THE UNIVERSITY OF ARIZONA
COLLEGE OF ENGINEERING
Biomedical Engineering

DEPARTMENT OF BIOMEDICAL ENGINEERING SEMINAR SERIES

PRESENTS

Fernando Ivich

MS Student
Biomedical Engineering
Dr. Yitshak Zohar

"Development of a Microfluidic Model of Human Prostate Gland for Cancer Research"

ABSTRACT: A Microfluidic-based model of a human prostate gland has been developed featuring a 3D co-culture of epithelial and stromal cells. The model was used to investigate the effects of normal stroma on normal luminal epithelial cell differentiation, and to measure the ability of cancerous epithelium to convert normal stroma to cancer stroma. The ability of PIM1 kinase to induce cancer stroma was also tested in the model. The results demonstrate a promising potential of the model for cancer research applications.

AND

Chet Preston

PhD Candidate
Biomedical Engineering
Experimental Ultrasound & Neural Imaging Laboratory

"Developing Acoustoelectric Imaging Technology for Brain Imaging"

ABSTRACT: Acoustoelectric imaging (AEI) is a burgeoning technology that uses ultrasounds to sample current densities. One of the major difficulties in developing AEI is that the AE interaction signal is very weak. One way to circumvent this issue is to look at inherently strong electrical signals. Although the goal for AEI is to ultimately image natural neural currents in the human brain, my project is to image the relatively larger currents produced by a deep brain stimulator. Results from deep brain stimulation current density imaging and the next steps toward optimizing AEI for brain imaging will be presented.

Please join us on
Monday, February 18th, 2018
12:00-12:50 pm, Keating Bldg., Room 103
Refreshments will be available at 11:50 am

Hosts:
Dr. Minkyu Kim & Dr. Judith Su
minkyukim@email.arizona.edu judith@email.arizona.edu

Persons with a disability may request a reasonable accommodation by contacting the Disability Resource Center at 621-3268 (V/TTY).