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Oragenics Announces Positive Data on Their Intranasal SARS-CoV-2 Vaccine Candidate in a Posted Preprint Manuscript

Intranasal Immunization Lowers the Viral Load Below the Limit of Detection in Lungs of Hamsters

TAMPA, Fla.--(BUSINESS WIRE)-- **Oragenics, Inc. (NYSE American: OGEN) ("Oragenics" or the "Company")** today announced the posting of a preprint manuscript in bioRxiv (pronounced "bio-archives"). The manuscript, co-authored by Oragenics and its collaborators at Inspirevax and the National Research Council of Canada (the "NRC") Human Health Research Centre, is titled "Intranasal Immunization with a Proteosome-Adjuvanted SARS-CoV2 Spike Protein-Based Vaccine is Immunogenic and Efficacious in Mice & Hamsters." The preprint is available here https://doi.org/10.1101/2022.03.02.482651.

The studies described in the manuscript evaluated a novel spike protein subunit vaccine formulation, NT-CoV2-1, containing a proteosome-based mucosal adjuvant designed for intranasal immunization. The studies concluded that intranasal formulation induced robust antigen-specific IgG and IgA titers in the blood and lungs of mice. In addition, the formulation was highly efficacious in a hamster challenge model, reducing the viral load below the limit of detection of the assay. In both mice and hamsters, the antibodies had strong neutralizing activity, preventing the cellular binding of the viral spike protein based on the ancestral reference strain and variants of concern. The studies concluded that this intranasal vaccine formulation warrants further development as a novel SARS-CoV-2 vaccine.

"Intranasally delivered SARS-CoV-2 vaccines could provide increased protection in the nose and throat where viral entry occurs. This could lead to lower transmission of the virus compared to the currently available intramuscularly delivered vaccines as well as offering a needle-free delivery option. We believe the results from these studies continue to support the development of our intranasal vaccine. The findings from this second preclinical study will be a part of our Investigational New Drug filing to the U.S. Food and Drug Administration (the 'FDA'), and should facilitate advancement of the program into human clinical studies," said Frederick W. Telling, Ph.D., Executive Chairman of Oragenics.

About Oragenics, Inc.

Oragenics, Inc. is a development-stage company dedicated to fighting infectious diseases including coronaviruses and multidrug-resistant organisms. Its lead product is an intranasal immunization vaccine candidate to prevent COVID-19 and variants of the SARS-CoV-2 virus. The vaccine program leverages coronavirus spike protein research licensed from the

National Institute of Health and the NRC with a focus on reducing viral transmission and offering a more patient-friendly intranasal administration. Its lantibiotics program features a novel class of antibiotics against bacteria that have developed resistance.

Forward-Looking Statements

This communication contains “forward-looking statements” within the meaning of the safe harbor provisions of the U.S. Private Securities Litigation Reform Act of 1995. These forward-looking statements are based on management’s beliefs and assumptions and information currently available. The words "believe," "expect," "anticipate," "intend," "estimate," "project" and similar expressions that do not relate solely to historical matters identify forward-looking statements. Investors should be cautious in relying on forward-looking statements because they are subject to a variety of risks, uncertainties, and other factors that could cause actual results to differ materially from those expressed in any such forward-looking statements. These factors include, but are not limited to, the following: the Company’s ability to advance the development of its vaccine candidate and lantibiotics candidate under the timelines and in accord with the milestones it projects; the Company’s ability to obtain funding, non-dilutive or otherwise, for the development of the vaccine and lantibiotic product candidates, whether through its own cash on hand, or another alternative source; the regulatory application process, research and development stages, and future clinical data and analysis relating to vaccines and lantibiotics, including any meetings, decisions by regulatory authorities, such as the FDA and investigational review boards, whether favorable or unfavorable; the potential application of our vaccine candidate to variants and other coronaviruses; the Company’s ability to obtain, maintain and enforce necessary patent and other intellectual property protection; the nature of competition and development relating to COVID-19 immunization and therapeutic treatments and demand for vaccines and antibiotics; the Company’s expectations as to administration, manufacturing, storage and distribution; other potential adverse impacts due to the global COVID-19 pandemic, such as delays in regulatory review, interruptions to manufacturers and supply chains, adverse impacts on healthcare systems and disruption of the global economy; and general economic and market conditions and risks, as well as other uncertainties described in our filings with the U.S. Securities and Exchange Commission. All information set forth in this press release is as of the date hereof. You should consider these factors in evaluating the forward-looking statements included in this press release and not place undue reliance on such statements. We do not assume any obligation to publicly provide revisions or updates to any forward-looking statements, whether as a result of new information, future developments or otherwise, should circumstances change, except as otherwise required by law.

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