NEWS RELEASE

INOVIO Reports First Quarter 2022 Financial Results and Program Developments

5/10/2022

- Announces prioritization of heterologous booster strategy for COVID-19 vaccine candidate INO-4800 and discontinuation of Phase 3 INNOVATE trial to optimize potential impact on global public health
- Reports, with partner Advaccine, positive T cell immune response data with INO-4800 as a heterologous booster to an inactivated COVID-19 vaccine
- Announces change in plans for VGX-3100 following input from FDA on need for additional trials for a marketing application for the treatment of HPV-associated cervical high-grade squamous intraepithelial lesions
- Announces appointment of Jacqueline Shea, Ph.D. as CEO
- Will hold investor call today at 4:30 PM EDT

PLYMOUTH MEETING, Pa., May 10, 2022 /PRNewswire/ -- INOVIO (NASDAQ: INO), a biotechnology company focused on developing and commercializing DNA medicines to help protect people from infectious diseases and treat people with cancer and HPV-associated diseases, today reported financial results for the quarter ended March 31, 2022 and announced recent program and corporate developments. INOVIO's management will host a live conference call and webcast at 4:30 p.m. Eastern Time today to discuss financial results and provide a general business update. The live webcast and replay may be accessed by visiting INOVIO's website at **http://ir.inovio.com/events-and-presentations/default.aspx**.

In a separate press release, the Company announced the appointment of Jacqueline Shea, Ph.D., as President and Chief Executive Officer (CEO). Dr. Shea, INOVIO's former Chief Operating Officer, succeeds Dr. J. Joseph Kim in these roles.

"We believe in the potential of our DNA medicines and vaccines to combat infectious diseases, cancer and HPV-associated diseases," said Dr. Jacqueline Shea, President and CEO of INOVIO. "To achieve these goals, INOVIO must strategically prioritize our resources to capitalize on its demonstrated ability to generate functional T-cell and

antibody immune responses, lack of anti-vector response, tolerability for re-administration and favorable temperature stability for transport, storage and distribution."

First Quarter Program Updates

COVID-19: INNOVATE

INOVIO has decided to prioritize its COVID-19 efforts to advance its heterologous booster strategy. In so doing, the company will discontinue its Phase 3 INNOVATE trial. This decision reflects emerging global data that indicate a lower incidence of severe COVID-19 cases1, which would necessitate an increase in trial size and costs for INNOVATE. In contrast, the heterologous booster market offers greater opportunities as the world prepares to enter the endemic phase of COVID-19.

COVID-19: Heterologous Booster – Preliminary Data

With its partner, Advaccine, INOVIO reported positive T cell immune response data with INO-4800 as a heterologous booster to an inactivated COVID-19 vaccine. This data came from a heterologous booster clinical trial conducted by Advaccine that assessed the immune responses following a primary series of two doses of an inactivated COVID-19 vaccine followed by a booster with INO-4800 after 3 or 6 months. Interim immunogenicity data showed that using INO-4800 as a booster after 6 months resulted in a 6.3-fold increase in T cell immune response. In a separate Advaccine study where a third dose of an inactivated COVID-19 vaccine was assessed, the cellular response increased by 1.7-fold. The highest booster effect of INO-4800 was observed with a 2 mg dose of INO-4800 delivered 6 months after a primary series with an inactivated vaccine.

Following INO-4800 vaccination, the preservation of cross-reactive T cell responses remains a consistent observation against multiple SARS-CoV-2 variants of concern, including Omicron, without a significant loss in response magnitude. T cells that can recognize SARS-CoV-2 may play a role in reducing disease severity. Therefore, INO-4800 has the potential to play an important role in reducing incidence of severe COVID-19 cases, which could reduce hospitalizations as the virus continues to mutate and new variants arise.

INOVIO is continuing discussions with regulators in select countries regarding potential regulatory pathways for licensure. The Company believes the increased global awareness about the importance of T cell immune responses and durability of protection for effective booster vaccines correspond well with INO-4800's key strength – its ability to generate CD8+ T cell responses against SARS-CoV-2.

INOVIO is planning to expand its partnership with Advaccine beyond INO-4800 to include heterologous boosters and vaccine candidates covering future variants. The expanded partnership will allow both companies to share

data, leverage Advaccine's multiple manufacturing sites in China, and access opportunities globally.

VGX-3100: HPV-associated Cervical High-Grade Squamous Intraepithelial Lesions (HSIL)

Based on feedback from the U.S. Food and Drug Administration (FDA), INOVIO has changed its development plans for VGX-3100 for HPV-16/18-associated cervical HSIL to a biomarker-selected population. In a recent preliminary letter, the FDA advised INOVIO that the REVEAL2 Phase 3 study would not be sufficient to support approval of a potential marketing application for VGX-3100 in that population. The FDA recommended that using REVEAL2 as an exploratory study to evaluate a biomarker-selected population and then conducting one or two additional well-controlled trials in the biomarker-positive population would be more likely to provide sufficient evidence to support approval of a marketing application.

To better assess potential efficacy in a biomarker-selected population, the Company plans to amend the fully enrolled REVEAL2 trial to revise the primary analysis population from the all-comers population to the biomarker-positive population. Both the biomarker-positive population and the all-comers population will be analyzed.

INOVIO will continue its REVEAL2 trial to completion and assess the path forward for the VGX-3100 program following analysis of the REVEAL2 results. Given the likelihood for at least one additional trial, INOVIO no longer expects to submit a BLA in 2023 for VGX-3100.

INO-3107: Recurrent Respiratory Papillomatosis (RRP)

INOVIO completed enrollment of 32 participants in the open-label, multicenter Phase 1/2 trial to evaluate the efficacy, safety, tolerability, and immunogenicity of INO-3107 in participants with HPV-6/11-associated RRP who have required at least two interventions in the past year for the removal of associated papilloma(s). For this study, adult participants will first undergo removal of their papilloma(s) and will subsequently receive four doses of INO-3107, one every three weeks. The efficacy endpoint will be a reduction in the frequency of therapeutic interventions following the first dose of INO-3107 relative to the frequency prior to study therapy.

INOVIO expects preliminary efficacy, safety and immunogenicity data from a portion of participants from this Phase 1/2 trial in the second half of this year. The Company will share additional clinical development plans after analysis of the data.

INO-5401: Newly Diagnosed Glioblastoma Multiforme (GBM)

INOVIO's abstract providing follow-up Phase 1/2 overall survival, safety and immunogenicity data from the Company's novel combination trial of DNA medicines INO-5401 and INO-9012 in combination with Regeneron's PD-

1 inhibitor Libtayo® (cemiplimab) in the treatment of newly diagnosed GBM has been selected for oral presentation as part of an Oral Abstract Session at the 2022 American Society of Clinical Oncology (ASCO) Annual Meeting under the title "Intramuscular (IM) INO-5401 + INO-9012 with electroporation (EP) in combination with cemiplimab (REGN2810) in newly diagnosed glioblastoma".

The complete text of the abstract will be posted on the website, **meetings.asco.org**, on May 26, 2022 at 5:00 PM EDT. The 2022 ASCO Annual Meeting will take place on June 3-7, 2022 at the McCormick Place Convention Center in Chicago, Illinois.

First Quarter 2022 Financial Results

INOVIO reported total revenue was $199,000 for the three months ended March 31, 2022, compared to $371,000 for the same period in 2021. Total operating expenses were $71.9 million compared to $52.9 million for the same period in 2021.

INOVIO's net loss for the quarter ended March 31, 2022, was $79.1 million, or $0.36 per basic and diluted share, compared to net loss of $54.4 million, or $0.27 per basic and diluted share, for the quarter ended March 31, 2021.

Operating Expenses

Research and development (R&D) expenses for the three months ended March 31, 2022, were $56.0 million compared to $39.0 million for the same period in 2021. The increase in R&D expenses was primarily related to higher drug manufacturing and clinical trial expenses related to INO-4800 and higher employee compensation. The increase was also due to $6.3 million lower contra-research and development expense recorded from grant agreements. These increases were offset by lower engineering services and expensed equipment related to our CELLECTRA® 3PSP device array automation project, among other variances.

General and administrative (G&A) expenses were $16.0 million for the three months ended March 31, 2022, versus $13.9 million for the same period in 2021. The increase in G&A expenses was primarily related to an increase in employee compensation and insurance expenses, among other variances.

Capital Resources

As of March 31, 2022, cash and cash equivalents and short-term investments were $360.4 million compared to $401.3 million as of December 31, 2021. As of March 31, 2022, the Company had 226.5 million common shares outstanding and 247.8 million common shares outstanding on a fully diluted basis, after giving effect to the exercise, vesting and conversion, as applicable, of its outstanding options, restricted stock units, convertible

preferred stock, and convertible debt.

INOVIO's balance sheet and statement of operations are provided below. Additional information is included in INOVIO's quarterly report on Form 10-Q for the quarter ended March 31, 2022, which can be accessed at: **http://ir.inovio.com/financials/default.aspx**.

Conference Call / Webcast Information

INOVIO's management will host a live conference call and webcast at 4:30 p.m. Eastern Daylight Time today to discuss INOVIO's financial results and provide a general business update. The live webcast and replay may be accessed by visiting INOVIO's website at **http://ir.inovio.com/events-and-presentations/default.aspx**.

About INOVIO

INOVIO is a biotechnology company focused on developing and commercializing DNA medicines to help protect people from infectious diseases and help treat people with cancer and HPV-associated diseases. Our DNA medicines are delivered using our proprietary smart device to produce a robust and tolerable immune response against targeted pathogens and cancers.

Partners and collaborators include Advaccine, ApolloBio Corporation, AstraZeneca, The Bill & Melinda Gates Foundation, Coalition for Epidemic Preparedness Innovations, Defense Advanced Research Projects Agency/Joint Program Executive Office for Chemical, Biological, Radiological and Nuclear Defense/Department of Defense, HIV Vaccines Trial Network, International Vaccine Institute, Kaneka Eurogentec, Medical CBRN Defense Consortium, 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, Thermo Fisher Scientific, University of Pennsylvania, Walter Reed Army Institute of Research, and The Wistar Institute. For more information, visit **www.inovio.com**.

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References:

1. Institute for Health Metrics Evaluation. Used with permission. All rights reserved.

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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, our planned heterologous booster strategy, our ability to obtain regulatory approval for our product candidates, and our plans to expand our collaboration with Advaccine.. 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, our ability to secure sufficient manufacturing capacity to mass produce our product candidates, 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, 2021, our Quarterly Report on Form 10-Q for the quarter ended March 31, 2022, 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.

INOVIO Pharmaceuticals, Inc.

CONDENSED CONSOLIDATED BALANCE SHEETS

	March 31, 2022	December 31, 2021

ASSETS		
Current assets:		
Cash and cash equivalents	$ 59,009,491	$ 71,143,778
Short-term investments	301,384,357	330,170,940
Accounts receivable	4,003,680	5,466,850
Accounts receivable from affiliated entities	3,487,116	2,565,194
Prepaid expenses and other current assets	31,946,477	38,836,991
Prepaid expenses and other current assets from affiliated entities	75,772	261,192
Total current assets	399,906,893	448,444,945
Fixed assets, net	16,696,936	17,453,206
Investment in affiliated entity	3,369,068	3,906,796
Intangible assets, net	2,499,585	2,626,355
Goodwill	10,513,371	10,513,371
Operating lease right-of-use assets	11,251,440	11,571,026
Other assets	1,273,795	1,425,794
Total assets	$ 445,511,088	$ 495,941,493
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable and accrued expenses	$ 38,115,396	$ 47,644,530
Accounts payable and accrued expenses due to affiliated entities	1,407,386	548,032
Accrued clinical trial expenses	11,827,755	10,326,266
Deferred revenue	15,378	21,628
Operating lease liability	2,672,974	2,603,956
Grant funding liability	5,283,271	4,559,721
Grant funding liability from affiliated entity	37,500	37,500
Total current liabilities	59,359,660	65,741,633
Deferred revenue, net of current portion	60,648	64,361
Convertible senior notes	16,207,864	14,959,647

Operating lease liability, net of current portion	14,765,868	15,459,559
Deferred tax liabilities	32,046	32,046
Other liabilities	—	14,826
Total liabilities	90,426,086	96,272,072
Stockholders' equity:		
Preferred stock	—	—
Common stock	226,509	217,382
Additional paid-in capital	1,642,419,819	1,609,589,797
Accumulated deficit	(1,287,103,438)	(1,209,855,522)
Accumulated other comprehensive loss	(457,888)	(282,236)
Total Inovio Pharmaceuticals, Inc. stockholders' equity	355,085,002	399,669,421
Total liabilities and stockholders' equity	$ 445,511,088	$ 495,941,493

INOVIO Pharmaceuticals, Inc.

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS

(Unaudited)

	Three Months Ended March 31,	
	2022	2021
Revenues:		
Revenue under collaborative research and development arrangements	$ 65,895	$ 39,615
Revenue under collaborative research and development arrangements with affiliated entities	8,842	49,949
Other revenue	124,337	281,556
Total revenues	199,074	371,120

Operating expenses:		
Research and development	55,978,611	39,044,418
General and administrative	15,953,458	13,881,194
Total operating expenses	71,932,069	52,925,612
Loss from operations	(71,732,995)	(52,554,492)
Other income (expense):		
Interest income	669,814	769,237
Interest expense	(313,488)	(513,034)
Loss on investment in affiliated entities	(537,728)	(830,475)
Net unrealized loss on available-for-sale equity securities	(4,840,641)	(847,958)
Other income (expense), net	(153,468)	8,978
Net loss	(76,908,506)	(53,967,744)
Share in net loss of Geneos	(2,165,213)	(434,387)
Net loss	$ (79,073,719)	$ (54,402,131)
Net loss per share attributable to Inovio Pharmaceuticals, Inc. stockholders		
Basic and diluted	$ (0.36)	$ (0.27)
Weighted average number of common shares outstanding		
Basic and diluted	218,940,693	202,414,445

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