Imunon Reports Partial Results from Ongoing Non-human Primate Study

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Supports PLACCINE Platform as a Viable Alternative to mRNA Vaccines

LAWRENCEVILLE, N.J., Oct. 03, 2022 (GLOBE NEWSWIRE) -- Imunon, Inc. (NASDAQ: IMNN), a clinical-stage drug development company, reports that partial results from an ongoing non-human primate study designed to examine the immunogenicity of its proprietary PLACCINE vaccine support PLACCINE as a viable alternative to mRNA vaccines. The study examined a single plasmid DNA vector containing the SARS-CoV-2 Alpha variant spike antigen formulated with a synthetic DNA delivery system and administered by intramuscular injection.

In the study, Cynomolgus monkeys were vaccinated with the PLACCINE vaccine or a commercial mRNA vaccine on Day 1, 28 and 84. Analysis of blood samples for IgG and neutralizing antibodies showed evidence of immunogenicity both in PLACCINE and mRNA vaccinated subjects. Analysis of bronchoalveolar lavage for viral load by quantitative PCR showed viral clearance by >90% of the non-vaccinated controls. Viral clearance from nasal swab followed a similar pattern in a majority of vaccinated animals and a similar clearance profile was observed when viral load was analyzed by the tissue culture infectious dose method.

Importantly, in a head-to-head comparison the protection efficiency as measured by viral clearance following challenge with the SARS-CoV-2 virus was similar between PLACCINE and a commercial mRNA vaccine. In an ongoing stability study, the physio-chemical properties and immunogenicity of PLACCINE vaccine did not change during storage at 4° C for up to three months.

"We are very encouraged by the progress and partial results from the ongoing non-human primate studies with PLACCINE, which thus far support PLACCINE as a viable alternative to mRNA vaccines," said Corinne Le Goff, Ph.D., president and chief executive officer of Imunon. "Due to its comparable protective capability, favorable storage requirements and anticipated superior durability due to longer antigen expression, PLACCINE has potential safety and compliance advantages over other DNA vaccines that require viruses or devices for delivery."

About the PLACCINE Platform

PLACCINE is Imunon's proprietary plasmid and DNA delivery technology and the subject of a provisional patent application that covers a broad range of next-generation DNA vaccines. An adaptation of the Company's TheraPlas technology, PLACCINE is a DNA vaccine technology platform characterized by a single plasmid DNA with multiple coding regions. The plasmid vector is designed to express multiple pathogen antigens along with the option to include a potent immune modifier. It is delivered via a synthetic delivery system and has the potential to be easily modified to create vaccines against a multitude of infectious diseases, addressing:

- **Viral Mutations**: PLACCINE may offer broad-spectrum and mutational resistance (variants) by targeting multiple antigens on a single plasmid vector.
- **Enhanced Efficacy**: The option to include potent immune modifiers such as cytokines and chemokines may improve humoral and cellular responses to viral antigens and can be incorporated in the plasmid.
- **Durable Efficacy**: PLACCINE delivers a DNA plasmid-based antigen that can result in durable antigen exposure and a robust vaccine response to viral antigens.
- **Storage & Distribution**: PLACCINE allows for stability that is compatible with manageable vaccine storage and distribution.
- **Dosing & Administration**: PLACCINE is a synthetic delivery system designed to require a simple injection and does not require viruses or special equipment for administration.

About Imunon, Inc.

Imunon is a fully integrated, clinical stage biotechnology company focused on advancing a portfolio of innovative treatments that harness the body's natural mechanisms to generate safe, effective and durable responses across a broad array of human diseases, constituting a differentiating approach from conventional therapies.

Imunon has two platform technologies: the TheraPlas® platform for the development of immunotherapies and other anti-cancer nucleic acid-based therapies, and the PLACCINE platform for the development of nucleic acid vaccines for infectious diseases and cancer. The company's lead clinical program, GEN-1, is a DNA-based immunotherapy for the localized treatment of advanced ovarian cancer currently in Phase II development. GEN-1 works by instructing the body to produce safe and durable levels of powerful cancer-fighting molecules, such as interleukin-12 and interferon gamma, at the tumor site. Additionally, the company is conducting preclinical proof-of-concept studies on a nucleic acid vaccine candidate targeting the SARS-CoV-2 virus in order to validate its PLACCINE platform. Imunon's platform technologies are based on the delivery of nucleic acids with novel synthetic delivery systems that are independent of viral vectors or devices. Imunon will continue to leverage these platforms and to advance the technological frontier of plasmid DNA to better serve patients with difficult-to-treat conditions. For more information on Imunon, visit www.imunon.com.

Forward-Looking Statements

Imunon wishes to inform readers that forward-looking statements in this news release are made pursuant to the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995. Readers are cautioned that such forward-looking statements involve risks and uncertainties including, without limitation, unforeseen changes in the course of research and development activities and in clinical trials; the uncertainties of and difficulties in analyzing interim clinical data; the significant expense, time and risk of failure of conducting clinical trials; the need for Imunon to evaluate its future

development plans; possible acquisitions or licenses of other technologies, assets or businesses; possible actions by customers, suppliers, competitors or regulatory authorities; and other risks detailed from time to time in Imunon's periodic reports and prospectuses filed with the Securities and Exchange Commission. Imunon assumes no obligation to update or supplement forward-looking statements that become untrue because of subsequent events, new information or otherwise.

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