and Treatment of Cancer (EORTC) trial to study cervical cancer patients with INO-3112 before and after chemoradiation in an adjuvant setting will not go forward. The EORTC collaboration was announced by Inovio prior to partnering with MedImmune in August 2015.

"HPV-related cancers represent an important unmet clinical need. We believe our combination immunotherapy approach with MedImmune could address a missing link in the spectrum of available and emerging treatment approaches. Following our ongoing preparations, we expect the initiation of the first clinical trial with this combination to be an important step for Inovio in 2016," said Dr. J. Joseph Kim, Inovio's President and CEO.

INO-3112 is designed to generate antigen specific killer T-cell responses targeting HPV 16- and 18-driven tumors. Emerging evidence suggests the benefits from immuno-oncology molecules, such as those in MedImmune's portfolio, can be enhanced when used in combination with cancer vaccines that generate tumor-specific T-cells. Under the existing strategic cancer partnership and license agreement, MedImmune acquired from Inovio exclusive rights to INO-3112. MedImmune paid \$27.5 million upfront, agreed to potential development and commercial milestone payments totaling \$700 million, and will fund all development costs. Inovio is entitled to receive up to double-digit tiered royalties on INO-3112 sales.

INO-3112 is in phase I/II clinical trials for cervical and head and neck cancers. Inovio reported last November interim human data showing that its INO-3112 DNA-based immunotherapy generated robust HPV16/18 specific CD8+ T cell responses with cytolytic

function and antibodies in all 10 tested head & neck cancer patients who received all treatments. A total of 21 patients have been treated in this study to date; further data will be reported in 2016.

Under the existing agreement, MedImmune and Inovio will also co-develop up to two additional DNA-based cancer vaccines not included in Inovio's current product pipeline, which MedImmune will have the exclusive rights to develop and commercialize. Inovio will receive development, regulatory and commercialization milestone payments and will be eligible to receive royalties on worldwide net sales for these additional cancer vaccine products.

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.

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.

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