

The Tennessee Physiological Society (TPS) held its sixth annual meeting on Friday, January 23, 2015 at the Vanderbilt University Student Life Center. The meeting was supported by the Vanderbilt Department of Anesthesiology and co-hosted by the Departments of Anesthesiology and Molecular Physiology & Biophysics. Five Tennessee institutions were represented at the meeting including Vanderbilt University, Meharry Medical College, Tennessee State University, University of Tennessee Health Science Center, Memphis, and East Tennessee State University, Johnson City.

The meeting began with opening remarks by Dr. Brad A. Grueter, president of the TPS, from the Department of Anesthesiology. The morning sessions featured presentations from Dr. Evangeline Motley-Johnson, "Distinct roles of protease-activated receptors in the regulation of endothelial nitric oxide synthase in the vasculature", Dr. Kristen O'Connell, "Diet composition, not calorie intake, alters neuronal excitability of hypothalamic AgRP/NPY neurons in mice", Dr. Hugh Fentress, "Activation of the JAK/STAT pathway by the human serotonin 2C (5-HT<sub>2C</sub>) receptor", and Dr. Josh Fessel, "BMP Signaling is a key regulator of metabolic program". Afternoon sessions featured presentations from Dr. Louise Lantier, "SIRT3 is crucial for maintaining skeletal muscle insulin action in high fat fed mice" and Dr. Cerrone Foster, "Ataxia telangiectasia mutated kinase: role in cardiac myocyte apoptosis and myocardial remodeling".

Our Keynote address from Dr. Matthew Hirschey, Assistant Professor of Medicine, Division of Endocrinology, Metabolism and Nutrition; Department of Pharmacology & Cancer Biology, Duke University Medical Center, *Durham, NC* was titled "Mitochondrial protein acetylation and acylation regulate metabolism". In his talk, Dr. Hirschey addressed mammalian Sirtuins a family of deacetylases that play a role in a variety of biological processes. He described a newly characterized protein modification called lysine glutarylation that is enriched on mitochondrial proteins, a posttranslational modification regulated by SIRT5.

An afternoon poster session featured 20 posters from students and postdoctoral fellows. The poster presentations were evaluated and four were selected for monetary awards. The poster presentation award recipients were Dipanwita Ghose, Christian Marks, Sujay Kharade and Martha Wall.

The TPS meeting was made possible by financial support from the Department of Anesthesiology and Vanderbilt University Medical Center. We are grateful to the Department of Anesthesiology staff, especially Kristie Lee and Christine Goldsberry. We are also grateful to Dr. Carrie Grueter, TPS treasurer who managed local arrangements including scheduling conference rooms, poster session boards, and food and beverages served throughout the meeting (breakfast, lunch, coffee breaks, etc.) and printing the meeting program.