



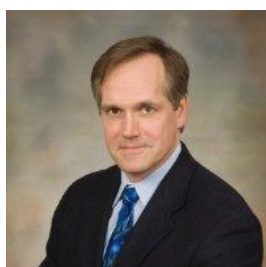
# iNOVA4Health

## - SEMINAR -

**December 13, 15:00**

**ITQB auditorium**

**Host: Paula Alves**



### **“Development of Live Bacterial Therapeutics”**

**John G. Aunins, PhD**

Executive Vice President and Chief Technology Officer at Seres Therapeutics, Inc.

#### **ABSTRACT**

“Bugs as Drugs” is an emerging therapeutic modality for treatment of diseases that are caused by or exacerbated by the bacteria inhabiting the human body; “diseases of the microbiome”. The rationale for pursuing these therapies is multi-fold, but largely revolves around the often-complex and multifactorial biology of these diseases, and poor druggability via conventional chemistry. For Seres’ treatment approach via ecologies of natural commensal organisms, the challenge is not to engineer pathways in individual organisms but rather to engineer a set of organisms that will work to shift a diseased microbiome to one resembling a healthy person’s. To accomplish this, a unique set of capabilities is required to identify strains of interest, screen leads and to test model ecologies. Our reverse translational approach relies on human and animal data sets, genetic sequence analysis techniques, computational models and libraries of bacteria. Finally, bioprocess, analytical and formulation know-how, along with cGMP manufacturing capability enables human clinical trial material generation and commercialization. Seres’ approaches to, and progress in, product development will be discussed.

#### **SHORT BIO**

Dr John Aunins is the Executive Vice President of Bioprocess & Manufacturing and the Chief Technology Officer of Seres. He has more than 26 years of experience in the biotechnology industry, with a focus in bioprocess development, manufacturing support, and project leadership. Prior to joining Seres, he led process and product development teams at Merck Research Laboratories for Vaxta®, Varivax®, Zostavax®, ProQuad®, Rotateq®, and Gardasil®. The Vaxta and Gardasil process teams were awarded with ACS Industrial Biotechnology Awards for innovation, contribution to bioengineering, and societal impact. He is a Fellow of the American Institute for Medical and Biological Engineering. He has authored over 50 articles and book chapters, and has chaired five international conferences in vaccines and bioprocess technology. Dr. Aunins earned his Ph.D. in chemical engineering from MIT, in 1989, under guidance of Professor Daniel I.C. Wang. Dr John Aunins is also visiting Professor at ITQB NOVA and member of iBET’s Scientific Advisory Board.

