

Wallace H. Coulter Foundation Biomedical Engineering Seminar Series

ANURADHA GODAVARTY , PH.D. received a Ph.D. in chemical engineering from Texas A&M University, College Station, Texas, USA in 2003. She worked as a Post-Doctoral Associate in the Department of Computer Science, University of Vermont, Burlington, Vermont in 2003-2004. Currently, she is a tenured Associate Professor in the Department of Biomedical Engineering at Florida International University. Her research interests are in developing low-cost, compact near infrared optical imaging devices and applying them for various clinical applications including diabetes wound monitoring, cancer therapeutics, and cardiovascular perfusion studies. To date, she has over 120 research publications with over 3000 citations and presented her work at various national/international conferences/scientific meetings. Dr. Godavarty has won the Coulter Translational Research Career Award in 2009 and Miami Chamber of Commerce's Health Care Hero Award in biomedical category in 2012. Her research has been funded by various federal and state agencies, including National Institutes of Health, Department of Defense, American Cancer Society, Canary Foundation, W. H. Coulter Foundation, and Florida Department of Health. Dr. Godavarty has 8 issued and 6 pending patents (within US and outside), with her undergraduate/graduate students and post-docs as co-inventors in these patents.



DR. ANURADHA GODAVARTY

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FRIDAY, SEPTEMBER 17 / 9:00 AM Room EC 2300

NEAR-INFRARED OPTICAL IMAGING TECHNOLOGIES - DEVELOPMENT TO CLINICAL APPLICATIONS

ABSTRACT: Our Optical Imaging Laboratory focuses on designing and developing low-cost, compact near-infrared optical imaging devices to assess for physiological changes in tissues and applied for various clinical applications as a point-of-care device. The translational nature of our work spans from design, optimization, validation and testing of these devices to applying them to animal and in-vivo human subject studies related to various clinical

applications. Some of the ongoing projects include: (a) hand-held near-infrared optical scanner for perfusion imaging of diabetic foot ulcers, (b) tissue oxygenation mapping of radiation dermatitis in radiation therapy treated breast cancer subjects, (c) smart-phone-based oxygenation mapping of wounds via implementing of machine learning algorithms, and (d) peripheral vascular imaging of mice with cardiovascular issues.



Through the generous support of the Wallace H. Coulter Foundation, the Department of Biomedical Engineering facilitates weekly lectures each year during academic terms. Experts in all areas of Biomedical Engineering are invited to provide a research seminar and to meet with faculty and students to discuss the latest developments and research in Biomedical Engineering.