NEWS RELEASE

Inovio Doses 1st Subject in Phase 1/2 Clinical Trial For Vaccine Against Deadly MERS Infection

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PLYMOUTH MEETING, Pa., Sept. 05, 2018 (GLOBE NEWSWIRE) -- Inovio Pharmaceuticals, Inc. (NASDAQ: INO) announced today announced the dosing of the first subject with its vaccine to prevent infection from the deadly MERS virus (Middle East Respiratory Syndrome) in a Phase 1/2a study to evaluate INO-4700 (or GLS-5300). The trial is ongoing in South Korea sponsored by Inovio's Korean development partner for its MERS vaccine, GeneOne Life Science (KSE: 011000). The International Vaccine Institute (IVI) is fully funding this trial utilizing a grant from the Samsung Foundation committed to IVI to support the development of a MERS vaccine.

Leveraging results from this study, Inovio expects to advance its MERS vaccine into a Phase 2 field trial in the Middle East in 2019 with CEPI funding. Earlier this year, Inovio received a $56 million grant from CEPI – the Coalition for Epidemic Preparedness Innovations – under which Inovio will develop vaccine candidates through Phase 2 against MERS and Lassa fever. The shared goal of Inovio and CEPI is for a MERS vaccine to be available as soon as possible for emergency use as a stockpile post-Phase 2 testing.

Dr. J. Joseph Kim, Inovio's President & CEO, said, "Our goal is to develop a MERS vaccine for emergency stockpile as soon as possible – moving into a Phase 2 trial next year in areas of the Middle East where the virus is most present. Our Korean study is also notable because it will utilize our intradermal vaccine delivery device which has demonstrated in other infectious disease trials (HIV, Ebola & Zika) to elicit very high immune responses at a much lower dose."

This Phase 1/2a study represents the second clinical trial for INO-4700, which remains the first and most advanced MERS vaccine tested in humans. Inovio's MERS vaccine has already been demonstrated to be highly immunogenic in a Phase 1 study where it showed that the vaccine was well-tolerated and more than 90% of treated patients achieved overall high levels of antibody responses and robust CD8+ T cell responses. Previous studies have shown that CD8+ T cell responses correlate with greater survival among MERS infected patients (Zhao 2017, Science Immunology).

The Korean study will assess vaccine dosing through an intra-dermal administration that has been shown to be both better tolerated and equally immunogenic compared to intra-muscular administration in the previous studies of Inovio's Ebola and HIV vaccines. The

study will also assess whether a two-dose vaccine regimen is comparative to a three-dose regimen. In an earlier preclinical challenge studies, INO-4700 protected 100% of vaccinated rhesus macaques from a lethal MERS virus challenge with 2 doses.

Despite the continuing threat of MERS outbreaks, there are no licensed vaccines or treatments for MERS. Since the virus was first identified in Saudi Arabia in 2012, the World Health Organization reports more than 2,000 MERS infections of whom greater than 36% died. Twenty seven countries have reported cases, including Korea where an outbreak in the summer of 2015 resulted in 186 cases of whom 20% died. In contrast, the mortality rate as part of the 2003 SARS epidemic was 10%. MERS causes a rapidly progressive respiratory illness that may require intensive care treatment and mechanical ventilation in many patients.

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 in Texas, is the largest pure-play cGMP DNA plasmid manufacturing facility in the world. For more information, visit **www.genels.com**.

About Inovio Pharmaceuticals, Inc.

Inovio is a late-stage biotechnology company focused on the discovery, development, and commercialization of DNA immunotherapies that transform the treatment of cancer and infectious diseases. The Inovio technology platform is designed to activate an individual's immune system to generate a robust, targeted T cell and antibody response against targeted diseases. Inovio is the only immunotherapy company that has reported generating T cells entirely in vivo in high quantity that are fully functional and whose killing capacity correlates with relevant clinical outcomes with a favorable safety profile. Inovio's most advanced clinical program, VGX-3100, is in Phase 3 for the treatment of HPV-related cervical pre-cancer. Also in development are Phase 2 immuno-oncology programs targeting head and neck cancer, bladder cancer, and glioblastoma, as well as platform development programs in hepatitis B, Zika, Ebola, MERS, and HIV. Partners and collaborators include MedImmune, Regeneron, Roche/Genentech, ApolloBio Corporation, The Wistar Institute, University of Pennsylvania, the Parker Institute for Cancer Immunotherapy, DARPA, GeneOne Life Science, Plumbline Life Sciences, Drexel University, National Institute of Allergy and Infectious Diseases, U.S. Army Medical Research Institute of Infectious Diseases, NIH, HIV Vaccines Trial Network, U.S. Military HIV Research Program and CEPI. 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, including the planned initiation and conduct of clinical trials and the availability and timing of data from those trials, as well as our plans and expectations regarding the presentation of data at scientific conferences. 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, 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 pipeline of SynCon® active immunotherapy and vaccine products, 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 us or our collaborators, including alternatives that may be more efficacious or cost effective than any therapy or treatment that we and our collaborators hope to develop, issues involving product liability, issues involving patents and whether they or licenses to them will provide us 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 we can finance or devote other significant resources that may be necessary to prosecute, protect or defend them, the level of corporate expenditures, assessments of our 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, 2017, our Quarterly Report on Form 10-Q for the quarter ended June 30, 2018 and other regulatory filings we make from time to time. There can be no assurance that any product candidate in our pipeline will be successfully developed, manufactured or commercialized, that final results of clinical trials 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. Forward-looking statements speak only as of the date of this release, and we undertake no obligation to update or revise these statements, except as may be required by law.

CONTACTS:

Investors: Ben Matone, Inovio, 484-362-0076, **ben.matone@inovio.com**

Media: Jeff Richardson, Inovio, 267-440-4211, **jrichardson@inovio.com**

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