CCBM NSF-CREST CENTER FOR CELLULAR AND BIOMOLECULAR MACHINES

The NSF-CREST Center for Cellular and Biomolecular Machines uses an interdisciplinary approach combining physical, biological and engineering methods to understand and control the functioning of multi-scale assemblies of biomolecules and cells, and to design and develop novel bio-inspired functioning machines ranging from designer cells and tissue to diagnostic and therapeutic devices. The center also focuses on enhancing biophysics, biochemistry and bioengineering graduate and undergraduate education; leading STEM outreach activities in the Merced area for teachers, students, and the community; and broadening participation in STEM fields.

Hosted by the NSF-CREST Center for Cellular and Biomolecular Machines at the University of California, Merced

Science for Humanity Series

Roberto C. Andresen Eguiluz, Ph.D.

"Acute Respiratory Distress Syndrome in the Context of COVID"

Wednesday, May 20, 2020
1:00 – 1:45 pm PST (Pacific)
Via Zoom

Why are elderly patients more vulnerable to artificial ventilation?

During the last months, we have regularly been updated with the current spread of a novel coronavirus disease, COVID-19. Of course, we have many questions, but what we know is that overall, the novel coronavirus is an acute resolved disease; that is, it is treatable. However, under certain circumstances, it can also be deadly. One cause leading to death is due to severe alveolar (alveoli are small lung air sacks that allow gas exchange) damage caused by assisted mechanical ventilation. During this talk, I will discuss how supported, or artificial ventilation (AV) of patients in intensive care can, in some cases, lead to massive alveolar damage, resulting in respiratory failure. I will focus on the role of alveolar mechanical forces and how aging changes the alveoli, making elderly patients vulnerable to AV induced alveolar damage.

Roberto C. Andresen Eguiluz, Ph.D.

All are welcome to attend.
REGISTER

Roberto C. Andresen Eguiluz, Ph.D., is an Assistant Professor in the Materials Science and Engineering Department at the University of California, Merced, since July 2019. 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 main research interests fall between tribology, interfacial forces, and mechanotransduction via the extracellular matrix. Lab website.

Contact: CCBM Executive Director, Carrie Kouadio ckouadio@ucmerced.edu
ccbm.ucmerced.edu
An NSF Center of Research Excellence in Science and Technology (CREST)
UC Merced ● 5200 North Lake Road ● Merced, CA 95343