NEWS RELEASE

INOVIO Receives New $5 Million Grant to Accelerate Scale Up of Smart Delivery Device for Its COVID-19 Vaccine

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PLYMOUTH MEETING, Pa., March 12, 2020 /PRNewswire/ -- INOVIO Pharmaceuticals, Inc. (NASDAQ:INO) announced today that it has received a new $5 million grant from the Bill & Melinda Gates Foundation to accelerate the testing and scale up of CELLECTRA® 3PSP proprietary smart device for the intradermal delivery of INO-4800, a DNA vaccine for COVID-19. INO-4800 is in preclinical studies and is planned to advance into Phase 1 clinical trials in the U.S. in April with up to $9 million funding from CEPI. INOVIO plans to accelerate the testing and scale up of the CELLECTRA 3PSP devices to support large scale manufacturing of INO-4800 doses by the end of 2020.

The next generation CELLECTRA 3PSP device is designed specifically for a COVID-19 type pandemic scenario. It is a small, portable, hand-held, user-friendly device that runs on readily available "AA" batteries. This allows for stockpiling of the device in quantity without maintenance. It is easy to use and is based on our current device with extensive history (over 6,000 administrations) which has received the CE mark and has an acceptable safety profile. The streamlined design also allows it to be readily produced at reduced costs and large scale.

The device has been designed with reliability, challenging environments, user needs and ease of large scale manufacturing in mind. INOVIO's San Diego Device Manufacturing facility will build initial quantities and demonstrate the design and scale up of manufacturing processes which can then be transferred to additional contract manufacturers for increased capacity. Initial development of CELLECTRA 3PSP was started in 2019 with $8.1 million funding from the medical arm of the U.S. Defense Threat Reduction Agency (DTRA)'s Medical CBRN Defense Consortium. The new funding will help to accelerate the testing and completion of the device development and scale up to combat the COVID-19 disease.

Dr. J. Joseph Kim, INOVIO's President & CEO, said, "INOVIO is grateful to the Bill & Melinda Gates Foundation for their continued investment in INOVIO's DNA medicines platform and for their support for DNA vaccines to potentially protect those at risk globally given the current COVID-19 outbreak. Our team of vaccine experts are

working around the clock to advance INO-4800 and we look forward to attracting additional partnerships to expedite its development to meet this urgent global health need."

INOVIO aims to deliver one million doses of INO-4800 and devices to support them by year end with existing resources and capacity with the appropriate support from its funding partners. INOVIO also is working to scale up both INO-4800 and CELLECTRA 3PSP devices to potentially make available millions of doses to combat this outbreak.

INOVIO's DNA medicine platform is ideally suited to rapidly respond against emerging viruses with pandemic potential. INOVIO was the first to advance its DNA vaccine INO-4700 against MERS-CoV, a related coronavirus, into evaluation in humans. INO-4700 is the only MERS-CoV vaccine in Phase 1/2a setting, and INOVIO is currently preparing to initiate a larger Phase 2 vaccine trial for INO-4700 in the Middle East where most MERS viral outbreaks have occurred. These efforts are supported by previous CEPI funding of up to $56 million and from other collaborators and partners.

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 coronaviruses MERS and COVID-19 under grants 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, overcoming a key limitation of other DNA and mRNA approaches. Once inside the cell, the plasmids are used by the cell's own machinery to generate coded antigens, which then stimulate an immune response, thereby strengthening the body's own natural defense 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 do not interfere with or change in any way an individual's own DNA.

The advantages of INOVIO's DNA medicine platform are how fast DNA medicines can be constructed and manufactured, the stability of the products which do not require freezing in storage and transport, and the robust immune response, safety profile and tolerability that have been demonstrated in clinical trials.

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 global 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 produce a robust and tolerable immune response. Specifically, INOVIO's lead candidate VGX-3100, currently in Phase 3 trials for precancerous cervical dysplasia, demonstrated it 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, 90% 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 MERS 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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