



THE TENNESSEE PHYSIOLOGICAL SOCIETY MEETING AND
UTHSC DEPARTMENT OF PHYSIOLOGY RETREAT
NOVEMBER 9, 2018
THE UNIVERSITY OF TENNESSEE HEALTH SCIENCE CENTER



- 8:00-8:35 am **Continental Breakfast – Registration/Check-in**
Le Bonheur Lower Lobby (50 North Dunlap)
and **Poster Setup** (Le Bonheur Main Lobby)
- 8:35-8:45: am **Opening Remarks**
Julio F. Cordero-Morales, TPS President
Zhongjie Sun, Chair, Department of Physiology, UTHSC
- 8:45 -9:10 am ***“A novel pH-dependent membrane peptide that binds to the EphA2 receptor and inhibits cell migration”***
Francisco Barrera, Ph.D.
Institute of Biomedical Engineering
University of Tennessee-Knoxville
- 9:10-9:35 am ***“Neutrophil-mediated DHA oxidation promotes β_2 integrin-dependent macrophage migration”***
Valentin Yakubenko, Ph.D.
Department of Biomedical Sciences
Quillen College of Medicine
- 9:35-9:50 am ***Short Talk: “Inflammation and histone modifications in alcohol-mediated colon cancer promotion”***
Pradeep K. Shukla, Ph.D.
Department of Physiology. Dr. Radhakrishna Rao’s laboratory
University of Tennessee Health Science Center-Memphis
- 9:50-10:05 am ***Short Talk: “G-protein coupled receptor signaling and atherosclerosis.”***
Nikhlesh K Singh, DVM, Ph.D.
Department of Physiology. Dr. Gadiparthi N. Rao’s laboratory
University of Tennessee Health Science Center-Memphis
- 10:05-10:20 am ***Short Talk: “Of water and nerves: loss and gain of function mutations in KCC3”***
Bianca Flores, Ph.D. candidate.
Department of Molecular Physiology & Biophysics and Department of Anesthesiology.
Dr. Eric Delpire’s laboratory. Vanderbilt University
- 10:20-10:35 am **Break**
- 10:35-11:00 am ***“Structural characterization of inositol triphosphate receptors”***
Erkan Karakas, Ph.D.
Department of Molecular Physiology & Biophysics.
Vanderbilt University
- 11:00-11:15 am ***Short Talk: “Structural and functional analyses of TRPC channels”***
Caleigh Azumaya, Ph.D. candidate.
Department of Molecular Physiology & Biophysics. Dr. Terunaga Nakagawa’s laboratory (Vanderbilt University) in collaboration with Dr. Julio F. Cordero-Morales’ laboratory

11:15-11:40 am ***"Cholesterol control of BK channel alcohol sensitivity in cerebral artery myocytes"***

Anna Bukiya, Ph.D.

Department of Pharmacology

University of Tennessee Health Science Center-Memphis

11:40-11:55 pm ***Short Talk: "Arterial smooth muscle cell PKD2 (TRPP1) channels regulate systemic blood pressure"***

Carlos Fernandez Peña, Ph.D.

Department of Physiology. Dr. Jonathan Jaggar's laboratory

University of Tennessee Health Science Center-Memphis

12:00-1:00 pm **Lunch**

1:00-2:00 pm **Poster Session**

2:00-2:25 pm ***"TBA"***

Adebowale Adebisi, Ph.D.

Department of Physiology

University of Tennessee Health Science Center-Memphis

2:25-2:50 pm ***"New molecular targets against heart failure"***

Salvatore Mancarella, Ph.D.

Department of Physiology

University of Tennessee Health Science Center-Memphis

2:50-3:05 pm ***Short Talk: "Cytochrome P450 1B1 generated 17 β -estradiol metabolite 2-methoxyestradiol in the brain inhibits the angiotensin II-induced hypertension in the female mice"***

Purnima Singh, Ph.D.

Department of Pharmacology. Dr. KU Malik's laboratory

University of Tennessee Health Science Center-Memphis

3:05-3:30 pm ***"Fine-tuning mechanosensitive ion channels gating with dietary fatty acids"***

Valeria Vásquez, Ph.D.

Department of Physiology

University of Tennessee Health Science Center-Memphis

3:30-3:45 pm ***Short Talk: "Discovery of pranlukast in a high-throughput screen for novel inhibitors of LRRC8 volume regulation anion channels"***

Eric E. Figueroa, Ph.D. candidate.

Department of Anesthesiology. Dr. Jerod Denton's laboratory

Vanderbilt University

3:45-4:00 pm **Break**

4:00-5:00 pm **KEYNOTE LECTURE:**

"Ion Channels in Health and Disease: Sumo Emerges From the Nucleus"

Steve A. N. Goldstein MA, MD, Ph.D, FAAP

Dean Stritch School of Medicine

Loyola University, Chicago

5:00-5:05 pm **Closing Remarks**