Biomechanical Mechanisms that Govern Cellular Behavior

Dr. Robert Steward
Assistant Professor
Department of Mechanical and Aerospace Engineering
College of Engineering and Computer Science
University of Central Florida

ABSTRACT

Cellular biomechanics involves the ability of cells to sense and respond to mechanical forces. Such mechanical forces include shear and stretch, for example. However, cells also exert their own endogenous mechanical forces as well. For this talk Dr. Steward will present his most recent works in the field of cell mechanics as it relates to the cardiovascular and neuroscience fields.

Biography: Dr. Steward is an assistant professor in the Department of Mechanical and Aerospace Engineering and has a courtesy appointment in the College of Medicine at the University of Central Florida. He received his PhD at Carnegie Mellon University and completed a Postdoc at the T.H. Chan Harvard School of Public Health. He is a currently a NIH K-award and NSF CAREER award recipient.