

Oragenics, Inc. Announces Peer Reviewed Publication Examining Efficacy of Mutacin 1140 Lantibiotic Variants against Clostridium difficile

TAMPA, Fla.--(BUSINESS WIRE)-- Oragenics, Inc. (NYSE American: OGEN) (the "Company"), a clinical stage biotechnology company, today announced the publication of a research paper entitled "Mutacin 1140 Lantibiotic Variants Are Efficacious Against Clostridium difficile Infection" in the peer reviewed journal, Frontiers in Microbiology, the largest microbiology journal in the world.

Our researchers sought to identify a lead candidate for the treatment of *Clostridium difficile* (*C. difficile*) infections based on the lantibiotic Mutacin 1140 (MU1140). This antibiotic is produced by the Gram-positive bacterium *Streptococcus mutans* and has a novel and unique mechanism of action that may limit the development of drug resistance. Initial compounds were selected from a library of 418 variants of MU1140; researchers selected 6 potential compounds to test in animal models. Results from these *in vivo* models demonstrated that treatment with the compound OG253 led to 100% survival after 21 days, with no signs of relapse and supported its potential use as a new class of *C. difficile* antibiotic.

"This study was the first of its kind to compare a large collection of MU1140 variants to identify potential candidates for the treatment of *C. difficile* infections," commented Dr. Alan Joslyn, Chief Executive Officer and President of Oragenics. "Building on this study, we have since identified an improved compound, OG716, using our lantibiotic platform, as our lead candidate for *C. difficile*. OG716 has a comparable microbiology profile to previous compounds and does not require special formulation, effectively simplifying the production process and clinical administration compared to OG253. We are currently completing the toxicology and microbiology work for OG716 and anticipate filing an Investigational New Drug application in the near future. Lantibiotics have shown effective against antibiotic-resistant strains of various species, and Oragenics' lantibiotic platform contains more than 700 unique structures, potentially generating a pipeline of new compounds."

Clostridium difficile is an infection causing colitis by producing toxins that damage the lining of the colon. It is considered an urgent threat by the Centers for Disease Control and Prevention with an incidence rate of 500,000 infections per year and a mortality rate of 29,000 deaths per year *C. difficile* infections, which are one of the most frequent hospital-acquired infections, have more recently affected people traditionally not considered high risk, triggering an increased health risk amongst the broader population.

About Oragenics, Inc.

We are focused on becoming a leader in novel antibiotics against infectious disease and on developing effective treatments for oral mucositis. Oragenics, Inc. has established two exclusive worldwide channel collaborations with Intrexon Corporation and its subsidiaries. The collaborations allows Oragenics to accelerate the development of much needed new antibiotics that can work against resistant strains of bacteria and the development of biotherapeutics for oral mucositis and other diseases and conditions of the oral cavity, throat, and esophagus.

For more information about Oragenics, please visit www.oragenics.com.

Safe Harbor Statement: Under the Private Securities Litigation Reform Act of 1995: This release includes forward-looking statements that reflect management's current views with respect to future events and performance. 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, whether the reverse stock split will be beneficial to the Company and its shareholders, any inability to meet the NYSE American continued listing standards in the future for any reason, and those other factors described in our filings with the U.S. Securities and Exchange Commission. Any responsibility to update forward-looking statements is expressly disclaimed.

View source version on businesswire.com: https://www.businesswire.com/news/home/20180319005467/en/

Oragenics, Inc.
Corporate:
Michael Sullivan, 813-286-7900
Chief Financial Officer
msullivan@oragenics.com
or
Investor/Media Relations:
The Ruth Group
Tram Bui, 646-536-7035
tbui@theruthgroup.com

Source: Oragenics, Inc.