

“Moving from idea to clinic: why bioengineers are critical to the future of medicine”

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**LECTURE: 9:00 AM - 10:00 AM
ENGINEERING CENTER**

ROOM EC 1112

**10555 WEST FLAGLER STREET
MIAMI, FL 33174**



Abstract:

Translating a biomedical concept from idea to clinical reality is extremely challenging; yet this process is foundational to the development of new medical research and treatments.

In this talk, I will highlight the challenges and opportunities of translational bioengineering, with a focus on the importance of the bioengineer's role in accelerating the process. I will use examples from my own work from the last 20 years, which includes development of novel diagnostics for pulmonary hypertension, new imaging techniques for phenotyping vascular hemodynamics, and the development of novel polymeric materials for biomedical implants. In many cases, the approach requires the creation of startup companies and FDA approval, areas in which bioengineers can make particular contributions.

Biography:

Dr. Shandas (UCSD Bioengineering PhD '93; CalTech Post-Doc '94) is Professor and Founding Chairman of the Department of Bioengineering at the University of Colorado Denver and the University of Colorado School of Medicine, with joint appointments at The Children's Hospital of Colorado in Pediatric Cardiology and the Department of Surgery. His primary research interests focus on application of bioengineering principles and techniques to the development of novel diagnostics and treatments in heart disease, with particular focus on pediatric pulmonary hypertension. He directs multiple research and training grants including an NIH T32 on Cardiovascular Biomechanics and Imaging, a SCCOR on pediatric pulmonary vascular disease (co-investigator) and an RO1 on the pediatric RV-PA axis. A firm believer in translational bioengineering, he has also started up 6 companies in areas ranging from medical ultrasonics to new shape memory polymer materials for medical devices to new diagnostic biomarkers.

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