NEWS RELEASE

Inovio Licenses Veterinary Foot and Mouth Disease Vaccine to Plumbline Life Sciences

2016-08-16

PLYMOUTH MEETING, Pa., Aug. 16, 2016 (GLOBE NEWSWIRE) -- Inovio Pharmaceuticals, Inc. (NASDAQ:INO) today announced it has licensed a veterinary vaccine for foot and mouth disease (FMD) to Plumbline Life Sciences (KONEX: 222670), an animal health company headquartered in South Korea. Plumbline will fund all development activities for this FMD vaccine. Inovio will receive milestone payments as well as royalties on product sales from Plumbline for commercial rights to this FMD synthetic vaccine in Asia, excluding Japan. In 2014, Inovio sold other **animal health assets** to Plumbline for cash and a significant equity position in the company.

Inovio's FMD DNA vaccine administered to sheep and pigs in previous studies showed strong protective neutralizing antibodies, demonstrating its potential to prevent the virus from infecting livestock animals.

The FMD virus is one of the most infectious diseases affecting farm animals including cattle, swine, sheep and goats, and is a serious threat to global food safety. Once an area is exposed to FMD, livestock & dairy exports are ceased and herds are culled. For example, in a major FMD outbreak in the U.K. in 2001 more than four million animals were slaughtered, resulting in more than $10 billion (USD) in economic losses. In a 2011 FMD epidemic in South Korea, more than 3.3 million animals, mostly swine, were culled in an attempt to keep the disease from spreading.

Because FMD can spread rapidly and beyond regional boundaries there is a need to develop vaccines that can simultaneously target different regional serotypes of FMD in a single vaccine. Inovio's SynCon® technology enables rapid development of vaccines that can cover multiple serotypes simultaneously with a single formulation. Inovio has generated and tested DNA vaccine constructs targeting all seven main FMD virus serotypes.

Dr. J. Joseph Kim said, "With Inovio's focus on human immunotherapies to fight cancers and infectious diseases, we want to monetize non-core assets. This is our second license agreement with Plumbline to enable the development of animal health products and market opportunities. FMD pandemics are a worldwide threat to food supply and society for which Inovio's FMD vaccine could provide a global solution."

About Plumbline Life Sciences, Inc.

Plumbline Life Sciences, Inc., an animal biopharmaceutical company, focuses on companion animals. It develops deoxyribonucleic acid (DNA)-based vaccines and therapies for animals using plasmid-based DNA delivery and expression technology by electroporation to optimize an animal's natural biological and immunological potential. The company’s solutions include growth hormone releasing hormone (GHRH), a naturally occurring molecule; and an electroporation technology for delivering plasmids into skeletal muscle cells and skin. It offers products for dog cancer/anemia, equine laminitis, cat renal failure/anemia, dog renal failure/anemia, and swine GHRH. Plumbline Life Sciences, Inc. is based in Seoul, South Korea.

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. With an expanding portfolio of immune therapies, the company is advancing a growing preclinical and clinical stage product pipeline. Partners and collaborators include MedImmune, The Wistar Institute, University of Pennsylvania, DARPA, GeneOne Life Science, Plumbline Life Sciences, Drexel University, NIH, HIV Vaccines Trial Network, National Cancer Institute, U.S. Military HIV Research Program, and Laval University. 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 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, 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, 2015, our Form 10-Q for the quarter ended June 30, 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.

CONTACTS:
Investors: Bernie Hertel, Inovio Pharmaceuticals, 858-410-3101, **bhertel@inovio.com**
Media: Jeff Richardson, Inovio Pharmaceuticals, 267-440-4211, **jrichardson@inovio.com**

Source: Inovio Pharmaceuticals