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## Oragenics Presents Engineering of Improved Lantibiotic Variants at American Society for Microbiology (ASM) Conference on Antibacterial Development

TAMPA, Fla.--(BUSINESS WIRE)--Oragenics (NYSE MKT:OGEN.BC), a leader in the development of new antibiotics against infectious disease and developing effective treatments for oral mucositis, today announced it presented at the American Society for Microbiology (ASM) Conference on Antibacterial Development held at the Omni Shoreham Hotel in Washington, DC, on Dec. 11-14, 2016. The presentation, entitled "**Engineering Improved Variants of Mutacin 1140 by Saturation Mutagenesis,**" overviewed a library of over 400 different lantibiotic variants developed in collaboration with Intrexon Corporation (NYSE:XON) to derive useful structure/function data and further improve the therapeutic profile of this class of compounds.

Dr. Alan Joslyn, Chief Executive Officer and President of Oragenics, said, "As we move forward with pre-clinical studies and plans to file an IND with our lead compound in 2017, we are optimistic that new molecules in our pipeline will ultimately become available for treatment of multiple types of infections. The data we are generating are further demonstration of the productivity we can achieve through our collaborative work with Intrexon. Our combined efforts will enable us to continue development of this new class of antibiotics and build on our expertise in the field of lantibiotics and infectious disease control."

Lantibiotics represent a class of antibiotics with a unique mechanism of action against multidrug resistant microbes. Several of the new lantibiotic variants generated from Oragenics' Mutacin 1140 platform have demonstrated promising efficacy in reducing clinically relevant *C. difficile* infections as measured by increased animal survival and decreased relapse as well as reduced production of *C. difficile* spores in comparison to a vancomycin positive control.

Through its Exclusive Channel Collaboration agreement (ECC) with Intrexon, the Company has ongoing research and development activities directed toward the identification of active lantibiotic homologs with the goal of selecting molecules that have favorable efficacy, safety and drug delivery profiles and advancing top candidates in a timely and cost effective manner.

Philip Gioia, Chief Commercial Officer of Intrexon's Health Sector, commented, "Lantibiotics have significant therapeutic potential to address the challenges of bacterial antibiotic

resistance. We are pleased that progress under our ECC with Oragenics has enabled the development of a library of lantibiotic variants for the treatment of *C. difficile* infections and anticipate ongoing programs to engineer improved Mutacin 1140 variants to identify new lead lantibiotic variants with activity against other multidrug resistant infections.”

### **About Oragenics, Inc.**

We are focused on becoming the world 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, 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 the development of biotherapeutics for oral mucositis and other diseases and conditions of the oral cavity, throat, and esophagus.

For more information about Oragenics, [www.oragenics.com](http://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, our current need for financing to meet our operational needs and to be able to move our product candidates forward through pre-clinical and clinical development, our inability to obtain sufficient financing to conduct our business; any inability to obtain or delays in the Food and Drug Administration approval for future clinical studies and testing, the future success of our studies and testing and any inability to also achieve favorable results in human studies, our ability to successfully develop and commercialize products, the financial resources available to us to continue research and development, any inability to regain compliance with the NYSE MKT continued listing requirements 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.

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