Keisa Williams Mathis, Ph.D.

CONTACT INFORMATION

Citizenship
USA

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Internet and Social Media
- https://www.unthsc.edu/MatLab
- https://www.facebook.com/MatLabResearch
- https://twitter.com/FizzyDoc

APPOINTMENTS

Assistant Professor-Graduate School of Biomedical Sciences (GSBS) 06/2014-Present
University of North Texas Health Science Center (UNTHSC), Fort Worth, TX
Department of Physiology and Anatomy (formerly Institute of Cardiovascular and Metabolic Diseases (ICMD))

Assistant Professor 01/2014-05/2014
University of Mississippi Medical Center, Jackson, MS
Department of Physiology and Biophysics

Instructor 04/2010-12/2013
University of Mississippi Medical Center, Jackson, MS
Department of Physiology and Biophysics

EDUCATION AND TRAINING

Post-Doctoral Fellow 07/2009-05/2014
University of Mississippi Medical Center, Jackson, MS
Department of Physiology and Biophysics
Mentor: Michael Ryan, PhD

PhD in Physiology 05/2009
Louisiana State University Health Sciences Center, New Orleans, LA
Mentor: Patricia Molina, MD, PhD

MS in Physiology 08/2005
Louisiana State University Health Sciences Center, New Orleans, LA
Mentor: Patricia Molina, MD, PhD

MS in Applied Physics 08/2003
Purdue University, West Lafayette, IN
Faculty Advisor: Nicholas Giordano, PhD

BS in Physics, Mathematics Minor 05/ 2001
Southern University and A&M College, Baton Rouge, LA
Faculty Advisors: Diola Bagayoko, PhD and Stephen McGuire, PhD

PERSONAL STATEMENT

My ultimate professional goal is to become a tenured professor in the biological sciences at a research intensive institution. I decided to pursue a doctoral degree in physiology because I thought it was the most integrative of the basic sciences and the research often involved investigating diseases and mechanisms that could someday lead to therapeutic options. I enrolled in graduate school at LSU Health Sciences Center (LSUHSC) and studied hemorrhagic shock under Dr. Patricia Molina. My dissertation studies focused on the use of centrally-acting cholinergic drugs to improve outcome from hemorrhage during acute alcohol intoxication in rats. This research experience allowed me to develop excellent skills in integrative physiological approaches and lead to several publications, abstracts, and presentations at national meetings. Once I received the PhD, I joined the Department of Physiology at the University of Mississippi Medical Center (UMMC) as a postdoctoral fellow under Dr. Michael Ryan. My postdoctoral work focused on mechanisms that lead to hypertension in the chronic autoimmune disorder systemic lupus erythematosus (SLE). At UMMC, I had the opportunity to refine the skills acquired in graduate school and develop new expertise in molecular and immunobiology, all while collecting preliminary data for my independent ideas. I was awarded my first independent grant that focused on how compromised neuroimmune mechanisms (i.e., the cholinergic anti-inflammatory pathway) contribute to the pathogenesis of hypertension and renal injury in SLE. This success made my application packet more competitive during my search for tenure-track faculty positions. I joined the faculty in the Department of Physiology at the University of North Texas Health Science Center (UNTHSC) in June 2014 to establish a laboratory that focuses on neuroimmune interactions involved in the development of chronic inflammation in SLE-induced hypertension. Since then I have had several trainees, new funding opportunities and the pleasure of presenting my work at local, national, and international conferences. I enjoy this opportunity to build a successful independent research program as I continue toward my goals.

Major Life Events

- February-March 2010 (Maternity Leave)
- February-March 2012 (Maternity Leave)
- June 2014-January 2015 (Transition to faculty position at new institution/lab renovation)
- February-March 2016 (Maternity Leave)
- October-November 2018 (Maternity Leave)

ACADEMIC AND PROFESSIONAL HONORS, AND RECOGNITION

HONORS

2020	Associate Editor, *American Journal of Physiology (AJP)-Regulatory, Integrative & Comparative*
2020	Steps Toward Academic Research (STAR) Leadership Program Fellow, *Texas Center for Health Disparities (TCHD), UNTHSC*
2018	40 Under Forty, *Southern University Alumni Federation*
2016	Fellow of the American Heart Association (FAHA), *American Heart Association*
2016	Research Leaders Academy Scholar, *American Heart Association*
2016	Dale J. Benos Early Career Professional Service Award, *American Physiological Society*
2013	Juan Carlos Romero Postdoctoral Excellence Award, *Water and Electrolyte Committee of the American Physiological Society*

2012	Finalist-Postdoctoral Research Recognition Award, *Water and Electrolyte Committee of the American Physiological Society*
2011	Caroline tum Suden Award (Postdoc), *American Physiological Society*
2009	Finalist-Gordis Award, *Research Society on Alcoholism*
2009	Caroline tum Suden Award (Graduate Student), *American Physiological Society*
2009	Graduate Oral Presentation Award (1st place), *Louisiana Academy of Sciences, Southeastern Louisiana University, Hammond, LA*
2008-2009	K-12 Minority Outreach Fellow, *American Physiological Society*
2007	Graduate Oral Presentation Award (2nd place), *Louisiana Academy of Sciences, Southern University, Baton Rouge, LA*
2001-2003	Purdue Fellowship, *Purdue University, West Lafayette, IN*
2001	Honors Graduate, *Southern University, Baton Rouge, LA*
2001	Golden Key Honor Society, *Southern University, Baton Rouge, LA*
1997-2001	Timbuktu Academy Scholarship, *Southern University, Baton Rouge, LA*
1997-2001	Honors College Scholarship, *Southern University, Baton Rouge, LA*

OTHER AWARDS AND HONORS

2015	Physiology 2015 Travel Award, *Physiological Society, Cardiff, UK*
2014	Kidney Council New Investigator Travel Award, *American Heart Association*
2013	Responsible Conduct of Research Certificate, *University of Mississippi Medical Center*
2013	APS Minority Travel Award, *American Physiological Society, Boston, MA*
2011	International Society of Hypertension New Investigator Poster Award, Orlando, FL
2011	FASEB/MARC Program Presentation Travel Award, *Washington, DC*
2007-2009	Research Society on Alcoholism Satellite Symposium Travel Grant, *San Diego, CA (2009), Washington, DC (2008), Chicago, IL (2007)*
2008	Professional Writing Skills Travel Award, *American Physiological Society, Orlando, FL*
2007	Alcohol and Trauma Satellite Meeting Travel Award, *Shock Society, Baltimore, MD*
2007	Professional Presentation Skills Travel Award, *American Physiological, Bethesda, MD*
2006-2009	Research Society on Alcoholism Student Merit Award, *San Diego, CA (2009), Baltimore, MD (2006)*
2005-2012	NIDDK Minority Travel Award, *American Physiological Society, San Diego, CA (2012), New Orleans, LA (2009), San Diego, CA (2008), Washington, DC (2007), San Francisco, CA (2006), San Diego, CA (2005)*
2004	Alcohol and Immunology Research Interest Group Travel Grant, *Toronto, Canada*

MENTORING EXPERIENCE

MATHIS LABORATORY TRAINEES

Trainee/Degrees (at matriculation)	Type	Years	Awards/Honors (while matriculating)
Caroline Shimouda Gusson Lima, PhD	Postdoc	2019-Present	Review Editor, Frontiers Auton Neuro (2020)
Sarika Chaudhari, MD/PhD	Postdoc	2017	--

Grace Pham, MS	DO/PhD Student	2015-2020	Dissertation with Distinction (2020) EB Featured Topic Co-Chair (2019) RAD Phys Poster 3rd place (2018) RAD TCOM SGA Best in 2nd year (2017) RAD TCOM Research 2nd place (2017) RAD ICMD Oral 3rd place (2017) APS Graduate Student Ambassador (2017) APS Caroline tum Suden (2016) AHA Predoc Fellowship (2016)
Calvin Brooks	PhD Student	2020-Present	--
Rusty Hartman	MS Student	2019-Present	--
Dennis Kulp, MS (Class of 2022)	DO Student	2018-Present	RAD TCOM Best in First-Year Class
Shyam Vedantam (Class of 2020)	DO Student	2017	TCOM Research Practicum Honors
Maitryben Patel (Class of 2018)	DO Student	2015	--
Charles Malloy (Class of 2018)	DO Student	2015-2018	TCOM Research Practicum Honors 4th Year Research Rotation 2018
Bradley D'Souza	Med Sci	2019-2020	Med Sci Research Track Practicum with Distinction
Luke D'Cunha	Med Sci	2016-2017	SAME Scholarship
Orlexia Thomas (pre-med)	Volunteer	2017	--
Sulaimon Ade Bakre, MD (pre-residency)	Volunteer	2017	--
Tanya Michaels, MS (pre-med)	Volunteer	2016	--
Naima Batson (Howard)	SMART	2019	Outstanding Poster Presentation
Jeremy Williams (Xavier)	SMART	2018	--
Billy Osazuwa (Texas Southern)	SMART	2017	--
Courtney Day (Uof Southern Miss)	SMART	2016	--
Eduvie Ojegba (Tuskegee)	SMART	2015	--
Cassandra Young Stubbs	Lab Tech	2018-Present	--
Jessica Morales, MS	Lab Tech	2018-2020	--
Daniel Fancher	Lab Tech	2016-2017	--
Amber Fairley	Lab Tech	2015-2016	--
William Mayhem	PhD Rotation	2019	--
Yu Tao	PhD Rotation	2019	--
Emily Williams, MS	PhD Rotation	2018-2019	--
Suhhyun "Sarah" Kim	DO/PhD Rotation	2017-2018	--
Bronte Gonzales	MS Rotation	2015	--

OTHERS

2016 **National Research Mentoring Network (NRMN):**
UNT Health Science Center, Fort Worth
Mentees: Fanni Manny

2014-Present **Dissertation/Thesis Committee:**
UNT Health Science Center, Fort Worth, TX

MS Students:
Christopher Pagano (Medical Science Research Track Committee Member; Class of 2018)

Frances Proctor (University Member; Class of 2016)

PhD Students:
Yu Tao (Committee Member; TBD)
Elliott Allums (University Member; TBD)
Renuka Chaphalker (University Member; Class of 2020)

Clinical Research Management Students:
Austin Wong (Major Professor; Class of 2021)
Eva Patel (Committee Member; Class of 2020)

2013-Present **Experimental Biology Conference Mentor:**
American Physiological Society

Minority Travel Fellows: Cindy Franklin (Incarnate Word), Gilbert Morales (UNTHSC)

WEH Mentoring-on-the Go**:** Jenna Peterson (U of Minnesota-Duluth), Jess Ivy (U of Edinburgh, UK), Carmen de Miguel (U of Alabama-Birmingham)

APS Inflammation Conference: Ijeoma Obi (U of Alabama-Birmingham)

2009-2014 **Co-Mentoring-Ryan Laboratory:**
University of Mississippi Medical Center, Jackson, MS

Undergraduate Students: Khushkanwardeep Aujla, Nicholas Stewart, Taylor Coleman, Warren Masterson, Katie Wasson

Graduate Student: Emily Gilbert

2006-2009 **Co-Mentoring-Molina Laboratory:**
LSU Health Sciences Center, New Orleans, LA

Medical Students: Jeremy Daigle, O'Keith Dellafosse

Undergraduate Students: Ciera Singleton, Rachael Rider, Tiffany Best, Ze Zhang

TEACHING EXPERIENCE

UNTHSC

Bold italics denotes course director/co-director

Course ID	Course	Section	Hours	Semester/Year
BMSC 5304	Medical Science	GI/Endo	18	Spring 2021
PHAN 6400	Physiology in Health and Disease	Endocrine	5	Spring 2021
PHAN 6385	Student Works in Progress	N/A	5-10	Spring 2021
BMSC 6998	Individual Research	N/A	--	Spring 2021
MPAS 5612	***Human Physiology for PAs***	***GI***	***6***	***Fall 2020***
PHAN 6385	Student Works in Progress	N/A	5-10	Fall 2020
BMSC 6998	Individual Research	N/A	--	Fall 2020
BMSC 5150	Laboratory Rotations	N/A	--	Fall 2020
BMSC 6998	Individual Research	N/A	--	Summer 2020

PHAN 6400	Physiology in Health and Disease	Endo/Repro	8	Spring 2020
PHAN 6385	Student Works in Progress	N/A	5-10	Spring 2020
BMSC 6998	Individual Research	N/A	--	Spring 2020
MPAS 5612	Human Physiology for PAs	Sig Trans/Endo/Repro	12	Fall 2019
PHAN 6385	Student Works in Progress	N/A	5-10	Fall 2019
BMSC 5150	Laboratory Rotations	N/A	--	Fall 2019
BMSC 6998	Individual Research	N/A	--	Fall 2019
BMSC 6998	Individual Research	N/A	--	Summer 2019
BMSC 5150	Topics in Biomedical Sciences	N/A	2	Summer 2019
BMSC 6391	Physiology in Health and Disease	Endo/Repro	6	Spring 2019
PHAN 6385	Student Works in Progress	N/A	5-10	Spring 2019
BMSC 6998	Individual Research	N/A	--	Spring 2019
MPAS 5612	Human Physiology for PAs	Sig Trans/Endo/Repro	12	Fall 2018
PHAN 6385	Student Works in Progress	N/A	5-10	Fall 2018
BMSC 6998	Individual Research	N/A	--	Fall 2018
BMSC 6998	Individual Research	N/A	--	Summer 2018
BMSC 5150	Topics in Biomedical Sciences	N/A	2	Summer 2018
PHAN 6385	Student Works in Progress	N/A	5-10	Spring 2018
BMSC 6998	Individual Research	N/A	--	Spring 2018
MPAS 5612	Human Physiology for PAs	Sig Trans/Endo/Repro	12	Fall 2017
PHAN 6385	Student Works in Progress	N/A	5-10	Fall 2017
BMSC 6998	Individual Research	N/A	--	Fall 2017
BMSC 5150	Laboratory Rotations	N/A	--	Fall 2017
BMSC 5150	Topics in Biomedical Sciences	N/A	2	Summer 2017
BMSC 6998	Individual Research	N/A	--	Summer 2017
BMSC 6998	Individual Research	N/A	--	Spring 2017
MPAS 5612	Human Physiology for PAs	Sig Trans/Endo/Repro	12	Fall 2016
BMSC 6998	Individual Research	N/A	--	Fall 2016
BMSC 6998	Individual Research	N/A	--	Summer 2016
BMSC 5150	Topics in Biomedical Sciences	N/A	2	Summer 2016
BMSC 6998	Individual Research	N/A	--	Spring 2016
MPAS 5612	Human Physiology for PAs	Sig Trans/Endo/Repro	12	Fall 2015
BMSC 6998	Individual Research	N/A	--	Fall 2015
PHAN 5140	Seminar in Current Topics in Phys	N/A	5-10	Fall 2015
BMSC 5150	Topics in Biomedical Sciences	N/A	2	Summer 2015
BMSC 5150	Laboratory Rotations	N/A	--	Spring 2015
PHAN 5140	Seminar in Current Topics in Phys	N/A	5-10	Spring 2015
PHAN 5140	Seminar in Current Topics in Phys	N/A	5-10	Fall 2014
BMSC 5135	Intro to Faculty Res Programs	N/A	1	Fall 2014

OTHER TEACHING EXPERIENCE

03/2008 **Nursing Pathophysiology Lecture**
LSU Health Sciences Center, New Orleans, LA
Topic: Endocrine Pathophysiology
Description: One-time 3 hour lecture

03/2007-05/2009 **Dental Hygiene Physiology Lecture**
LSU Health Sciences Center, New Orleans, LA
Topic: The Respiratory System
Description: 2 hour lecture presented annually

02/2007-05/2008 **Medical Physiology Tutor**
LSU Health Sciences Center, New Orleans, LA
Topic: General Physiology
Description: After hours tutoring in both formal/structured (≤ 10 students) and relaxed (one-on-one) sessions

08/2004-05/2009 **Nursing Physiology Teaching Assistant and Tutor**
LSU Health Sciences Center, New Orleans, LA
Topic: General Physiology
Description: After hours large formal teaching sessions (≤ 60 students) where we reviewed material discussed in class in a lecture-style format. In addition, conducted/lead weekly laboratory experiments

08/2001-08/2003 **General Physics Laboratory I and II**
Purdue University, West Lafayette, IN
Topic: General Physics
Description: Conducted lab for 2 hours, twice a week for 2 consecutive years (4 semesters). This teaching experience required careful introduction and explanation of the material and lab experiment, monitoring of students during experiments, maintenance of office hours, and lab report grading.

08/2001-08/2003 **General Physics Recitation**
Purdue University, West Lafayette, IN
Topic: General Physics
Description: Conducted recitation once a week for 1 hour for 2 consecutive years (4 semesters). Recitation required reviewing homework assignments, exam proctoring, and some tutoring during office hours.

UNIVERSITY/COMMUNITY SERVICE AND EXTRACURRICULAR ACTIVITIES

UNTHSC COMMITTEES

2020	Pharmacology Small Animal Imaging Search Committee
2020-	GSBS Diversity, Equity and Inclusion Committee
2020	Physiology and Anatomy Faculty Search Committee
2020-	Joint Admission Medical Program (JAMP) Alternate Council
2018-2021	IACUC Committee Alternate Member

2018-	Initiative for Maximizing Student Development (IMSD) Internal Advisory Committee, *Texas Center for Health Disparities*
2017-2018	GSBS Executive Committee (w/Interim Dean, Dr. He)
2016	Health Institutes Faculty Mentor Working Group
2016-	Department Communications Committee, *Department of Physiology and Anatomy*

NATIONAL COMMITTEES

2020	Member, Black in Physiology Leadership Committee
08/2020	Co-Founder of Black in Physiology
01/21-12/23	Member, Diversity and Inclusion Committee, *American Physiological Society (APS)*
07/20-06/22	Chair, Membership and Communications Committee, *AHA Council on Hypertension*
06/19-	Communications and Newsletter Chair, Sex and Gender Research Interest Group (SGRIG) Steering Committee, *APS*
07/19-	Member, Advisory Committee to the Director (ACD) Working Group on Enhancing Reproducibility and Rigor in Animal Research, *NIH*
07/19-06/22	Member, Research Peer Review Subcommittee, *AHA National*
03/19-02/21	Member, Research Committee Task Force on Enhancing Research Communications, *AHA National*
07/18-06/22	Member, National Research Committee, *AHA National*
07/18-06/22	Diversity Champion, Council on the Kidney in Cardiovascular Disease (KCVD) Leadership Committee, *AHA KCVD*
07/18-06/20	Vice Chair, Membership and Communications Committee, *AHA Council on Hypertension*
12/17-06/18	Member, Hypertension Leadership Committee, *AHA Council on Hypertension*
2017	Honorary 50th Anniversary of the Porter Physiology Committee, *APS*
2016-2018	Awards Committee Member, *APS*
2016-2018	Steering Committee, Science Policy and Communication Liaison, *NCAR Section of the APS*
2014-2018	Early Career Committee Commission, *AHA KCVD*
2012-2014	Porter Physiology Development Committee, *APS*

INTERNATIONAL COMMITTEES

2017	Planning Committee, International Early Career Symposium, *Brazil International Union of the Physiological Sciences (IUPS)*

PEER-REVIEW

Associate Editor

2020-	American Journal of Physiology (AJP)-Regulatory, Integrative and Comparative Physiology

Guest Editor

2019- Frontiers in Medicine—Nephrology

Review Editor

2020- Frontiers in Autonomic Neuroscience

Manuscript Ad-Hoc Reviewer

2020 Frontiers in Pharmacology
2020 Frontiers in Immunology
2020- AJP-Renal
2019- AJP: Heart
2019- Pharmacological Research
2019- Ethnicity and Disease
2018- Scientific Reports
2017- AJP-Regulatory
2017- Molecular Medicine Reports
2017- Oxidative Medicine and Cellular Longevity
2017- Journal of Dermatology and Clinical Research
2016- BMC Nephrology
2016- Journal of Immunology and Infectious Diseases
2016- Circulation Research
2016- Clinical Science
2014- Microcirculation
2014- Hypertension
2013- APS Education Advances in Review
2013- Antioxidants
2010- Journal of Hypertension

Study Section-Grant Review

2020 NIH-Center for Scientific Review Pathobiology of Kidney Disease Study Section (October)
2020 American Heart Association- TPA Basic Cardiac Sciences 1
2019 American Heart Association-Cardiac Biology/Regulation Career/Fellowships
2018 UNTHSC Institutional Seed Grants
2018 American Heart Association- Career Development Award Basic Cardiac Sciences 1
2017-2018 UNTHSC Texas Center for Health Disparities Steps Toward Academic Research (STAR) Fellowship

2016-2017	American Heart Association-Cardiac Biology/Regulation BSc5
2015	American Heart Association-Vascular Sciences BSc3
2014	American Heart Association-Cardiac Biology/Regulation BSc7

Award Review Committees

2016-2018	APS Dean Franklin Award
2016-2018	APS Shih Chun Award
2015	APS Undergraduate Research Excellence Fellowship (UGREF)
2015	APS Undergraduate Summer Research Fellowship (UGSRF)
2014	APS Minority Travel Fellowship
2014	APS Integrative Organismal Systems Physiology (IOSP) Undergraduate Research Fellowship Program
2014	APS Short-Term Research Education Program to Increase Diversity in Health-Related Research (STRIDE) Undergraduate Research Fellowship Program
2013-2018	APS Minority K-12 Outreach Fellow
2012-2014	APS Porter Physiology Fellowship

OTHER PROFESSIONAL SERVICE ACTIVITIES

2019	Moderator, *Regulation of Blood Pressure by the Central Nervous System, Council on Hypertension*
2019-Present	Physiology Understanding (PhUn) Tours, *Texas Center for Arts + Academics Schools: Texas Elementary School of Arts, Fort Worth Academy of Fine Arts; Fort Worth ISD Schools: William James Middle School, OD Wyatt High School; Crowley ISD Schools: Dallas Park Elementary, June W. Davis*
2019	Proposal Writer, *EB Featured Topic (NCAR): Autonomic Anti-inflammatory Mechanisms: Which Branch Trumps?*
2018	Co-Chair, *Experimental Biology Featured Topic: NCAR Hot Topics*
2017-2018	Insider Experience Tours, *UNTHSC*
2017	Moderator, *Inflammation, Immunity and Cytokines, Council on Hypertension*
2016	Moderator, *Immune Mechanisms of Hypertension, Council on Hypertension*
2016-Present	Interviewer, *Medical Science Masters Students (mock interviews for medical school), UNTHSC*
2015-Present	UNTHSC Lab Tours, *Students from Dublin HS (2015), Arlington ISD (2015, 2019); Garland HS (2017-2018); Mentors for Life (2015-2017)*
2015	Moderator, *Experimental Biology Featured Topic: CNS Mechanisms of Blood Pressure Regulation, American Physiological Society*
2015	Vestido Rojo Exhibit, *Fort Worth American Heart Association*
2014-2016	Interviewer, *Texas College of Osteopathic Medicine (entering students), UNT Health Science Center*
2012	Moderator, *Experimental Biology Featured Topic: Immune Cells, American Physiological Society*
2011	Moderator, *Gulf Coast Physiology Annual Meeting Oral Session, Jackson, MS*
2011	Postdoctoral Journal Club Co-Chair, *University of Mississippi Medical Center, Jackson, MS*

2009-2015	David Bruce Award Judge, *American Physiological Society (2009, 2011, and 2013; 2015 group leader)*
2008-2018	PhUn Week, *American Physiological Society*
2003-2008	Volunteer, *LSU Health Sciences Center/New Orleans Public School Science Partnership*

COMMUNITY SERVICE

2015-2016	Southern University Alumni Federation-Dallas-Fort Worth, *Scholarship Committee*
2012	Science Fair Judge, *Northwest Rankin Elementary School, Flowood, MS*
2011	Science Fair Judge, *Timberlawn Elementary, Jackson, MS*
2003-2007	Yearbook Staff, *LSU Health Sciences Center*
2006-2007	Scholarship Committee, *Alpha Kappa Alpha Sorority, Incorporated, Tau Kappa Omega Chapter*
2001-2003	Historian, *Black Graduate Association, Purdue University*
2000-Present	Member, *Alpha Kappa Alpha Sorority, Incorporated Society*

PROFESSIONAL DEVELOPMENT

COURSES AND WORKSHOPS

2020	STAR Leadership Program, *UNTHSC TCHD*
2020	Fite Physiology and Anatomy Leadership Workshop
2019	Peg Atkinsson Grant Writing Workshop
2019	NIH Grant Writing Study, *National Institute on Minority Health and Health Disparities (NIMHD)*
2019-2020	Teaching Excellence Faculty Seminar Series, *Center for Innovative Learning, UNTHSC*
2016-2017	Teaching Excellence Faculty Seminar Series, *Center for Innovative Learning, UNTHSC*

CONFERENCES

2020	FASEB Translational Neuroimmunology Conference: From Mechanisms to Therapeutics (virtual)
2020	UNTHSC TCHD Health Disparities Conference (virtual)
2019-Present	Lupus Research Alliance Discovery Annual Conference (2020 virtual)
2019-Present	UNTHSC Department of Physiology Women's Brain and Cardiovascular Health Conference
2016	UNTHSC Institute for Cardiovascular and Metabolic Disease Conference
2016	FASEB Neural Mechanisms in Cardiovascular Regulation
2016	AHA Research Leaders Academy
2016	APS Inflammation Conference
2015	Physiological Society
2014	Annual Biomedical Research Conference for Minorities (ABRCMS)
2012	American Society of Nephrology

2011	APS Gender Conference
2009-	Council on Hypertension (2009-2014, 2016-2017, 2019, 2020 (virtual))
2006-2009	Research Society on Alcoholism
2006-2009	Shock
2005-	Experimental Biology (2005-2009, 2011-2019)
2004-2011	Gulf Coast Physiological Society (2004, 2009, 2011)

PROFESSIONAL SOCIETY MEMBERSHIPS

2009-	American Heart Association
2004-	American Physiological Society
2007-2009	Research Society on Alcoholism
2007-2009	Shock Society
2007-2009	Louisiana Academy of Sciences
2004-2005	Society for Leukocyte Biology
1997-2001	American Physical Society—Society of Physics Students

PUBLICATIONS (https://www.ncbi.nlm.nih.gov/myncbi/keisa.mathis.1/bibliography/public/)

JOURNAL ARTICLES

1) Pham GS and **Mathis KW**. Splenic catecholamine depletion aggravates renal inflammation and injury in a murine model of systemic lupus erythematosus. *(In revision)*

2) D'Souza BM, Morales JY, Young-Stubbs CM, Shotorbani PY, Ma R, **Mathis KW**. Sex differences in the pathogenesis of autoimmune-induced hypertension. *(Submitted AJP: Renal Apr 2020)*

3) Pham GS*, Shimoura CG*, Chaudhari SS, Kulp DV, **Mathis KW**. Chronic unilateral cervical vagotomy reduces renal inflammation, blood pressure, and renal injury in a mouse model of lupus. *Accepted Am J Physiol Renal Physiol*. 2020 Jun 15. doi: 10.1152/ajprenal.00201.2020. Online ahead of print

4) Pham GS, Wang LA, **Mathis KW.** Pharmacological potentiation of the efferent vagus nerve attenuates blood pressure and renal injury in a murine model of systemic lupus erythematosus. *AJP – Regulatory*. 2018;315:R1261-1271.

5) Pham GS and **Mathis KW**. Lipopolysaccharide challenge reveals hypothalamic-pituitary-adrenal axis dysfunction in murine systemic lupus erythematosus. *Brain Sciences.* 2018;8(10).

6) Syed M, Ball JP, **Mathis KW**, Hall ME, Ryan MJ, Rothenberg ME, Yanes Cardozo LL, Romero DG. MicroRNA-21 Ablation Exacerbates Aldosterone-Mediated Cardiac Injury, Remodeling and Dysfunction. *AJP: Endocrinology and Metabolism.* 2018; 315(6):E1154-E1167.

7) Rodriguez R, Lee A, **Mathis KW,** Broome HJ, Thorwald M, Martinez B, Nakano D, Nishiyama A, Ryan MJ, Ortiz RM. Angiotensin receptor and TNF-α activation contribute to glucose intolerance independent of systolic blood pressure in OLETF rats. *AJP: Renal.* 2018; 315(4):F1081-F1090.x

8) **Mathis KW,** Gray E, Ryan MJ. T lymphocytes promote autoimmune-associated hypertension. *Pharmacological Research*. 2017;120:252-257.

9) Fairley AS, **Mathis KW**. Cholinergic agonists reduce blood pressure in mouse model of systemic lupus erythematosus. *Physiological Reports.* 2017;5(7):e13213.

10) **Mathis KW**, Wallace K, Flynn E, Maric C, LaMarca B, Ryan MJ. Preventing autoimmunity protects from hypertension and renal injury. *Hypertension*. 2014;64(4):792-800.

11) Gilbert EL, **Mathis KW**, Venegas-Pont M, and Ryan MJ. Disparate temporal regulation of blood pressure by estrogens during systemic lupus erythematosus. *Hypertension*. 2014;63(3):616-623.

12) **Mathis KW,** Venegas-Pont M, Flynn E, Williams JM, Maric C, Dwyer T, Ryan MJ. Hypertension in an experimental model of systemic lupus erythematosus occurs independently of the renal nerves. *American Journal of Physiology: Regulatory, Integrative and Comparative Physiology*. 2013;305(7):711-719.

13) **Mathis KW**, Venegas-Pont M, Masterson CW, Stewart, NJ, Wasson KL, and Ryan MJ. Oxidative stress promotes hypertension and albuminuria during the autoimmune disease systemic lupus erythematosus. *Hypertension.* 2012;59(3):673-679.

14) **Mathis KW**, Venegas-Pont M, Masterson CW, Wasson KL, Ryan MJ. Blood pressure in a hypertensive mouse model of SLE is not salt-sensitive. *American Journal of Physiology: Regulatory, Integrative and Comparative Physiology.* 2011; 301:R1286-1292.

15) Venegas-Pont M, **Mathis KW**, Iliescu R, Ray WH, Glover P, and Ryan M. Blood pressure and renal hemodynamic responses to acute angiotensin II infusion are enhanced in a female mouse model of systemic lupus erythematosus. *American Journal of Physiology: Regulatory, Integrative and Comparative Physiology.* 2011; 301:R1281-1285.

16) **Mathis KW,** Molina PE. Systemic administration of an acetylcholinesterase inhibitor improves outcome and survival from hemorrhagic shock during acute alcohol intoxication. *Shock.* 2010;34(2):162-168.

17) Whitaker A, Sulzer J, Walker E, **Mathis K**, Molina PE. Sympathetic modulation of the host defense response to infectious challenge during recovery from hemorrhage. *Neuroimmunomodulation.* 2010;17:349-358.

18) **Mathis KW,** Molina PE. Central acetylcholinesterase inhibition improves hemodynamic counter-regulation following severe blood loss in alcohol-intoxicated rodents. *American Journal of Physiology: Regulatory and Comparative Physiology.* 2009;297(2): R437-R445.

19) **Mathis KW**, Molina PE. Transient central cholinergic activation enhances sympathetic nervous system activity but does not improve hemorrhage-induced hypotension in alcohol-intoxicated rodents. *Shock.* 2009;32(4):410-415.

20) Greiffenstein P, **Mathis KW**, Vande Stouwe C, Molina PE. Alcohol binge prior to trauma/hemorrhage impairs integrity of host defense mechanisms during recovery. *Alcoholism: Clinical and Experimental Research*. 2007;31(4):1-12.

21) **Mathis KW**, Zambell K, Olubadewo J, Molina PE. Altered hemodynamic counteregulation to hemorrhage by acute moderate alcohol intoxication. *Shock.* 2006;26(1):55-61.

REVIEWS

22) Chaudhari S, Cushen S, Oluwatobiloba O, Paresh J, Posey R, **Mathis K**, Goulopoulou S. Mechanisms of sex disparities in cardiovascular function and remodeling. *Comprehensive Physiology.* 2018;9(1):375-411.

23) **Mathis KW.** An impaired neuroimmune pathway promotes the development of hypertension in the setting of chronic inflammation. *American Journal of Physiology: Regulatory*. 2015;309(9):1074-1077.

24) Park S, **Mathis KW**, Lee IK. The physiological roles of apolipoprotein J/clusterin in metabolic and cardiovascular diseases. *Reviews in Endocrine and Metabolic Disorders.* 2014;15(1):45-53.

25) **Mathis KW**, Broome HJ, Ryan MJ. Autoimmunity: an underlying factor in the pathogenesis of hypertension. *Current Hypertension Reports*. 2014;16(4):424

BOOK CHAPTERS

26) Pham GS, **Mathis KW**. Autoimmunity, Estrogen and Lupus. In: Sex Differences in Cardiovascular Physiology and Pathophysiology: editors: Lamarca and Alexander. Alexander BT, Lamarca B, editors. USA: Elsevier Academic Press; 2019. Chapter 14; p.219-237. 392p.

EDITORIALS

27) Shimoura CG, **Mathis KW**. When memory does not serve you well. *Circulation Research.* 2020;126(6):722-724.

28) Williams EN, **Mathis KW**. Buffering Chronic Kidney Disease with Sodium Bicarbonate. *Clinical Science.* 2018;132(17):1999-2001.

29) **Mathis KW**. Complementing T regulatory cells to combat hypertension. *Circulation Research.* 2018;122(7);911-912.

30) **Mathis KW**. The W's of Networking in Physiology. The Physiologist. 2015;58(4): 197-199.

SELECTED ABSTRACTS

1) **KW Mathis**, C Young-Stubbs, and JY Morales. Sex Differences in the Development of Autoimmune-Associated Hypertension. *Hypertension*. ;74:Suppl 1, New Orleans, 2019.

2) **KW Mathis,** GS Pham, DN Kulp. Disruption of splenic nerve-to-spleen neurotransmission worsens disease outcome in a murine model of systemic lupus erythematosus. FASEB J 33, Suppl 2019.

3) **KW Mathis**. Sex differences in the development of autoimmune-induced hypertension. UNTHSC Women's Brain and Cardiovascular Health Symposium, Fort Worth, TX 2019.

4) **KW Mathis**, H Stauss, GS Pham, DV Kulp, S Kim. Effects of vagus nerve stimulation in a murine model of systemic lupus erythematosus. FASEB, San Diego, CA 2018.

5) GS Pham, B Osuzawa, O Thomas, S Vendantam, DL Fancher, **KW Mathis**. Splenic 6-hydroxydopamine worsens renal inflammation and injury in a murine model of systemic lupus erythematosus. FASEB, San Diego, CA 2018.

6) S Vedantam, GS Pham, **KW Mathis**. Effect of acute bilateral vagotomy on tissue-specific inflammation in a murine model of systemic lupus erythematosus. FASEB, San Diego, CA 2018.

7) GS Pham, SS Chaudhari, DL Fancher, TP Michaels, L D'Cunha, **KW Mathis**. Unilateral cervical vagotomy protects against renal injury and hypertension in a mouse model of lupus hypertension. AHA Council on Hypertension, 70:AP290 San Francisco, 2017.

8) GS Pham, AS Fairley, **KW Mathis**. Chronic vagal stimulation enhances norepinephrine-mediated inhibition of splenic pro-inflammatory cytokine release in lupus hypertension. *Hypertension.* 2016; 68; A088.

9) SL Njemanze, M Syed, LR Nair, JP Ball, **KW Mathis**, MJ Ryan, ME Rothenberg, LL Yanes-Cardozo and DG Romero. Micro-RNA-21 ablation exacerbates aldosterone-mediated renal injury. FASEB, San Diego, CA 2016.

10) GS Pham, AS Fairley, CI Maloy, **KW Mathis**. Chronic vagus nerve stimulation attenuates renal inflammation in autoimmune-induced hypertension. FASEB (962.7), San Diego, CA 2016.

11) CI Maloy, AS Fairley, GS Pham, **KW Mathis**. Improvement in blood pressure and renal injury following vagal nerve stimulation. FASEB (964.6), San Diego, CA 2016.

12) **KW Mathis**. Nerve-to-spleen pathway is critical in the development of hypertension in the setting of chronic inflammatory disease. Physiological Society, Cardiff, Wales, UK, 2015

13) **KW Mathis.** Evidence of an impaired neuroimmune pathway in autoimmune-associated hypertension. *FASEB,* Boston, 2015.

14) **KW Mathis**. Cholinergic agonists protect from the development of hypertension during chronic inflammatory disease. *Submitted: High Blood Pressure Research Council*, San Francisco, CA 2014.

15) M Syed, JP Ball, **KW Mathis**, M Hall, MJ Ryan ME Rothenberg, DG Romero. MicroRNA-21 ablation exacerbates aldosterone-mediated cardiac inflammation, fibrosis and hypertrophy. *Submitted: High Blood Pressure Research Council*, San Francisco, CA 2014.

16) K Wallace, **KW Mathis**, T Bowles, R Morris. Rats with hypertension, Hemolysis Elevated Liver Enzymes and Low Platelets (HELLP) have increased placental and circulating FASL. (LB713) *FASEB*, San Diego, CA 2014.

17) **KW Mathis**. Stimulation of a neuroimmune pathway protects from hypertension. (860.22) *FASEB*, San Diego, CA 2014.

18) **KW Mathis**. Nicotine reduces blood pressure in mouse model of systemic lupus erythematosus *FASEB.* 2013;27:1116.2.

19) **KW Mathis**, K Wallace, B LaMarca, MJ Ryan. Humoral immune system activation promotes the development of hypertension. *FASEB.* 2013;27:906.4

20) EL Gilbert, **KW Mathis**, MJ Ryan. 17β-estradiol attenuates renal TNFα and the progression of hypertension in mice with systemic lupus erythematosus. (904.4) *FASEB*, Boston, MA 2013.

21) **KW Mathis**, K Wallace, KL Wasson, CW Masterson, B LaMarca, MJ Ryan. T cells promote the progression of hypertension and renal injury during systemic lupus erythematosus. *Hypertension.* 2012;60:A174.

22) EL Gilbert, **KW Mathis**, M Venegas-Pont, and MJ Ryan. Disparate temporal regulation of blood pressure by estrogens during systemic lupus erythematosus. *Hypertension.* 2012;60:A10.

23) **KW Mathis**, KL Wasson, CW Masterson, MJ Ryan. T lymphocytes promote autoimmune-associated hypertension. (879.2) *FASEB,* San Diego, CA, 2012.

24) EL Gilbert, M Venegas-Pont, **KW Mathis**, KL Wasson, MJ Ryan. Estrogen protects against hypertension during autoimmune-mediated hypertension. (880.3) *FASEB,* San Diego, CA, 2012.

25) **KW Mathis**, M Venegas-Pont, CW Masterson, KL Wasson, MJ Ryan. Hypertension in mice with the chronic inflammatory disease systemic lupus erythematosus is not salt-sensitive. 2011 APS Conference: Physiology of Cardiovascular Diseases: Gender Disparities. *The Physiologist.* 2011;54(6). Jackson, MS, October 2011.

26) **KW Mathis**, M Venegas-Pont, CW Masterson, WH Ray, KL Wasson, MJ Ryan. Oxidative stress promotes hypertension and renal injury during the chronic inflammatory disease systemic lupus erythematosus. High Blood Pressure Council, Orlando, FL. (P238) High Blood Pressure Council, Orlando, FL, September 2011.

27) M Venegas-Pont, **KW Mathis**, CW Masterson, WH Ray, AR Jones, P Glover and MJ Ryan. Antioxidant treatment lowers blood pressure and improves renal injury in a mouse model of systemic lupus erythematosus. FASEB, Washington, DC, 2011.

28) **KW Mathis,** M Venegas-Pont, WH Ray, CW Masterson, T Dwyer, MJ Ryan. Renal nerves contribute to renal injury, but not hypertension, during chronic inflammatory disease. FASEB, Washington, DC, 2011.

29) **KW Mathis,** M Venegas-Pont, WH Ray, T Dwyer, MJ Ryan. Renal denervation reduces albuminuria independently of arterial pressure in Systemic Lupus Erythematosus. (P468) High Blood Pressure Council, Washington, DC, October 2010.

30) **KW Mathis,** AM Whitaker, PE Molina. Acetylcholinesterase inhibitor improves hemodynamic counteregulation and survival from severe hemorrhagic shock during acute alcohol intoxication. Research Society of Alcoholism. *Alcoholism: Clinical and Experimental Research.* 2009;33(6S): 212A.

31) **KW Mathis** and PE Molina. Acetylcholinesterase inhibitor improves survival from hemorrhage in rodents. FASEB, New Orleans, LA, April 2009.

32) **KW Mathis** and PE Molina. Alcohol-induced hemodynamic instability during hemorrhagic shock is reversed by acetylcholinesterase inhibitor. *Alcoholism: Clinical and Experimental Research.* 2008;32(6S):30A. Washington, DC, July 2008.

33) **KW Mathis** and PE Molina. Central neostigmine administration reverses alcohol- and hemorrhage-induced hypotension. (1227.9) FASEB, San Diego, CA, April 2008.

34) **KW Mathis,** AM Whitaker, and PE Molina. Effective mechanisms in restoring blood pressure following hemorrhage. (1227.16) FASEB, San Diego, CA, April 2008.

35) **KW Mathis** and PE Molina. Central choline-mediated sympathetic outflow does not attenuate hypotensive response to blood loss in acute alcohol-intoxicated rodents. Research Society on Alcoholism. *Alcoholism: Clinical and Experimental Research.* 2007;31(6S):98A. Chicago, IL, July 2007.

36) **K Mathis** and P Molina. Transient sympathetic nervous system activation does not alter early tissue inflammatory responses to hemorrhagic shock. *Shock.* 2007;27(S1): 37 (P40) Baltimore, MD, June 2007.

37) **KW Mathis**, P Greiffenstein, C Vande Stouwe, PE Molina. Noradrenergic modulation of systemic response to infection. Society on Neuroimmune Pharmacology. Salt Lake City Utah, April 2007.

38) **KW Mathis** and PE Molina. Short-term central activation of descending sympathetic outflow does not restore alcohol-induced hemodynamic instability during hemorrhagic shock. (914.9) FASEB, Washington, DC, April 2007.

39) **KW Mathis**, Z Zhang, P Greiffenstein, PE Molina. Acute alcohol intoxication does not modulate cardiovascular and neuroendocrine response to immobilization stress. *Alcoholism: Clinical and Experimental Research.* 2006;30(6S1):74A. Baltimore, MD, June 2006.

40) PE Molina, C Vande Stouwe, **KW Mathis**, P Greiffenstein. Contribution of soft tissue trauma to pro-inflammatory response following trauma/hemorrhage. Shock. 2006;25(S1): 1-98. (P199) Broomfield, CO, June 2006.

41) **KW Mathis**, K Zambell, J Olubadewo, PE Molina. Alcohol binge suppresses early lung TNF expression following trauma and hemorrhagic shock. FASEB, San Francisco, CA, April 2006.

42) **KC Williams**, J Olubadewo, J Varela, J Carnel, C Vande Stowe, and P Molina. Short-term moderate alcohol intoxication impairs hemodynamic and immune response to hemorrhagic shock. (685.8) FASEB, San Diego, CA, April 2005.

PRESENTATIONS

INTERNATIONAL INVITED TALKS

1) Invited Lecturer, "Primer on Experimental Approaches to investigate Cardiovascular Physiology." 2nd Pan-American Congress of Physiological Sciences Congress, Havana, Cuba, May 2019.

2) Invited Speaker, "Nerve-to-spleen pathway is critical in the development of hypertension in the setting of chronic inflammatory disease." Physiological Society, Cardiff, Wales, UK, 2015.

NATIONAL INVITED TALKS

3) Invited Session Chair, Sex Differences in Immune System, 2021 APS Sex Differences Conference, Gulfport, MS, September 2021.

4) Invited Speaker, UNT (main campus) Department of Biomedical Engineering, Fall 2020

5) Invited Virtual Speaker, the HOT Summer Seminar Series 2020, LSUHSC Department of Physiology, July 2020.

6) Invited Speaker, ASPET/APS Joint Presidential Symposium Series, "Autoimmunity, Inflammation and Hypertension", Experimental Biology, April 2020. (Cancelled due to COVID-19)

7) Invited Chair/Moderator, APS/ASN Basic Research Forum for Emerging Kidney, Washington, DC, November 2019. (Cancelled due to family emergency)

8) Invited Speaker, "Dissecting Neuroimmune Mechanisms that Regulate Chronic Renal Inflammation", University of Nebraska Medical Center Department of Cellular and Integrative Physiology, Omaha, Nebraska, November 2019.

9) Invited Speaker, "Sex Differences in the Development of Autoimmune-Associated Hypertension" Council on Hypertension, New Orleans, September 2019.

10) Invited Speaker, "Disruption of Splenic Nerve-to-Spleen Neurotransmission Worsens Disease Outcome in a Murine Model of Systemic Lupus Erythematosus", Experimental Biology, Orlando, FL, April 2019.

11) Invited Speaker, "Neuroimmune Mechanisms Involved in Autoimmune-Induced Hypertension and Renal Injury." LSUHSC Department of Physiology, December 2018.

12) Invited Speaker, Neuroimmune Pathways Affecting Hypertension in Autoimmune Diseases, Getting on the Nerves: Mechanisms of Hypertension, American Society of Nephrology, San Diego, October, 2018 (Declined due to maternity leave)

13) Invited Speaker, "Effects of vagus nerve stimulation in a murine model of systemic lupus erythematosus." APS Water and Electrolyte Homeostasis Data Diuresis, April 2018.

14) Invited Speaker, "Broken Neuro-Immune Communication Exacerbates Autoimmune-Induced Hypertension and Renal Injury." Carl V. Gisolfi Seminar Series, Department of Health and Human Physiology, University of Iowa, September 2017.

15) Invited Speaker, "Nerve-to-spleen pathway is critical in the development of hypertension in the setting of chronic inflammatory disease." FASEB Summer Research Conference, Saxtons River, VT, July 2016.

16) Invited Speaker, "Neuroimmune pathway critical in the development of hypertension." Experimental Biology, NCAR Section of the American Physiological Society Featured Topic: Neural Control of Inflammation-Mediated Hypertension, San Diego, CA 2016.

17) Table Discussion Leader, "Interviewing Skills", The American Physiological Society Minority Travel Fellows Networking Breakfast, March 2015.

18) Discussion Leader, "Networking in Physiology", ABRCMS (San Antonio), November 2014.

19) Stimulation of a neuroimmune pathway protects from hypertension. Featured Topic: Physiology and Pathophysiology. Sponsored by the American Physiological Society Water and Electrolyte Section. San Diego, CA, April 2014.

20) Role of the immune system in the pathogenesis of hypertension. Department of Pharmacology, Tulane University, New Orleans, LA, January 2014.

21) Mechanisms of hypertension: Role of the immune system. Department of Physiology, LSU Health Sciences Center, New Orleans, LA, September 2013.

22) Activation of the cholinergic anti-inflammatory pathway prevents the development of hypertension and renal injury during chronic inflammatory disease. International Society of Hypertension (ISH): 3rd ISH New Investigators' Symposium. New Orleans, LA, September 2013.

23) Mechanisms of hypertension in a mouse model of systemic lupus erythematosus. Department of Integrative Physiology, University of North Texas Health Sciences Center, Fort Worth, TX, September 2013.

24) Mechanisms of hypertension in a mouse model of systemic lupus erythematosus. Department of Physiology, University of South Alabama, Mobile, AL, July 2013.

25) Humoral immune system activation promotes the development of hypertension. Featured Topic: Mechanisms of Hypertension. Sponsored by the American Physiological Society Water and Electrolyte Section. Boston, MA, April 2013.

26) Mechanisms of hypertension in a mouse model of systemic lupus erythematosus. William Carey University College of Medicine, Hattiesburg, MS, January 2013.

27) Autoimmunity and hypertension. Young Investigator Symposium (American Society of Nephrology). Sponsored by the American Heart Association-Council on the Kidney in Cardiovascular Disease (KCVD). San Diego, CA, October 2012.

28) T lymphocytes promote autoimmune-associated hypertension. Featured Topic: Immune Cells. Sponsored by the American Physiological Society Water and Electrolyte Section. San Diego, CA, April 2012.

29) Renal nerves contribute to renal injury, but not hypertension, during chronic inflammation. Featured Topic: Renal Nerves and Their Role in Cardiovascular Disease. Sponsored by American Physiological Society Neural Control and Autonomic Regulation Section. Washington, DC, April 2011.

30) Acetylcholinesterase inhibitor improves counteregulation and survival from severe blood loss during acute alcohol intoxication. Gordis Finalist Oral Competition, Research Society on Alcoholism, San Diego, CA, June 2009.

31) Panel Guest, American Physiological Society Experimental Biology High School Teacher/Student Workshop, New Orleans, LA, April 2009.

32) Physiologist-in-Residence, American Physiological Society Science Teacher Forum, Warrenton, VA, July 2008.

33) Panel Guest, LSUHSC Information & Recruitment Session, Southern University Baton Rouge, March 2008.

34) Central manipulation of the sympathetic nervous system during hemorrhagic shock in the alcohol-intoxicated host. NIAAA Trainee Workshop, Indianapolis, IN, September 2007.

35) Alcohol-induced hemodynamic instability during hemorrhagic shock is reversed by acetylcholinesterase inhibitor. Research Society on Alcoholism Satellite Meeting, Washington, DC, June 2007.

36) Central choline-mediated sympathetic outflow does not attenuate the hypotensive response to blood loss in acute alcohol-intoxicated rodents. Alcohol and Trauma 2007, Shock Society Satellite Meeting, Baltimore, MD, June 2007.

37) Presenter, 21st Annual College of Science Symposium, Southern University, Baton Rouge, LA, March 2007.

38) Panel Guest, Graduate School Informational, Black Graduate and Professional Student Association, LSU, Baton Rouge, LA, November 2005.

39) Short-term moderate alcohol intoxication impairs hemodynamic and immune response to hemorrhagic shock. Alcohol and Immunology Research Interest Group, Toronto, Canada, October, 2004.

LOCAL INVITED TALKS

40) Invited Speaker, UNTHSC Department of Pharmacology and Neuroscience, Fall 2020

41) Invited Speaker, Women's Brain and Cardiovascular Health Conference, Department of Physiology and Anatomy, UNTHSC, January, 2020.

42) Invited Speaker, "Novel Neuroimmune Interactions Regulate Inflammation in Autoimmune-Induced Hypertension." UNTHSC Microbiology, Immunology and Genetics, November 2017.

43) Invited Speaker, "Academic Biomedical Research", UNTHSC Camp Cardiac, July 2017.

44) Professional Development Seminar, "Navigating a Career in Science and Academia", SACNAS at UNTHSC, March 2015.

45) Role Model Speaker for Summer Undergraduates, UNTHSC Center for Diversity and International Programs, July 2014.

46) Speaker, UMMC/Mississippi Valley State University Mini Med School: UMMC Research Lab Experience, Jackson, MS, May 2014.

47) Panel Guest, "Insights as an American Heart Association Reviewer", UMMC Department of Physiology, Jackson, MS, April 2014.

48) Panel Guest, Graduate School Informational on "Applying and Interviewing for Faculty Positions", UMMC School for Graduate Studies in the Health Sciences/Office for Postdoctoral Studies, Jackson, MS, April 2014.

49) Hypertension in mice with the chronic inflammatory disease systemic lupus erythematosus is not salt-sensitive. 2011 APS Conference: Physiology of Cardiovascular Diseases: Gender Disparities. Jackson, MS, October 2011.

50) Acute alcohol intoxication impairs counteregulatory responses during hemorrhagic shock, Graduate Research Day, LSU Health Sciences Center, April 2007.

OTHER PRESENTATIONS

51) Career Day, Texas Elementary School of Arts, Edgecliff, TX, April 2019

52) Career Day, OD Wyatt High School, Fort Worth, TX, March 2019

53) Career Day, Dallas Park Elementary School, Fort Worth, TX, March 2019.

54) Career Day, Dallas Park Elementary School, Fort Worth, TX, February 2018.

55) Mechanisms of hypertension: Role of the immune system. Department of Pharmacology and Toxicology, University of Mississippi Medical Center, Jackson, MS, September 2013.

56) Neuro-immune interactions in the development of hypertension and renal injury. Department of Physiology and Biophysics, University of Mississippi Medical Center, Jackson, MS, November 2013.

57) Mechanisms of hypertension in a mouse model of systemic lupus erythematosus. Department of Physiology and Biophysics, University of Mississippi Medical Center, Jackson, MS, December 2012.

58) Is there a role for renal sympathetic nerves in hypertension and renal injury during chronic inflammatory disease? Department of Physiology and Biophysics, University of Mississippi Medical Center, Jackson, MS, February 2011.

59) Central targets for improved counter-regulation to hemorrhage during acute alcohol intoxication. Final Dissertation Exam, Department of Physiology, LSUHSC, New Orleans, LA, April 2009.

60) Determining mechanisms involved in impaired counter-regulatory responses to hemorrhagic shock during alcohol-intoxication. Oral Preliminary Exam, Department of Physiology, LSUHSC, New Orleans, LA, June 2008.

61) The physiology of obstructive sleep apnea. Oral Qualifying Exam, Department of Physiology, LSUHSC, New Orleans, LA, October 2006.

62) Impact of alcohol on the response to hemorrhagic shock: Differential effects of dose and duration of intoxication. Thesis Defense, Alcohol Research Center, LSUHSC, New Orleans, LA, May 2005.

63) Alcohol and trauma. Department of Physiology, LSUHSC, New Orleans, LA, November 2004.

RESEARCH FUNDING

ACTIVE

Research Kickstart Program—Phase I 07/2020
UNTHSC-Division of Research and Innovation
Title: Control of Renal Inflammation in Hypertension
Description: Intramural award to replenish lost lab resources during COVID-19

Mentored K01 to Promote Faculty Diversity (1K01HL139859) 01/2018-12/2022
National Institutes of Health (NHLBI)
Title: Neuroimmune Mechanisms Involved in the Pathogenesis of Hypertension and Renal Injury
Description: PI; Competitive mentored award to provide protected time for junior minority investigators.

Novel Disease Grant (550778) 03/01/2018—02/28/2021
Lupus Research Alliance
Title: Targeting Nicotinic Receptors to Reduce Inflammation Associated with SLE
Description: PI; grant to study novel mechanisms of lupus disease

COMPLETED

Intramural Research Honors Practicum 06/2017
UNTHSC-TCOM
Title: Neuroimmune control of renal inflammation in lupus hypertension
Description: For: Shyam Vedantam

Predoctoral Fellowship for Grace Pham (16PRE29910012) 07/2016-06/2018
American Heart Association
Title: The contribution of vagal tone to hypothalamic-pituitary-adrenal axis activity in SLE-mediated hypertension
Description: Competitive predoctoral fellowship

Intramural Research Honors Practicum 10/2015
UNTHSC-TCOM
Title: Renal and Hypertension Outcomes Following Vagal Nerve Stimulation in Mice with Systemic Lupus Erythematosus
Description: For: Charles Maloy

Scientist Development Grant (14SDG18320033) 1/2014-6/2018
American Heart Association
Title: The role of the cholinergic anti-inflammatory pathway in renal function and hypertension
Description: Competitive independent award for young investigators

General Start-Up Fund 06/2014-05/2017
UNT Health Sciences Center
Description: Funds granted by the institution upon hiring

Institute for Cardiovascular and Metabolic Disease Seed Grant 07/2016-08/2017
UNT Health Science Center
Title: Impaired neuroimmune mechanisms in lupus hypertension
Description: Competitive grant to advance and accelerate the research programs of UNTHSC faculty within the Institute for Cardiovascular and Metabolic Disease

Intramural Seed Grant Program 03/2015-08/2016
UNT Health Science Center, Division of Research & Innovation
Title: Ultrasound as an Alternative Therapeutic Option for Lupus
Description: Competitive grant to advance and accelerate the research programs of UNTHSC faculty

Postdoctoral Fellowship (1F32HL114272-01A1) 2/2013-12/2013
National Institutes of Health
Title: The Role of T Lymphocytes in Hypertension during Chronic Inflammatory Disease
Description: Competitive postdoctoral fellowship

Postdoctoral Fellowship (2T32HL105324-03) 09/2012-01/2013
Hypertension and Cardiorenal Diseases Research Training Program (University of Mississippi Medical Center)
Description: Departmental training grant

Postdoctoral Fellowship (POST4350019) 07/2010-06/2012
American Heart Association
Title: The Role of Renal Sympathetic Nerves in Lupus Hypertension
Description: Competitive postdoctoral fellowship

Minority Supplement Award (3R01HL085907-04S1) 04/2010-06/2010
National Institutes of Health
Description: Supplement to mentor's NIH RO1

Merck/Porter Physiology Fellow 08/2008-05/2009
American Physiological Society
Description: Competitive predoctoral fellowship; highest scored

Predoctoral Fellowship (5T32AA007577-09) 09/2005-08/2008
Biomedical Alcohol Research Training Program (LSU Health Sciences Center)
Description: Departmental training grant

REFERENCES

1) Jonathan Tune, PhD (current chair)
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   UNT Health Science Center
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2) Steve Mifflin, PhD (past chair)
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3) Michael Ryan, PhD (postdoc advisor)
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