

Inovio Pharmaceuticals Reports 2016 Fourth Quarter and Year End Financial Results

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PLYMOUTH MEETING, PA – March 15, 2017 – **Inovio Pharmaceuticals, Inc. {NASDAQ: INO}** reported financial results for the fourth quarter and year ended December 31, 2016.

Total revenue was \$8.5 million and \$35.4 million for the quarter and year ended December 31, 2016, as compared to \$5.9 million and \$40.6 million for the same periods in 2015.

Total operating expenses for the quarter and year and ended December 31, 2016, were \$30.9 million and \$111.6 million as compared to \$20.5 million and \$74.9 million for the same periods in 2015.

The net loss attributable to common stockholders for the quarter and year ended December 31, 2016, was \$26.2 million, or \$0.35 per share, and \$73.7 million, or \$1.01 per share, compared to a net loss attributable to common stockholders of \$18.0 million or \$0.25 per share, and \$29.2 million, or \$0.43 per share, for the quarter and year ended December 31, 2015.

Dr. J. Joseph Kim, President and CEO, said: *“In 2016 Inovio made significant progress on all three focuses of its Vision 2020 plan, which are HPV-related precancer, immuno-oncology, and infectious diseases, with notable data, multiple trial completions, progressive clinical study preparations, and multiple valuable collaborations and funding agreements. In 2017 we expect to report immune response data from clinical studies in six different diseases; the initiation of our phase 3 study of cervical dysplasia and two immuno-oncology combination studies, one by MedImmune and one by Inovio; and additional business development steps. We look forward to a highly productive year in advancing our unique immunotherapy platform and products.”*

Revenue

The decrease in revenue for the year was primarily due to \$15.0 million of revenue recognized in 2015 from the up-front payment received from our partnership agreement with

MedImmune. Accounting recognition of the remainder of the \$27.5 million upfront payment was deferred and will be triggered by future events.

Operating Expenses

Research and development expenses for the quarter and year ended December 31, 2016, were \$23.9 million and \$88.7 million as compared to \$15.6 million and \$57.8 million for the same periods in 2015. The increase was primarily related to increased investment in our product development programs – notably the DARPA funded Ebola program and clinical trial preparations for the initiation of the VGX-3100 phase 3 study. General and administrative expenses for the quarter and year ended December 31, 2016, were \$7.0 million and \$23.9 million, compared to \$4.9 million and \$18.1 million for the quarter and year ended December 31, 2015. The increase was primarily related to employee non-cash stock-based compensation and employee headcount.

Capital Resources

As of December 31, 2016, cash and cash equivalents and short-term investments were \$104.8 million compared with \$163.0 million as of December 31, 2015. As of December 31, 2016, the company had 74.1 million shares outstanding and 82.0 million fully diluted.

During the year ended December 31, 2016, the Company sold 658,748 shares of common stock under its ATM common stock sales agreement for net proceeds of \$6.3 million, with an average price of \$9.75 per share.

Subsequent to year end Inovio announced a collaboration and license agreement providing ApolloBio Corporation

(NEEQ:430187) with the exclusive right to develop and commercialise VGX-3100 within Greater China. In this agreement, Inovio will receive a \$3 million signing fee and a \$12 million milestone upon lifting of the VGX-3100 phase 3 pre-initiation clinical hold by the FDA. ApolloBio will also invest in Inovio common stock subsequent to lifting of the clinical hold at a volume weighted average price encompassing a trading period prior to and following the lifting of the clinical hold. The aggregate investment, expected to be completed in the first half of 2017, will not exceed \$35 million and may be a lower amount such that ApolloBio will not be the largest shareholder in Inovio. Further details are provided under Corporate Update, HPV-Related Precancers below.

Inovio's balance sheet and statement of operations are provided below. Form 10-K providing the complete 2016 annual financial report can be found at: <http://ir.inovio.com/secfilings>.

Corporate Update

HPV-Related Precancers

In 2016 Inovio completed the scaling up of immunotherapy manufacturing to a commercial-scale facility as well as the commercial design and manufacturing process development for its new CELLECTRA® 5PSP electroporation delivery device. We submitted a regulatory package to the U.S. Food and Drug Administration (FDA) supporting our proposed initiation of our phase 3 clinical program for VGX-3100 for HPV-related high grade cervical dysplasia. Included in this package was an extensive submission regarding the new device. Prior to the initiation of this study the FDA placed this program on clinical hold and subsequently provided Inovio with comments and questions, including a request for certain stability data relating to the device's single-use disposable needle array. Inovio is generating the necessary data to prepare a

comprehensive response. We aim to begin the phase 3 clinical program in the first half of 2017, subject to the FDA's review of our response and lifting of the clinical hold. This clinical hold does not affect other Inovio clinical programs. Inovio is planning to launch a phase 2 clinical study in 2017 for another HPV-related disease, vulvar intraepithelial neoplasia.

Subsequent to year end Inovio announced it entered into a collaboration and license agreement providing ApolloBio Corporation with the exclusive right to develop and commercialise VGX-3100 within Greater China (China, Hong Kong, Macao, Taiwan). The agreement provides for potential inclusion of the Republic of Korea three years following the effective date. Apart from financial terms discussed in Capital Resources above, ApolloBio will pay all clinical development costs within the licensed territory, up to \$20 million based upon the achievement of certain regulatory milestones in the US, China and Korea, and double digit royalties on net sales of VGX-3100. The agreements are subject to People's Republic of China (PRC) corporate and regulatory approvals, and payments are subject to PRC currency approvals. This collaboration encompasses treatment and/or prevention of pre-cancerous HPV infections and HPV-driven dysplasias, and excludes HPV-driven cancers and all combinations of VGX-3100 with other immunostimulants.

Immuno-Oncology

In the fourth quarter we reported interim data showing that INO-3112 generated robust HPV16/18 specific CD8+ T cell responses in peripheral blood in four of five subjects with HPV-related head and neck cancer who also showed increased T cell activation in resected tumor tissue samples. This data suggests the potential of Inovio's DNA immunotherapies to turn tumors from cold to hot – by dramatically increasing the presence of killer T cells in the tumor, this technology represents an ideal approach to enhance the capabilities of

checkpoint inhibitors. Inovio expects its partner, MedImmune, which licensed INO-3112 in 2015, to initiate a phase 1/2 immuno-oncology combination clinical study including INO-3112 in 1H 2017.

Subsequent to year end we reported data indicating that our SynCon® WT1 cancer antigen was capable of breaking immune tolerance – a major challenge to researchers striving to develop potent cancer therapies – and induced neo-antigen-like T cell responses to cause tumor regression in pre-clinical studies. The results were published in Molecular Therapy in an article entitled, “A novel DNA vaccine platform enhances neo-antigen-like T-cell responses against WT1 to break tolerance and induce anti-tumor immunity.” Inovio previously reported such results for its SynCon hTERT and PSMA cancer antigens. All three antigens are encoded in INO-5401, Inovio’s new universal cancer vaccine. Inovio intends to advance INO-5401 into a phase 1/2 study in combination with a checkpoint inhibitor in 1H 2017.

Completed enrollment of 62 subjects in the phase 1 study of our INO-5150 prostate cancer immunotherapy. We expect to report interim immune response and safety data in 2017.

Infectious Diseases

Subsequent to year end Inovio completed enrollment of its phase 1 study of its hepatitis B DNA immunotherapy (INO-1800). Inovio is independently advancing this program following Roche’s notice in 2016 that it will discontinue its INO-1800 collaboration with Inovio. All of Roche’s rights to INO-1800 have been returned. Inovio expects to report preliminary immune response data in 2H 2017. The study has completed interim safety reviews with a favorable safety profile to date.

Subsequent to year end we reported that in our emerging epidemic infectious disease program our fully enrolled 75-

subject phase 1 study of our MERS DNA vaccine GLS-5300 generated high levels of binding antibodies (ELISA) in 92% (57 of 62) of evaluated subjects after three vaccinations (84% after two doses; 44% after one dose). Similarly, in our fully enrolled 40-subject phase 1 Zika study of GLS-5700, high levels of binding antibodies were measured (ELISA) in 100% (39 of 39) of evaluated subjects after three vaccinations; 82% (32 of 39) after two doses; 40% (16 of 40) after one dose. Both vaccines were well tolerated with no significant safety concerns to date. **Both programs are being advanced through collaborations between Inovio and GeneOne Life Science Inc. (KSE: 011000).**

We announced a collaboration and funding through our collaborator, GeneOne Life Science, with the International Vaccine Institute (IVI), which will provide technical, laboratory and financial support for GLS-5300 (MERS) clinical trials in Korea. This program is part of a grant provided to IVI by the Samsung Foundation.

Inovio and GeneOne initiated a phase 1 Zika DNA vaccine trial in Puerto Rico to test for safety, immune responses and initial evidence of efficacy. The placebo-controlled double-blind trial will assess differences in Zika infection rates in 160 healthy participants given either placebo or vaccine as part of an exploratory endpoint.

We expanded our phase 1 Ebola vaccine trial by fully enrolling an additional 125 subjects in a second stage after generating positive initial safety and immune response data in the first set of 75 healthy volunteers. The study will assess immune response characteristics generated with fewer intradermal administrations, lower doses, and with and without Inovio's DNA-based IL-12 immune activator.

In 2016 we partnered with the National Cancer Institute and Mayo Clinic to initiate a phase 1 trial of our immunotherapy for hepatitis C (INO-8000). The dose escalation study will enroll patients 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.

Completed enrollment of 94 subjects in the phase 1 study of our PENNVAX®-GP HIV immunotherapy. After completing extensive immunogenicity analyses, we expect to report data in 2H 2017.

Other Developments

Signed collaborative research agreements with the Wistar Institute for preventive and therapeutic DNA-based immunotherapy applications and products for cancers and infectious diseases developed by David B. Weiner, Ph.D., board member and chairman of the scientific advisory board, and his Wistar laboratory. Inovio will have the exclusive right to in-license new intellectual property developed in this collaboration.

Inovio announced the award of a \$6.1 million sub-grant through The Wistar Institute to develop a DNA-based monoclonal antibody designed to provide a fast-acting treatment against Zika infection. This program (a total of \$8.8 million) is funded by the Bill & Melinda Gates Foundation.

Inovio's DNA-based monoclonal antibody technology will be used to develop new immunotherapy approaches to treat HIV. This work will be funded by a \$23 million grant, called BEAT-HIV: Delaney Collaboratory to Cure HIV-1 Infection by Combination Immunotherapy, from the National Institutes of Health to The Wistar Institute, an Inovio collaborator, and more than 30 of the nation's leading HIV investigators.

Inovio incorporated a 100%-owned subsidiary, GENEOS Therapeutics, Inc., to develop and commercialize neo-antigen based personalized cancer therapies. GENEOS will exclusively focus on leveraging Inovio's potent DNA immunotherapy technology platform to advance the emerging field of patient-specific neo-antigen therapies. GENEOS plans to independently raise capital and build a team to execute this complementary

business model. Inovio will continue its focus on advancing its universal antigen-specific cancer immunotherapy portfolio. Received \$500,000 grant from the U.S. Army's Small Business Innovation Research program to advance Inovio's next generation delivery device capable of administering vaccines via skin-surface, needle-free electroporation. Inovio completed the acquisition of all of Bioject Medical Technologies Inc.'s assets, including pioneering needle-free jet injection technology, devices, and intellectual property, for \$5.5 million in cash and stock. Our goal is to design an integrated needle-free immunotherapy delivery and electroporation device. Licensed a veterinary vaccine for foot and mouth disease (FMD) to Plumblin Life Sciences, an animal health company headquartered in South Korea. Plumblin will fund all development activities for this FMD vaccine and pay Inovio milestone payments as well as royalties on potential product sales.

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. The company is advancing a growing clinical and preclinical stage product pipeline. Partners and collaborators include MedImmune, the Wistar Institute, University of Pennsylvania, DARPA, GeneOne Life Science, Plumblin Life Sciences, ApolloBio Corporation, Drexel University, NIH, HIV Vaccines Trial Network, National Cancer Institute and U.S. Military HIV Research Program.

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 our ability to obtain a release of the clinical hold from the FDA for the proposed phase 3 clinical program for VGX-3100, 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, 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.