NEWS RELEASE

Inovio Accelerates Timeline for COVID-19 DNA Vaccine INO-4800

3/3/2020

Human Trials Planned for April; One Million Doses Expected by Year End

PLYMOUTH MEETING, Pa., March 3, 2020 /PRNewswire/ -- Inovio Pharmaceuticals, Inc. (NASDAQ:INO) today announced an accelerated timeline for developing its DNA vaccine INO-4800 to address COVID-19, the respiratory infection the World Health Organization (WHO) has designated a Public Health Emergency of International Concern of the highest level. According to WHO, approximately 89,000 cases have been reported globally with more than 3,000 deaths.

Dr. J. Joseph Kim, Inovio's President & CEO, shared this accelerated timeline at the U.S. Coronavirus Task Force meeting at the White House on March 2. Dr. Kim said, "Inovio is the leader in coronavirus vaccine development and the only company with a Phase 2 vaccine for a related coronavirus that causes Middle East Respiratory Syndrome (MERS). Using our modern DNA medicines platform, we designed our DNA vaccine INO-4800 in three hours after the publication of the genetic sequence of the novel coronavirus that causes COVID-19."

Dr. Kim continued, "We immediately began preclinical testing and small-scale manufacture and have already shared robust preclinical data with our public and private partners. We plan to begin human clinical trials in the U.S. in April and soon thereafter in China and South Korea, where the outbreak is impacting the most people. We plan on delivering one million doses by year end with existing resources and capacity. However, we will need additional resources to scale up to make enough doses to help protect Americans from COVID-19 as well as to lead global efforts to curtail this virus."

Inovio's COVID-19 DNA Vaccine Development Timeline

December 31, 2019	Inovio scientists learn about a novel coronavirus (SARS-CoV-2)

	which caused an outbreak of respiratory disease in Wuhan, China, now referred to as COVID-19
January 10, 2020	Chinese researchers share the genetic sequence of the novel coronavirus Inovio designs DNA vaccine INO-4800 in three hours after receiving the genetic sequence using its proprietary DNA medicines platform technology INO-4800 was designed to precisely match the DNA sequence of the virus
January 10 to January 23, 2020	Inovio scientists race to manufacture INO-4800 and begin preclinical testing
January 23, 2020	Inovio receives a grant of up to $9 million from the Coalition for Epidemic Preparedness Innovations (CEPI) to fund ongoing preclinical and initial clinical development of INO-4800
January 23 to February 29, 2020	Preclinical testing continues, with immune responses generated in animal models; human clinical trial designs developed
March 2020	Ongoing preclinical studies; human clinical trial designs finalized; 3,000 human trial doses prepared for clinical trials in the U.S., China, and South Korea; large-scale manufacturing plans developed
April 2020	Human clinical trials begin in 30 healthy volunteers in the U.S. Human clinical trials to begin in China and South Korea shortly thereafter
Fall 2020	Human clinical trial results presented/published
End of 2020	1 million doses of INO-4800 COVID-19 DNA vaccine produced for further trials or emergency use

About Inovio's DNA Medicines

Inovio has 15 DNA medicine clinical programs currently in development focused on HPV-associated diseases, cancer, and infectious diseases, including COVID-19 under a grant from the Coalition for Epidemic Preparedness Innovations (CEPI). DNA medicines are composed of optimized DNA plasmids, which are small circles of double-stranded DNA that are synthesized or reorganized by a computer sequencing technology and designed to produce a specific immune response in the body.

Inovio's DNA medicines deliver optimized plasmids directly into cells intramuscularly or intradermally using Inovio's proprietary hand-held smart device called CELLECTRA®. CELLECTRA uses a brief electrical pulse to open small

pores in the cell reversibly to allow the plasmids to enter. Once inside the cell, the plasmids begin replicating, thereby strengthening the body's own natural response mechanisms. Administration with the CELLECTRA device ensures that the DNA medicine is delivered directly into the body's cells, where it can go to work immediately mounting an immune response. Inovio's DNA medicines are not interfering with or changing in any way an individual's own DNA.

The advantages of Inovio's DNA medicine platform are how fast DNA medicines can be created and manufactured, the stability of the products which do not require freezing in storage and transport, and their robust immune response as well as safety and tolerability.

With more than 2,000 patients receiving Inovio investigational DNA medicines in more than 6,000 applications across a range of clinical trials, Inovio has a strong track record of rapidly generating DNA medicine candidates to meet urgent health needs.

About Inovio Pharmaceuticals, Inc.

Inovio is a biotechnology company focused on rapidly bringing to market precisely designed DNA medicines to treat, cure, and protect people from diseases associated with HPV, cancer, and infectious diseases. Inovio is the first and only company to have clinically demonstrated that a DNA medicine can be delivered directly into cells in the body via a proprietary smart device to safely produce a robust immune response to destroy and clear high-risk HPV 16 and 18, which are responsible for 70% of cervical cancer, 90% of anal cancer and 69% of vulvar cancer. In addition to HPV, Inovio's optimized plasmid design and delivery technology have been demonstrated to consistently activate robust and fully functional T cell and antibody responses against targeted cancers and pathogens. Inovio's most advanced clinical program, VGX-3100, is in Phase 3 development for the treatment of HPV-related cervical pre-cancer. Also in development are Phase 2 immuno-oncology programs targeting HPV-related cancers, GBM, and prostate cancer, as well as externally funded vaccine development programs in Zika, MERS, Lassa, HIV, and COVID-19. Partners and collaborators include Advaccine, ApolloBio Corporation, AstraZeneca, The Bill & Melinda Gates Foundation, Coalition for Epidemic Preparedness Innovations (CEPI), Defense Advanced Research Projects Agency, GeneOne Life Science, HIV Vaccines Trial Network, Medical CBRN Defense Consortium (MCDC), National Cancer Institute, National Institutes of Health, National Institute of Allergy and Infectious Diseases, Plumbline Life Sciences, Regeneron, Roche/Genentech, University of Pennsylvania, Walter Reed Army Institute of Research, and The Wistar Institute. Inovio also is a proud recipient of 2020 Women on Boards "W" designation recognizing companies with more than 20% women on their board of directors. For more information, visit **www.inovio.com**.

This press release contains certain forward-looking statements relating to our business, including our plans to develop DNA medicines, our expectations regarding our research and development programs, as well as

commercialization activities, including the planned initiation and conduct of clinical trials, the availability and timing of data from those trials and our commercialization strategy and tactics. 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, product development programs and commercialization activities and outcomes, 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 medicines, our ability to support our pipeline of DNA medicine 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, 2018, our Quarterly Report on Form 10-Q for the quarter ended September 30, 2019, and other filings we make from time to time with the Securities and Exchange Commission. 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 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.

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