

Physiology Newsletter



Chair

John E. Hall, PhD

Primary Faculty

Thomas H. Adair, PhD
 Barbara T. Alexander, PhD
 Alejandro R. Chade, MD
 J. Lique Coolen, PhD
 Kristine Y. De Leon-Pennell, PhD
 Jussara M. doCarmo, PhD
 Heather A. Drummond, PhD
 Taolin Fang, MD, PhD
 Eric M. George, PhD
 Joey P. Granger, PhD
 Jian-Wei Gu, MD
 Romaine Harmancey, PhD
 Robert L. Hester, PhD
 Suttira Intapad, PhD
 P. Rugmani Iyer, PhD
 Merry L. Lindsey, PhD
 Yonggang Ma, PhD
 Rodrigo Maranon, PhD
 Ana C. T. Palei, PhD
 William A. Pruett, PhD
 Jane F. Reckelhoff, PhD
 Michael J. Ryan, PhD
 David E. Stec, PhD
 Lusha Xiang, MD
 Zhen Wang, PhD
 J. Paula Warrington, PhD
 James G. Wilson, MD

Secondary Faculty

Michael E. Griswold, PhD
 Michael E. Hall, MD
 Drew A. Hildebrandt, PhD
 Min Huang, MD
 Luis A. Juncos, MD
 B. Babbette LaMarca, PhD
 James C. Lynch, PhD
 Andrew L. Rivard, MD
 Angela R. Subauste, MD
 Richard L. Summers, MD

Emeritus Faculty

Thomas G. Coleman, PhD
 Terry M. Dwyer, MD, PhD
 Thomas E. Lohmeier, PhD
 R. Davis Manning, Jr., PhD
 David B. Young, PhD

Chair's Welcome

Each year seems to bring exciting challenges, changes and new opportunities for the Department of Physiology and Biophysics at the University of Mississippi Medical Center. This past year was no exception. Several new faculty members joined the department, two of our outstanding senior faculty members retired, there was continued growth of our research programs and funding of major grants despite declining paylines of funding agencies. New education initiatives were begun, and we completed a 5-year self-study of department activities to assess the overall state of the department. I am happy to report that all of the internal and external assessments suggest that the Department is in excellent shape, although we continue to seek improvements in all of our mission areas.

We were delighted to welcome several new faculty members to the department. **Merry Lindsey** joined the department as Professor and rapidly established the new Mississippi Center for Heart Research and the Proteomics Core. She was recently elected as Chair of the Cardiovascular Section of the American Physiological Society and appointed as Deputy Editor of the *American Journal of Physiology - Heart and Circulatory Physiology* Journal.

Eric George was appointed as Assistant Professor after completing his postdoctoral training and receiving a NIH K99/R00 award. Eric's research is focused on the mechanisms of preeclampsia in new therapeutic approaches for its management. **Romain Harmancey** recently joined the department as Assistant Professor after finishing his postdoctoral training at the University of Texas Houston. Romain received a NIH K99/R00 award to investigate the role of cardiac metabolism in

controlling structural and functional remodeling of the heart.

Two of our faculty members, Tom Lohmeier and Davis Manning, retired after a combined service of nearly 80 years to the University of Mississippi Medical Center. Their major contributions to the education, research and service missions of the department were recently celebrated at a luncheon in their honor. A consistent theme in their remarks was the collegial atmosphere of the department which played a key role in the development of their illustrious careers. We are extremely grateful for their contributions to the department, briefly described in this newsletter, and wish them the best as they undertake exciting, new initiatives. We are also grateful that Tom and Davis will continue as Professor Emeritus and contribute to the department's missions.

The department has a long and proud history of achievements in education, research and service. This newsletter provides a brief synopsis of a few accomplishments of our faculty, fellows, students and staff during this past year. A more detailed analysis of department progress during the past five years is provided in the ["2014 Self Study Report of the Department of Physiology and Biophysics"](#)

The continued success of the department is due to the dedication of the faculty, fellows, students and staff to achieving excellence in education, research and service to UMMC and to the international scientific community. We hope that our alumni and friends will send us their latest news and suggestions for future newsletters. We look forward to hearing from you and thank you for your support of the Department of Physiology and Biophysics at the University of Mississippi Medical Center.



Thomas E. Lohmeier, PhD

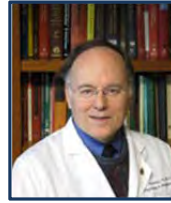
Dr. Thomas Lohmeier grew up in California and attended the University of California-Davis where he received BA, MS and PHD degrees. He received postdoctoral training at the University of Missouri School of Medicine, Department of Physiology, from 1973-1975 before accepting a postdoctoral fellowship position with Dr. Arthur Guyton and Dr. Allen Cowley in 1975. He was promoted to Assistant Professor in 1976, Associate Professor in 1979, and full Professor in 1982. Dr. Lohmeier's research has been funded for more than 35 years as part of the Program Project, "Cardiovascular Dynamics and Their Control" for which he has served as a project principal investigator.

Dr. Lohmeier is recognized nationally and internationally for his research on the role of the sympathetic nervous system and hormonal mechanisms in the pathogenesis of hypertension. For the past 39 years he has used unique, chronically instrumented animal models to elucidate the integrative hemodynamic, renal, and neuroendocrine mechanisms of different forms of hypertension as well as normal physiological regulation. In recent years he developed and used novel instrumentation for chronically activating the carotid baroreflex by electrical stimulation of the carotid sinus. This device has permitted a better understanding of the role of baroreflexes in long-term control of arterial pressure and how inhibition of central sympathetic outflow chronically lowers arterial pressure. The efficacy of electrical stimulation of the carotid sinus in the treatment of resistant hypertension in heart failure is now being evaluated in clinical trials.

In recognition of his outstanding research accomplishments, Dr. Lohmeier has received numerous awards, including the Established Investigator Award of the American Heart Association (AHA) and the Harry Goldblatt Award for hypertension research from the Council for High Blood Pressure Research, AHA. He served as Associate Editor of the *American Journal of Physiology* and as a Guest Editor for *Hypertension*, as well as a member of the editorial boards of numerous journals, including *Hypertension*, *The American Journal of Physiology: Endocrine and Metabolism*, *The American Journal of Physiology: Regulatory, Integrative, and Comparative Physiology*, and *Current Hypertension Reviews*. Dr. Lohmeier was elected as a Councillor of the American Physiological Society (APS) and as Chair of the Water and Electrolyte Homeostasis section of the APS, Chair of the Publications Committee of the Council for High Blood Pressure Research, and as a consultant for numerous funding agencies.

Dr. Lohmeier also served UMMC for the past 39 years with great distinction. He was Director of Graduate Studies in Physiology & Biophysics from 2005-2014. Additional details of Dr. Lohmeier's illustrious career can be found in his curriculum vitae on the website. We expect that Dr. Lohmeier will continue to make important contributions to UMMC as Professor Emeritus.

Dr. Lohmeier and his wife Laura have 2 children, Justin and Jeffrey, and 4 grandchildren.



R. Davis Manning, PhD

Dr. Manning was born and raised in Jackson, Mississippi. After graduating from Murrah High School, he attended the University of Mississippi in Oxford where he received a BS degree in Chemical Engineering and graduated with distinction in 1968. He subsequently received a MS in Engineering Science from the University of Mississippi and a PhD in Biomedical Engineering/Physiology and Biophysics from the University of Mississippi Medical Center in 1973. He was appointed as Assistant Professor in 1973, promoted to Associate Professor in 1980, and to full Professor in 1983.

Dr. Manning has served the University of Mississippi Medical Center with distinction for more than 40 years. Throughout his career he has received numerous honors, including academic honors as an undergraduate and graduate student and multiple honors for outstanding contributions to medical education. He was selected by the Evers Society (a medical student society) for his outstanding teaching essentially every year since the society began the awards, from 1998 until 2003, when he was elected to the Evers Society Hall of Fame. Dr. Manning was also elected to the Blake Academy of Teaching Excellence at the University of Mississippi Medical School in 2003. Dr. Manning, although retired as Professor of Physiology and Biophysics in 2011, was appointed as Professor Emeritus and continues to teach cardiovascular physiology to the medical students. Of course, he also continues to receive top ratings from the students.

Dr. Manning has also excelled in his research programs. He served as one of the project investigators for the NIH Program Project Grant, "Cardiovascular Dynamics and Their Control" for almost 30 years. His early research investigated the role of body fluid volumes in blood pressure regulation. He conducted seminal studies on the hemodynamic changes that occur during salt-induced hypertension and in a variety of other conditions such as excess antidiuretic hormone formation, hypoproteinemia, and after loss of kidney function. Dr. Manning was one of the first to investigate the role of nitric oxide in long-term control of blood pressure and in modulating the effects of other neurohumoral systems, including angiotensin II. He also demonstrated the importance of oxidative stress in salt-sensitive hypertension as well as in causing renal injury in various models of hypertension. For his outstanding research, Dr. Manning received the Harry Goldblatt Award from the Council for High Blood Pressure Research of the American Heart Association in 1995.

Dr. Manning has also served, with great distinction, numerous professional societies, including the APS, the American Society of Hypertension, and the Council for High Blood Pressure Research of the AHA. He also served on various UMMC committees including the curriculum committee of the School of Medicine. We look forward to many more years of outstanding contributions from Dr. Manning in his position as Professor Emeritus.

Dr. Manning and his wife DeAnn have resided in Jackson for the past 45 years.



John Clemmer, a PhD student:

- Was a recipient of the 2014 APS Caroline Tum Suden/Frances Hellebrandt Professional Opportunity Award from the American Physiological Society. This is an abstract based award and provides funds for junior physiologists to attend the 2014 Experimental Biology meeting held in San Diego, CA in April 2014.
- Received a 2014 Young Investigator Award from the Society for Experimental Biology and Medicine. This award is based on scientific credentials and merit and was presented at the 2014 Experimental Biology meeting held in San Diego, CA in April 2014.

John Henry Dasinger, a PhD student:

- Received a Research Recognition Award from the 2013 Research Day sponsored by the School of Graduate Studies in the Health Sciences Alumni Chapter held on October 25, 2013.



Emily Gilbert, a MD/PhD, student:

- Was the recipient of the 2014 Robert A. Mahaffey Memorial Award, an award that recognizes the exceptional research potential of young investigators.



Peter Mittwede, a MD/PhD student:

- Was presented 2014 Dean's Service Award at the 2014 Annual School of Graduate Studies in the Health Sciences Honors Day. This award is presented to the graduate student who most exemplifies the outstanding attributes of leadership, community outreach and service, at the 2014 Annual School of Graduate Studies in the Health Sciences Honors Day.
- Received a 2014 Young Investigator Award from the Society for Experimental Biology and Medicine. This award is based on scientific credentials and merit and was presented at the 2014 Experimental Biology meeting held in San Diego, CA in April 2014.
- Was the recipient of the Water & Electrolyte Homeostasis Section Predoctoral Research Recognition Award. This is an abstract based award whereby the top three abstracts are selected as finalists and the winner is selected based on their oral presentation, presented at the Experimental Biology 2014 meeting held in San Diego, CA in April 2014. Mr. Mittwede was selected as the Awardee.

New Graduate Study Body Officers

John Clemmer and **John Henry Dasinger** were recently elected Vice-President and Treasurer, respectively, for the graduate study body in the School for Graduate Studies in the Health Related Sciences.

1st American Physiological Society Sponsored Trainee Workshop on Ethics in Publication

John Henry Dasinger and **Peter Mittwede** were 2 of 25 students selected nationally to attend the first American Physiological Society sponsored trainee workshop entitled, "*Professional Integrity: Best Practices for Publishing Your Work.*" The goals of this initial pilot test of the new publication ethics modules were to build graduate student skills in publication ethics and to develop an online Community of Practice (COP) designed to engage trainees and experienced scientists and engineers in ongoing discussions about scientific publishing, publication ethics, and professional standards of practice in these areas.

Annual Graduate Student Research Day 2013

The Annual Graduate Student Research Day event spotlights the research activities of students within the School of Graduate Studies in the Health Sciences. This year's event featured poster presentations by UMMC graduate students and post-doctoral fellows. Recipients of Research Recognition Awards from the 2013 Research Day sponsored by the School of Graduate Studies in the Health Sciences Alumni Chapter held on October 25th included **John Henry Dasinger** and **Dr. Kristine Y. DeLeon-Pennell, PhD** a post-doctoral fellow.

Wallace Conerly, MD Scholarship Award

Three MD/PhD students within the Department of Physiology are recipients of the Wallace Conerly MD Scholarship Award. These include **Peter Mittwede**, **Emily Gilbert** and **Ashley Newsome**. This scholarship program was started in 2002 and provides a stipend and full tuition for a medical student enrolled in the MD/PhD program.

Dean's Scholarship

John Clemmer and **John Henry Dasinger** are recipients of the Dean's Scholarship, a full-tuition scholarship awarded for outstanding achievement in the Graduate School of Health Related Sciences.

Christmas Luncheon

Trainees including graduate students and post-doctoral fellows within the Department of Physiology participated in the planning and preparation of the Annual Christmas Luncheon hosted by the Graduate School for Studies in the Health Sciences. Dr. Joey Granger, Dean of the Graduate School served as the head chef.



FELLOW NEWS

3rd International Society of Hypertension (ISH) New Investigators' Symposium

The New Investigators' Symposium is a full day event that provides a forum for new (under 40 years of age) scientists and clinicians in training who have an interest in hypertension and cardiovascular disease. The event was organized and sponsored by the ISH New Investigator Committee (NIC) and was held in collaboration with the Council for High Blood Pressure Research (CHBPR) of the American Heart Association at the time of their 2013 Scientific Sessions. Several trainees presented invited oral presentations at the 3rd International Society of Hypertension New Investigators' Symposium that was held in New Orleans, LA in September 2013. These included **Keisa Mathis, PhD**, Instructor, **Suttira (Joy) Intapad, PhD**, Instructor, **Paula Warrington, PhD**, Instructor, and **Ana Palei, PhD**, post-doctoral fellow. **Paula Warrington, PhD**, received an ISH New Investigator Committee Travel Grant 2013 based on her presentation at the conference. The keynote speaker was **Jane Reckelhoff, Ph.D.**, Billy S. Guyton Distinguished Professor, Professor of Physiology and Director of Women's Health Research Center who provided a motivational talk for young investigators in science entitled, "OMG! From Sequester and Beyond: Am I Going to Make it as a Scientist?"

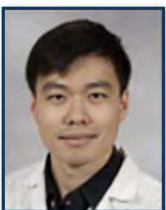


Kristine Y. DeLeon-Pennell, PhD, Instructor:

- Received a Minority Travel Fellowship Award from the American Physiological Society to attend the Experimental Biology 2014.
- Received a 2013 Functional Genomics and Translational Biology Minority Travel Grant award to attend the Scientific Sessions of the American Heart Association. Received the Steven M. Horvath Professional Opportunity Award presented by the American Physiological Society.

Rodrigo Maranon, PhD, a post-doctoral fellow:

- Was the first author on an abstract selected as one of the Top 5 Abstracts submitted to the annual Council for High Blood Pressure Research meeting held in New Orleans in the fall of 2013.
- Received a New Investigator Travel Award to attend annual Council for High Blood Pressure Research meeting held in New Orleans in the fall of 2013.



Yan Lu, MD, an Instructor and post-doctoral fellow: Received the first place award for his poster at the annual Department of Medicine's Research Day event held in April 2014.



Peter Hosick, PhD, Instructor:

- 2014 Trustmark Postdoctoral Publication Award presented at the annual Honors Award Day for the School of Graduate Studies in the Health Sciences at UMMC. This award is in recognition of a single cutting edge publication that served to significantly advance biomedical knowledge. Dr. Hosick noted that chronic carbon monoxide treatment attenuates the development of obesity in a model of diet induced obesity in the mouse. Dr. Hosick recently completed his post-doctoral training fellowship and has accepted a position as an Assistant Professor at Montclair State University.

Suttira "Joy" Intapad, PhD, Instructor:

- Received the Novel Disease Model Award from the Physiologists in Industry Committee of the American Physiological Society at the Experimental Biology 2014 for her model of intrauterine growth restriction (IUGR) induced by reduced uterine perfusion in the mouse. This award recognizes a trainee whose investigation in a novel disease model has been designated as an outstanding example of experimental research.



Frank Spradley, PhD, Instructor:

- Was selected as a finalist for the 2014 Juan Carlos Romero Water and Electrolyte Homeostasis Section Postdoctoral Research Recognition Award. This is an abstract based award whereby the top three abstracts are selected for an oral presentation at Experimental Biology 2014.

8th Hypertension Summer School

Dr. Rodrigo Maranon, Dr. Paula Warrington, and Dr. Suttira Intapad received travel awards to attend the 8th Hypertension Summer School sponsored by the American Heart Association. This program included a broad overview of the major systems that contribute to blood pressure control and the development of hypertension. **Dr. Michael J. Ryan**, Associate Professor, was a co-organizer of this event.

Physiology Students and Postdoctoral Fellow's Choice Distinguished Lecture



Dr. Peter Libby, MD, Professor of Cardiovascular Medicine at Harvard Medical School and Chief of Cardiology at Brigham and Women's Hospital presented the Physiology Students and Postdoctoral Fellows' Choice Distinguished Lecture. Dr. Libby discussed the role of inflammation in atherosclerosis and spent the day as a guest of trainees in the Department of Physiology. Pictured left to right are: Dr. Suttira (Joy) Intapad, Instructor, Dr. Libby, and Dr. Paula Warrington, Instructor. Dr. Intapad and Dr. Warrington, Co-Directors of the Physiology Journal Club, co-coordinated Dr. Libby's visit to the department.

FACULTY NEWS

2013 Excellence in Research Awardees

Faculty members in the Department of Physiology were recognized at the 2013 annual UMMC Excellence in Research ceremony for their achievements in research. Pictured Left to Right:

- Merry L. Lindsey, PhD, Professor and Director, Jackson Center for Heart Research, received the Silver Excellence in Research Award.
- Babbette LaMarca, PhD, Associate Professor of Physiology and Pharmacology and Toxicology received the Gold Excellence in Research Award.



The American Physiological Society Announces New Officers



The American Physiological Society (APS) was founded in 1887 and now has over 10,500 members. The APS is governed by an elected council that is composed of a President, President-elect, Past President and nine Councillors. The APS includes 12 sections that consist of members with a shared interest. The Department of Physiology has a strong tradition of leadership in the APS that continues with the recent selection of departmental faculty members to key positions within the APS that includes:

- Michael J. Ryan PhD, Associate Professor was recently elected Secretary-Treasurer of the Water and Electrolyte Homeostasis Section of the APS. Dr. Barbara T. Alexander, Professor of Physiology, is the past Secretary/Treasurer.
- Merry L. Lindsey, PhD, Professor was recently elected chair of the Cardiovascular Section of the APS. Robert Hester, PhD, Professor of Physiology at UMMC is the past chair.
- Barbara T. Alexander, PhD, Professor is a newly elected Councillor of the APS. She will serve on a three year term on the 9 member council that also includes the past-President, Current President, and President-elect.
- Robert Hester, PhD, Professor was recently appointed chair of the Joint Program Committee (JPC) of the APS. The JPC develops and ensures the scientific integrity of the program for the annual Experimental Biology Meeting.



Thomas Adair, PhD, Professor:

- Was recently recognized as a "2014 Promoting Excellence in Teaching" awardee from the John Hembree Honor Society. The Hembree Society is an honorary and service organization within the dental school that works to

improve dental education by enhancing communication between students and the dental faculty. This award is selected by the Dental students for recognition of excellence in teaching in the dental program at UMMC.

Joey P. Granger, PhD, Billy S. Guyton Distinguished Professor, Director, Cardiovascular-Renal Research Center and Dean, School of Graduate Studies in the Health Sciences:



- Was recently elected as Vice-Chair for the Council for High Blood Pressure Research of the American Heart Association. The Council for High Blood Pressure Research is the premier organization for hypertension research. Dr. Granger will serve a two-year term prior as Vice-Chair and serve as the Program Chair for the Annual conference prior to assuming the Chair position.



Lisandra de Castro Brás, PhD, Assistant Professor:

- Received a Basic Cardiovascular Sciences [BCVS] Abstract Travel Grant to attend the 2013 American Heart Association Scientific Sessions. The objective of this award is to

recognize meritorious work by young investigators and encourage participation in the AHA Scientific Sessions.



Michael J. Ryan, PhD, Associate Professor

- Was recently appointed an Associate Dean for the School of Graduate Studies in the Health Sciences. Dr. Ryan oversees the Discovery U program in the Graduate School that

promotes K-12 and undergraduate outreach and research and provides hands on opportunities for summer undergraduate students to engage in biomedical research.



John E. Hall, PhD, Arthur C. Guyton Professor and Chair, and Director of the Mississippi Center for Obesity Research:

- Is the 2014 Southeastern Conference's Professor of the Year for excellence in research and teaching.

This award is given annually to one SEC faculty member whose record in research and scholarship places them among the elite in higher education. Dr. Hall was selected from over 50,000 faculty members at the 14 SEC Schools by a committee of SEC Provosts. This is considered the conference's highest academic honor.

- Recently received the 2013 Distinguished Alumni Award and was inducted into the College of Education, Health, and Human Services Hall of Fame at Kent State University
- Is the recipient of the Sir George Pickering Lecture Award from the British Hypertension Society. This award was presented at the Annual Scientific Meeting held at the University of Greenwich in London on Sept. 10, 2013.

Jane F. Reckelhoff, PhD, Billy S. Guyton Distinguished Professor and Director of the Women's Health Research Center:



- Is the 2013 Harriet Dustan Awardee from the Council for High Pressure Research of the American Heart Association at the annual fall conference held in New Orleans in September 2013. This award recognizes outstanding female investigators who have made outstanding contributions in the field of hypertension.

• Was named an Associate Editor of the *American Journal of Physiology: Regulatory, Comparative and Integrative Physiology*

- Is a 2014 Graduate of the Executive Leadership in Academic Medicine Program for Women (ELAM). ELAM is a part-time year-long program that prepares women faculty for leadership within their academic institutions.

• Was appointed Director of Research Development in the Office of Research at UMMC.



Barbara T. Alexander, PhD, Professor

- Was inducted as a faculty member into Alpha Omega Alpha, a national Medical Honor Society that recognizes and advocates for excellence in scholarship.



Physiology Understanding (PhUn) Week

PhUn Week is a K-12 science outreach program sponsored by the American Physiological Society and Discovery U, the UMMC Graduate School pipeline and outreach program. The 2013 PhUn Week event was held Saturday, November 9, 2013 at the Mississippi Children's Museum in concert with the Question It, Discover it Saturdays. Dr. Michael J Ryan, Dr. Barbara T. Alexander, and Dr. Jenny Sasser were the organizers of the event.

Participant's included over 40 UMMC faculty, fellows, students and staff. The event consisted of 9 interactive stations that provided hands-on learning activities related to the structure and function of the kidneys, heart, and lungs.

Summer Student Research Programs

ALFAISAL SUMMER PROGRAM: Each year students from Alfaisal University in Saudi Arabia visit the department to participate in research projects and to further their education. The summer of 2014 marks the 4th year of this program. Student participants for 2014 include: Alaa Elsayed Ali, Ahmad Faisal Allaf, Saad Mansoor Aqil, Mohammed Mahmoodurrahman, Sarah Ziad Mortaja, Fayez Mourad, Syed Neamatullah, Akram Nurhussen, and Fares Tofailahmed F Rajah.



R25 STUDENT PROGRAM: Dr. Michael J. Ryan is



the PI for a R25 grant supported by the National Heart, Lung, Blood Institute (NHLBI). This is a 5 year grant to support summer research experiences for underrepresented minorities in the cardiovascular-renal sciences. The goal is to build a pipeline of students who will ultimately promote a more diverse biomedical research workforce. Student participants for the Summer 2014 Program included the following pictured from left to right: Christian Bruno, DesTenee Green, Livi McNeal, Bitnei Earl, Tre Taliaferro, Brianca Fizer, Akil Strawder, and Skyler Gordon (not pictured).

DEPARTMENTAL ACTIVITIES (CONTINUED)

4TH Annual Physiology Faculty, Fellows & Students Softball Game

The annual Physiology Departmental softball game is a favorite departmental event organized by Dr. Michael Ryan. The summer softball game features the Physiology faculty and fellows versus the summer students. The 2014 event ended with the faculty “claiming” an unusual win against the students including UMMC medical students participating in the Dean’s Medical Research Student Program, undergraduate students in the Summer Undergraduate Research Experience, the R25 Student Program, and exchange students from the Alfaisal Summer SPIRIT Research Program.

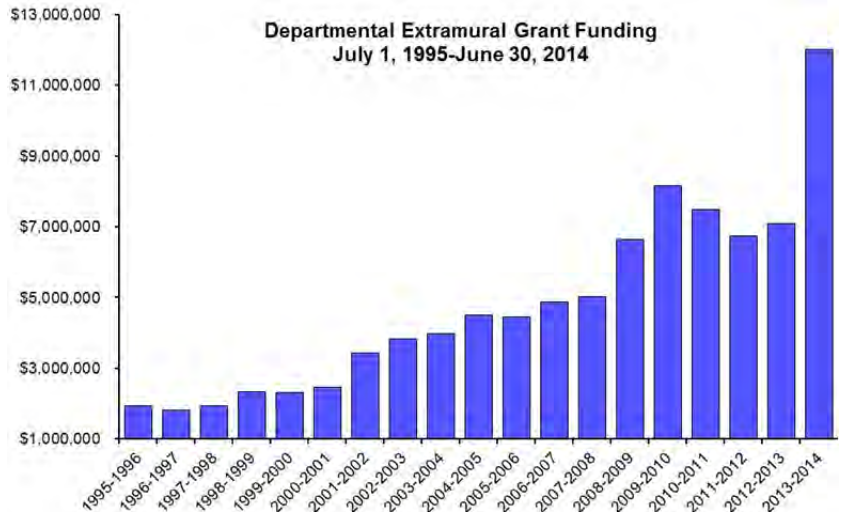


GRANTS AWARDED

The department had another productive year in grant funding. As can be seen in the chart, our funding has been steadily increasing despite the decline in funding allowed by NIH. The total grant funding for July 1, 2013-June 30, 2014 was \$12,002,257 with \$10,103,716 being from NIH.

Students

- Peter Mittwede received a Predoctoral Award from the American Heart Association. The purpose of this funding mechanism is to help students initiate a career in cardiovascular and stroke research by providing research assistance and training.



Fellows

- Peter Hosick, PhD received a National Service Recognition Award (NRSA) from National Institutes of Health. The purpose of this training fellowship is to provide support to promising post-doctoral applicants with potential to become productive, independent investigators in scientific health-related research fields relevant to the missions of the NIH Institutes. His project investigated the role of carbon monoxide in the control of body weight, adiposity and blood pressure. Dr. Hosick recently accepted an Assistant Professor faculty position at Montclair State University.

- Suttira Intapad, PhD received a Pilot Grant from the Center of Biomedical Research Excellence (COBRE) grant from the National Institutes of Health. Her project will investigate the impact of maternal obesity on cardiovascular health of the offspring.

- Post-doctoral Fellowship Grant Awardees from the American Heart Association

Several post-doctoral fellows were recipients of a Post-doctoral Fellowship Grant from the American Heart Association during the past year. The purpose of the AHA post-doctoral fellowship award is to help trainees initiate a career in cardiovascular research while obtaining significant results under the supervision of a mentor and provide support to develop their research programs. Trainees who received an AHA Fellowship award in 2014 included: **Paula Warrington, PhD, Rodrigo Maranon, PhD, Dr. Ana Palei, PhD, Rugmani Iyer, PhD, Yan Lu, MD, and Zhen Wang, PhD.**

FACULTY

- John E. Hall, PhD, Director of the Mississippi center for Obesity Research, was recently awarded a multidisciplinary Centers of Biomedical Research Excellence (COBRE) Award from the National Institute of General Medical Sciences at the National Institutes of Health. This 5-year funding program provides support for research core facilities, research projects, equipment, and training for early career investigators in the area of obesity and related cardiovascular, renal and metabolic diseases.
- John E. Hall, PhD, Arthur C. Guyton Professor and Chair was recently awarded a competitive renewal for the Program Project Grant "*Cardiovascular Dynamics and Their Control*" from the National Heart Lung and Blood Institute of the National Institutes of Health. Project Leaders include **Dr. John E. Hall, Dr. Joey P. Granger, and Dr. Jane F. Reckelhoff**; Research Core Leaders include **Dr. Robert Hester and Dr. Barbara T. Alexander**. This PPG was started in 1968 and is approved for funding until 2019 (50 years of funding if all goes well!). The current focus of the PPG is on neurohumoral, endothelial, and intrarenal mechanisms that contribute to impaired pressure natriuresis and increased blood pressure in experimental models that are highly relevant to common, and difficult to treat, forms of human hypertension caused by obesity, preeclampsia, and postmenopausal hyperandrogenemia.
- Robert Hester, PhD, Professor is the recipient of a basic science research grant from the Orthopaedic Trauma Association to study mediators of acute kidney injury following orthopedic trauma in obese rats.
- Barbara T. Alexander, PhD, Professor is the recipient of a Grant-in-Aid from the American Heart Association investigating the underlying mechanisms that contribute to the development of hypertension in later life following slow growth during fetal life.
- Alejandro Chade, MD, Associate Professor was recently awarded an American Heart Association Established Investigator Award to investigate novel therapeutic interventions in renovascular disease. The purpose of the EIA is to support mid-career investigators with unusual promise and an established record of accomplishments and commitment to cardiovascular or cerebrovascular science.
- Michael J. Ryan, PhD, Associate Professor received a R25 grant from the national Heart, Lung, and Blood Institute of the National Institutes of Health entitled "Mississippi Diversity in Hypertension and Cardiorenal Researchers Program." The purpose of the funding mechanism is to support underrepresented minorities in summer undergraduate research positions that are working in the area of cardiovascular/renal physiology to help build the pipeline of future scientists and improve diversity in the workplace.
- Ruisheng Liu, MD, PhD, Associate Professor was recently awarded a R01 from the National Institutes of Health to investigate tubuloglomerular feedback and salt sensitive hypertension.
- Eric George, PhD, Assistant Professor received a Pathway to Independence Award (K99/R00) from the National Institutes of Health in April 2014 to elucidate the underlying mechanisms which cause the symptoms of preeclampsia, and test new therapeutic approaches for its management.
- Angela Subauste, MD, Assistant Professor of Medicine and Physiology, received a grant from the National Institute of Diabetes and Digestive and Kidney Diseases of the National Institutes of Health to investigate the potential role of lipid signals in the generation of adipogenic defects.
- Lisandra de Castro Brás, PhD, Assistant Professor, is the recipient of a Scientist Development Grant from the American Heart Association to investigate the role of MMP-9 generated collagen C-peptide in post-myocardial infarction remodeling.
- Michael E. Hall, MD, Assistant Professor of Medicine and Physiology, is a recipient of a Scientist Development Grant from the American Heart Association to study the mechanisms by which visceral fat may cause increased loop of Henle sodium reabsorption and hypertension. This is a clinical study using novel MRI measures of renal tissue oxygenation and perfusion.
- Keisa Mathis, PhD, former Assistant Professor who recently transitioned to an Assistant Professorship at the University of North Texas Science Health Center, received a Scientist Development Grant from the American Heart Association to study the role of the cholinergic anti-inflammatory pathway in the etiology of hypertension in systemic lupus erythematosus.

Recent Publications

If you would like to check out some of the Department of Physiology and Biophysics latest publications, go to www.umc.edu/uploadedFiles/UMCedu/Content/Education/Schools/Medicine/Basic_Science/Physiology_and_Biophysics/Faculty/Publications%20for%20the%20Department%20of%20Physiology%20and%20Biophysics.pdf

Alumni

We would like to hear from our alumni to find out where life has taken you since leaving us. Please take a moment and send an email to chortongraham@umc.edu to provide us with your latest contact information and any news you would like to share with us.

Make a Donation

I would like to make the following contribution to:

\$ _____ Arthur C. Guyton Distinguished Lectureship Fund
 \$ _____ Research Fund – Department of Physiology & Biophysics
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