SC-TRIMH Symposium  
Translating Innovation for Patient Care  
March 7, 2019  4:00-6:00PM  
Clemson University Biomedical Engineering Innovation Campus  
200 Patwood Drive, Greenville SC  
Hawkins Conference Room  
Building C, 4th floor

4:00  Introduction  
4:10  C. Dayton Riddle Distinguished Seminar  
Dr. Tony Mikos  
*Biomaterials for Tissue Engineering and Disease Modeling*  
Advances in biology, materials science, chemical engineering, and other fields have allowed for the development of tissue engineering, an interdisciplinary convergence science. For the past two and a half decades, our laboratory has focused on the development and characterization of biomaterials-based strategies for the regeneration of human tissues with the goal of improving healthcare outcomes. In a collaborative effort with physicians, surgeons, and other scientists, we have produced new material compositions and three-dimensional scaffolds, and investigated combinations of biomaterials with cell populations and bioactive agents for their ability to induce tissue formation and regeneration. We have examined the effects of material characteristics, such as mechanical properties, topographical features, and functional groups, on cell behavior and tissue guidance, and leveraged biomaterials as drug delivery vehicles to release growth factors and other signals with spatial and temporal specificity. This presentation will review recent examples of biomaterials-based approaches for regenerative medicine applications and highlight future areas of growth, such as the use of tissue engineering to model tumor microenvironments for validation of cancer therapeutic discovery.

5:00  Expert-Panel on Translational Research and Commercialization  
Expert panelists will discuss the importance of collaboration, the role of clinical leadership, the needed infrastructure and resources to translate innovations from research to practice, the required organizational culture and supportive environment, and the amount of coordination needed across departments or disciplines to assure translation of innovation for patient care.

5:30  Networking reception

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**Tony Mikos**  
Louis Calder Professor of Bioengineering, Chemical and Biomolecular Engineering at Rice University. His research focuses on the synthesis, processing, and evaluation of new biomaterials for use as scaffolds for tissue engineering, as carriers for controlled drug delivery, as non-viral vectors for gene therapy, and as platforms for modeling disease. His work has led to the development of novel orthopaedic, dental, cardiovascular, neurologic, and ophthalmologic biomaterials. He is the author of over 600 publications and the inventor of 30 patents. Mikos is a Member of the National Academy of Engineering, the National Academy of Medicine, the National Academy of Inventors, and the Academy of Athens. He has been recognized by various awards including the *Lifetime Achievement Award* of the Tissue Engineering and Regenerative Medicine International Society-Americas, the *Founders Award* of the Society For Biomaterials, the *Robert A. Pritzker Distinguished Lecturer Award* of the Biomedical Engineering Society, and the *Marshall R. Urist Award for Excellence in Tissue Regeneration Research* of the Orthopaedic Research Society. He is a founding editor and editor-in-chief of the journal *Tissue Engineering* and Past-President of the Tissue Engineering and Regenerative Medicine International Society-Americas and the Society For Biomaterials.