PharmTox Weekly Buzz

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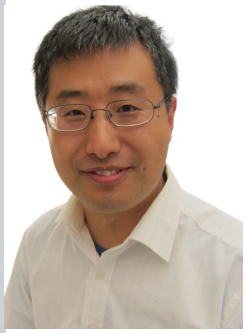
Assistant Professors Receive COM Intramural Funding

Congratulations to four of our assistant professors, Michael Berquist, Abdelrahman Fouda, Shengyu Mu and Huilang Zhang on receiving awards from the UAMS College of Medicine's intramural grant program. These awards are funded for one year, beginning January 1, 2022.

Michael Berquist is the recipient of a Barton Pilot Grant award of ~$25,000. His project, "Effects of early life adversity, exercise, and social stability on ethanol use in rats", will investigate the interaction of early life adversity with exercise and social stability during adolescence as preventive strategies against alcohol use disorders. Dr. Berquist's goal is to determine whether adolescents with early life adversity still benefit from the rewarding effects of exercise and social stability to reduce alcohol use in early adulthood, possibly avoiding or limiting use of medications in adolescents.

Abdelrahman Fouda received a $25,000 award from the Hornick Grant Program for his proposal, "CD47 neutralization as a treatment for ischemic stroke". CD47 is a 'don't eat me' signal, which under pathological conditions, can prevent the clearance of dead cells by a process called efferocytosis. Therapeutic anti-CD47 antibodies are in clinical trials for certain types of cancer and have a strong potential to be used in atherosclerosis. The proposal aims to repurpose these antibodies as a treatment for ischemic stroke for the first time. Professor Sung Rhee serves as a consultant on the project.

Shengyu Mu received a Bronson Award of $10,000 to fund his proposal, "Mechanisms of lymphatic contractile in hypertension". Dr. Mu and his team will explore the effects of high blood pressure on lymphatic contraction and lymph flow, proposing to identify a new link between hypertension, disrupted lymphatic function, and loss of lymph flow that may contribute to hypertensive co-morbidities. Positive findings may open the door to targeting the lymphatic circulation to alleviate cardiovascular disease. Assistant professor, Amanda Stolarz (Pharmaceutical Sciences) serves at Co-I on this award.



Also receiving a Bronson Award of $10,000 is Huilang Zhang. His proposal, "Establishment of a novel human induced pluripotent stem cell (hiPSC) differentiated cardiomyocyte senescence model", will establish a hiPSC-derived cardiomyocyte senescence model by optimizing the doxorubicin exposure and validate excessive mitochondrial proton leak. The novel hiPSC-derived cardiomyocyte senescence model will facilitate discovery of the molecular mechanisms of cardiomyocyte aging and enable high-throughput screening of drugs with anti-aging properties.