NEWS RELEASE

Inovio Provides Update on Clinical Program Plans for 2020

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Inovio to present 2020 program plans at Biotech Showcase 2020 Conference

PLYMOUTH MEETING, Pa., Jan. 6, 2020 /PRNewswire/ -- Inovio Pharmaceuticals, Inc. (NASDAQ:INO) announced that Inovio's President & CEO, Dr. J. Joseph Kim will present a corporate update of the company's clinical program goals for 2020 at the Biotech Showcase 2020 Conference in San Francisco, CA.

Biotech Showcase 2020 Conference Presentation Details:

Date:	Tuesday, January 14, 2020
Time:	10:30am (PST)
Track:	Yosemite A (Ballroom Level)
Venue:	Hilton San Francisco Union Square Hotel, 333 O'Farrell Street, San Francisco, CA

The presentation will be webcast live and may be accessed by visiting Inovio's website at **http://ir.inovio.com/investors/events/default.aspx**. Archived versions of the presentations will be made available through the Inovio Investor Relations Events page.

Inovio anticipates for 2020 to be a transformative year for the company. At the Biotech Showcase 2020 presentation, Dr. Kim will highlight multiple value-driving catalysts, clinical development, and program readouts which are all expected this year.

VGX-3100/INO-3107: HPV-Related Diseases

- VGX-3100. Inovio expects to report VGX-3100 REVEAL 1 top-line efficacy data in the fourth quarter of 2020. Through extensive work on amending the clinical readout timing a year earlier than originally designed, these early top-line data will be made available without compromising the integrity of both REVEAL 1 and REVEAL 2 trials. If positive, Phase 3 top-line data could provide further regulatory validation for this first-in-class DNA Medicine for treating cervical dysplasia.
- INO-3107. Inovio continues to expand its DNA Medicine franchise to treat HPV-related diseases by advancing INO-3107 to treat RRP, an orphan disease indication with a potential accelerated regulatory pathway.
- In the first half of this year, Inovio plans to initiate a Phase 2 clinical trial of INO-3107 for RRP, which impacts both pediatric and adult patients. RRP is caused by HPV 6 and 11 infections, which form non-cancerous tumors in the airways of patients who suffer from this disease. Currently, the disease is incurable and can only be treated by frequent surgeries to remove the tumors, which temporarily restores the airway before renewed tumor growth.
- In a previous pilot study, two adult patients with RRP had required surgery approximately every six months to clear tumor growth from their throats. Since their last dose of Inovio's HPV product candidate, both patients have been able to avoid or significantly delay surgery. One patient has not needed surgery for almost three years as of the last follow-up. The other patient did not require surgical intervention for approximately one and a half years, a significant delay in surgery intervals prior to the trial enrollment.
- Inovio believes INO-3107 could provide a novel treatment option for patients and a significant commercial opportunity for Inovio. Inovio is fully committed to bringing this product candidate to the market as soon as possible using all of the regulatory and development pathways available for rare, orphan diseases.

Dr. J. Joseph Kim, Inovio's President & CEO said, "In July, Inovio management took the difficult but necessary step to streamline expenses and prioritize our pipeline candidates. We have also accelerated important REVEAL 1 top-line data readout to the fourth quarter of 2020, allowing the market and potential global partners to see this data sooner than expected and moved to rapidly advance INO-3107, an orphan eligible and fast-to-market product candidate.

"Looking ahead, the coming year sets up to be a transformational period for Inovio, with top-line efficacy data from our REVEAL 1 Phase 3 trial, in addition to INO-5401 Glioblastoma overall survival data at months 12 and 18 and expected MEDI0457 head and neck cancer results from AstraZeneca. These upcoming trial results in 2020 will be important drivers for the achievement of Inovio's long-term strategy and maximizing the commercial potential of our DNA Medicine pipeline."

INO-5401/Glioblastoma Multiforme (GBM) Phase 2 Trial

- INO-5401. Inovio will report 12- and 18-month overall survival data in 2020. Last year, Inovio reported promising progression-free survival at six months from its ongoing Phase 2 trial of newly diagnosed glioblastoma multiforme (GBM), which combines Inovio's product candidates INO-5401, a T cell-activating immunotherapy encoding for three tumor-specific antigens (hTERT, WT1, and PSMA), and INO-9012, an immune activator, in combination with Libtayo®, a PD-1 blocking antibody produced by Regeneron Pharmaceuticals in collaboration with Sanofi.

  Key interim data from the 52-patient clinical trial showed that 80% (16 of 20) of MGMT gene promoter methylated patients and 75% (24 of 32) of unmethylated patients were progression-free at six months measured from the time of their first dose, significantly exceeding historical standard-of-care data. The majority of patients tested had a T cell immune response to one or more tumor-associated antigens encoded by INO-5401. Immune responses to all three tumor-associated antigens were demonstrated in this trial. The interim data were presented at the Society for Immunotherapy of Cancer (SITC) 2019 Annual Meeting.

INO-5151/Prostate Cancer Combination Trial

- INO-5151. Parker Institute-funded cancer combination trial using INO-5151 in metastatic castration-resistant prostate cancer patients is currently enrolling. INO-5151 is a formulation that combines INO-5150 (with antigens encoding for PSA and PSMA) with INO-9012 (a T-cell activator). INO-5151 is being tested in one arm (Cohort C) of this immunotherapy combination study along with nivolumab, a PD-1 inhibitor (Bristol-Myers Squibb), and CDX-301 (Celldex Therapeutics).

Infectious Diseases/New Product Development Candidates

- INO-4500. In 2020, Inovio will present Phase 1, first-in-human clinical trial evaluating INO-4500, its candidate vaccine to prevent infection from the Lassa virus. This Inovio trial conducted in the U. S. represents the first Lassa candidate vaccine to enter the clinic. This Inovio-sponsored trial, as well as its INO-4500 program, is fully funded through a global partnership with CEPI – the Coalition for Epidemic Preparedness Innovations. Inovio is also planning to advance INO-4500 to a Phase 1b trial in Africa in 2020.
- INO-4700. In 2020, Inovio expects to advance INO-4700, its candidate vaccine against MERS (Middle East Respiratory Syndrome), into a Phase 2 field study in the Middle East and Africa where outbreaks have been observed, with full funding from CEPI. This is the most advanced vaccine candidate for MERS.
- INO-A002. Inovio expects to report results in 2020 from its first-in-human trial of dMAb candidate INO-A002 (for preventing or treating Zika virus infection) from a Phase 1 dose-escalation trial to assess safety and tolerability and expression of dMAb-produced antibodies with full funding from the Bill & Melinda Gates

Foundation. Using direct local delivery into the body, the synthetic genetic codes provided by the dMAb plasmids instruct the body's cells to become a customized patient-specific factory that manufactures its own therapeutic monoclonal antibodies, enabling a major leap in antibody technology. With its plasmid design and in-patient production, dMAb products represent a disruptive and innovative entrant to this important class of pharmaceuticals.

About Inovio

Inovio is a biotechnology company focused on rapidly bringing to market precisely designed DNA medicines to treat, cure and/or 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 has 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 and GBM, as well as externally funded platform development programs in Zika, MERS, Lassa, and HIV. Partners and collaborators include 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, Regeneron, Roche/Genentech, University of Pennsylvania, Walter Reed Army Institute of Research, and The Wistar Institute. 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 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, 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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