

**2018 Abstracts, posters and presentations**

Guerrero M, Hough S, Romero M, Puglisi J, Zhang LB, Wilson SM, "Cyclic Nucleotides Reduce Ryanodine Receptor Mediated Ca<sup>2+</sup> Spark Activation Independent of Long Term Hypoxia in Ovine Fetal Pulmonary Arterial Myocytes." *Faseb J* 32: 2018

Holguin MA, Williams V, Romero M, Puglisi J, Shin AA, Hu XQ, Zhang LB, and Wilson SM. Pregnancy Enhances Calcium Spark Activity Independent of Altitude in Ovine Uterine Arterial Myocytes. *Faseb J* 32: 2018.

Reid C, Romero M, Dobyns A, Wilson CG, Hessinger DA, Longo LD, Zhang LB, and Wilson SM. Long Term Hypoxia Reduces Ca<sup>2+</sup> Oscillations in Basilar Arterial Myocytes of Fetal and Adult Sheep. *Faseb J* 32: 2018.

Shen CP, Romero M, Brunelle A, Wolfe C, Dobyns A, Francis M, Taylor MS, Puglisi JL, Longo LD, Zhang LB, Wilson CG, and Wilson SM. Long-term high-altitude hypoxia influences pulmonary arterial L-type calcium channel-mediated Ca (2+) signals and contraction in fetal and adult sheep. *Am J Physiol Regul Integr Comp Physiol* 314: R433-R446. 2018

Thomas J, Yoo T, Romero M, Puglisi J, Zhang LB, and Wilson SM. Acute Hypoxia Alters Ryanodine Receptor Activity in Pulmonary Arterial Myocytes of High Altitude Acclimatized Fetal and Adult Sheep. *Faseb J* 32: 2018

Truong H, Lam TC, Solak S, Adeoye OO, "Long-term Hypoxia Alters Cytochrome P450 Activity during Pregnancy in Ovine Species." *Faseb J* 32: 2018

Williams PA, Bellinger D, Wilson CG, "Developmental changes in hypoglossal motoneuron morphology in neonatal rat." *Faseb J* 32: 2018

Williams PA, Bellinger D, Wilson CG, "Comprehensive characterization of developmental neuronal morphology in the hypoglossal motor nucleus of neonatal rat." The 11th Annual Symposium: Glial-Neuronal Interactions in Health and Disease, Riverside. 2018

James M, Carreon D, Beltran A, Pearce WJ. "Fluoro-Jade C and caspase-3 detect separate but complimentary patterns of cell death induced by traumatic brain injury." 18th Annual Health Disparities Research Symposium. 2018

Knox C, Deatherage A, Garcia K, Kearns-Jonker M, Martens T, "Tissue Engineered Arterial Conduits for Congenital Heart Surgery." 21th Annual Basic Science Research Symposium. 2018

Kwon S, Perry C, Walsh J, Merlos S, Walemba E, Li Y, "Tooth stain penetration simulated with gold nanotechnology." IADR Meeting in London, UK. 2018.

Ma Q, Dasgupta C, Zhang L, “The Lawrence D. Longo, MD “The microRNA-210/TET2 axis mediates neuroinflammation in neonatal hypoxic-ischemic brain injury.” Society for Neuroscience, San Diego, CA 2018.

Martinez SR, Cheng X, Wang C, Zhang L, De Leon M, Casiano CA, “The role of a glucocorticoid receptor and  $\beta$ -catenin interaction in prostate cancer stem cell survival and chemoresistance.” 21th Annual Basic Science Research Symposium. 2018

Nie Y, Smallwood J, Boling W, Kirsch W, “Establishment of primary cultures of human brain microvascular endothelial cells and smooth muscle cells: an in vitro model of the functional therapy for Alzheimer disease.” 21th Annual Basic Science Research Symposium. 2018

Palahnuk S, Wilson C, “Comprehensive dissection protocol for the preparation of rhythmically-active in vitro neonatal rodent brainstem-spinal cord and thin slice.” 18th Annual Health Disparities Research Symposium. 2018

Reid C, Romero M, Dobyns A, Lawrence LD, Wilson CG, Hessinger DA, Zhang L, Wilson SM, “Long Term Hypoxia Negatively Influences Ca<sup>2+</sup> Signaling in Basilar Arterial Myocytes of Fetal and Adult Sheep.” 18th Annual Health Disparities Research Symposium. 2018

Salehi A, Jullienne A, Wendel KM, Lee J, Hamer M, Tang J, Zhang J, Pearce WJ, Obenaus A, “Down-regulation of wnt/beta-catenin reduces new vessel formation and increases hemorrhage after traumatic brain injury. Society for Neuroscience, San Diego, CA 2018.

Salehi A, Jullienne A, Wendel KM, Lee JB, Hamer M, Tang J, Zhang JH, Pearce WJ, Obenaus A, “Down-regulation of Wnt/ $\beta$ -catenin Reduces New Vessel Formation and Increases Hemorrhage after Traumatic Brain Injury.” 21th Annual Basic Science Research Symposium. 2018

Sanchez N, Dusunmu S, Kirsch WM, “Copper transport dysregulation and neurotoxicity in alzheimer’s disease: progress.” 18th Annual Health Disparities Research Symposium. 2018

Sanchez N, Dusunmu S, Kirsch WM, “Copper transport dysregulation and neurotoxicity in alzheimer’s disease: progress.” IMSD Symposium. 2018

Sanchez N, Kirsch WM, “Altered Copper Neuronal Transport and Alzheimer's Disease.” 21th Annual Basic Science Research Symposium. 2018

Tran J, Tan Q, De Leon DD, “Treatment with IGF-II antibody increases intracellular IGF-II in MDA-231 and CRL 2335.” 18th Annual Health Disparities Research Symposium. 2018

Ying N, Smallwood J, Montagne A, Shannon S, Whinnery C, Kirsch WM, “Progress Toward A Functional Therapy For Cerebral Amyloid Angiopathy.” 21th Annual Basic Science Research Symposium. 2018

### **2018 Publications**

Bajwa NM, Lee JB, Halavi S, Hartman RE, Obenaus A, "Repeated isoflurane in adult male mice leads to acute and persistent motor decrements with long-term modifications in corpus callosum microstructural integrity." *J Neurosci Res.* 2018. PMID: 30394562

Blum-Johnston C, Thorpe RB, Wee C, Opsahl R, Romero M, Murray S, Brunelle A, Blood Q, Wilson R, Blood AB, Zhang L, Longo LD, Pearce WJ, Wilson SM, "Long-term hypoxia uncouples Ca<sup>2+</sup> and eNOS in bradykinin-mediated pulmonary arterial relaxation." *Am J Physiol Regul Integr Comp Physiol.* 2018. PMID: 29513562

Hays TT, Ma B, Zhou N, Stoll S, Pearce WJ, Qiu H, "Vascular smooth muscle cells direct extracellular dysregulation in aortic stiffening of hypertensive rats." *Aging Cell.* 2018. PMID: 29603864

Hashad AM, Harraz OF, Brett SE, Romero M, Kassmann M, Puglisi JL, Wilson SM, Gollasch M, Welsh DG, "Caveolae Link Cav3.2 Channels to BK<sub>Ca</sub>-Mediated Feedback in Vascular Smooth Muscle." *Arterioscler Thromb Vasc Biol.* 2018. PMID: 30354206

Huang L, Ma Q, Li Y, Li B, Zhang L, "Inhibition of microRNA-210 suppresses pro-inflammatory response and reduces acute brain injury of ischemic stroke in mice." *Exp Neurol.* 2018. PMID: 29111308

Judkins A, Johnson RL, Murray ST, Yellon SM, Wilson CG, "Vagus nerve stimulation in pregnant rats and effects on inflammatory markers in the brainstem of neonates." *Pediatr Res.* 2018. PMID: 29053705

Jullienne A, Fukuda AM, Ichkova A, Nishiyama N, Aussudre J, Obenaus A, Badaut J, "Modulating the water channel AQP4 alters miRNA expression, astrocyte connectivity and water diffusion in the rodent brain". *Sci Rep.* 2018. PMID: 29520011

Jullienne A, Salehi A, Affeldt B, Baghchechi M, Haddad E, Avitua A, Walsworth M, Enjalric I, Hamer M, Bhakta S, Tang J, Zhang JH, Pearce WJ, Obenaus A, "Male and Female Mice Exhibit Divergent Responses of the Cortical Vasculature to Traumatic Brain Injury. *J Neurotrauma.* 2018. PMID: 29648973

Kirby MA, Heurman AC, Yellon SM, "Utility of Optical Density of Picrosirius Red Birefringence for Analysis of Cross-Linked Collagen in Remodeling of the Peripartum Cervix for Parturition." *Integr Gynecol Obstet J.* 2018. PMID: 30175325

Lee JB, Affeldt BM, Gamboa Y, Hamer M, Dunn JF, Pardo AC, Obenaus A, "Repeated Pediatric Concussions Evoke Long-Term Oligodendrocyte and White Matter Microstructural

Dysregulation Distant from the Injury.” *Dev Neurosci*. 2018;40(4):358-375. doi: 10.1159/000494134. Epub 2018 Nov 22.

Liu T, Zhang M, Terry MH, Schroeder H, Wilson SM, Power GG, Li Q, Tipple TE, Borchardt D, Blood AB. “Nitrite potentiates the vasodilatory signaling of S-nitrosothiols.” *Nitric Oxide*. 2018. PMID: 29428841

Ma Q, Zhang L, “C-type natriuretic peptide functions as an innate neuroprotectant in neonatal hypoxicischemic brain injury in mouse via natriuretic peptide receptor 2.” *Exp Neurol*. 2018. PMID: 29501420

Nold C, Stone J, O'Hara K, Davis P, Kiveliyk V, Blanchard V, Yellon SM, Vella AT, “Block of Granulocyte-Macrophage Colony-Stimulating Factor Prevents Inflammation-Induced Preterm Birth in a Mouse Model for Parturition.” *Reprod Sci*. 2018 PMID: 30296925

Salehi A, Jullienne A, Baghchechi M, Hamer M, Walsworth M, Donovan V, Tang J, Zhang JH, Pearce WJ, Obenaus A, “Up-regulation of Wnt/ $\beta$ -catenin expression is accompanied with vascular repair after traumatic brain injury. *J Cereb Blood Flow Metab*. 2018. PMID: 29160735

Salehi A, Jullienne A, Wendel KM, Hamer M, Tang J, Zhang JH, Pearce WJ, DeFazio RA, Vexler ZS, Obenaus A, “A Novel Technique for Visualizing and Analyzing the Cerebral Vasculature in Rodents.” *Transl Stroke Res*. 2018. PMID: 29766452

Shen CP, Romero M, Brunelle A, Wolfe C, Dobyys A, Francis M, Taylor MS, Puglisi JL, Longo LD, Zhang L, Wilson CG, Wilson SM, “Long-term high-altitude hypoxia influences pulmonary arterial L-type calcium channel-mediated  $Ca^{2+}$  signals and contraction in fetal and adult sheep.” *Am J Physiol Regul Integr Comp Physiol*. 2018 PMID: 29167165

Wendel KM, Lee JB, Affeldt B, Hamer M, Harahap-Carrillo IS, Pardo AC, Obenaus A, “Corpus callosum vasculature predicts white matter microstructure abnormalities following pediatric mild traumatic brain injury.” *J Neurotrauma*. 2018. PMID: 29739276

Williams P. A., C. Dalton, C. G. Wilson, “Modeling Hypoglossal Motoneurons in the Developing Rat.” *Resp Physiol Neurobiol*. 2018. (In press)

Williams P. A., D. Bellinger, C. G. Wilson, “Changes in the morphology of hypoglossal motor neurons in the brainstem of developing rats.” *Anat Record*. 2018. (In press)