

2021 Abstracts, posters and presentations

Abd-Allah M, Romero M, Puglisi J, Blood AB, Zhang L, Wilson SM, "Preliminary Studies Towards the Examination of Hypoxia-related Transcriptional Regulation of Ryanodine Receptor Activity in Pulmonary Arteries of Fetal and Newborn Sheep." FASEB J 35(S1): 2021

Chum PP, Behringer EJ, "Cerebrovascular miRNA expression profile during development of Alzheimer's disease." Experimental Biology. Virtual. 2021

Hakim MA, Behringer EJ, "Removal of membrane cholesterol selectively restores KIR channel function in brain endothelium during Alzheimer's disease." Experimental Biology. Virtual 2021.

Talbot K, "Direct demonstration of brain insulin resistance in Alzheimer's and Parkinson's disease dementia and its alleviation with incretin receptor agonists". Virtual AD/PD Conference, Preconference Symposium: "Protective Effects of Incretins in AD/PD," Barcelona, Spain. 2021

Oyefeso F, Vasquez ME, Bertucci A, Mao X, Goldberg G, Muotri AR, Pecaut MJ, "Brain organoids: a novel tool to study oxidative stress-induced human central nervous system damage following exposure to ionizing radiation." International Society for Stem Cell Research (ISSCR) 2021 Annual Meeting, Virtual. 2021.

Oyefeso F, Vasquez ME, Bertucci A, Mao X, Goldberg G, Muotri AR, Pecaut MJ, "Brain Organoids: A novel tool to study oxidative stress-induced central nervous system damage using ionizing radiation." SfN Global Connectome, Virtual. 2021.

Oyefeso F, Vasquez ME, Bertucci A, Goldberg G, Muotri AR, Pecaut MJ, "Brain organoids model Central Nervous System effects including oxidative stress following acute exposure to low-dose ionizing radiation." 14th Annual Center for Glial-Neuronal Interactions Symposium in Health and Disease, Virtual. 2021.

2021 Publications

Almaguel FA, Sanchez TW, Ortiz-Hernandez GL, Casiano CA, "Alpha-Enolase: Emerging Tumor-Associated Antigen, Cancer Biomarker, and Oncotherapeutic Target." Front Genet. 2021. PMID: 33584813.

Franco PN, Durrant LM, Doan C, Carreon D, Beltran A, Jullienne A, Obenaus A, Pearce WJ, "Maternal Undernutrition Modulates Neonatal Rat Cerebrovascular Structure, Function, and Vulnerability to Mild Hypoxic-Ischemic Injury via Corticosteroid-Dependent and -Independent Mechanisms." Int J Mol Sci. 2021. PMID: 33445547.

Hu XQ, Dasgupta C, Song R, Romero M, Wilson SM, Zhang L, "MicroRNA-210 Mediates Hypoxia-Induced Repression of Spontaneous Transient Outward Currents in Sheep Uterine Arteries During Gestation." *Hypertension*. 2021. PMID: 33641365.

Hu XQ, Zhang L, "Hypoxia and Mitochondrial Dysfunction in Pregnancy Complications." *Antioxidants (Basel)*. 2021. PMID: 33800426.

Leslie E, Lopez V, Anti NAO, Alvarez R, Kafeero I, Welsh DG, Romero M, Kaushal S, Johnson CM, Bosviel R, Blaženović I, Song R, Brito A, Frano MR, Zhang L, Newman JW, Fiehn O, Wilson SM, "Gestational long-term hypoxia induces metabolomic reprogramming and phenotypic transformations in fetal sheep pulmonary arteries." *Am J Physiol Lung Cell Mol Physiol*. 2021. PMID: 33624555.

Reid C, Romero M, Chang SB, Osman N, Puglisi JL, Wilson CG, Blood AB, Zhang L, Wilson SM. Long-Term Hypoxia Negatively Influences Ca²⁺ Signaling in Basilar Arterial Myocytes of Fetal and Adult Sheep. *Front Physiol*. 2021. PMID: 35115953; PMCID: PMC8804533.

Shen G, Hu S, Zhao Z, Zhang L, Ma Q. C-Type Natriuretic Peptide Ameliorates Vascular Injury and Improves Neurological Outcomes in Neonatal Hypoxic-Ischemic Brain Injury in Mice. *Int J Mol Sci*. 22(16):8966. 2021. PMID: 34445671; PMCID: PMC8396645.

Song R, Hu XQ, Romero M, Holguin MA, Kagabo W, Xiao D, Wilson SM, Zhang L. "Ryanodine receptor subtypes regulate Ca²⁺ sparks/spontaneous transient outward currents and myogenic tone of uterine arteries in pregnancy." *Cardiovasc Res*. 2021. 117(3):792-804. DOI: 10.1093/cvr/cvaa089. PMID: 32251501.

Sorensen DW, Carreon D, Williams JM, Pearce WJ, "Hypoxic modulation of fetal vascular MLCK abundance, localization, and function." *Am J Physiol Regul Integr Comp Physiol*. 2021. PMID: 33112654.

Sorensen DW, Injeti ER, Mejia-Aguilar L, Williams JM, Pearce WJ. Postnatal development alters functional compartmentalization of myosin light chain kinase in ovine carotid arteries. *Am J Physiol Regul Integr Comp Physiol*. 321(3):R441-R453. 2021. PMID: 34318702; PMCID: PMC8530762.

Yassine HN, Solomon V, Thakral A, Sheikh-Bahaei, Chui HC, Braskie MN, Schneiderr LS, Talbot K, "Brain energy failure in dementia syndromes: opportunities and challenges for glucagon-like peptide-1 receptor agonists." *Alzheimer's & Dementia*. 2021. Accepted