

Curriculum Vitae

Michael James Ryan

Work: *University of Mississippi
School of Medicine
Department of Physiology and Biophysics
2500 North State Street
Jackson, MS 39216-4505
Phone: (601) 984 1842
Fax: (601) 984 1817
Email: mjryan@umc.edu*

Home: *308 Woodlands Green Place
Brandon, MS 39047
Home: (601) 919 1878
Mobile:(601) 826 1598*

Current Positions: **Professor, Physiology and Biophysics**
University of Mississippi Medical Center

Program Director
Physiology & Biophysics Graduate Program

Program Director
Masters of Biomedical Sciences Program

Associate Dean for Student Affairs
University of Mississippi Medical Center
School of Graduate Studies in the Health Sciences

Research Health Scientist, Research Service
G.V. (Sonny) Montgomery Veterans Affairs Medical Center

Education:

May 1994 Cortland College, Cortland, NY 13045
B.S., Biological Sciences, *Cum Laude*

August 1999 University at Buffalo, Buffalo, NY 14214
Ph.D., Physiology and Biophysics, *with distinction*

Honors and Awards:

1993 *Beta Beta Beta*, National Biological Honor Society Member, Cortland College Chapter.
1995 American Society of Gravitational and Space Biology Student Poster Competition, Second Place Award
1996 SUNY Buffalo Chapter Sigma Xi Student Poster Competition Second Place Award
1999 Proctor and Gamble Professional Opportunity Award (Cardiovascular section, Sponsored by the American Physiological Society)

- 1999 Dissertation entitled “Cellular and molecular regulation of renin gene transcription by mechanical forces.” Awarded with distinction
- 2001 Caroline Tum Suden, Frances A. Hellebrandt Professional Opportunity Award (Sponsored by the American Physiological Society)
- 2002 Merck Young Investigator Award (sponsored by the American Heart Association, Council for High Blood Pressure Research)
- 2003 Inter-American Society of Hypertension/National Heart Lung and Blood Institute Travel Award
- 2005 Fellow of the American Heart Association, Council for High Blood Pressure Research
- 2007 Excellence in Research Award, University of Mississippi Medical Center, Bronze Level
- 2007 FASEB Young Investigator Travel Award, Summer Research Conference on “Renal Hemodynamics: Biomolecular Control Mechanisms Integrating Vascular and Tubular Function.” Saxtons River, VT.
- 2008 Excellence in Research Award, University of Mississippi Medical Center, Gold Level
- 2008 Water and Electrolyte Homeostasis New Investigator Award (Sponsored by the American Physiological Society). Experimental Biology. San Diego, CA.
- 2011 American Society of Hypertension Young Scholars Award
- 2011-2013 President, Gulf Coast Physiological Society
- 2013- Member, UMMC Norman C. Nelson Order of Teaching Excellence
- 2013 All-Star Faculty Award, Basic Science, UMMC Dental School (D1)

Academic Positions:

- 1993-1994 Cortland College, Department of Biological Sciences
Student Researcher
- 1994-1999 University at Buffalo, Department of Physiology and Biophysics
Graduate Research Assistant
- 1999-2004 University of Iowa, Department of Internal Medicine
Post-Doctoral Fellow
- 2004-2009 University of Mississippi Medical Center, Department of Physiology & Biophysics
Assistant Professor (tenure track)
- 2009-2016 University of Mississippi Medical Center, Department of Physiology & Biophysics
Associate Professor (with tenure)
- 2012- Director, UMMC School of Graduate Studies Discovery U Programs
- 2014- Director, UMMC Graduate Program in Physiology & Biophysics
- 2014- Associate Dean for Student Affairs, UMMC School of Graduate Studies
- 2015- Research Health Scientist, Research Service
G.V. (Sonny) Montgomery Veterans Affairs Medical Center
- 2016- University of Mississippi Medical Center, Department of Physiology & Biophysics
Professor
- 2017- Director, UMMC Master of Biomedical Sciences Program

Professional Affiliations:

- 1995-1999 American Society of Gravitational and Space Biology
- 1998- American Physiological Society

2001-2008 American Association for the Advancement of Science
 2005- American Heart Association
 2005- Gulf Coast Physiological Society
 2015- Biochemical Society

Funding (Active):

2015-2019 Veteran's Affairs, Merit Award (BX002604)
"Renal Mechanisms of Hypertension in Autoimmune Diseases"
Direct Costs: \$890,822
Role: Principle Investigator

2014-2019 NIH, National Heart Lung and Blood Institute (R25 HL121042-01)
"Mississippi Diversity in Hypertension and Cardiorenal Researchers Program"
Direct Costs: \$396,000
Role: Principle Investigator

2014-2019 NIH/P01, National Heart Lung and Blood Institute (P01 HL051971)
"Cardiovascular Dynamics and their Control"
Direct Costs: \$6,714,864 (Hall, PI)
Role: Investigator

2016-2021 NIH/U54, National Institute for General Medicine (U54 GM115428)
"Mississippi Center for Clinical and Translational Research"
Direct Costs: \$13,558,255 (Wilson, PI)
Role: Core leader

2017-2018 University of Mississippi Medical Center, Intramural Research Support Award.
"Placental Ischemia, Hypertension and Hemodynamics"
Direct Costs: \$30,000
Role: Principle Investigator

2017-2021 NIH/R01, National Heart Lung and Blood Institute (R01 HL136684-A0)
"Placental Ischemia, Hypertension and Hemodynamics"
Direct Costs: \$1,145,594
Role: Principle Investigator

Funding (Pending):

2017-2022 NIH/P01, National Heart Lung and Blood Institute (P01 HL137624)
"Preeclampsia: Pathophysiological Mechanisms and Therapeutic Options"
Direct Costs: \$6,930,050 (Granger, PI)
Role: Project 2 Principle Investigator

Funding (Completed):

1998 Mark Diamond Research Fellowship (Sponsored by SUNY Buffalo Graduate Association)
"Effect of mechanical stress on clonal kidney juxtaglomerular cells"
Direct Costs: \$5,000
Role: Principle Investigator

1999 University of Iowa Kidney Disease, Hypertension and Cell Biology Institutional Research Fellowship.
"Physiological Function of Vascular Ang-II Receptors in Blood Pressure Regulation and Hypertension"
Direct Costs: \$28,000
Role: Postdoctoral fellowship

- 2000 American Heart Association Postdoctoral Fellowship (0020625Z). “*Physiological Function of Vascular Ang-II Receptors in Blood Pressure Regulation and Hypertension*”
Direct Costs: \$56,000
Role: Postdoctoral fellowship
- 2001-2003 National Research Service Award (1 F32 HL10425-01). “*Vascular AT1a receptor role in blood pressure control*”
Direct Costs: \$109,776
Role: Postdoctoral fellowship
- 2004-2005 University of Mississippi Medical Center, Intramural Research Support Award. “*Cardiovascular and Renal Dysfunction During Autoimmune Associated Inflammation*”
Direct Costs: \$15,000
Role: Principle Investigator
- 2004-2006 American Heart Association, Beginning Grant-In-Aid (0460046Z). “*Differential contribution of AT1a and AT1b receptors to vascular reactivity and angiotensin II induced vascular dysfunction*”
Direct Costs: \$150,000
Role: Principle Investigator
- 2006-2007 American Heart Association, Scientist Development Grant (0630089N) “*Blood Pressure, Renal Hemodynamics, and Inflammation*”
Direct Costs: \$260,000
Role: Principle Investigator
- 2007-2011 NIH, National Heart Lung and Blood Institute (2R01HL069194-05A1) “*Gender and susceptibility to kidney damage in high BP*”
Direct Costs: \$1,250,000 (PI, J. Reckelhoff)
Role: Collaborating Investigator
- 2007-2011 NIH, National Heart Lung and Blood Institute (1R01HL086996-01A1) “*Vascular Mechanosensor*”
Direct Costs: \$1,250,000 (PI, Drummond)
Role: Collaborating Investigator
- 2009-2011 NIH, National Heart Lung and Blood Institute (3R01HL085907-03S1) American Recovery and Reinvestment Act of 2009, Supplement
Direct Costs: \$200,910
Role: Principle Investigator
- 2009-2011 NIH, National Heart Lung and Blood Institute (3R01HL085907-04S1) Minority Supplement for HL085907
Direct Costs: \$82,695
Role: Principle Investigator
- 2008-2012 NIH, National Heart Lung and Blood Institute (1K02HL092284-01) Career Development Award (K02 Award)
Direct Costs: \$288,408
Role: Principle Investigator
- 2012-2013 University of Mississippi Medical Center, Intramural Research Support Award. “*Temporal effects of estradiol on hypertension during systemic lupus erythematosus*”
Direct Costs: \$30,000
Role: Principle Investigator
- 2008-2013 NIH, National Heart Lung and Blood Institute (1P01HL051971) “*Cardiovascular Dynamics and their Control*”

- Direct Costs:** \$7,456,225 (PI, Hall)
Role: Investigator
- 2007-2013 NIH, National Heart Lung and Blood Institute (1R01HL085907-01 A2) *“Blood Pressure, Renal Hemodynamics, and Inflammation”*
Direct Costs: \$1,125,000
Role: Principle Investigator
- 2012-2015 American Heart Association, Grant-in-Aid (12GRNT12060203) *“Autoimmune origins of hypertension”*
Direct Costs: \$140,000
Role: Principle Investigator

Trainee Research Funding Awards:

- 2009-2010 Marcia Venegas Pont, M.D.
 American Heart Association Postdoctoral Fellowship (AHA2260874)
“Protective role for PPARgamma in hypertension associated with systemic lupus erythematosus”
- 2010-2012 Keisa W. Mathis, Ph.D.
 American Heart Association Postdoctoral Fellowship (AHA4350019)
“The role of the renal sympathetic nerves in lupus hypertension”
- 2012-2014 Keisa W. Mathis, Ph.D.
 Ruth L. Kirschstein National Research Service Awards (F32HL114272)
“The Role of T Lymphocytes in Hypertension During Chronic Inflammatory Disease”
- 2012-2014 Emily L. Gilbert, M.D., Ph.D.
 American Heart Association Predoctoral Fellowship (AHA12050150)
“Protective role of estrogen against hypertension in chronic inflammatory disease”
- 2017 Erin B. Taylor, Ph.D.
 American Heart Association Postdoctoral Fellowship (AHA33410862)
“Autoantibodies in the pathogenesis of hypertension in systemic lupus erythematosus”
- 2017 Erin B. Taylor, Ph.D.
 Ruth L. Kirschstein National Research Service Awards (F32HL137393)
“Autoantibodies in the pathogenesis of hypertension in systemic lupus erythematosus”
- 2017 Victoria L. Wolf, M.S.
 American Heart Association Predoctoral Fellowship (pending)
“Impact of immunosuppression on estrogens, hypertension, and the kidney during autoimmune disease”

Courses Taught:

- 2006 Lecturer, Ethics in Physiology Research Course
- 2007- Co-course coordinator, Molecular Physiology (Physio704)
- 2008-2014 Lecturer, Fundamental Physiology, Endocrinology & Calcium Metabolism (Physio725)
- 2008- Presenter, UMMC Summer Undergraduate Research Experience Program
- 2009- Lecturer, Circulatory Physiology (Physio717)
- 2010-2014 Lecturer, Professional Skills for Graduate Students and Postdoctoral Fellows (ID714)

2011-	Lecturer, Current Issues in Biomedical Research and Translational Medicine (ID727)
2013-	Lecturer, Medical Physiology, Reproductive Physiology (Physio701)
2014-	Lecturer, Medical Physiology, Endocrinology and Calcium Metabolism (Physio701)
2014-	Facilitator, Medical Physiology, Hypertension Problem Based Learning (Physio701)
2015-	Facilitator, Medical Physiology, Nephrology Problem Based Learning (Physio701)
2015-	Lecturer, Responsible Conduct of Research, Mentor/Mentee (ID709)
2015-	Lecturer, Professional Skills, Mentor/Mentee (ID714)
2016-	Lecturer, Renal Physiology (Physio 727)
2016-	Lecturer, Physiological Applications of Molecular Biology, PCR (Physio 744)
2016	Lecturer, Responsible Conduct in Research, Authorship/Publishing (ID709)
2017-	Lecturer, Grant and Scientific Communication (MSCI790)

Mentorship:Undergraduate Researchers

2004-2007	Gerald R. McLemore Jr., Researcher III, UMMC <u>Current Position:</u> Emergency Room resident, UMMC
2005	Steven Hendrix, Summer Research Intern, UMMC <u>Current Position:</u> Orthopedic resident, UMMC
2006-2009	Emily Gilbert, Summer Undergraduate Research Experience, UMMC
2007-2009	Porter Glover, Researcher II, UMMC <u>Current Position:</u> Surgery resident
2008-2009	Allison Vaughan, Researcher II, UMMC <u>Current Position:</u> Dermatology resident
2009-2011	Nicholas Stewart, Summer Undergraduate Research Experience, UMMC <u>Current Position:</u> Researcher, UMMC
2009-2011	Khush Aujla, Summer Undergraduate Research Experience, UMMC <u>Current Position:</u> Medical Student, UMMC
2010-2013	Taylor Coleman, Summer Undergraduate Research Experience, UMMC <u>Current Position:</u> Medical Student, UMMC <u>Awards/Recognition:</u> 2013 David Bruce Undergraduate Abstract Award, Experimental Biology, Boston, MA
2009-2010	William Heston Ray, Researcher II, UMMC <u>Current Position:</u> Medical sales.
2010-2011	C. Warren Masterson, Researcher II, UMMC <u>Current Position:</u> Anesthesiology resident, UMMC
2011-2012	Katie Wasson, Researcher II, UMMC <u>Current Position:</u> Dental Student, UMMC
2014-2015	Christian Bruno, Summer undergraduate research experience, UMMC <u>Current Position:</u> Researcher III, UMMC
2014-2015	Akil Strawder, Summer undergraduate research experience, UMMC <u>Awards/Recognition:</u> American Physiological Society Integrative & Organismal Physiology Undergraduate Summer Fellowship Award, 2015
2016-	Julius Chembo, Summer undergraduate research experience, UMMC
2016-	Breanna McNair, Base Pair Student, Murrah High School

Graduate Students

- 2009-2016 Emily Gilbert, Graduate Student, MD/PhD Program, UMMC
Current Position: Internal Medicine Resident, Mayo Clinic, FL
Awards/Recognition:
 2009-2016 Conerly Scholarship
 2012 UMMC Graduate School Research Day Top Poster Award
 2013 Caroline tum Suden Professional Opportunity Award, APS
 2015 Alpha Omega Alpha, Medical Honor Society
- 2015- Victoria Wolf, Graduate Student, UMMC Physiology
Awards/Recognition:
 2016 UMMC School of Graduate Studies Research Day Poster Award
- 2016- Elena Dent, Graduate Student, UMMC Physiology
Awards/Recognition:
 2017 American Society of Nephrology Kidney STARS program
- 2016- Subhi Talal Younes, MD/PhD Student, UMMC Physiology

Dissertation Committees

- 2006 Dissertation Committee Member, Benjamin Hodnet, UMMC Physiology
 2006 Dissertation Committee Member, Kimberly Gannon, UMMC Physiology
 2010 Dissertation Committee Member, Sydney Roberts, UMMC Physiology
 2011-2015 Dissertation Committee Member, Thomas Flanagan, UMMC Biochemistry
 2011-2013 Dissertation Committee Member, Hanna Broome, UMMC Biochemistry
 2010-2012 Dissertation Committee Member, Hunter Holthoff, UAMS Pharmacology
 2012-2015 Dissertation Committee Member, John Clemmer, UMMC Physiology
 2012-2014 Dissertation Committee Member, Jessica Gomolak, UMMC Pharmacology
 2012-2013 Dissertation Committee Member, Fouad Zouein, UMMC Pharmacology
 2012-2015 Dissertation Committee Member, Peter Mittwede, UMMC Physiology
 2014-2017 Dissertation Committee Member, Kasi McPherson, UMMC Pharmacology
 2014-2016 Dissertation Committee Member, Isioma Enwerem, UMMC Biochemistry
 2014-2016 Dissertation Committee Member, John Henry Dasinger, UMMC Physiology
 2015-2017 Dissertation Committee Member, Aaron Poole, UMMC Biochemistry
 2016- Dissertation Committee Member, Ashley Newsome, UMMC Physiology
 2016- Dissertation Committee Member, Gwendolyn Davis, UMMC Physiology
 2017- Dissertation Committee Member, Adrian Eddy, UMMC Physiology

Medical Students

- 2015- Taylor Coleman, UMMC Medical Scientist Research Program, summer research
Awards/Recognition
 2017 UMMC Medical Scientist Research Poster Award, 2nd Place
- 2016 Daniel McClung, UMMC Medical Scientist Research Program, summer research

Postdoctoral Fellows

- 2007-2010 Marcia Venegas Pont, Postdoctoral Fellow, UMMC
Current position: Assistant Professor of Medicine, Mayo Clinic, Rochester, MN
Awards/Recognition:
 2008 Finalist, APS Renal Section Amgen Postdoctoral Excellence in Research Award. Experimental Biology, San Diego, CA.
 2008 Caroline Tum Suden/Frances A. Hellebrandt Professional Opportunity Award. Experimental Biology, San Diego, CA
 2009 Finalist, APS Renal Section Amgen Postdoctoral Excellence in Research Award. Experimental Biology, New Orleans, LA.
 2009 1st Place, DSI-WEH Postdoctoral Fellow Award Symposium, EB, New Orleans, LA
- 2009-2014 Keisa Williams Mathis, Postdoctoral Fellow, UMMC
Current Position: Assistant Professor, University of North Texas Health Science Center (tenure track)
Awards/Recognition:
 2011 Caroline tum Suden Professional Opportunity Award, APS
 2011 FASEB/MARC Travel Award
 2011 ISH New Investigator Poster Symposium Award, HBPC
 2012 Finalist, DSI-WEH Postdoctoral Fellow Award, EB, San Diego, CA
 2012 FASEB/NIDDK Travel Award, EB, San Diego, CA
 2013 Finalist, DSI-WEH Postdoctoral Fellow Award, EB, Boston, MA
 2013 FASEB/NIDDK Travel Award, EB, Boston MA
 2014 1st Place, DSI-WEH Postdoctoral Fellow Award Symposium, EB, Boston, MA
- 2013-2014 Hanna Broome, Postdoctoral Fellow, UMMC
Current Position: Assistant Professor, Mississippi College (tenure track)
Awards/Recognition:
 2015 Finalist, DSI-WEH Postdoctoral Fellow Award, EB, San Diego, CA
- 2012-2013 J. Paula Warrington, Postdoctoral Fellow, UMMC
Current Position: Assistant Professor, UMMC Neurology
Awards/Recognition:
 2013 Caroline tum Suden Professional Opportunity Award, APS
 2013 Fleur L. Strand Professional Opportunity Award, APS
- 2015- Erin Taylor, Postdoctoral Fellow, University of Mississippi Medical Center
Awards/Recognition:
 2016 Finalist, DSI-WEH Postdoctoral Fellow Award, EB, San Diego, CA
 2016 1st Place, DSI-WEH Postdoctoral Fellow Award Symposium, EB, San Diego, CA
 2017 Caroline tum Suden Professional Opportunity Award, APS
 2017 UMMC Postdoctoral Fellow Publication Award
- 2015- Jeremy Duncan, Postdoctoral Fellow, UMMC

Other Mentorship

- 2008-2009 Mentor for American Physiological Society/NIDDK Minority Travel Award Program, Experimental Biology meetings
 Helmut Gottlieb, PhD, University of the Incarnate Word
 Justin Wilson, PhD, Howard University

2008-2009	Mentor to students and fellows of the American Physiology Society via Mentornet Jennifer Lucitti, PhD, Baylor College of Medicine Matthew Conoway, PhD candidate, University of Iowa
2014-	Mentoring on the Go, Experimental Biology, Water & Electrolyte Homeostasis Section Ryan Crislip (Georgia Regents University graduate student) Justine Abias (Medical College of Wisconsin) Ninitha Asirvatham (University of Minnesota)
2015-2016	American Heart Association, Council on Hypertension Advisory and Mentoring Program (CHAMP) mentor Analia Loria (University of Kentucky)
2016-2017	Mentor to High School Base Pair Student Breanna McNair (Murrah High School)
2016-2018	Member, postdoctoral mentoring team, Carmen De Miguel, University of Alabama Birmingham.

Editorial Service:Associate Editorships

2013	Guest Associate Editor, <i>Advances in Physiology Education</i>
2015-	Associate Editor, <i>Clinical Science</i>

Editorial Boards

2006-	Editorial Board Member, <i>Hypertension</i>
2007-	Editorial Board Member, <i>American Journal of Physiology: Regulatory, Integrative and Comparative Physiology</i>
2009-2013	Editorial Board Member, <i>Journal of Hypertension</i>
2010-	Editorial Board Member, <i>Frontiers in Vascular Physiology</i>
2011-2012	Editorial Board Member, <i>Gender Medicine</i>
2014-	Editorial Board Member, <i>Frontiers in Cardiovascular Medicine</i>

Journals Reviewed For

- *Advances in Physiology Education*
- *American Journal of Hypertension*
- *American Journal of Physiology: Gastrointestinal and Liver Physiology*
- *American Journal of Physiology: Renal Physiology*
- *American Journal of Physiology: Heart and Circulatory*
- *Annals of Medicine*
- *Antioxidants*
- *Antioxidants & Redox Signaling*
- *Biology of Sex Differences*
- *Cardiovascular Therapeutics*
- *Clinical Medicine Reviews in Vascular Health*
- *Clinical Science*
- *Experimental and Molecular Biology*
- *Experimental Physiology*
- *Human Reproduction*
- *Immunology*
- *Integrated Blood Pressure Control*
- *International Immunopharmacology*
- *International Journal of Hypertension*
- *International Journal of Molecular Sciences*
- *Journal of Inflammation Research*
- *Journal of Leukocyte Biology*
- *Journal of Pharmacological and Toxicological Methods*
- *Journal of Vascular Research*
- *Kidney International*

- *Lupus*
- *Microcirculation*
- *Molecular & Cellular Endocrinology*
- *Nature Reviews Cardiology*
- *Physiological genomics*
- *Physiological Reviews*
- *Physiology*
- *PLOS One*
- *Prostaglandins & Other Lipid Mediators*
- *Reproductive Sciences*
- *The Open Autoimmunity Journal*
- *The Journal of Rheumatology*
- *The FASEB Journal*

Professional Service:

Grant Review

2004	Ad Hoc Reviewer, National Science Foundation Grant Proposal
2005-2007	American Heart Association, Southern and Ohio Valley Peer Review Committee 3B. Cardiorenal Integrative Cardiac Biology/Regulation Vascular Biology & BP/Regulation
2008	American Heart Association, Region 2 Consortium. Cardiorenal Peer Review Committee.
2009	Reviewer, Louisiana State Board of Regents, EPSCOR Grant proposal
2009-2011	American Heart Association, Midwest Affiliate, Student Undergraduate Research Fellowship Peer Review Committee
2009	American Heart Association, Region 2 Consortium. Vascular Biology & Blood Pressure Peer Review Committee.
2009	Ad hoc Reviewer, Arthritis Research Campaign, research proposal on pulmonary hypertension during SLE.
2009	Ad hoc Reviewer, Special emphasis panel NIH, NHLBI Cell and Molecular Biology of the Kidney (CMBK).
2009-2010	Ad hoc reviewer, Wellcome Trust grant proposals
2010-2013	Co-Chair. American Heart Association, Region 2 Consortium. Vascular Biology & Blood Pressure Peer Review Committee
2012	Ad hoc Reviewer, Special emphasis panel NIH, NIDDK, Nephrology Research and Small Business Peer Review Committee
2012-2015	Reviewer, Department of Veteran's Affairs Joint Biomedical Laboratory Research and Development Services Scientific Merit Review Board, Panel for Nephrology
2013	Ad hoc Reviewer, ZRG DKUS-G(12)B, NIDDK, Nephrology Small Business Peer Review Committee
2013	Ad hoc Reviewer HLBP 21 1 Work group 021, NHLBI, Program Project Review
2013	Ad hoc Reviewer ZDK1 GRB-D J1, NIDDK, R03 review Small Grants for New Investigators to Promote Diversity in Health Related Research.
2014-2015	Chair. American Heart Association, Region 2 Consortium. Vascular Biology & Blood Pressure Peer Review Committee
2014	Ad hoc reviewer, Congressionally Directed Medical Research Program Lupus Peer Review Panel
2014	Ad hoc Reviewer, ZDK1 GRB-D J1, NIDDK, R03 review Small Grants for New Investigators to Promote Diversity in Health Related Research.
2016	Ad hoc Reviewer, Austrian Science Fund
2016-	Reviewer, American Heart Association, Region 2 Consortium. Vascular Biology & Blood Pressure Peer Review Committee
2016-	Reviewer, Georgetown-Howard Universities KL2 Training Program
2017	Ad hoc Reviewer 08 ZHL1 CCT-Q (C1) 1, NIH/NHLBI, Loan Repayment Program applications

- 2017 Ad hoc Reviewer ZHL1 CSR (M), NIH/NHLBI, R25 Diversity Program applications
- 2017 Ad hoc Reviewer ZHL1 CSR-M (F2) 1), NIH/NHLBI, R25 Diversity Program applications

Service to Professional and Government Organizations

- 2004 American Heart Association, Council For High Blood Pressure, Career Symposium Speaker
- 2005-2008 UMMC Councilor, Gulf Coast Physiological Society
- 2005 American Heart Association, Council For High Blood Pressure, Career Symposium Speaker
- 2007-2009 Porter Physiology Development Committee Member, American Physiological Society
- 2007-2011 Leadership Committee Member, Council For High Blood Pressure, Early Career Representative
- 2008- Abstract Reviewer, Council For High Blood Pressure Research, Annual Fall Meeting.
- 2008- Abstract Reviewer, American Heart Association Scientific Sessions
- 2009 David Bruce Award Undergraduate Research Poster Competition Judge. Experimental Biology, New Orleans, LA.
- 2010-2012 Education Committee Member, American Physiological Society
- 2008- Reviewer for the American Physiological Society Education Materials Archives
- 2010 Speaker, How to be a constructive reviewer. APS Symposium 284. Publish, not perish: How to survive the peer review process. Experimental Biology, 2010.
- 2010-2012 American Heart Association, Greater Southeast Affiliate Research Committee Member
- 2011 American Physiological Society Task Force to “Enhance opportunities for scientific interaction and exchange”
- 2011-2014 American Heart Association Committee on Scientific Sessions Program, Core 7: Vascular Disease: Biology and Clinical Science
- 2012 American Heart Association Science Classification Taskforce Commission
- 2012 American Physiological Society Online Writing and Reviewing for Scientific Journal Course Instructor
- 2013-2016 Animal Care & Experimentation Committee Member, American Physiological Society
- 2013-2014 Water & Electrolyte Homeostasis Section Steering Committee Member, Data Diuresis Coordinator
- 2013-2016 American Physiological Society Chapter Advisory Committee Representative for the Gulf Coast Physiology Chapter
- 2014-2017 Water & Electrolyte Homeostasis Section Secretary/Treasurer
- 2014 American Physiological Society Minority Networking Breakfast Facilitator, Experimental Biology
- 2014 American Heart Association, Meetings Summit representative for Hypertension Council
- 2014-2017 Advocacy Ambassador, American Heart Association Hypertension Council
- 2014 NIH/NHLBI working group member, “Salt in Health and Sickness: Building on the Current Scientific Evidence”
- 2015- American Physiological Society, Life Science Teach Resource Community Review Board

2017-2019 Science Policy Committee, American Physiological Society

Meetings or Sessions Chaired and/or Organized

- 2008 Session Moderator, “Renal Hemodynamics and Vascular Function”, 62nd Annual Council for High Blood Pressure Research. Atlanta, GA.
- 2008 Session Moderator, “Late Breaking I Poster Session”, 62nd Annual Council for High Blood Pressure Research. Atlanta, GA.
- 2008 Session Moderator, “Vascular Signaling and Hypertension”, Jackson Cardiovascular-Renal Meeting. Jackson, MS.
- 2009 Session Moderator, “Assessment of dynamic renal autoregulation: principles and applications”, Experimental Biology, New Orleans, LA.
- 2009 Organizer & Session Moderator of a Featured Topic on, “Role of Sex Steroids in Cardiovascular Physiology and Pathophysiology”, Experimental Biology, New Orleans, LA.
- 2009 Session Moderator, “Women and Heart Disease”, American Physiological Society Conference: Sex Steroids and Gender in Cardiovascular-Renal Physiology and Pathophysiology, Broomfield, CO
- 2009 Session Moderator, “Molecular and Cell Physiology”, 63rd Annual Council for High Blood Pressure Research, Chicago, IL.
- 2009 Session Moderator, “Experimental Models and New Approaches”, 63rd Annual Council for High Blood Pressure Research, Chicago, IL.
- 2010 Session Moderator, “Inflammatory processes in the kidney”, FASEB Summer Conference, Renal Hemodynamics: Mechanisms to Understand Disease, Saxtons River, VT
- 2010 Session Moderator, “Inflammation in cardiovascular and renal disease”, American Heart Association Scientific Sessions, Chicago, IL.
- 2010 Session Moderator, “Hot Topics in Obesity Research”, Inaugural Global Obesity Summit, Jackson, MS.
- 2011 Chair of Organizing Committee, Gulf Coast Physiology Society Chapter Meeting. Jackson, MS
- 2011 Category Chair, “Inflammation and Immunity”, 65th Annual Council for High Blood Pressure Research, Orlando, FL.
- 2011 Co-chair 2011 APS Conference, Physiology of cardiovascular disease: gender disparities, Jackson, MS.
- 2012-2013 Co-Chair and Organizer 2013 Hypertension Summer School
- 2012 Session Builder, “Hypertension: Novel Mechanisms and Experimental Targets”, American Heart Association Scientific Sessions, Los Angeles, CA.
- 2012 Poster Session Moderator, “Inflammation, Immunity and Cytokines”, 66th Annual Council for High Blood Pressure Research, Washington D.C.
- 2013 Co-chair, Symposium on, “Hypertension: from flies to humans”, Experimental Biology, Boston, MA.
- 2013 Organizer and Chair, American Physiological Society Refresher Course on “Immunology for the Non-Immunologist, Experimental Biology, Boston MA.
- 2013 AHA Scientific Sessions Builder, 719. Hypertension: Experimental.
- 2013 Session Moderator, “Pregnancy and Preeclampsia”, 67th Annual Council for High Blood Pressure Research, New Orleans, LA.
- 2014 Session Moderator, “Vascular Mechanisms”, International Society for the Study of Hypertension in Pregnancy, New Orleans, LA

- 2014-2015 Organizing committee member, University of Mississippi - UMMC Research Day, Oxford, MS
- 2015 Session Moderator, “Inflammation, Immunity and Cytokines/Oxidative Stress” 69th Annual Council for Hypertension, Washington DC.
- 2016 Session Chair: “CV Disease in Inflammatory and Autoimmune Disease” APS Conference, Inflammation, Immunity and Cardiovascular Disease, Westminster, CO
- 2016 Session Moderator, “Inflammation, Immunity and Cytokines” 70th Annual Council for Hypertension, Orlando, FL
- 2016-2018 Meeting co-organizer, American Physiological Society: Cardiovascular, renal and metabolic diseases: gender-specific implications for physiology

Departmental/Institutional Service:

- 2005-2007 American Heart Association, Heart Walk, Team Captain-Department of Physiology
- 2004- Member, UMMC Department of Physiology Graduate Faculty
- 2005-2013 National Boards in Physiology, examination proctor
- 2006 American Heart Association, Heart Walk, Steering Committee Member
- 2006-2009 Seminar Director, UMMC Department of Physiology
- 2007-2011 Member, UMMC Animal Care and Use Committee
- 2007 Abstract reviewer for UMMC School of Graduate Studies Research Day
- 2008-2014 Associate Director for UMMC Department of Physiology Graduate Program
- 2008- UMMC Graduate Student Honors Day Awards Committee
- 2008-2009 Blood Donor Recruitment Committee, Research Representative
- 2008- Member, UMMC School of Graduate Studies Curriculum Committee
- 2009-2013 UMMC Faculty Forward Task Force (in conjunction with the AAMC)
- 2010- Member, UMMC Graduate Council
- 2011- Intramural Research Support Program Review Committee
- 2012- Director, UMMC Discovery U program to promote graduate recruitment
- 2012- Organizer, UMMC Cardio-renal Research Center Grant Review Committee
- 2013 Speaker, K Award Writer Series, UMMC Office of Rural Health Disparities
- 2013- Chair, Organizing Committee for UMMC School of Graduate Studies Recruitment Day
- 2014- Mississippi Center for Obesity Research, COBRE small grants review committee
- 2014- Program Director, UMMC Department of Physiology Graduate Program
- 2014- UMMC Student Affairs Committee
- 2015-2016 Member, Ad hoc Committee for programmatic review of UMMC graduate programs
- 2016- Member, UMMC Workforce development scholarship committee
- 2016-2017 Member, UMMC Marketing committee
- 2017- Program Director, Masters of Biomedical Sciences
- 2017- Member, UMMC School of Medicine Curriculum Committee

Scientific Outreach Service:

- 2005- Lecturer, UMMC Department of Physiology Summer Research Internship Program
- 2008 Guest Speaker, Northwest Rankin Elementary School 5th Grade, “DNA”

2009-	PhUn Week event coordinator, local elementary and middle schools
2009-2012	American Physiological Society, Physiology Understanding (PhUn) Week national coordinator
2011-2014	Science Fair Judge, Northwest Rankin Elementary School
2012	American Physiological Society Chapter Activity Grant for undergraduate outreach
2012-	Director, UMMC Discovery U program to build K-12 and undergraduate research & outreach
2012-2014	Rankin County Schools, Health Sciences Academy Exhibitor for UMMC SGSHS
2012-	Guest Speaker, Clinton High School, Senior Advanced Placement Science, "Physiology: The Science of Medicine".
2012-2015	Organizer and facilitator for "Mad Scientist Day", Northwest Rankin Elementary School
2013-	PhUn Week event coordinator, Mississippi Children's Museum
2013	Guest Blogger, "Are we having PhUn yet? The value of outreach in science and education" APS Teaching Archives, K-12 Science Education blog
2014	Discovery U event coordinator, Laurel-Jones County Library System, Laurel, MS
2014	Discovery U event coordinator, Homeschool Association, Laurel, MS
2014	Mississippi Science Teachers Association Conference speaker "Discovering Career Paths in Biomedical Science"
2014-	Discovery U event coordinator, Mississippi Children's Museum

Lectures/Presentations:

InterAmerican Society of Hypertension. San Antonio, TX. "Altered Vascular Reactivity Following Angiotensin II Infusion Is Absent in AT1a Receptor Null Mice". April 30, 2003.

Albany Medical College, Center For Cardiovascular Sciences. Albany, NY. "PPAR γ Activation Ameliorates Vascular Dysfunction and Hypertension in Double Transgenic Mice". May, 2003. (*invited speaker*)

New York Medical College, Department of Pharmacology. Valhalla, NY. "PPAR γ Activation Ameliorates Vascular Dysfunction and Hypertension in Double Transgenic Mice". June, 2003. (*invited speaker*)

Wake Forest University, Department of Pathology. Winston-Salem, NC. "PPAR γ Activation Ameliorates Vascular Dysfunction and Hypertension in Double Transgenic Mice". August 12, 2003. (*invited speaker*)

University of Mississippi Medical Center, Department of Physiology (Faculty Interview). Jackson, MS. "PPAR γ Activation Ameliorates Vascular Dysfunction and Hypertension in Double Transgenic Mice". August 20, 2003. (*invited speaker*)

Experimental Biology, San Francisco, CA, Featured Topic - Sex Differences in Renal and Cardiovascular Disease. "Hypertension and Impaired Vessel Function in a Mouse Model of Systemic Lupus Erythematosus". April 4, 2006.

FASEB Summer Research Conference in Renal Hemodynamics. Saxtons River, VT. Hot Topics Presentation. "Mechanisms Leading to Hypertension in a Female Mouse Model of Systemic Lupus

Erythematosus” July 9, 2007.

Sex Steroids and Gender In Cardiovascular-Renal Physiology and Pathophysiology. Austin, TX. Sex Steroids And Metabolic Syndrome Symposium. “Metabolic Syndrome In A Mouse Model of Systemic Lupus Erythematosus.” August 10, 2007. (*invited speaker*)

Louisiana State University Health Science Center Department of Physiology and Tulane Medical School Department of Physiology, New Orleans, LA. “The Pathophysiology of Hypertension in a Mouse Model of Systemic Lupus Erythematosus”. August 30, 2007. (*invited speaker*)

Experimental Biology, San Diego, CA, WEH Young Investigator Award Lecture. “The Pathophysiology of Hypertension in Systemic Lupus Erythematosus”. April 6, 2008. (*invited speaker*)

Gulf Coast Physiology Society, LSU Health Science Center, New Orleans, LA. “PPARgamma as a Therapeutic Target for Hypertension and Renal Disease in Systemic Lupus Erythematosus”. April 17, 2009. (*invited speaker*)

Experimental Biology, New Orleans, LA. Featured Topic- Hypertension “PPARgamma as a Therapeutic Target for Hypertension and Renal Disease in Systemic Lupus Erythematosus”. April 18, 2009.

Sex Steroids and Gender In Cardiovascular-Renal Physiology and Pathophysiology. Broomfield, CO. Sex Steroids And Hypertension Symposium. “Does Estrogen Have a Role in Systemic Lupus Erythematosus Hypertension?” July 16, 2009. (*invited speaker*)

Medical College of Georgia, Vascular Biology Center, Augusta, GA. “Hypertension during Systemic Lupus Erythematosus: Mechanistic Insights” October 7, 2009. (*invited speaker*)

Experimental Biology, Anaheim, CA. Featured Topic- Sex Dependent Mechanisms in Cardiovascular and Renal Pathophysiology. “Reduced uterine perfusion in pregnant rats impairs cerebral vascular myogenic responses.” April 27, 2010.

FASEB Summer Research Conference in Renal Hemodynamics. Saxtons River, VT. “Mediators of Hypertension and Renal Damage in Lupus”. June 23, 2010. (*invited speaker*)

Inflammation, Immunity and Cardiovascular Disease. Westminster, CO. Hypertension, Renal Disease and Inflammation Symposium. TNF- α Promotes Hypertension and Renal Injury in the Chronic Inflammatory Disorder Systemic Lupus Erythematosus. August 27, 2010.

University of Nebraska Medical Center, Department of Genetics, Cell Biology & Anatomy, Omaha, NE. “Mechanisms of Hypertension During Chronic Inflammatory Disease.” October 20, 2010. (*invited speaker*)

American Heart Association Scientific Sessions, Chicago, IL. Inflammation in Cardiovascular and Renal Disease Symposium. “Inflammatory Cytokines in Chronic Renal Disease: A role for TNF- α in hypertension”, November 16, 2010.

University of Arkansas for Medical Sciences, Department of Pharmacology and Toxicology. Little Rock, AR. “Tumor necrosis factor-alpha contributes to the development of hypertension during chronic inflammatory disease.” November 19, 2010. (*invited speaker*)

New York Medical College, Department of Pharmacology. Valhalla, NY. “Mechanisms of Hypertension During Chronic Inflammatory Disease”. December 15, 2010. (*invited speaker*)

University at Buffalo, Department of Physiology & Biophysics. Buffalo, NY. “Autoimmune and Inflammatory Mechanisms of Hypertension”. October 20, 2011. (*invited speaker*)

Mississippi Academy of Sciences, Hattiesburg, MS. Plenary Lecture. “What to do with your science degree: It’s all academic?” February 23, 2012. (*invited speaker*)

University of California, Merced, Center of Excellence on Health Disparities. Merced, CA. New Paradigms in Hypertension Pathophysiology: Clinical Implications symposium. “Autoimmune Origins of Hypertension”. April 26, 2012. (*invited speaker*)

American Society of Hypertension. New York, NY. “Autoimmune Origins of Hypertension”. May 19, 2012.

Organization for the Society of Sex Differences, Weehawken, NJ. “Mechanisms responsible for hypertension and renal injury in a model of lupus erythematosus”. April 26, 2013. (*invited speaker*)

University of North Texas Health Science Center, Fort Worth, TX. “Autoimmunity: An underlying factor in the pathogenesis of hypertension.” June 13, 2013. (*invited speaker*)

FASEB Summer Research Conference in Renal Hemodynamics. Saxtons River, VT. “Lupus and renal inflammation”. July 3, 2013. (*invited speaker*)

Oklahoma University Health Science Center, Oklahoma City, OK. “Disparate temporal effect of estradiol on blood pressure during systemic lupus erythematosus.” November 26, 2013. (*invited speaker*)

Southern Salt, Water and Kidney Club, Sarasota, FL. “A role for B cells in the pathogenesis of hypertension and renal disease during systemic lupus erythematosus.” December 6, 2013.

National Heart Lung and Blood Institute, Bethesda, MD, “A link between systemic autoimmunity and hypertension”, May 29, 2014. (*invited speaker*)

Georgetown University, Washington DC, “Hypertension and renal disease during systemic lupus erythematosus: a complex role for estrogens”. May 30, 2014. (*invited speaker*)

Tulane University, New Orleans, LA, “Autoimmunity and the pathogenesis of hypertension”, September 26, 2014. (*invited speaker*)

Southern Salt, Water and Kidney Club, Sarasota, FL “Estrogens, Hypertension and Lupus” December 6, 2014.

Tox Talx, Mill Valley, CA, “The impact of placental ischemia on the brain” June 29, 2015 (*invited speaker*)

14th International Conference on Endothelin: Physiology, Pathophysiology and Therapeutics, Savannah, GA “Long-term high salt diet delays development of proteinuria in murine systemic lupus erythematosus (SLE)” September 3, 2015.

Society for Women's Health Research, Winston-Salem, NC "Estrogen regulation of the cardiovascular risk factor, hypertension, in systemic lupus" October, 2015 (*invited speaker*)

Cardiovascular, Renal and Metabolic Diseases: Physiology and Gender, Annapolis, MD. "Estrogens and Hypertension in Systemic Lupus Erythematosus" November, 2015 (*invited speaker*)

Augusta University, Augusta GA. "The impact of placental ischemia on the brain". May, 2016 (*invited speaker*)

FASEB Summer Research Conference, Renal Hemodynamics and Cardiovascular Function in Health and Disease. "Examining autoimmune disease to understand the pathogenesis of hypertension". Big Sky, MT. July 2016 (*invited speaker*)

Inflammation, Immunity and Cardiovascular Disease. Westminster, CO. "Inflammation in Lupus and CV Disease". August, 2016. (*invited speaker*)

International Society of Hypertension. Seoul, Korea. "Connective tissue disease and its association with arterial hypertension". September, 2016 (*invited speaker*)

Southern Salt, Water and Kidney Club, Sarasota, FL "Plasma cells and autoimmune associated hypertension" December, 2016.

Louisiana State University Health Science Center Department of Physiology, New Orleans, LA. "Autoimmunity: An underlying factor in the pathogenesis of hypertension." January, 2017 (*invited speaker*)

University of Alabama Birmingham, Birmingham, AL. "Autoimmunity: An underlying factor in the pathogenesis of hypertension." January, 2017 (*invited speaker*)

Tox Talx, Mill Valley, CA, "Placental ischemia and cerebral blood flow autoregulation" June 27, 2017 (*invited speaker*)

Publications:

Google Scholar Metrics: (updated May, 2017) *Total Citations:* 2624 *H-Index:* 26 *i10-Index:* 48

1. George, Eric M., Jennifer M. Sasser, Frank T. Spradley, Sydney R. Murphy, Heather A. Drummond, Babbette LaMarca, **Michael J. Ryan**, Joey P. Granger. 2017. Pathophysiology of Preeclampsia. *Comprehensive Physiology* (invited review in preparation)
2. Taylor, Erin B., Michelle Barati, David W. Powell, Michael J. Ryan. 2017. Plasma cell depletion attenuates hypertension in an experimental model of autoimmune disease. (under review, *Hypertension*)
3. Mathis, Keisa M., Erin B. Taylor, **Michael J. Ryan**. 2017. Anti-CD3 antibody therapy attenuates the progression of hypertension in female mice with systemic lupus erythematosus. *Pharmacological Research* pii: S1043-6618(16)30925-2

4. Taylor, Erin B., **Michael J. Ryan**. 2017. Immunosuppression with mycophenolate mofetil attenuates hypertension in an experimental model of autoimmune disease. *Journal of the American Heart Association* 6(3). pii: e005394. doi: 10.1161/JAHA.116.005394
5. **Ryan, Michael J.** 2016. Oxidative Stress- Call for Papers. *Clinical Science*. 131(2): 139-140
6. **Ryan, Michael J.** 2016. Connective tissue disease and its association with arterial hypertension. *Journal of Hypertension*. Suppl 1:e366
7. Oh, Young S., Lawrence J. Appel, Zorina S. Galis, David A. Hafler, Jiang He, Amanda L. Hernandez, Gina Joe, Ananth Karumanchi, Christine Maric-Bilkan, David Mattson, Nehal N. Mehta, Gwendolyn Randolph, **Michael J. Ryan**, Kathryn Sandberg, Jens Titze, Eser Tolulnay, Glenn Toney, and David G. Harrison. 2016. NHLBI Working Group on Salt in Human Health and Sickness: Building on the Current Scientific Evidence. *Hypertension* 68(2) 281-288.
8. **Ryan, Michael J.** 2016. "Slow"ing cardiovascular risk in type 2 diabetics by restricting dietary salt intake. *Hypertension* 67(6): 1124-1125.
9. **Ryan, Michael J.**, T. Taylor Coleman, Jennifer M. Sasser, Katarina M. Pittman, Michael W. Hankins, David E. Stec. 2016. Vascular smooth muscle specific deletion of the leptin receptor attenuates leptin-induced vascular dysfunction. *American Journal of Physiology, Regulatory and Integrative* 310(10):R960-R967.
10. Taylor, Erin, **Michael J. Ryan**. 2016. Understanding Mechanisms of Hypertension in Systemic Lupus Erythematosus. *Therapeutic Advances in Cardiovascular Disease*. (EPUB, March 15)
11. Warrington, Junie P., Heather A. Drummond, Joey P. Granger, **Michael J. Ryan**. 2015. Placental ischemia-induced increases in brain water content and cerebrovascular permeability: a role for TNF- α . *American Journal of Physiology, Regulatory and Integrative* 309(11):R1425-R1431.
12. Intapad, Suttira, Junie P. Warrington, Frank T. Spradley, Ana C. Palei, Heather A. Drummond, **Michael J. Ryan**, Joey P. Granger. 2014. Reduced uterine perfusion pressure induces hypertension in the pregnant mouse. *American Journal of Physiology, Regulatory and Integrative* 307(11):R1353-R1357 (Epub Oct 8, PMC4254941)
13. Gilbert, Emily L., **Michael J. Ryan**. 2014. Impact of early life ovariectomy on blood pressure and body composition in a female mouse model of systemic lupus erythematosus. *American Journal of Physiology, Regulatory and Integrative* 307(8):R990-R997 (Epub Aug 20, PMC4200381).
14. Warrington, Junie P., Fan Fan, Sydney R. Murphy, Richard J. Roman, Heather A. Drummond, Joey P. Granger, **Michael J. Ryan**. 2014. Placental ischemia in pregnant rats impairs cerebral blood flow autoregulation and increases blood-brain barrier permeability. *Physiological Reports* 2(8): pii e12134 (PMC4246592).
15. Gilbert, Emily L., **Michael J. Ryan**. 2014. Estrogen in cardiovascular disease during systemic lupus erythematosus. *Clinical Therapeutics* 36(12):1901-1912 (Epub Sep 6, PMID25194860).
16. Pollock, Jennifer S., **Michael J. Ryan**, Willis K. Samson, David P. Brooks. 2014. Water and Electrolyte Homeostasis Brings Balance to Physiology. *American Journal of Physiology, Regulatory and Integrative* 307(5):R481-R483 (Epub Jul 16, PMID25031231)

17. Mathis, Keisa W., Kedra Wallace, Elizabeth R. Flynn, Christine Maric, Babbette LaMarca, **Michael J. Ryan**. 2014. Preventing autoimmunity protects against the development of hypertension and renal injury. *Hypertension* 64(4):792-800 (Epub Jul 14 PMID25024282) (with accompanying “clinical implications”)
18. **Ryan, Michael J.** 2014. Following Faraday’s Footsteps: Getting Involved in Science Outreach. *The Physiologist*. 57(4): 176-179
19. Warrington, Junie P., Kayla Coleman, Courtney Skaggs, Peter A. Hosick, Eric M. George, David E. Stec, **Michael J. Ryan**, Joey P. Granger, Heather A. Drummond. 2014. Heme oxygenase promotes migration and beta epithelial Na⁺ channel expression in cytotrophoblasts and ischemic placentas. *American Journal of Physiology, Regulatory and Integrative* 306(9): R641-R646 (Epub, Feb 19 PMC4010664)
20. Mathis, Keisa W., Hanna J. Broome, **Michael J. Ryan**. 2014. Autoimmunity: an underlying factor in the pathogenesis of hypertension. *Current Hypertension Reports*. 16(4): 424 (PMID2453221).
21. Maric, Christine, Emily L. Gilbert, **Michael J. Ryan**. 2014. Impact of ovarian function on cardiovascular health in women: focus on hypertension. *International Journal of Women’s Health* 6:131-139.
22. Gilbert, Emily L., Keisa W. Mathis, **Michael J. Ryan**. 2013. 17 β -estradiol protects against the progression of hypertension during adulthood in a mouse model of systemic lupus erythematosus. *Hypertension* 63(3):616-623 [Epub, December 23], PMID24366082) (Editorial commentary on Gilbert et al *Hypertension* doi:10.1161/HYPERTENSIONAHA.113.02500).
23. **Ryan, Michael J.** 2013. *Immune Mechanisms of Hypertension*. Colloquium Series on Integrated Systems Physiology: From Molecule to Function to Disease. San Rafael (CA): Morgan & Claypool Life Sciences, October 1 ISBN-10: 1615045821.
24. Mathis, Keisa W., Marcia Venegas-Pont, Terry M. Dwyer, Jan Michael Williams, **Michael J. Ryan**. 2013. Hypertension in an experimental model of systemic lupus erythematosus occurs independently of the renal nerves. *American Journal of Physiology, Regulatory and Integrative* 305(7): R711-719 (EPUB August 7, PMID23926131).
25. Haase, Nadine, Florian Herse, Bastian Spallek, Hannelore Haase, Ingo Morano, Istvan A Szijarto, Ilonka Rohm, Atilla Yilmaz, Junie P. Warrington, **Michael J. Ryan**, Maik Gollash, Dominik N. Muller, Ralf Dechend, Gerd Wallukat. 2013. Amyloid β peptides activate α 1-adrenergic cardiovascular receptors. *Hypertension* 62(5):966-972 (EPUB September 3, PMID24001898).
26. Ying, Zhekang, Jussara M. doCarmo, Lusha Xiang, Alexandre A. da Silva, Minjie Chen, **Michael J. Ryan**, Michael Ostrowski, Michael Karin, Sanjay Rajagopalan, John E. Hall. 2013. Inhibitor κ B 2 is a myosin light chain kinase in vivo. *Circulation Research* 113:562-570. (Editorial commentary on Ying et al *Circ Res* 113:484-486).
27. **Ryan, Michael J.** 2013. Recent advances in Hypertension: An update on immune system activation in the pathogenesis of hypertension. *Hypertension* 62(2):226-230.
28. Imig, John D., **Michael J. Ryan**. 2013. Immune and inflammatory role in renal disease. *Comprehensive Physiology* 3(2): 957-976.

29. Herse, Florian, Babbette LaMarca, Carl A. Hubel, Tea Kaartokallio, A. Inkeri Lokki, Eeva Ekholm, Hannele Laivuori, Martin Gauster, Berthold Huppertz, Meryam Sugulle, **Michael J. Ryan**, Sarah Richards-Novotny, Justin Brewer, Joon-Keun Park, Michael Kacik, Joachim Hoyer, S Verlohren, Gerd Wallukat, Michael Rothe, Friedrich C. Luft, Dominik N. Muller, Wolf-Hagen Schunck, Anne Catherine Staff, Ralf Dechend. 2012. Cytochrome P450 subfamily 2J polypeptide 2 expression and circulating epoxyeicosatrienoic metabolites in preeclampsia. *Circulation* 126(25): 2990-2999.
30. Mathis, Keisa W., Marcia Venegas-Pont, C. Warren Masterson, Nicholas J. Stewart, Katie L. Wasson, **Michael J. Ryan**. 2012. Oxidative stress promotes hypertension and albuminuria during the autoimmune disease systemic lupus erythematosus. *Hypertension* 59(3):673-679.
31. **Ryan, Michael J.**, Emily L. Gilbert, Porter H. Glover, Gerald R. McLemore Jr., Babbette D. LaMarca, Joey P. Granger, Heather A. Drummond. 2011. Placental ischemia impairs middle cerebral artery myogenic responses in the pregnant rat. *Hypertension* 58(6):1126-1131.
32. Mathis, Keisa W., Marcia Venegas-Pont, C. Warren Masterson Katie L. Wasson, **Michael J. Ryan**. 2012. Blood Pressure in a hypertensive mouse model of SLE is not salt-sensitive. *American Journal of Physiology, Regulatory and Integrative*. 301(5):R1281-R1285.
33. Venegas-Pont, Marcia, Keisa W. Mathis, Radu Iliescu, W. Heston Ray, Porter H. Glover, **Michael J. Ryan**. 2011. 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 and Integrative*. 301(5):R1286-R1292.
34. Parrish, Marc R, **Michael J. Ryan**, Porter H. Glover, Justin Brewer, Lillian Ray, Ralf Dechend, James N. Martin, Babbette B. LaMarca. 2011. Angiotensin II Type 1 Autoantibody induced hypertension during pregnancy is associated with renal endothelial dysfunction. *Gender Medicine* 8(3): 184-188.
35. Yanes, Licy, Roberta Lima, Kuichang Yuan, Damian Romero, Huimin Zhang, **Michael J. Ryan**, Jane F. Reckelhoff. 2011. Postmenopausal hypertension: Role of 20-HETE. *American Journal of Physiology, Regulatory and Integrative*. 300(6):R1543-R1548.
36. Gilbert, Emily L, **Michael J. Ryan**. 2011. High dietary fat promotes visceral obesity and impaired endothelial function in female mice with systemic lupus erythematosus. *Gender Medicine* 8(3): 150-155.
37. **Ryan, Michael J.** 2010. Does Interleukin 6 Contribute to Renal Hemodynamic Changes During Angiotensin II Dependent Hypertension? *Hypertension* 56(5):819-821.
38. Venegas-Pont, Marcia, Michaele B. Manigrasso, Samira C. Grifoni, B.Babbette LaMarca, Christine Maric, Lorraine C. Racusen, Porter H. Glover, Allison V. Jones, Heather A. Drummond, **Michael J. Ryan**. 2010. The TNF- α antagonist etanercept decreases blood pressure in a mouse model of systemic lupus erythematosus. *Hypertension*. 56(4):643-649
39. Venegas-Pont, Marcia and **Michael J. Ryan**. 2010. Can estrogens promote hypertension during systemic lupus erythematosus? *Steroids*. 75(11): 766-771 EPUB ahead of print, Feb 21.

40. Grifoni, Samira, Rumbidzayi Chiposi, Susan McKey, **Michael J. Ryan**, Heather A. Drummond. 2010. Altered whole kidney blood flow autoregulation in a mouse model of reduced β ENaC. *American Journal of Physiology, Renal*. 298(2):F285-292 EPUB ahead of print, Nov 4, 2009.
41. Venegas-Pont, Marcia, Julio C. Sartori-Valinotti, Porter H. Glover, Jane F. Reckelhoff, **Michael J. Ryan**. 2010. Sexual dimorphism in the blood pressure response to angiotensin II in mice after angiotensin converting enzyme blockade. *American Journal of Hypertension*. 23(1):92-96 EPUB ahead of Print, Nov5, 2009.
42. Sartori-Valinotti, Julio C., Marcia Venegas-Pont, Babbette B. LaMarca, Damian G. Romero, Licy L. Yanes, Lorraine C. Racusen, **Michael J. Ryan**, Jane F. Reckelhoff. 2010. Rosiglitazone Reduces Blood Pressure in Female Dahl Salt-Sensitive Rats. *Steroids*. 75(11): 794-799. EPUB ahead of print, Oct 31, 2009
43. David E., Trinity Vera, Megan V. Storm, Gerald R. McLemore Jr., **Michael J. Ryan**. 2009. Blood pressure and renal blood flow responses in heme oxygenase-2 knockout mice. *American Journal of Physiology, Regulatory and Integrative*. 297(6):R1822-R1828. EPUB ahead of print, Oct 2.
44. Grobe, Justin L., Marcia Venegas-Pont, Curt D. Sigmund, **Michael J. Ryan**. 2009. PPAR γ differentially regulates energy substrate handling in brown versus white adipose: Focus on "The PPAR γ agonist rosiglitazone enhances rat brown adipose tissue lipogenesis from glucose without altering glucose uptake. *American Journal of Physiology, Regulatory and Integrative* 296(5): R1325-1326.
45. LaMarca, Babbette, Marc Parrish, Lyndsay Roberts, Porter H. Glover, Lillian Fournier, Sydney R. Murphy, Kathy Cockrell, **Michael J. Ryan**, Ralf Dechend. 2009. Hypertension in Response to Autoantibodies to the Angiotensin II Type I Receptor (AT1-AA) in Pregnant Rats: Role of Endothelin-1. *Hypertension* 54(4):905-909, EPUB ahead of print Aug 24
46. Bridges, Jason P., Jeffrey Gilbert, Drew Colson, Sara A. B. Gilbert, **Michael J. Ryan**, Joey P. Granger. 2009. Oxidative Stress Contributes to Soluble FMS-Like Tyrosine Kinase-1 Induced Vascular Dysfunction in Pregnant Rats. *American Journal of Hypertension* 22(5): 564-568.
47. Venegas-Pont, Marcia, Julio Sartori-Valinotti, Christine Maric, Lorraine C. Racusen, Porter H. Glover, Gerald R. McLemore Jr., Allison Jones, and **Michael J. Ryan**. 2009. Rosiglitazone Decreases Blood Pressure and Renal Injury in a Female Mouse Model of Systemic Lupus Erythematosus. *American Journal of Physiology, Regulatory and Integrative* 296(4): R1282-R1289.
48. **Ryan, Michael J.** 2009. The Pathophysiology of Hypertension in Systemic Lupus Erythematosus: Water and Electrolyte Homeostasis New Investigator Award Lecture. *American Journal of Physiology, Regulatory and Integrative*. 296(4):R1258-R1267.
49. Ilescu, Radu, Radu Cazan, Gerald R. McLemore Jr., Jane F. Reckelhoff, Marcia Venegas-Pont, **Michael J. Ryan**. 2008. Renal Blood Flow and Dynamic Autoregulation in Conscious Mice. *American Journal of Physiology, Renal Physiology*. 295 (3): F734-F740.
50. LaMarca, Babbette D., Barbara T. Alexander, Jeffery S. Gilbert, **Michael J. Ryan**, Mona Sedek, Sydney R. Murphy, and Joey P. Granger. 2008. Pathophysiology of Hypertension in Preeclampsia: A Central Role for Endothelin? *Gender Medicine* 5 (Suppl A): S133-S138.

51. Stec, David E., Trinity Vera, Gerald R. McLemore Jr., Silvia Kelsen, John M. Rimoldi, **Michael J. Ryan**. 2008. Heme Oxygenase-1 Induction Does Not Improve Vascular Function In Angiotensin II Hypertensive Mice. *American Journal of Hypertension*. 21(2):189-193.
52. Gilbert, Jeffrey S., **Michael J. Ryan**, Babbette D. LaMarca, Sydney R. Murphy, Joey P. Granger. 2008. Pathophysiology of Hypertension during Preeclampsia: Linking Placental Ischemia with Endothelial Dysfunction. *American Journal of Physiology Heart & Circulatory*. 294:H541-H550.
53. LaMarca, Babbette D., **Michael J. Ryan**, Jeffrey S. Gilbert, Sydney R. Murphy, Joey P. Granger. 2007. Inflammatory Cytokines in the Pathophysiology of Hypertension during Preeclampsia. *Current Hypertension Reports* 9(6):480-485.
54. LaMarca, Babbette D., Derrick L. Chandler, Lee Grubbs, Jennifer Bain, Gerald R. McLemore Jr., Joey P. Granger, **Michael J. Ryan**. 2007. Role of sex steroids in modulating tumor necrosis factor alpha induced changes in vascular function and blood pressure. *American Journal of Hypertension*. 20:1216-1221.
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57. **Ryan, Michael J.** 2007. Response to Insulin Resistance and Obesity in a Mouse Model of Systemic Lupus Erythematosus. *Hypertension*. 49, e12 (Epub 2006 Dec 11).
58. **Ryan, Michael J.** and Gerald R. McLemore Jr. 2007. Hypertension and Impaired Vascular Function in a Female Mouse Model of Systemic Lupus Erythematosus. *American Journal of Physiology, Regulatory and Integrative* 292: R736-742.
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63. Keen, Henry L., **Michael J. Ryan**, Andreas Beyer, Satya Mathur, Thomas L. Casavant, and Curt D. Sigmund. 2004. Gene Expression Profiling Of Potential PPAR γ Target Genes In Mouse Aorta. *Physiological Genomics*. June; 18(1):33-42.

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