Inovio and GeneOne advance MERS vaccine towards phase 1 trials

Inovio {NASDAQ: INO} and their partner GeneOne Life Science of South Korea have filed an investigational new drug application with the FDA.

The objective is to move to phase 1 trial in healthy humans before the end of the year.

Inovio and Partner Advance MERS Vaccine

Inovio Affiliate GeneOne Files Investigational New Drug Application

No vaccine exists for MERS virus, which has killed 40% of those infected.

PLMOUTH MEETING, Pa., Oct. 19, 2015 **Inovio Pharmaceuticals, Inc. {NASDAQ: INO}** and **GeneOne Life Science Inc. {KSE:011000}**, who partnered together to develop Inovio's MERS vaccine (GLS-5300), today announced the filing of an Investigational New Drug Application (IND) for GLS-5300 with the United States Food and Drug Administration. The companies expect to move the MERS vaccine into a phase I clinical trial in healthy volunteers before year end.

Middle East respiratory syndrome (MERS) is caused by a coronavirus that is related to the severe acute respiratory

syndrome (SARS) virus that over 10 years ago infected over 8,000 people, with a 10% death rate. There is no vaccine or effective treatment against MERS, which spreads from human to human. Since 2012, MERS has infected over 1,500 people and killed almost 600 (40%). Recently, the largest outbreak outside of Saudi Arabia of this emergent global health concern infected 186 people with 36 fatalities in South Korea.

Earlier this year, Inovio's MERS vaccine induced 100% protection from a live virus challenge in a preclinical study. Inovio and its collaborators evaluated its MERS vaccine in mice, camels and monkeys, or non-human primates. As published in *Science Translational Medicine*, the vaccine induced robust immune responses capable of preventing the virus from infecting cells in all three species. In monkeys, all vaccinated animals in the study were protected from symptoms of MERS when challenged with a live MERS virus.

Dr. J. Joseph Kim, President and CEO, said, "*We are moving rapidly from achieving complete protection from MERS in monkey studies to our goals of obtaining safety data from a phase I trial and regulatory approval*."

About GeneOne Life Science

GeneOne Life Science Inc. is an international DNA vaccine developer and leading contract manufacturer of DNA plasmid-based agents for pre-clinical and clinical trials for global companies and institutions. It researches and develops DNA vaccines to prevent and treat incurable diseases in South Korea and internationally. The company is headquartered in Seoul, South Korea. VGXI, Inc., GeneOne's wholly-owned manufacturing subsidiary located inTexas, is the largest pure-play cGMP DNA plasmid manufacturing facility in the world. Inovio holds an equity interest in GeneOne.

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 is 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, 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, 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® active immune therapy and vaccine products, our ability to advance our portfolio of immune-oncology products independently, 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 June 30, 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.

CONTACTS:

Investors:
Bernie Hertel,
Inovio Pharmaceuticals,
+1 858-410-3101,
bhertel@inovio.com

Source: Inovio Pharmaceuticals