

**2023**

**Dalton Cardiovascular Research Center**

*Committed to Interdisciplinary  
Collaboration in Research and Teaching*



Image on front courtesy of Gabrielle Hofmann, DVM, PhD

"Astrocytes in the nucleus tractus solitarius (nTS) of the brainstem 7 days after vagal nerve transection in the rat (glial fibrillary acidic protein, GFAP). The vagus nerve transmits sensory information from the heart and lungs to the nTS, where it is integrated and modulated in part by astrocytes. The astrocytes here display increased GFAP expression and augmented branching, which may contribute to altered cardiorespiratory regulation following vagotomy."

Eileen Hasser, PhD & David Kline, PhD Laboratories

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The Dalton Cardiovascular Research Center (DCRC) supports the objectives of the University of Missouri in its mission of teaching, research and service. Yet it is unique in its commitment to interdisciplinary collaborative research and teaching among various colleges, schools and departments across the Columbia campus. Under the auspices of DCRC, scientists from the fields of biochemistry, biological engineering, biological sciences, biomedical sciences, electrical engineering, medicine, pharmacology, physiology, physics, neurotrauma, veterinary medicine, and surgery all come together and apply their particular expertise to research problems.

Our commitment to collaboration is grounded in the belief that interactions among scientists of diverse backgrounds will lead to multidisciplinary research producing meaningful, far-reaching results. Our commitment to collaboration is grounded in the belief that interactions among scientists of diverse backgrounds will lead to multidisciplinary research producing meaningful, far-reaching results. Research programs at DCRC include investigations into cardiac functions, cystic fibrosis, exercise, kidney failure, membrane transport, muscular dystrophy, neurohumoral control of the circulation, shock, vascular wall biology, diabetes, hypertension, biomedical engineering, protein-protein interactions, and tumor angiogenesis. Because the mission of DCRC is to promote interaction and collaboration, no single group completely defines the research activity of its members.

The center is committed to excellence in cardiovascular research and in the education of students and fellows. Our investigators provide service to the University, the State of Missouri, and the nation through memberships on committees, peer review panels and editorial boards of scientific journals.

The Dalton Cardiovascular Research Center is accredited by AAALAC International and the American Association of Laboratory Animal Sciences.

**R. Scott Rector, PhD, FTOS, FACS**

Professor of Nutrition & Exercise Physiology and Medicine  
Director, NextGen Precision Health Building  
Associate Dean for Basic Sciences and Research Infrastructure,  
School of Medicine  
Interim Director, Dalton Cardiovascular Research Center



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Focused on Understanding the Cardiovascular System During Development, Aging, & Disease Through Interdisciplinary Collaboration in Research and Teaching with Academic and Industry Partners

# CENTER INFORMATION

## CORE TECHNOLOGIES

Atomic Force microscopy  
Confocal/multiphoton microscopy  
Chronic instrumentation  
Electrophysiology  
Quantitative PCR  
Cell tissue culture  
Gene expression  
Manipulation of protein expression  
Fluorescence spectroscopy  
Cardiovascular and microvascular models  
High Frequency Ultrasound Imaging

## CORE FACILITIES

Leica SP5 confocal multiphoton system  
FV 1000 Olympus confocal systems  
High Speed Spinning disk confocal  
Atomic Force Microscopy Systems  
Research grade florescence microscopes  
Molecular and cellular technology core  
Information technology core  
Vevo LAZR Photoacoustic Imaging System  
Telemetry  
Laser Speckle Imaging  
Any-Maze System  
Ivis Imaging  
Metabolic Cages  
gentleMACS Octo Dissociator  
Odyssey DLx  
Real-Time PCR System  
Agilent BioTek Synergy Multi-Mode Reader  
Avanti JE High Speed Centrifuge

## Interdisciplinary Research Interest Groups

Biomedical Engineering  
Microcirculation  
Exercise/Inactivity  
Vascular Biology  
Membrane Transport  
Cystic Fibrosis  
Tumor Angiogenesis  
Neurohumoral Control of  
Circulation  
Cardiac Muscle, Development  
& Disease

## Facilities

Erected 1967-1969  
33,456 Square Feet  
21 Research Labs

## Academic Partners

College of Arts and Science  
Physics & Astronomy

College of Engineering  
Bioengineering, Electrical &  
Computer Engineering

College of Veterinary Medicine  
Biomedical Sciences

School of Medicine  
Biochemistry  
Center for Gender Physiology  
Medical Pharmacology & Physiology  
Internal Medicine  
Pathology and Anatomical Sciences

College of Agriculture, Food and Natural  
Resources  
Food, Nutrition & Exercise Sciences

College of Health Sciences  
Speech, Language & Hearing Sciences

## External Sector Collaborations

### International

Univ of Calgary (CA),  
Univ of Oxford (UK)  
National Yang Ming Chiao Tung  
University Taiwan  
Southwest Medical Univ(CN)  
National Taiwan University  
Univ of Guanajuato

### Domestic

ABBVIE Inc  
Novopyxis, Inc  
Case Western University  
State University of IOWA  
Tufts University  
University of IL Urbana, Champaign  
Pennington Biomed Research Ctr,  
Washington University, St. Louis  
University of IL, Chicago  
Univ of Alabama, Birmingham  
West Virginia University  
Univ of CA, San Francisco  
Stony Brook University (SUMY)  
Univ of NC, Chapel Hill  
Texas Tech University  
Yale University  
Albert Einstein College of Medicine  
Indiana University  
University of Texas Southwestern  
Medical Center  
UT Health San Antonio  
Tulane University  
Texas A&M University  
Soterix Medical

# RESIDENT INVESTIGATORS



**Christopher P. Baines, PhD**

Associate Professor, Department of Biomedical Sciences



**Carie Boychuk, PhD**

Associate Professor, Department of Biomedical Sciences



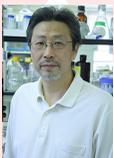
**Jeffery Boychuk, PhD**

Assistant professor, Department of Biomedical Sciences



**Lane L. Clarke, DVM, PhD**

Professor, Department of Biomedical Sciences



**Taixing Cui, M.D., Ph.D., FAHA**

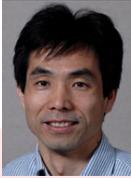
Professor, Department of Medical Pharmacology and Physiology



**Kevin J. Cummings, PhD**

Assistant Professor, Department of Biomedical Sciences

# RESIDENT INVESTIGATORS



**Shinghua Ding, PhD**  
Associate Professor, Biological Engineering



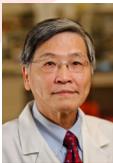
**Olga Glinskii, MD**  
Assistant Research Professor



**Eileen M. Hasser, PhD**  
Professor, Department of Biomedical Sciences  
Adjunct Professor, Medical Pharmacology and Physiology



**Michael A. Hill, PhD**  
Professor, Department of Medical Pharmacology and Physiology



**Tzyh-Chang Hwang, PhD**  
Professor, Department of Medical Pharmacology and Physiology

# RESIDENT INVESTIGATORS



**David D. Kline, PhD**

Associate Professor, Department of Biomedical Sciences



**Maike Krenz, MD**

Associate Professor, Department of Medical Pharmacology and Physiology



**Teresa Pitts, PhD**

Associate Professor, Department Chair, Speech, Language, and Hearing Sciences



**Zhe Sun, PhD**

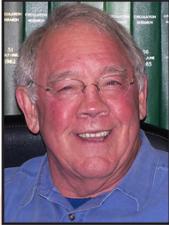
Assistant Research Professor, Dalton Cardiovascular Research Center



**Xiaoqin Zou, PhD**

Professor, Department of Physics and Department of Biochemistry

# EMERITUS DALTON INVESTIGATORS



**Edward H. Blaine, PhD, DSc(Hon), Emeritus Professor**  
Professor, Department of Medical Pharmacology & Physiology  
Former Director, Dalton Cardiovascular Research Center 1990-2005  
"Hypertension, heart failure, and salt and water balance."

***Discovery of Angiotensin converting enzyme inhibitor***

1962 NFL Draft, Offensive Line Green Bay Packers, retired after 5th season with the Philadelphia Eagles to come back to Mizzou for his doctorate.( 5 years, a promise to mentor, Clint Conaway)  
Distinguished Eagle Scout by the Boy Scouts of America, 2009  
Missouri Sports Hall of Fame, 2011



**Gerald A. Meininger, PhD, Emeritus Professor**  
Margaret Proctor Mulligan Professor in Medical Research  
Professor, Department of Medical Pharmacology and Physiology  
Former Director, Dalton Cardiovascular Research Center 2005-2015  
Adjunct Professor, Department of Biomedical Sciences  
Adjunct Professor, Department of Biological Engineering

# Non- Resident Investigators



**Perwez Alam, PhD**  
College of Veterinary Medicine



**Annayya Aroor, MD**  
Associate Research Professor, School of Medicine



**Shawn B. Bender, PhD**  
Assistant Professor, Department of Biomedical Sciences



**Frank W. Booth, PhD**  
Professor, Department of Biomedical Sciences



**Douglas K. Bowles, PhD**  
Professor, Chair, Department of Biomedical Sciences  
Adjunct Professor, Department of Medical Pharmacology and Physiology

# Non- Resident Investigators



**Chandrasekar Bysani, DVM, PhD**  
Margaret Proctor Mulligan Endowed Professor



**Michael J. Davis, PhD**  
Professor, and Associate Department Head, Department of Medical Pharmacology and Physiology



**William P. Fay, MD**  
Professor, Internal Medicine and Medical Pharmacology & Physiology



**Kevin D. Gillis, DSc, PhD**  
Professor, Biological Engineering



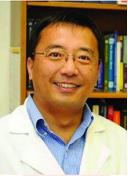
**Vladislav Glinskii, MD**  
Pathology and Anatomical Sciences

# Non- Resident Investigators



**Kenneth A. Gruber, PhD**

Adjunct Professor, Department of Medical Pharmacology and Physiology



**Li-Qun (Andrew) Gu, PhD**

Associate Professor, Bioengineering



**Chetan P. Hans, PhD**

Assistant Professor, Department of Medicine-Cardiology



**Salman M. Hyder, PhD**

Zalk Missouri Professor of Tumor Angiogenesis  
Professor, Department of Biomedical Sciences



**Guanghong Jia, PhD**

Assistant Professor, Department of Medicine-Endocrinology

# Non- Resident Investigators



**Jacqueline Limberg, PhD**

Assistant Professor, Nutrition and Exercise Physiology



**Camila Manrique Acevedo, MD**

Associate Professor, Endocrinology/Metabolism/Diabetes, Internal Medicine



**Luis Martinez-Lemus, PhD, DVM**

Associate Professor, Department of Medical Pharmacology and Physiology



**Nicole L. Nichols, PhD**

Assistant Professor, Department of Biomedical Sciences



**Jaume Padilla, PhD**

Associate Professor Nutrition & Exercise Physiology

# Non-Resident Investigators



**Luis Polo-Parada, PhD**

Associate Professor, Department of Medical Pharmacology and Physiology



**Lakshmidhevi Pulakat, PhD**

Professor, Department of Medicine - Cardiology



**Steven S. Segal, PhD**

Professor of Medical Pharmacology and Physiology



**James R Sowers, MD**

Adjunct Professor of Clinical Medicine

# Publications

1. Gut microbiota mediate vascular dysfunction in a murine model of sleep apnoea: effect of probiotics. Badran M, Khalyfa A, Ericsson AC, Puech C, McAdams Z, **Bender SB**, Gozal D. Eur Respir J. 2023 Jan 19;61(1):2200002. doi: 10.1183/13993003.00002-2022. Print 2023 Jan. PMID: 36028255
2. Repurposing Metformin for Vascular Disease. Triggler CR, Marei I, Ye K, Ding H, Anderson TJ, Hollenberg MD, **Hill MA**. Curr Med Chem. 2023;30(35):3955-3978. doi: 10.2174/0929867329666220729154615. PMID: 35909294
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5. Vascular endothelial mineralocorticoid receptors and epithelial sodium channels in metabolic syndrome and related cardiovascular disease. **Jia G, Hill MA, Sowers JR**. J Mol Endocrinol. 2023 Sep 13;71(3):e230066. doi: 10.1530/JME-23-0066. Print 2023 Oct 1. PMID: 37610001
6. Helicobacter pylori infection selectively attenuates endothelial function in male mice via exosomes-mediated ROS production. Zhang L, Xia X, Wu H, Liu X, Zhu Q, Wang M, Hao H, Cui Y, Li DP, Chen SY, **Martinez-Lemus LA, Hill MA**, Xu C, Liu Z. Front Cell Infect Microbiol. 2023 May 18;13:1142387. doi: 10.3389/fcimb.2023.1142387. eCollection 2023. PMID: 37274312

# Publications

7. Endothelial MRs Mediate Western Diet-Induced Lipid Disorders and Skeletal Muscle Insulin Resistance in Females. Habibi J, Homan C, Naz H, Chen D, Lastra G, Whaley-Connell A, **Sowers JR, Jia G**. *Endocrinology*. 2023 Jun 6;164(7):bqad091. doi: 10.1210/endo-cr/bqad091. PMID: 37289042
8. Inflammatory bowel disease increases the levels of albuminuria and the risk of urolithiasis: a two-sample Mendelian randomization study. Wu H, Liu P, Gong S, Liu X, **Hill MA**, Liu Z, Xu M, Xu C. *Eur J Med Res*. 2023 May 12;28(1):167. doi: 10.1186/s40001-023-01128-0. PMID: 37173785
9. Sympathetic transduction to blood pressure during euglycemic-hyperinsulinemia in young healthy adults: role of burst amplitude. Young BE, **Padilla J**, Shoemaker JK, Curry TB, Fadel PJ, **Limberg JK**. *Am J Physiol Regul Integr Comp Physiol*. 2023 Apr 1;324(4):R536-R546. doi: 10.1152/ajpregu.00162.2022. Epub 2023 Feb 20. PMID: 36802950
10. Multi-omic analysis of the cardiac cellulome defines a vascular contribution to cardiac diastolic dysfunction in obese female mice. Dona MSI, Hsu I, Meuth AI, Brown SM, Bailey CA, Aragonz CG, Russell JJ, Krstevski C, **Aroor AR, Chandrasekar B, Martinez-Le-mus LA**, DeMarco VG, Grisanti LA, Jaffe IZ, Pinto AR, Bender SB. *Basic Res Cardiol*. 2023 Mar 29;118(1):11. doi: 10.1007/s00395-023-00983-6. PMID: 36988733
11. Calcium handling dysfunction and cardiac damage following acute ventricular preload challenge in the dystrophin-deficient mouse heart. Haffner V, Nourian Z, Boerman EM, Lambert MD, Hanft LM, Krenz M, **Baines CP**, Duan D, McDonald KS, Domeier TL. *Am J Physiol Heart Circ Physiol*. 2023 Nov 1;325(5):H1168-H1177. doi: 10.1152/ajpheart.00265.2023. Epub 2023 Sep 22. PMID: 37737731

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13. Dorsal Motor Vagal Neurons Can Elicit Bradycardia and Reduce Anxiety-Like Behavior. Strain MM, Conley NJ, Kauffman LS, Espinoza L, Fedorchak S, Martinez PC, Crook ME, Jalil M, Hodes GE, Abbott SBG, Güler AD, Campbell JN, **Boychuk CR**. *bioRxiv [Preprint]*. 2023 Dec 17:2023.11.14.566855. doi: 10.1101/2023.11.14.566855. PMID: 38014247
14. Opinion: Protein folds vs. protein folding: Differing questions, different challenges. Chen SJ, Hassan M, Jernigan RL, Jia K, Kihara D, Kloczkowski A, Kotelnikov S, Kozakov D, Liang J, Liwo A, Matysiak S, Meller J, Micheletti C, Mitchell JC, Mondal S, Nussinov R, Okazaki KI, Padhorny D, Skolnick J, Sosnick TS, Stan G, Vakser I, **Zou X**, Rose GD. *Proc Natl Acad Sci U S A*. 2023 Jan 3;120(1):e2214423119. doi: 10.1073/pnas.2214423119. Epub 2022 Dec 29. PMID: 36580595
15. Angiogenesis precedes myogenesis during regeneration following biopsy injury of skeletal muscle. Jacobsen NL, Morton AB, **Segal SS**. *Skelet Muscle*. 2023 Feb 14;13(1):3. doi: 10.1186/s13395-023-00313-3. PMID: 36788624
16. Computational Modeling of IN-CTD/TAR Complex to Elucidate Additional Strategies to Inhibit HIV-1 Replication. Qiu L, Bhutoria S, Kalpana GV, **Zou X**. *Methods Mol Biol*. 2023;2610:75-84. doi: 10.1007/978-1-0716-2895-9\_7. PMID: 36534283
17. Corneal injury is associated with stromal and vascular alterations within cranial dura mater. **Glinskii OV, Glinsky VV**, Xie L, Bunyak F, Glinskii VV, Sinha S, Gupta S, Iozzo RV, Mohan RR. *PLoS One*. 2023 Apr 20;18(4):e0284082. doi: 10.1371/journal.pone.0284082. eCollection 2023. PMID: 37079653

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18. Template-guided method for protein-ligand complex structure prediction: Application to CASP15 protein-ligand studies. Xu X, Duan R, **Zou X**. *Proteins*. 2023 Dec;91(12):1829-1836. doi: 10.1002/prot.26535. Epub 2023 Jun 7. PMID: 37283068
19. Synthesis of a Near-Infrared Fluorescent Probe for Imaging Catecholamines via a Tandem Nucleophilic Aromatic Substitution. Zhang L, Liu XA, **Gillis KD**, Glass TE. *Org Lett*. 2023 Dec 29;25(51):9103-9107. doi: 10.1021/acs.orglett.3c03343. Epub 2023 Dec 18. PMID: 38108670
20. Purposefully Designed Surfactants for Facile and Controllable Gold Colloidal Nanocrystal Synthesis. Bhawawet N, **Polo-Parada L**, Ishtaweera P, Larm NE, Baker GA. *ACS Omega*. 2023 Oct 23;8(44):41633-41640. doi: 10.1021/acsomega.3c05795. eCollection 2023 Nov 7. PMID: 37969977
21. Diaphragm pacing and independent breathing in individuals with severe Pompe disease. Liberati C, Byrne BJ, Fuller DD, Croft C, **Pitts T**, Ehrbar J, Leon-Astudillo C, Smith BK. *Front Rehabil Sci*. 2023 Jul 31;4:1184031. doi: 10.3389/fresc.2023.1184031. eCollection 2023. PMID: 37583873
22. Endothelial cell-specific mineralocorticoid receptor activation promotes diastolic dysfunction in diet-induced obese male mice. **Aroor A**, DeMarco VG, Whaley-Connell AT, **Jia G**, Yang Y, Sharma N, Naz H, Hans C, Hayden MR, **Hill MA**, **Sowers JR**, **Manrique-Acevedo C**, Lastra G. *Am J Physiol Regul Integr Comp Physiol*. 2023 Jan 1;324(1):R90-R101. doi: 10.1152/ajpregu.00274.2021. Epub 2022 Nov 28. PMID: 36440901
23. Obesity in Hypertension: The Role of the Expanding Waistline Over the Years and Insights Into the Future. **Jia G**, **Sowers JR**, Whaley-Connell AT. *Hypertension*. 2024 Apr;81(4):687-690. doi: 10.1161/HYPERTENSIONAHA.123.21719. Epub 2023 Nov 29. PMID: 38018438

# Publications

24. Real-time label-free detection of dynamic aptamer-small molecule interactions using a nanopore nucleic acid conformational sensor. Chingarande RG, Tian K, Kuang Y, Sarangee A, Hou C, Ma E, Ren J, Hawkins S, Kim J, Adelstein R, Chen S, **Gillis KD, Gu LQ**. Proc Natl Acad Sci U S A. 2023 Jun 13;120(24):e2108118120. doi: 10.1073/pnas.2108118120. Epub 2023 Jun 5. PMID: 37276386
25. Discriminating physiological from non-physiological interfaces in structures of protein complexes: A community-wide study. Schweke H, Xu Q, Tauriello G, Pantolini L, Schwede T, Cazals F, Lh eritier A, Fernandez-Recio J, Rodr iguez-Lumbreras LA, Schueler-Furman O, Varga JK, Jim enez-Garc a B, R eau MF, Bonvin AMJJ, Savojardo C, Martelli PL, Casadio R, Tubiana J, Wolfson HJ, Oliva R, Barradas-Bautista D, Ricciardelli T, Cavallo L, Venclovas  , Olechnovi  K, Guerois R, Andreani J, Martin J, Wang X, Terashi G, Sarkar D, Christoffer C, Aderinwale T, Verburgt J, Kihara D, Marchand A, Correia BE, Duan R, Qiu L, Xu X, Zhang S, **Zou X**, Dey S, Dunbrack RL, Levy ED, Wodak SJ. Proteomics. 2023 Sep;23(17):e2200323. doi: 10.1002/pmic.202200323. Epub 2023 Jun 27. PMID: 37365936
26. Image reconstruction algorithm for laser-induced ultrasonic imaging: The single sensor scanning synthetic aperture focusing technique. Ruiz-Veloz M, Guti rrez-Ju rez G, **Polo-Parada L**, Cortalezzi F, **Kline DD**, Dantzler HA, Cruz-Alvarez L, Castro-Beltr n R, Hidalgo-Valadez C. J Acoust Soc Am. 2023 Jan;153(1):560. doi: 10.1121/10.0016996. PMID: 36732246
27. Postnatal development of extracellular matrix and vascular function in small arteries of the rat. Nourian Z, Hong K, Li M, Castorena-Gonzalez JA, **Martinez-Lemus LA**, Clifford PS, **Meininger GA, Hill MA**. Front Pharmacol. 2023 Aug 15;14:1210128. doi: 10.3389/fphar.2023.1210128. eCollection 2023. PMID: 37649891
28. Transcriptomic analysis reveals novel molecular signaling networks involved in low voluntary running behavior after AP-1 inhibition. Mao X, Grigsby KB, Kelty TJ, Kerr NR, Childs TE, **Booth FW**. Neuroscience. 2023 Jan 15;509:173-186. doi: 10.1016/j.neuroscience.2022.11.008. Epub 2022 Nov 14. PMID: 36395916

# Publications

29. The effect of orexin on the hypoxic ventilatory response of female rats is greatest in the active phase during diestrus Ruwaida Ben Musa, Jennifer Cornelius-Green , **Eileen M Hasser, Kevin J Cummings** PMID: 36656978
30. Front Aging Neurosci . 2023 Apr 3;15:1147420. doi: 10.3389/fnagi.2023.1147420. eCollection 2023. Selective breeding for physical inactivity produces cognitive deficits via altered hippocampal mitochondrial and synaptic function Nathan R Kerr, Taylor J Kelty, Xuansong Mao, Thomas E Childs, David D Kline, R Scott Rector, **Frank W Booth** PMID: 3707750
31. J Vet Intern Med 2023 Nov-Dec;37(6):2344-2355. doi: 10.1111/jvim.16915. Epub 2023 Oct 28. Safety of TCMCB07, a melanocortin-4 antagonist peptide, in dogs with naturally occurring cachexia Sandra M Axiak-Bechtel, Stacey B Leach, Jessica R Newton-Northup, Rowan J Milner, Stacey A Fox-Alvarez, Lana I Fagman , Kaylee A Young, Deborah J Tate, Zachary M Wright, John D Chretien, Justin W Allen , Sean K Yoshimoto , Kimberly A Selting, Brian K Flesner, Carrie R White, Tracy Mills, Michael Aherne, Philip J Bergman, LeAnn Qi , **Kenneth A Gruber**, Michael F Callahan Affiliations PMID: 37897303 PMCID: PMC10658582 DOI: 10.1111/jvim.16915
32. ACS Cent Sci. 2023 Apr 24;9(5):980-991.doi: 10.1021/acscentsci.2c01325. eCollection 2023 May 24.A Turn-On Fluorescent Amino Acid Sensor Reveals Chloroquine's Effect on Cellular Amino Acids via Inhibiting Cathepsin L, Michael R Smith, Le Zhang, Yizhen Jin, Min Yang, Anusha Bade, **Kevin D Gillis**, Sadhan Jana, Ramesh Naidu Bypaneni, Timothy E Glass, Hening Lin Affiliations PMID: 37252359 PMCID: PMC10214525 DOI: 10.1021/acscentsci.2c01325
33. Paraventricular nucleus projections to the nucleus tractus solitarii are essential for full expression of hypoxia-induced peripheral chemoreflex responses.Ruyle BC, Lima-Silveira L, Martinez D, **Cummings KJ, Heesch CM, Kline DD, Hasser EM**. J Physiol. 2023 Oct;601(19):4309-4336. doi: 10.1113/JP284907. Epub 2023 Aug 26. PMID: 37632733

# Publications

34. A Robust Method for the Elaboration of SiO<sub>2</sub>-Based Colloidal Crystals as a Template for Inverse Opal Structures. Fookes F, **Polo Parada L**, Fidalgo M. *Sensors (Basel)*. 2023 Jan 28;23(3):1433. doi: 10.3390/s23031433. PMID: 36772472
35. CARD9 deficiency improves the recovery of limb ischemia in mice with ambient fine particulate matter exposure. Zhu Q, Liu X, Wu H, Yang C, Wang M, Chen F, Cui Y, Hao H, **Hill MA**, Liu Z. *Front Cardiovasc Med*. 2023 Feb 13;10:1125717. doi: 10.3389/fcvm.2023.1125717. eCollection 2023. PMID: 36860276
36. The forearm vascular response to sympathetic activation is attenuated in female, but not male, participants following acute intermittent hypoxia. Jacob DW, Morgenthaler LD, Harper JL, **Limberg JK**. *J Appl Physiol (1985)*. 2023 Aug 1;135(2):352-361. doi: 10.1152/jappphysiol.00760.2022. Epub 2023 Jul 6. PMID: 37410902
37. Kv2 channels contribute to neuronal activity within the vagal afferent-nTS reflex arc. Ramirez-Navarro A, Lima-Silveira L, Glazebrook PA, Dantzer HA, **Kline DD**, Kunze DL. *Am J Physiol Cell Physiol*. 2024 Jan 1;326(1):C74-C88. doi: 10.1152/ajpcell.00366.2023. Epub 2023 Nov 20. PMID: 37982174
38. Cholesterol Biosynthesis Inhibitor RO 48-8071 Suppresses Growth of Epithelial Ovarian Cancer Cells in Vitro and In Vivo. Liang Y, Nephew KP, **Hyder SM**. *J Cancer Sci Clin Ther*. 2023;7(1):1-8. doi: 10.26502/jcsct.5079185. Epub 2023 Jan 9. PMID: 38105923
39. Myosin light chain phosphorylation exhibits a gradient across the wall of cerebellar arteries under sustained ex vivo vascular tone. **Sun Z**, Li Z, Rodgers M, Zhang L, **Hill MA**. *Sci Rep*. 2023 Jan 17;13(1):909. doi: 10.1038/s41598-023-28092-3. PMID: 36650375
40. Nucleus tractus solitarii is required for the development and maintenance of phrenic and sympathetic long-term facilitation after acute intermittent hypoxia. Ostrowski D, **Heesch CM**, **Kline DD**, **Hasser EM**. *Front Physiol*. 2023 Feb 9;14:1120341. doi: 10.3389/fphys.2023.1120341. eCollection 2023. PMID: 36846346

# Publications

41. Differential Effects of High Fat Diets on Resilience to H<sub>2</sub>O<sub>2</sub>-Induced Cell Death in Mouse Cerebral Arteries: Role for Processed Carbohydrates. Norton CE, Shaw RL, **Segal SS**. *Antioxidants* (Basel). 2023 Jul 16;12(7):1433. doi: 10.3390/antiox12071433. PMID: 37507971
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