

Rensselaer Polytechnic Institute
CENTER FOR BIOTECHNOLOGY AND INTERDISCIPLINARY STUDIES



FRONTIERS IN BIOTECHNOLOGY SEMINAR SERIES

Sponsored by CBIS and the NIH Training Program in Biomolecular Science and Engineering

“Using molecular mechanics to predict large-scale biological function: applications to muscle activation and intracellular transport”

Simple mechanical models at the molecular scale can help us understand complex emergent behavior at larger size scales. In this talk, Dr. Walcott will show how this approach applies to two biological processes: (1) the activation of striated muscle, and (2) intracellular transport by molecular motors, with focus on how the local geometry of intersections of actin filaments dictates the progress of long teams of myosin Va motors through the cytoskeletal tangle.

Dr. Sam Walcott



Sam Walcott is an Associate Professor of Mathematics at the University of California at Davis. His research, supported both by NSF and NIH, concerns the use of mathematical analysis and computational simulations of physical models for cellular behavior and muscle function.

Wednesday, March 21, 2018
12:00 PM-1:00 PM
Bruggeman Room, CBIS