PharmTox Weekly Buzz

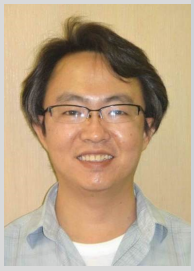
(A publication of the UAMS Department of Pharmacology and Toxicology)

Week of August 9-13 2021

Welcome New Research Technician, Lindsey Morrison

A warm welcome to Lindsey Morrison, who recently joined assistant professor Lisa Brents' lab as a research technician. Lindsey received her undergraduate degree in biochemistry from the University of Central Arkansas. She is taking a "gap year" and hopes to apply to the graduate program at UAMS in 2022. In her spare time, she enjoys reading, working puzzles, attending concerts, and cooking. "I am thrilled to be joining the Department of Pharmacology and Toxicology at UAMS," stated Lindsey. "Science has always been a passion of mine, so I am excited to get started and learn some new skills. I am looking forward to meeting and working with all of you!"

Manuscript Co-authored by Pharmacology and Pharmacy Faculty



Congratulations to assistant professor Amanda Stolarz (Pharmaceutical Sciences) and her lab on their recent publication in *Frontiers of Pharmacology-Translational Pharmacology* section. "Dantrolene prevents the lymphostasis caused by doxorubicin in the rat mesenteric circulation" was co-authored by professor and chair, Nancy Rusch, assistant professor Shengyu Mu, and past graduate student, Brittney Garner. Doxorubicin (DOX) is a risk factor for arm lymphedema in breast cancer patients. DOX opens ryanodine receptors (RYRs) to enact 'calcium leak', which disrupts the rhythmic contractions of lymph vessels (LVs) to attenuate lymph flow. This paper looks at whether dantrolene, a clinically available RYR1 subtype antagonist, prevents the detrimental effects of DOX on lymphatic function. It concludes that dantrolene attenuates the acute impairment of lymph flow by DOX and suggests that its prophylactic use in patients subjected to DOX chemotherapy may lower lymphedema risk.

Dr. Palade and Dr. Singh Have Two Accepted Papers

Professor Philip Palade and alumni Sharda Singh, who directs basic research in the internal medicine division of hematology and oncology at Texas Tech University Health Sciences Center, co-authored two recent publications. "Haploinsufficiency interactions between RALBP1 and p53 in ERBBA and PyVT models of mouse mammary carcinogenesis" was published in *Cancers (Basel)* and shows that partial RALBP1 depletion exerts a suppressive effect on carcinogenesis in Erbb2-overexpressing mice but not in polyomavirus middle T antigen overexpressing mice, which do not depend on Ras or loss of p53.

"Dietary supplementation with sulforaphane ameliorates skin aging through activation of the Keap1-Nrf2 pathway" was published in the *Journal of Nutritional Biochemistry*. This paper demonstrates that sulforaphane in the diet increases protein expression of Nrf2 and decreases protein expression of MMP9 and ROS in old mice and improves skin appearance.