

Inovio Pharmaceuticals Acquires Injection Technology to Advance Strategy for Next-Generation Vaccines

Inovio pharmaceuticals {NASDAQ: INO} have acquired Bioject Medical Technologies Inc.'s assets including pioneering needle-free jet injection technology, devices, and intellectual property.

Inovio will pay Bioject \$5.5 million in cash and stock.

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Non-invasive integrated injection and electroporation device to enhance mass immunisation against flu, RSV, and pandemic/tropical infectious diseases using transformative immune-activating technology.

PLYMOUTH MEETING, Pa. – March 14, 2016 – **Inovio Pharmaceuticals, Inc.** {NASDAQ: INO} announced today it has signed a definitive agreement to acquire all of Bioject Medical Technologies Inc.'s assets including pioneering needle-free jet injection technology, devices, and intellectual property. Inovio will pay Bioject \$5.5 million in cash and stock.

Inovio will advance an integrated non-invasive delivery device combining Bioject's jet injection technology with Inovio's new needle-free, skin-surface electroporation (EP) technology.

The company's goal is to facilitate preventive immunization using its DNA vaccines against critical infectious diseases with unmet needs in large populations. Bioject's needle-free devices, which use high pressure gas or springs to propel liquid medicine into skin, have demonstrated desirable utility, safety, and tolerability attributes in animals and humans. Under a prior research agreement, Inovio assessed this technology with its new EP delivery system and generated compelling antigen expression and immune responses in animals.

Injecting DNA immunotherapies into tissue alone, irrespective of the injection method, has not generated potent immune responses in clinical studies – DNA immunotherapies must enter cells of the tissue to enable their immune-activating capabilities, which is limited using syringe or jet injection alone.

One of two pillars in Inovio's success in achieving clinically relevant efficacy with induced immune responses is its proprietary EP technology enabling delivered DNA to be transported into the cells. Inovio's compelling data have to date been achieved using intramuscular needle-based injection and EP, which is well-suited for treating cancers and infectious diseases.

Achieving preventive immunisation using DNA vaccines against challenging infectious diseases in large populations will also

require EP delivery. It would also benefit significantly from a combined jet injection/electroporation device capable of reducing administration inconsistency, pain, and disposables cost associated with needle-based injection in mass immunisations.

Dr. J. Joseph Kim, Inovio's CEO, said, *"Our current DNA delivery method is highly effective and already gets the job done. However, to fully realize the opportunity of mass immunization against challenging infectious diseases we believed we could create an additional advantage: that is non-invasive vaccine administration. Similar to our past acquisitions of Advisys and Inovio AS, this purchase of Bioject's superior jet injection technology and well-positioned patents is an investment in Inovio's future. Jet injection alone cannot achieve the utility of DNA vaccines. However, combined with our new needle-free skin-surface electroporation delivery technology we believe we can offer a compelling solution to protect against RSV, ever-changing influenza strains, and emerging infectious diseases like Zika."*

Inovio's leadership in advancing DNA immunotherapies delivered using needle-based injection and electroporation led to the first reported generation of robust antigen-specific immune responses correlated to efficacy in a controlled clinical study. Its phase II data was published in September 2015 in *The Lancet*.

This product, VGX-3100, for high-grade HPV-related cervical dysplasia, will advance into phase III in 2016. This approach is being used in multiple current and imminent clinical studies in cancer and therapeutic applications for chronic

infectious diseases such as hepatitis B and HIV.

With respect to needle-less vaccine administration, Inovio has an extensive vaccine pipeline to leverage this technique. It has ongoing clinical programs for flu, HIV, Ebola, and MERS; proof-of-principle human data has shown significant immune responses generated by its universal influenza and HIV DNA vaccines; and preclinical-stage DNA vaccines target important diseases such as Zika, dengue, Chikungunya and RSV.

Supporting the goal of non-invasive administration, the U.S. Army Small Business Innovation Research program recently granted Inovio \$500,000 to further support the development of a needle-free, non-invasive skin-surface electroporation device for DNA vaccine delivery.

Inovio will pay Bioject \$4.5 million in Inovio stock (price set by 20 day weighted average share price immediately prior to closing) and \$1.0 million in cash. The closing of this transaction is subject to approval by Bioject's shareholders and is expected approximately 30 days from this announcement.

About Inovio Pharmaceuticals, Inc.

Inovio is taking immunotherapy to the next level in the fight against cancer and infectious diseases. INO 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, Roche,

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

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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, 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.