## MATERIALS AND BIOMATERIALS SCIENCE AND ENGINEERING

## Modelling biointerphases: From the micro to molecular scales

## **ABSTRACT:**

In this seminar, I will provide an overview of the current research activities in the MECHANO3B[i]OLOGY Lab, from how the mechanical properties of model extracellular matrices, such as elasticity and viscoelasticity, influence cellular migration. I will touch on our efforts to model and characterize the surface of articular cartilage, and finalize by discussing our approaches to quantify the stickiness of *Vibrio cholerae*-inspired peptides for the development of wet adhesives.

## **BIOGRAPHY**

Dr. Roberto C. Andresen Eguiluz is an Assistant Professor in the Department of Chemical and Materials Engineering at the University of California, Merced. He has a degree in Mechanical Engineering from the National Autonomous University of Mexico (UNAM), a Ph.D. in Materials Science and Engineering from Cornell University, and had postdoctoral appointments at the University of Illinois at Urbana-Champaign and the University of California, Santa Barbara. His research interests center on exploring how biomolecules in confinement regulate adhesion and lubrication.



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Refreshments: 1:45pm, Seminar: 2-3pm