

BIOENGINEERING

PRESENTS

“Engineering precision biomaterials for personalized medicine”



THURSDAY, April 8th, 2021

12:00 – 1:00 PM

Zoom Link:

<https://ucla.zoom.us/j/97216069429>

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ABSTRACT:

Precision medicine is a movement in clinical practice that seeks to develop therapies tailored for specific patients or subsets of patients. As mounting evidence suggests that the “one size fits all” approach to medicine is ineffective, my future lab seeks to exploit biomaterials as in vitro culture tools or implantable devices in vivo to understand how patient-specific variables may impact disease onset, progression, and treatment. As such, my group will develop “precision biomaterials” that enable the evaluation of a patient’s unique biology to diagnose and treat a variety of health disorders as a function of sex, age, and/or ancestry. In my talk, I will describe my present and future work in precision biomaterials, specifically my research in studying patient- and sex-specific differences in aortic valve stenosis. In sum, precision biomaterials may serve as tools to improve our understanding of how patient-specific variables impact disease mechanisms and guide more effective diagnostics and treatments for individual patients or subsets of patients.

BIOGRAPHY:

Dr. Brian Aguado (Twitter: @BrianAguado) is currently a rising Assistant Professor of Bioengineering at UC San Diego. He is currently finishing his postdoctoral fellowship at the University of Colorado Boulder, where he has received postdoctoral awards from the NIH and Burroughs Wellcome Fund to support his research in developing precision biomaterials for applications in personalized medicine. Dr. Aguado completed his BS degree in Biomechanical Engineering from Stanford University, and completed his MS and PhD degrees in Biomedical Engineering from Northwestern University. He also obtained his certificate in Management for Scientists and Engineers from the Kellogg School of Management at Northwestern. Dr. Aguado is also a dedicated science communicator outside of the lab and seeks to engage underrepresented populations in the sciences. Most recently, he co-founded LatinXinBME (Twitter: @LatinXinBME), a social media initiative dedicated to building a diverse and inclusive community of Latinx biomedical

engineers and scientists to support each other personally and professionally through their careers. For his efforts, he was named one of the 100 Most Inspiring Latinx Scientists in America by Cell Press.