Thank you for requesting information about Inovio Pharmaceuticals, Inc. (NASDAQ: INO). We appreciate your time to learn more about the promise of DNA immunotherapies and Inovio's vital role in advancing this field. Inovio is a team on a mission to revolutionize the fight against cancers and infectious diseases.

Inovio is working to transform the way we treat and prevent various cancers and infectious diseases by creating synthetic DNA immunotherapies that stimulate the body's own immune system to generate robust T cell immune responses unique to the targeted diseases.

Our technology has achieved best-in-class T-cell responses compared to alternative technologies. We recently reported validating efficacy data – the first for our technology and the field of DNA-based immune therapies - from our phase II cervical dysplasia study.

In this phase II study, women with late stage cervical dysplasia 2/3 (CIN2/3) associated with human papillomavirus (HPV) types 16 or 18 were treated with VGX-3100, Inovio's DNA immunotherapy. Treatment with VGX-3100 resulted in regression of CIN2/3 to early stage dysplasia (CIN1) or no disease, meeting the study's primary endpoint. In addition, the trial demonstrated clearance of HPV in conjunction with regression of cervical lesions as well as robust T-cell activity in subjects who received VGX-3100 compared to those who received placebo. These results are a breakthrough for the field of immunotherapies. Beyond the direct clinical implications of this phase II study, this efficacy and T cell data provides evidence that DNA immunotherapy technology can activate the immune system to fight cancers and infectious diseases. We expect to initiate a phase III clinical trial for VGX-3100 in 2016.

While this phase II study was focused on cervical pre-cancers, VGX-3100 is intended to fight all pre-cancers and cancers caused by HPV types 16 & 18, including cervical, head and neck, and anogenital cancers – we view these as each being billion-dollar-plus markets. In 2014 we initiated two new studies in which we added to this immunotherapy a DNA-based immune activator called IL-12. Based on results achieved in a previous study, we expect the addition of IL-12 to further increase CD8 T cell levels, which are the active immune "weapon" that eliminates target cells, above the level we saw with our DNA product alone.

Expanding our HPV franchise, Inovio also initiated a phase I compassionate study against HPV type 6 caused aerodigestive cancers in men and women who have exhausted all other treatment options (chemotherapy, radiation and surgery). Successful results of this trial could open a path to pursuing an FDA orphan designation (special status granted for therapies for rare diseases) for aerodigestive cancers.

Inovio is advancing on many fronts. Inovio initiated a phase I trial in collaboration with VGX International to test Inovio's hepatitis C immunotherapy in Korea. We expect to report phase I data from this study in 2015 as well as initiate additional studies in the U.S. In the next quarters, Inovio plans to start phase I and phase I/IIa clinical trials for immunotherapies designed to treat prostate cancer; breast, lung and pancreatic cancers displaying the antigen hTERT; as well as HIV, hepatitis B, and Ebola, most of these studies being funded by third parties. The initiation of our phase I/IIa trial for hepatitis B would trigger milestone payments from our partner Roche.

We also continue to work toward additional partnerships with other large pharmaceutical companies.

We are excited about Inovio's results and potential on its path to create impactful immune therapies. Please let me know if you have questions.

Best regards,

Bernie Hertel
Vice President, Investor Relations and Communications
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Inovio Key Highlights

- Phase II cervical dysplasia study induced regression of pre-cancerous cervical disease and cleared HPV infection with robust T cell responses
- Exclusive worldwide partnership with Roche to develop and commercialize Inovio's hepatitis B (INO-1800) immunotherapy product
- Potential additional partnerships with large pharmaceutical companies
- Almost $60M in non-dilutive third party R&D grants and expenditures since 2009
- Operating capital through 4Q 2017 (excluding our planned phase III study)
- Synthetic DNA vaccines with proprietary delivery technology targeting diseases with multi-billion-dollar markets; designed to extend the powerful capabilities but overcome limitations of conventional vaccines and alternative immunotherapies
- Best-in-class T-cell immune responses displaying killing effect against target cells – designed to fight cancers, HIV, hepatitis and other diseases requiring treatment
- Novel synthetic consensus immunotherapies are designed to break tolerance of the immune system to self-made cancer cells or achieve universal protection against a broader spectrum of constantly changing viruses such as influenza, in contrast to today's "one bug, one drug" paradigm
- Favorable safety profile with no serious adverse events in over 500 subjects to date
- Dominant global patent position, with over 400 patents protecting our electroporation delivery technology and novel SynCon® DNA vaccines and associated biologics
- Management team and advisors are leaders in the world of vaccines and DNA vaccines
- Recognized in 2014 with Vaccine Industry Excellence Awards for Best Therapeutic Vaccine (for HPV-associated diseases), Best Early Stage Biotech Company at World Vaccine Congress and Best Vaccine Licensing Deal.

Inovio (NASDAQ: INO) is revolutionizing the fight against cancers and infectious diseases. With key potential investment catalysts ahead, we invite you to learn more about our company, talk to us, and share our story.

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This communication contains certain forward-looking statements relating to our business, including our plans to develop electroporation-based drug and gene delivery technologies and DNA vaccines 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, 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, 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, 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, 2013, our Form 10-Q for the quarter ended September 30, 2014, 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.