



COLLEGE OF ENGINEERING

SEMINAR ANNOUNCEMENT

“Development of Novel Protein and Biological Engineering Techniques”

Presenter: Jeffrey Rice, Assistant Professor, Chemical Engineering

Abstract

The advancement of bio-molecular techniques and our increased understanding of proteins has allowed for rapid innovations in the area of protein engineering. Because proteins are involved in numerous activities throughout nature, such as harvesting energy from sunlight, structuring mineralization for the formation of rigid structures, molecular recognition, and specifically catalyzing reactions, the ability to modify and enhance proteins can lead to advancements in many engineering fields. In this presentation, I will describe the use of protein engineering techniques to discover novel peptides for molecular recognition as well as the modification of hydrogel based biomaterials for improved wound healing and regeneration.

About the Speaker

Jeffrey J. Rice received his Ph.D. in Chemical Engineering from the University of California, Santa Barbara in 2007 where he engineered protein display techniques to discover novel therapeutic peptides and played a major role in transitioning the technology for industrial use at CytomX Therapeutics, Inc. Currently, he is an assistant professor at the Tennessee Technological University carrying out research in the area of protein and biological engineering. Before beginning his faculty position, he was a Whitaker post-doctoral research fellow in the Laboratory for Regenerative Medicine and Pharmacobiology at the École Polytechnique Fédérale de Lausanne working under Professor Jeff Hubbell. His research focuses on applying protein engineering techniques to modify extracellular matrix proteins and growth factors to study angiogenesis and gene delivery for enhanced tissue repair and regeneration.

Date: October 31, 2013 - Thursday

Time: 12 P.M. – 1 P.M.

Bring your own lunch; beverages and snacks to be provided.

Location: Prescott 225