## UK College of Engineering Biomedical Research Day

Friday, April 13, 2018

Lexington Convention Center

Chair: Babak Bazrgari, PhD

10:00 - 11:45 am: Student Presentations (Thoroughbred 3)

Session chair: Jonathan Wenk, PhD

"A Possible Link between R-wave Amplitude Alternans and T-wave Alternans to Improve Positive Predictive Value of Arrhythmia Risk." Sahar Alaei

"Trunk muscle forces and spinal loads in persons with unilateral transfemoral amputation during sit-to-stand and stand-to-sit activities" lman Shojaei

"Developing a Mutli-scale Finite Element Model of Myocardial Contraction" Kurtis Mann

"The Effect of Sucrose on Streptococcus Mutans' Adhesion to Titanium via Stress-wave Loading" JD Boyd

"Non-invasive Characterization of Sleep Architecture in an Animal Model of Alzheimer's Disease" Dillon Huffman

"A wearable optical sensor for continuous monitoring of cerebral blood flow in mice" Chong Huang, PhD

1:45 - 3:15 pm: Invited Speakers (Hyatt Suites 2)

Session chairs: Guoqiang Yu, PhD and Ai-Ling Lin, PhD

## **Keynote:**

"MRI: A Window into In Vivo Human Physiology"
Bruce Damon, PhD, Director of Chemical and Physical
Biology Program, Vanderbilt University

"7T Small Animal and 3T Human MRI Research at UK"
David Powell, PhD, College of Medicine, University of Kentucky

"Multi-modal MRI to assess Alzheimer's disease prevention in an APOE4 mouse model."

Ai-Ling Lin, PhD, Director of the Lin Brain Lab, University of Kentucky

3:30 - 5:30 pm: Poster Session

Session chair: Martha Grady, PhD

In Conjunction with:

Center for Clinical and
Translational Science

13<sup>th</sup> Annual Spring Conference



