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Oragenics Reports Positive In Vivo Antibiotic Efficacy Data in Critical Animal Study

Lead Lantibiotic Clinical Candidate Selected from MU1140 Analog Pipeline

TAMPA, Fla. & GERMANTOWN, Md.-- [Oragenics, Inc.](#) (NYSE MKT: OGEN) and [Intrexon Corporation](#) (NYSE:XON), a leader in synthetic biology, announced today positive data on multiple compounds from Oragenics' Mutacin 1140 ("MU1140") lantibiotic platform in a critical animal model study, as well as the selection of a lead clinical candidate. The compounds were subjected to a standardized "proof of concept" animal model evaluating efficacy for reducing clinically relevant *C. difficile* infection(s) and increased survival relative to vancomycin positive control.

This Smart News Release features multimedia. View the full release here:

<http://www.businesswire.com/news/home/20150728006516/en/>

Lantibiotics are a class of antibiotics with a novel mechanism of action active against several multi-drug resistant infectious agents. Through its Exclusive Channel Collaboration ("ECC"), Oragenics has utilized Intrexon's proprietary bio-engineering capabilities to develop its MU1140 analog pipeline which could provide an important new tool in the fight against global bacterial antibiotic resistance.

The tested compounds were selected based on important compound characteristics including, but not limited to: drug activity (based on minimum inhibitory concentration) equal or better than "standard of care" drugs against certain drug-resistant bacteria, safety, toxicity, stability, and manufacturability. The study specifically evaluated compound efficacy as measured by survivability, amounts of *C. difficile* colony forming units, and toxin levels. Overall several compounds demonstrated promising results, and Oragenics' new lead clinical candidate achieved a 100% survival rate throughout the entire study in contrast to a 33% survival rate for the vancomycin (current standard of care) positive control. There was a 0% survival rate for the placebo control group.

Frederick Telling, Ph.D., Chairman of the Board of Oragenics said, "These test results represent a significant development and we are delighted to share this progress as we continue our efforts to develop lantibiotics, a new therapeutic class of antibiotics, with our collaborator Intrexon to combat the growing problem of resistance to existing therapeutics." Dr. Telling added, "We remain on-track for our previously disclosed expectation of pre-IND meetings with the U.S. Food and Drug Administration in the fourth quarter. This *in vivo* efficacy data represents a significant step forward in the development path undertaken by

Oragenics.”

Samuel Broder, M.D, Senior Vice President and Head of Intrexon’s Health Sector, stated, “We are very pleased that the suite of Intrexon technologies and proprietary industrial processes has facilitated the development of novel antibiotics by our ECC partner, Oragenics. This is an important area of much needed new antibiotic development.”

About Oragenics, Inc.

Oragenics, Inc. is focused on becoming the world leader in novel antibiotics against infectious disease and probiotics for oral health in humans and pets. Oragenics, Inc. has established three exclusive worldwide channel collaborations with Intrexon Corporation Inc., a synthetic biology company. The collaborations allow Oragenics access to Intrexon's proprietary technologies toward the goal of accelerating the development of much needed new antibiotics that can work against resistant strains of bacteria and new therapeutic probiotics designed to alleviate symptoms from oral diseases. Oragenics also develops, markets and sells proprietary OTC probiotics specifically designed to enhance oral health for humans and pets, under the brand names Evora and ProBiora both in the United States and through the use of distributors in locations outside of the United States. For more information about Oragenics, visit www.oragenics.com.

About Intrexon Corporation

Intrexon Corporation (NYSE: XON) is Powering the Bioindustrial Revolution with Better DNA™ to create biologically-based products that improve the quality of life and the health of the planet. The Company’s integrated technology suite provides its partners across diverse markets with industrial-scale design and development of complex biological systems delivering unprecedented control, quality, function, and performance of living cells. We call our synthetic biology approach Better DNA®, and we invite you to discover more at www.dna.com.

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Safe Harbor Statement

Some of the statements made in this press release are forward-looking statements. These forward-looking statements are based upon our current expectations and projections about future events and generally relate to our plans, objectives and expectations for the development of our business. Although management believes that the plans and objectives reflected in or suggested by these forward-looking statements are reasonable, all forward-looking statements involve risks and uncertainties and actual future results may be materially different from the plans, objectives and expectations expressed in this press release.

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