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Oragenics Announces Positive COVID-19 Challenge Study Results Evaluating Multiple Formulations of its SARS-CoV-2 Vaccine Candidate

Intranasal and Intramuscular Formulations were Assessed with Novel Adjuvants

TAMPA, Fla.--(BUSINESS WIRE)-- **Oragenics, Inc. (NYSE American: OGEN)** ("**Oragenics**" or the "**Company**") today announced the results from its study to evaluate the immunogenicity and viral load reduction impact of its SARS-CoV-2 vaccine candidate in a hamster challenge study. The study provided preclinical data for formulations designed for both intranasal and intramuscular administration.

Both formulations generated robust immune responses and reduced the SARS-CoV-2 viral loads to undetectable levels in the nasal passages and lungs five days following a viral challenge. By contrast, hamsters in the control groups that had received saline or adjuvants alone had no detectable immune response and substantial viral loads. The vaccines delivered by intranasal and intramuscular routes generated immune responses as measured by multiple assays.

"The very positive results from this hamster challenge study fully support our further development of either the intranasal or intramuscular routes of administration, however we plan to focus on the intranasal delivery route for the Terra CoV-2 vaccine due to the relative lack of competition and anticipated advantages of intranasal vaccine delivery, such as reducing viral transmission, needle-free administration, and ease of distribution, as well as the potential for conferred mucosal immunity which is presently being studied. 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, expected to be made in the second quarter of 2022, 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 Terra CoV-2, a vaccine candidate to prevent COVID-19 and variants of the SARS-CoV-2 virus. The Terra CoV-2 program leverages coronavirus spike protein research licensed from the NIH 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 to commercial antibiotics.

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 Terra CoV-2 and antibiotics 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 product candidate, Terra CoV-2 and our antibiotics, 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 Terra CoV-2 and antibiotics, including any meetings, decisions by regulatory authorities, such as the FDA and investigational review boards, whether favorable or unfavorable; the potential application of Terra CoV-2 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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