NEWS RELEASE

# INOVIO and IVI Partner with Seoul National University Hospital to Start Phase 1/2 Clinical Trial of INOVIO's COVID-19 DNA Vaccine (INO-4800) in South Korea

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- First COVID-19 vaccine clinical study approved in South Korea funded by CEPI through INOVIO, and supported by KCDC/KNIH
- 2-stage trial to test INOVIO's COVID-19 vaccine (INO-4800) using well-established DNA platform technology in adults

SEOUL, South Korea and PLYMOUTH MEETING, Pa., June 4, 2020 /PRNewswire/ -- INOVIO (NASDAQ: INO), the International Vaccine Institute (IVI), and Seoul National University Hospital announced a partnership to start a Phase 1/2 clinical trial of INOVIO's COVID-19 vaccine INO-4800 in South Korea at a signing ceremony today. In attendance at the ceremony at SNU Hospital were IVI's Director General Dr. Jerome Kim and Deputy Director General of Science Dr. Manki Song, Dr. Anh Wartel (Associate Director General of EPIC and Head of Clinical Development and Regulatory) and Dr. Daniel Chul Woo Rhee (Project Lead), and SNU Hospital's President Yon Su Kim and Prof. Myung Don Oh.

The 2-stage trial of INO-4800, the first clinical study of COVID-19 vaccine in Korea, will assess the safety, tolerability, and immunogenicity of the candidate vaccine in 40 healthy adults aged 19-50 years, and will further expand to enroll an additional 120 people aged 19-64 years.

The trial, which aims to start later in June, is funded by the Coalition for Epidemic Preparedness Innovations (CEPI) through INOVIO and is supported by the Korea Center for Disease Control and Prevention/Korea National Institute of Health. In normal circumstances, it would generally take several years to start clinical trials of a new vaccine. In the midst of the COVID-19 pandemic, however, the trial in Korea will be conducted just two months after a similar clinical study began in the United States in early April 2020.

"We are thrilled to start the clinical trials of a COVID-19 vaccine candidate in collaboration with SNU Hospitals and with support from KCDC/KNIH," said Dr. Jerome Kim, Director General of IVI. "The trial is a crucial step in the

development of an urgently needed COVID-19 vaccine. South Korea is one of the first countries in the world set to test a COVID-19 vaccine (after the U.S. China, UK, and Germany), and we are happy to collaborate with South Korean partners to accelerate clinical development of a COVID-19 vaccine through our partnership with INOVIO and CEPI."

Prof. Myung Don Oh of SNU Hospital, who will lead the clinical trial, said "Social distancing is making life challenging in all different aspects of our society including business, education, culture, sports, and international exchange, and we have reached a point where we cannot utilize social distancing further," adding "We have to return to normalcy and today's launch of the vaccine clinical trial will provide significant momentum in easing fears over the pandemic and helping return to normalcy."

Dr. J. Joseph Kim, INOVIO's President & CEO, said, "As part of INOVIO's global coalition of COVID-19 vaccine collaborators, funders and manufacturers we look forward with enthusiasm to advance our DNA vaccine in partnership with the International Vaccine Institute (IVI) and Seoul National University Hospital to rapidly begin clinical trials in Korea, We will soon have Phase 1 data from a US trial of INO-4800 and plan to begin Phase 2/3 trials in mid-summer. We thank IVI and SNU Hospital for their work to speed the Korea trial of INO-4800."

The speedy regulatory approval was made possible with support from the Korean Ministry of Food and Drug Safety following its adoption in April of a fast-track approval process for clinical trials of COVID-19 vaccines and therapeutics that are developed with a proven safety platform. Such vaccines, including DNA vaccines, can be exempt from toxicology tests leveraging the available preclinical data using the DNA platform, and expediting clinical trial review process. The DNA vaccine of US-based INOVIO to be tested was one of the first technologies to receive support from CEPI, greatly accelerating the development process of the COVID-19 vaccine.

IVI and SNU Hospitals have collaborated in the past to conduct Phase 1/2a trials for a MERS coronavirus vaccine. The MERS vaccine (INO-4700/GLS-5300) developed by INOVIO and South Korea's GeneOne Life Science and, in trials conducted so far, has achieved promising results.

## About the International Vaccine Institute (IVI)

The International Vaccine Institute (IVI) is a nonprofit inter-governmental organization established in 1997 at the initiative of the United Nations Development Programme (UNDP).

Headquartered in Seoul, South Korea, IVI was the first international organization hosted by Korea. IVI has 35 signatory countries and the World Health Organization (WHO) on its treaty, including Republic of Korea, Sweden and India as state funders.

Our mandate is to make vaccines available and accessible for the world's most vulnerable people. We focus on infectious diseases of global health importance such as cholera, typhoid, shigella, salmonella, schistosomiasis, Group A Streptococcus, Hepatitis A, HPV, TB, HIV, MERS, COVID-19, as well as antimicrobial resistance. For more information, please visit **https://www.ivi.int**

## About CEPI

CEPI is an innovative partnership between public, private, philanthropic, and civil organisations, launched at Davos in 2017, to develop vaccines to stop future epidemics. CEPI has moved with great urgency and in coordination with WHO in response to the emergence of COVID-19. CEPI has initiated 9 partnerships to develop vaccines against the novel coronavirus. The programmes will leverage rapid response platforms already supported by CEPI as well as new partnerships. The aim is to advance COVID-19 vaccine candidates into clinical testing as quickly as possible.

Before the emergence of COVID-19 CEPI's priority diseases included Ebola virus, Lassa virus, Middle East Respiratory Syndrome coronavirus, Nipah virus, Rift Valley Fever and Chikungunya virus. CEPI also invested in platform technologies that can be used for rapid vaccine and immunoprophylactic development against unknown pathogens (Disease X). Follow our news page for the latest updates.

## About INOVIO

INOVIO is a biotechnology company focused on rapidly bringing to market precisely designed DNA medicines to protect and treat people from infectious diseases, cancer, and diseases associated with HPV. 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 produce a robust and tolerable immune response. Specifically, INOVIO's lead candidate VGX-3100, currently in Phase 3 trials for precancerous cervical dysplasia, destroyed and cleared high-risk HPV 16 and 18 in a Phase 2b clinical trial. High-risk HPV is responsible for 70% of cervical cancer, 91% of anal cancer, and 69% of vulvar cancer. Also in development are programs targeting HPV-related cancers and a rare HPV-related disease, recurrent respiratory papillomatosis (RRP); non-HPV-related cancers glioblastoma multiforme (GBM) and prostate cancer; as well as externally funded infectious disease DNA vaccine development programs in Zika, Lassa fever, Ebola, HIV, and coronaviruses associated with MERS and COVID-19 diseases. Partners and collaborators include Advaccine, ApolloBio Corporation, AstraZeneca, The Bill & Melinda Gates Foundation, Coalition for Epidemic Preparedness Innovations (CEPI), Defense Advanced Research Projects Agency (DARPA)/Department of Defense (DOD), GeneOne Life Science/VGXI, HIV Vaccines Trial Network, International Vaccine Institute (IVI), Medical CBRN Defense Consortium (MCDC), National Cancer Institute, National Institutes of Health, National Institute of Allergy and Infectious Diseases, Ology Bioservices, the Parker Institute for Cancer Immunotherapy, Plumbline Life Sciences, Regeneron, Richter-Helm BioLogics, 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**.

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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, including the planned initiation and conduct of preclinical studies and clinical trials, and the availability and timing of data from those studies and trials. 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, 2019, our Quarterly Report on Form 10-Q for the quarter ended March 31, 2020 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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