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## **Happy New Year 2011**

By Dr. Debra Diz

Welcome back everyone and Happy New Year!

As the official new Director of the HVRC, I want to take this opportunity to send thanks to all of you for your efforts towards the Center over the past year. We all have a lot to be thankful for – thriving training programs and wonderful trainees, a great group of staff, a strong base of continuing grant support resulting from the efforts of our faculty, exciting new collaborations in both basic and clinical science areas. I anticipate another great year of teamwork to tackle challenging research topics and to provide continuing advances in cardiovascular research. I also wanted to bring to your attention a few clinical/translational initiatives that will be an emphasis during the coming year:

- 1. We will be partnering with Dr. Amret Hawfield in Nephrology to initiate collaborative studies on vascular and autonomic function in dialysis patients.
- 2. Dr. Leanne Groban, Anesthesiology, is collaborating to establish a comprehensive evaluation of autonomic function in elderly subjects and development of protocols for use of Magnetic Resonance Spectroscopy in parallel with assessment of autonomic function to discern brain transmitter changes associated with specific autonomic disorders. The project is funded by the Pepper Center with leveraged support from the HVRC and extramural applications for continued funding are in progress.
- 3. Dr. Lisa Washburn, Neonatology, continues her collaboration on the status intra-renal renin-angiotensin system in children exposed *in utero* to glucocorticoids with members of the Center funded by a National Institute of Child Health and Development Program Project grant and intramural support.
- 4. Dr. Cheryl Bushnell will be collaborating with us on the relationship between the renin-angiotensin system and the extent of subclinical vascular disease in men and women at risk for stroke. Her initial studies are funded by an NIH K award and collaborative funding will be a future goal.

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#### Year 2011 continued

"begun to investigate the urinary components of the renin-angiotensin system as potential biomarkers"

- 5. A new collaboration was initiated with Dr. Sharon Castellino in Pediatric Oncology to assess whether angiotensin-(1-7) inhibits the growth of human rhabdomyosarcomas and Ewing's tumors, to provide preclinical data to support the use of the heptapeptide for the treatment of pediatric sarcomas. Project support includes the Gallagher/Tallant Cancer Fund and HVRC, and applications for additional support from the Translational Sciences Institute (TSI) are pending.
- 6. Dr. John Fortinato has developed collaboration with the Center for autonomic assessment in his patients with nausea associated with orthostatic intolerance. Grant submissions to the AHA Clinical Research Program and NIH are in preparation.
- 7. As a new initiative, studies with Dr. Barry Freedman and the Center have begun to investigate the urinary components of the renin-angiotensin system as potential biomarkers for renal disease with support by the TSI and the HVRC. Additional studies with Drs. Freedman and Washburn and the Center have begun to establish the isolation of viable proximal tubule cells from the urine to assess the components of the renal RAS.
- 8. A partnership between the TSI center faculty Drs. Danny Kim-Shapiro and Gary Miller and the HVRC supports use of non-invasive vascular, blood pressure and autonomic function assessment to determine the effects of beet juice as an enriched dietary source of nitrates in elderly hypertensives.
- 9. New clinical collaborations for the Center in the early stages of development include investigators in the Center for Integrative Medicine and North Carolina Central University.

I hope you all have a chance to learn more about these collaborative endeavors over the next few months.

Best wishes to all for the coming year! I look forward to continuing to work with each of you and again thank you for your interest in the Center and the many valuable contributions you make to our success.

Regards, Debra

#### **Attention Faculty Affiliates of the Center:**

If you have news you would like to include in our upcoming quarterly newsletter; please send suggestions or information to Rachel Reynolds (<a href="mailto:reynold@wfubmc.edu">reynold@wfubmc.edu</a>).

## Peptide Delivers One-Two Punch to Breast Cancer in Pre-Clinical Study

**WINSTON-SALEM, N.C. -- Dec. 28, 2010 --** Researchers at Wake Forest University Baptist Medical Center (WFUBMC) have discovered what may become a new weapon in the fight against breast cancer. For the first time, a peptide found in blood and tissue has been shown to inhibit the growth of human breast tumors in mice, according to a study recently published in the journal *Cancer Research*.

Patricia E. Gallagher, Ph.D., and E. Ann Tallant, Ph.D., scientists in the Hypertension and Vascular Research Center at WFUBMC, demonstrated that the peptide angiotensin-(1-7) attacked breast cancer in two ways: by inhibiting the growth of the breast cancer cells themselves and by inhibiting the growth of cancer-associated fibroblasts (CAFs), cells found in the tumor microenvironment -- the tissue surrounding the tumor. CAFs play a vital role in tumor initiation, growth and metastases by providing structural support for the tumor cells and by producing growth factors that help the tumor cells grow.

In this study, mice were injected with human breast cancer cells to form the two most common types of breast tumors -- estrogen-receptor and HER2 sensitive. In women with breast cancer, an estimated 50 to 60 percent have estrogen-receptor sensitive tumors and 20 to 30 percent have HER2 sensitive tumors.

Once the tumors grew, the mice were injected with either angiotensin-(1-7) or saline for 18 days. In the mice treated with angiotensin-(1-7), there was a 40 percent reduction in tumor size as compared to the saline-injected mice, whose tumors grew three times their size at the initiation of treatment. Breast tumor fibrosis also was reduced by 64 to 75 percent in the mice treated with the peptide as compared to the saline-injected mice. Fibrosis is the thickening of the breast tissue around and within the tumor that acts as a scaffold to support the spread of cancer cells.

"This is the first study to show that angiotensin-(1-7) not only inhibits the growth of tumors, but also inhibits breast tumor fibrosis," Gallagher said. "Think of it as a seed and the soil around it – the seed being the tumor and the soil being the fibrosis. You can attack the seed, or you can attack the soil, or do both, and our drug does both."

The tumor microenvironment is especially important when the cancer has metastasized, Tallant said, because drugs that are effective for treating the primary tumor often are not effective in treating a tumor growing in a different part of the body. "Our findings also suggest that angiotensin-(1-7) may enhance the effect of chemotherapeutic agents when administered in combination with other drugs by altering the microenvironment in which the tumor grows," she said.

"Because the safety of angiotensin-(1-7) was established here at Wake Forest Baptist in a recently completed trial in patients with different types of solid tumors, we hope to go to clinical trials for breast cancer relatively soon," Gallagher said.

Gallagher's and Tallant's initial research conducted at the Comprehensive Cancer Center at Wake Forest Baptist showed that angiotensin-(1-7) inhibited the growth of vascular smooth muscle cells, the cells that surround blood vessels and regulate blood pressure. Previous studies showed that patients treated with drugs to reduce blood pressure and increase angiotensin-(1-7), also had a smaller chance of developing cancer. Based on this information, Gallagher and Tallant studied the effect of the peptide on lung cancer and discovered that angiotensin-(1-7) inhibited

the growth of lung tumors in mice, as well as reduced the supply of blood vessels to the growing tumor. Their latest study, as reported in *Cancer Research*, now shows additional effects of angiotensin-(1-7).

Both scientists and Wake Forest University Baptist Medical Center hold a patent on the use of angiotensin-(1-7) for the treatment of cancer.

Media Relations Contacts: Marguerite Beck, <u>marbeck@wfubmc.edu</u>, 336-716-2415; Bonnie Davis, <u>bdavis@wfubmc.edu</u>, 336-716-4977.

#### **Best Doctors in America**

Wake Forest University Baptist Medical Center Physicians Listed in 2011-2012 Best Doctors in America®. The doctors listed here are Hypertension & Vascular Research Center affiliates and we want to congratulate them on this achievement: Cardiovascular Disease - Vinay Thohan, Medical Oncology and Hematology – Glenn J. Lesser, Nephrology – Barry I. Freedman, Neurology – Charles H. Tegeler IV, Pediatric Specialist – Neonatology - T. Michael O'Shea and Lisa K. Washburn, and Pediatrics – Kathi J. Kemper.

# The Following were appointed as Affiliate Members of the Hypertension and Vascular Research Center

Emmanuel Awumey Cheryl Bushnell Osvaldo Delbono Amret Hawfield Allyn Howlett Kathi Kemper Daniel Kim-Shapiro Glenn Lesser Chadwick Miller Mark Miller Mildred Pointer

## **Recognition Awards**

**Ebaa Alzayadneh,** graduate student in Physiology & Pharmacology with Dr. Mark Chappell, was awarded an Alumni Student Travel Award for the American Heart Association Council for High Blood Pressure Research Annual Meetings in Washington, D.C. in October.

Amy C. Arnold, PhD was the 8th recipient of the David K. Sundberg award. The honor, which includes a \$1500 honorarium, was announced and presented at the 2010 Commencement weekend. Amy, a graduate student with Dr. Debra Diz, was recognized as exemplifying the qualities of scholarship, dedication to our profession, and a heart for service. She is now a Research Fellow in Clinical Pharmacology at Vanderbilt University, in the autonomics-vascular biology laboratory of Dr. Italo Biaggioni. Congratulations to Drs. Arnold and Diz for outstanding achievements.

Dr. Arnold was also awarded the Van Harreveld Memorial Award from the Central Nervous System Section of the American Physiological Society.

**Alison Arter,** a graduate student in Physiology & Pharmacology with Drs. Ann Tallant and Peg Gallagher, was awarded an Alumni Student Travel Award to attend the Experimental Biology Meeting April 2010.

**K. Bridget Brosnihan**, **PhD**, presented a talk on "Preeclampsia: Pathophysiology and Mechanisms for Risk of Cardiovascular Disease Later in Life" at the 5th Annual Women's Health Research Day "Cardiovascular Heath and Disease" symposium sponsored by the Women's Health Center of Excellence on April 20, 2010 in Babcock Auditorium at Wake Forest University School of Medicine.

Dr. Brosnihan also presented "The Renin-Angiotensin System in the Uteroplacental Unit of Normal and Preeclamptic Pregnancy" for the ISIS Network on Cardiovascular Disease of the Society for Women's Health Research in Minneapolis, Minnesota on August 2-3, 2010.

**Erin Calipari**, a graduate student in Physiology and Pharmacology, was awarded an Alumni Student Travel Award to attend the American Association of Cancer Research Annual Meeting April 2010.

**Kyle Carver**, a graduate student in Physiology and Pharmacology with Drs. Gallagher and Tallant, was awarded an Alumni Student Travel Award for the American Heart Association Council for High Blood Pressure Research Annual Meeting in Washington, DC in October 2010, to present his abstract titled, "Angiotensin-(1-7) Reduces Angiotensin II-Included Remodeling of the Microcirculation."

Mark Chappell, PhD, presented an invited lecture at University of Arizona; Tucson, AZ on March 26, 2010 entitled "Role of the novel receptor GPR30 in estrogen and salt sensitive hypertension." He was invited to chair a session in the Workshop at the American Heart Association Council for High Blood Pressure Research Annual Meeting in Washington, DC in October 2010. He was also appointed an editor for the Journal of the American Society of Hypertension and elected to the Leadership Committee for the Council for High Blood Pressure

**Debra Diz, PhD, FAHA**, was appointed to the Historically Black Colleges and Universities Undergraduate Program (HBCU-UP) External Advisory Committee at Johnson C. Smith University in Charlotte. She participated in an advisory meeting April 22, 2010 in Charlotte for the National Science Foundation (NSF) sponsored program (HBCU-UP) and serve as the liaison with WFUSM for Summer research internships for this program.

Dr. Diz was an invited speaker to the Pediatric Academic Society in Vancouver, British Columbia, Canada on May 3, 2010. The title of the Symposium was The Brain and Hypertension. Her presentation was entitled "Brain Effects of Antihypertensive Therapy." Dr. Diz also chaired a session entitled "Neural Control Mechanisms" at the American Heart Association Council for High Blood Pressure Research Annual Meeting in Washington, DC in October 2010.

Dr. Diz was selected as a member of the North Carolina Advocacy Coordinating Committee Prevention Workgroup of the American Heart Association. In this two-year position she will collaborate with other health care professionals to fulfill the goals of the NC Advocacy Program which focuses on cardiovascular disease prevention/public health issues (e.g., tobacco control, obesity prevention, sodium, etc) and health systems/clinical issues such as state STEMI registry and telemedicine.

**Patricia E. Gallagher, PhD**, was selected as the Co-Chair for the American Heart Association's Molecular Signaling 2 Unified Peer Review Study Group.

**TanYa Gwathmey-Williams, PhD,** a post doctoral fellow was invited by the American Physiological Society (APS) to represent the office of Education at the Inaugural USA Science & Engineering Festival that was held in Washington, D.C. on October 23 & 24, 2010.

Dr. Gwathmey-Williams was also awarded the 2010 Clinical Science Young Investigator Award by the Cardiovascular Section of the Federation of American Societies for Experimental Biology.

**JaNae Joyner**, **PhD**, a research associate in the Division of Surgical Sciences and COSEHC was awarded the Wake Forest University Scholar Development Award.

Kathi J. Kemper, MD, MPH presented a number of seminars last year including the webinar "Integrative Medicine: A Focus on Meditation Preactices," The Massachusetts College of Pharmacy and Allied Health Sciences, Boston, MA, Mar 2. "Mental Health, Naturally" Pediatric Ground Rounds, WFUBMC, Winston-Salem, NC, Mar 26. "Mental Health, Naturally" iCan House Spring Discussion, The Enrichment Center, Winston-Salem, NC, Apr 13. "Managing ADHD, Naturally" July 5; "Natural Strategies to Help Headache Sufferers" July 6; "Probiotics and Prebiotics: Update on Uses and Contraindications" July 6; "Herbs Every Pediatrician Should Know" July 7; "Beating the Blues, Naturally" July 8; "Who, Me Stressed?" July 8; Pediatrics in the Islands: Clinical Pearls, Maui, Hawaii. "Mental Health Naturally" BestHealth, Aug 4. "Natural Remedies for Sleep" AAP NCE. San Francisco, CA, Oct 4. "Mental Health, Naturally" WFUBMC/NT CAM/Community Seminar series, Oct 15. "Mental Health, Naturally" WFUBMC/Psychiatry Grand Rounds Nov 5. "How to Talk with Families About Complementary Therapies" 21st Annual Pediatric Symposium, Fort Lauderdale, FL, Nov 13. "Herbs and Supplements Every Pediatrician Should Know" 21st Annual Pediatric Symposium, Fort Lauderdale, FL, Nov 13. "Stress Management and Cognitive Skills" 21st Annual Pediatric Symposium, Fort Lauderdale, FL, Nov 14. "Mindful Caring: Creating Caring Moments" WFUBMC Nursing Celebration of Caring, Village Tavern, Winston-Salem, NC, Nov 18.

**Bhavani Krishnan**, a graduate student in Molecular Genetics and Genomics with Drs. Gallagher and Tallant, was awarded the Alumni Student Travel Award to attend the American Association for Cancer Research Annual Meeting April 2010.

**Sarah Lindsey, PhD**, was award the Mead Johnson Research Award by the Endocrinology and Metabolism Section of the American Physiological Society.

She was also awarded 1st place, Poster Presentation, Women's Health Center of Excellence Research Conference. Her poster was entitled "GPER-1 activation reduces oxidative stress and alters renin-angiotensin system components in the kidneys of salt-sensitive mRen2.Lewis females."

Dr. Lindsey was appointed as Instructor in the Division of Surgical Sciences, Department of General Surgery-Hypertension and membership in the Hypertension & Vascular Research Center July 1, 2010. Her research focus is in the areas of estrogen, aging, and salt-sensitivity.

**Manisha Nautiyal, PhD**, a post doctoral fellow was awarded the Wake Forest University Scholar Development Award to attend the Experimental Biology Meeting April 2010.

**Chris Schaich**, graduate student in Physiology and Pharmacology with Dr. Diz was awarded 2010-2011 Alumni Student Travel Award for the American Heart Association Council for High Blood Pressure Research Annual Meetings in Washington, DC in October.

**Hossam Shaltout, PhD** was Selected as the "Wake Forest University Postdoctoral Fellow of the year 2010" for the recognition of outstanding research, scholarship and service to the university.

Dr. Shaltout was appointed as a co-chair of public relation and communication committee of the American Society of Pharmacology and Experimental Therapeutics- Division of Cardiovascular Pharmacology October 2010.

**Ann Tallant, PhD, FAHA**, was appointed to the American Heart Association Research Committee for a 2 year term, beginning July 1, 2010.

Dr. Tallant was also elected to the Awards Committee for the Cardiovascular Section of the American Physiological Society.

Mary Sorci-Thomas, PhD presentation entitled "Regulatory T Cells, Autoimmunity and Cholesterol Homeostasis" at the 6<sup>th</sup> International Atherosclerosis Society Sponsored Workshop on HDL. Whistler, BC Canada, May 19. "Autoimmunity and Cholesterol Homeostasis" at the Gordon Research Conferences on Lipoprotein Metabolism". Waterville Valley, NH, June 22. "HDL, Autoimmunity and Atherosclerosis" at the 2010 Kern Aspen Lipid Conference, Aspen, CO, Aug 21-24. "HDL ApoA-I What Makes It Act As The "Good Cholesterol"?" at Rutgers University, New Brunswick, New Jersey, Sept 27. "Why is HDL ApoA-I Anti-Atherogenic and Anti-Inflammatory?" at Rockefeller University for the 75<sup>th</sup> New York Lipid Club Meeting. New York, New York. Sept 28. "HDL ApoA-I; What Makes It Protective or the "Good Cholesterol"? at the Southeast Lipid Research Conference. Pine Mountain, GA, Oct 9.

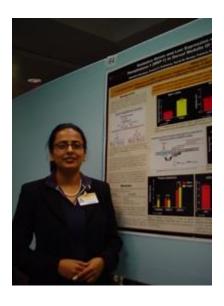
**Aaron Trask, PhD,** a former graduate student and his father Mark Trask were recognized for their award-winning design of the new logo for the American Physiological Society. Dr. Trask is currently a post doctoral fellow in the laboratory of Dr. Pamela Lucchesi in Columbus, OH.

The Hypertension and Vascular Research Center is proud to welcome five Brazilian graduate students in February 2010: **Nivia Santos, Daniel DeLima, Igor Almeida, Carina Horta, and Clarissa Chagas**. The students all attend the Universidade Federal de Minas Gerais in Belo Horizonte. The U.S.-Brazil Biomedical Sciences Exchange Program is a consortium of educational institutions that includes Wake Forest University School of Medicine as the lead U.S. partner, Wright State University in Dayton, Ohio and two historically Black institutions: Central State University in Ohio and Winston-Salem State University in North Carolina. These program partners wish to advance the exchange of research faculty and students to enhance international collaborations in the biomedical sciences. If anyone is interested in hosting a student, please contact Dr. Diz.

**Recognition for years of Service Awards**: Sarfaraz Ahmad, PhD 5 years; Nancy Pirro 15 years; Sarah Smith 25 years

In December 2010, the Hypertension and Vascular Research Center welcomed five Brazilian exchange students from Sao Paulo, Brazil. The students are a part of the U.S.-Brazil Biomedical Sciences Exchange Program, a consortium of educational institutions which include Wake Forest University School of Medicine and Wright State University in Dayton, Ohio and two historically Black institutions: Central State University in Ohio and Winston-Salem State University in Winston-Salem, North Carolina. These program partners wish to advance the exchange of research faculty and students to enhance international collaborations in biomedical sciences. Brazil student, Luciana Firmes began July 13 in an exchange program with Wake Forest University School of Medicine and Universidade Federal de Menas Gerais, Belo Horizonte, MG, Brazil. Cynthia Muller, Daniela Farah, Livia Farah, and Tahira Melo all attend the University Presbyterian-MacKenzie. Cynthia Muller will work with Dr. Mark Chappell, Daniella Farah with Drs. Ann Tallant and Patricia Gallagher, and Livia Farah with Dr. Bridget Brosnihan. Tahira Melo will work with Dr. WeiLing Zhao in Radiation Oncology. **Ariel da Silva** attends the Universidade Luterana do Brazil and will work with Dr. Sarah Lindsey.

In February 2011 we unfortunately will bid farewell to three Brazil exchange students as they return to their homes in Belo Horizonte, Brazil. **Daniel DeLima** worked with Dr. Debra Diz, **Nivia Santos** with Dr. Jasmina Varagic, and **Luciana Firmes** with Dr. Bridget Brosnihan. We wish all of them the best in the future and will truly miss them. Tehau Luciana, Nivia and Daniel!



# 18<sup>th</sup> Annual Residents' & Fellows' Research Day 11/11/2010

Basic Science: FELLOW - SILVER
Manisha Nautiyal, Ph.D.

"Oxidative Stress and Low Expression of
Mitogen-Activated Protein Kinase Phosphatase1 (MKP-1) in Dorsal Medulla Of Hypertensive
(mRen2)27 Transgenic Rats " Manisha Nautiyal,
Prasad V. Katakam, David W. Busija, Patricia E.
Gallagher, E. Ann Tallant, Mark C. Chappell and Debra
I. Diz.

## **Grants**

Mark C. Chappell, PhD, awarded a subcontract with Wright State University funded by the US Department of Education entitled "US-Brazil Higher Education Consortia Program."

Mark C. Chappell, Ph.D. WFUSM Venture Fund Nuclear Angiotensin Receptors in Hypertension and Renal Injury

Debra I. Diz, Ph.D. Lois Groskort Heart Research Fund and WFUSM Venture Fund Antenatal Steroid Exposure and Neural Control of Blood Pressure

Co-PD/PI Debra I. Diz, Ph.D. and Leanne Groban, MD NIH/Pepper Center's Pilot and Exploratory Studies RFA Title: Understanding and Addressing Pathways to Physical Disability in Older Person. Pilot Study Title: Brain Transmitters as Markers of Autonomic Profiling in the Elderly

Co-PI/Patricia E. Gallagher, Ph.D., E. Ann Tallant, Ph.D., and Dr. Sharon Castellino WFU Translational Sciences Institute (TSI) Effect of Angiotensin-(1-7) on Childhood Sarcomas

Sarah Lindsey, Ph.D. American Heart Association "Vascular Interactions of Estrogen Receptor GPER-1 and the Renin-Angiotensin System."

Chadwick Miller, MD, MS, Wake Forest University Translational Science Institute, Team Science Award Application (Register), "Novel Biomarkers of Cardiovascular Health: Model Systems Development and Implementation" Co-Investigator.

Chadwick Miller, MD, MS, 1 R21 HL097131-01A1, National Institutes of Health, National Heart Lung, and Blood Institute "Randomized Investigation of Chest Pain Diagnostic Strategies" Primary Investigator.

Manisha Nautiyal, Ph.D. American Heart Association "Baroreflex Regulation By Ang-(1-7)Activation of MkP-1 in Dorsal Medulla."

Co-PI / E. Ann Tallant, Ph.D. and Patricia Gallagher, Ph.D. Nature's Pearl Corporation Molecular Mechanisms of the Inhibition of Human Breast Cancer Cell Growth by Muscadine Grape Seed and Grape Skin Extracts

Co-PI / E. Ann Tallant, Ph.D. and Patricia Gallagher, Ph.D. Nature's Pearl Corporation Inhibition of Human Breast Tumor Growth in Athymic Mice for Nature's Pearl Muscadine Grape Seed and Grape Skin Extracts

Lisa Washburn, MD, IRSC, WFUSM Venture Fund, Interim Funding for "Antenatal Steroids and Blood Pressure in childhood"

Lisa Washburn, MD, PI of Project 4, Po1 HD047584 (Rose) NIH, Prenatal Events-Postnatal consequences, no cost extension

Lisa Washburn, MD, TSI award for Vitamin D levels in adolescents born prematurely

#### PROFESSIONAL APPOINTMENTS AND COMMITTEE ACTIVITIES

#### **Editorial Boards**

American Journal of Physiology: Heart & Circulatory Physiology (Brosnihan, Diz)

Current Hypertension Review (Brosnihan, Diz)

General Pharmacology: The Vascular System now Vascular Pharmacology (Diz)

Hypertension (Brosnihan, Chappell, Diz)

Journal of American Society of Hypertension (Chappell)

Journal of Clinical Pharmacology (Brosnihan)

Journal of Lipid Research, Arteriosclerosis, Thrombosis, and Vascular Biology (Sorci-Thomas)

#### **Professional Review Committees**

American Heart Association - Mid-Atlantic Affiliate, MAT1B Study Section (Gallagher)

Molecular & Cell Biology Study Section, Mid-Atlantic Affiliate, (Gallagher)

MRC New Investigator Proposals, (Chappell)

NIH, NHLBI, Program Project Review Committee (Chappell, Diz, Sorci-Thomas)

NIH, NHLBI, Vascular Biology and Cellular Hematology (Chappell)

NIH, NHLBI, Hypertension and Microcirculation, (Chappell)

NIH, NHLBI, Atherosclerosis, Inflammation and Cardiovascular Science (Sorci-Thomas)

NIH, NIAID, Centers for Medical Countermeasures against Radiation, (Chappell)

NIH, NINR, Epigenetic Regulation in Disease (Varagic)

#### **Professional Society Activities**

American Heart Association, Council for High Blood Pressure Research, Leadership Committee (Chappell, Tallant)

American Heart Association, Council for High Blood Pressure Research, Program Committee (Tallant)

American Heart Association, Council for High Blood Pressure Research, Training Committee, (Tallant)

American Heart Association- Mid-Atlantic Affiliate, Research Committee, (Tallant)

American Physiological Society - Endocrine, Committee on Committee (Chappell)

American Physiological Society, Women in Physiology Committee, (Lindsey)

American Society of Pharmacology and Experimental Therapeutics, Graduate Education Committee (*Lindsey*)

Faculty of 1000 (Chappell)

Inter-American Society of Hypertension, Board of Directors (Brosnihan)

Kern Aspen Board Member (Sorci-Thomas)

#### **Institutional Committees**

Animal Care and Use Committee (Strawn)

Clinical Laboratory Safety Committee (Brosnihan)

Division of Surgical Sciences Promotion Committee (Brosnihan)

Excellence in Cardiovascular Sciences Summer Program, Executive and Recruiting Committee (Tallant)

Excellence in Cardiovascular Sciences Summer Program Recruitment Committee (Varagic)

General Radiation Safety Committee, Chairman (Tallant)

Graduate School Biomedical Sciences Committee (Brosnihan)

Molecular Medicine Executive Committee (Brosnihan)

Phys/Pharm Curriculum Committee (Tallant)

Phys/Pharm Recruitment Committee (Gallagher, Tallant, Varagic)

Research Advisory Committee (Kemper)

Research Operations Committee (Kemper)

## PROFESSIONAL APPOINTMENTS, continued

Surgical Research Advisory Council (Brosnihan, Chappell)

Task Force on Barriers to Conducting Translational Research, Co-Chair, (Kemper)

Translational Science Institute, Research Education and Career Development Program (Brosnihan)

Translational Science Institute Team Science Awards, Grant Reviewer, (Kemper)

Women's Health Center of Excellence Research Committee (Chappell, Washburn)

WHCoE Leadership, Liaison and Mentoring Committees (Brosnihan)

#### **Recent Publications**

- Ambrosius WT, Danis RP, **Goff Jr. DC**, Greven CM, Gerstein HC, Cohen RM, Riddle MC, Miller ME, Buse JB, Bonds DE, Peterson KA, Rosenberg YD, Perdue LH, Esser BA, Seaquist LA, Felicetta JV, Chew EY for the ACCORD Study Investigators. Lack of Association between Thiazolidinediones and Macular Edema in Type 2 Diabetes: The ACCORD Eye Study. Archives of Ophthalmology, in press, expected publication January 2010.
- Anton L, Merrill DC, Neves LA, Gruver C, Moorefield C, Brosnihan KB. Angiotensin II and angiotensin-(1-7) decrease sFlt1 release in normal but not preeclamptic chorionic villi: an in vitro study. Reprod Biol Endocrinol. 2010 Nov 4;8:135. PMC2989977
- Arnold AC, Isa K, Shaltout HA, Nautiyal M, Ferrario CM, Chappell MC, Diz DI. Angiotensin-(1-12) requires angiotensin converting enzyme and AT1 receptors for cardiovascular actions within the solitary tract nucleus. Am J Physiol Heart Circ Physiol. 2010 Sep;299(3):H763-71. PMC2944473
- **Bell RA**, Andrews JS, Arcury TA, Snively BM, Golden SL, Quandt SA. Depressive symptoms and diabetes self-management among rural older adults. Am J Health Behav 2010;34:36–44. PMID: 19663750
- **Bell RA.** Poverty's Impact on the Health of North Carolina: The Socioeconomic Determinants of Health. North Carolina Medical Journal 2010;71:77–78.
- 6 Bhat S, **Sorci-Thomas MG**, Calabresi L, Samuel M, and Thomas MJ. Conformation of Dimeric ApoA-I<sub>Milano</sub> on Recombinant Lipoprotein Particles. Biochemistry. 2010 June 29:49(25):5213-24.
- Bleyer AJ, Vidya S, Sujata L, Russell GB, Akinnifesi D, Bleyer AJ, Jr, Hire D, Shihabi Z, Knovich MA, Daeihagh P, Calles J, **Freedman BI**. Sickle cell trait and development of microvascular complications in diabetes mellitus. Clin J Am Soc Nephrol 2010 Jun;5(6):1015-20.
- 8 Bostrom M, Freedman BI. The spectrum of MYH9-associated nephropathy. Clin J Am Soc Nephrol 2010 Jun;5(6)107-13.
- 9 **Brosnihan KB**, Hering L, Dechend R, **Chappell MC**, Herse F. <u>Increased angiotensin II in the mesometrial triangle of a transgenic rat model of preeclampsia</u>. Hypertension. 2010 Feb;55(2):562-6. PMC2820829
- Buckalew VM, **Freedman BI**. Reappraisal of the impact of ethnicity on survival in patients on dialysis. Am J Kidney Dis 2010 Jun;55(6):1102-10.
- Burdon KP, Rudock ME, Lehtinen AB, Langefeld CD, Bowden DW, Register TC, Liu Y, **Freedman BI**, Carr JJ, Hedrick C, Rich SS. Human lipoxygenase pathway gene variation and association with markers of subclinical atherosclerosis in the Diabetes Heart Study. Mediators of Inflammation 2010:170153, Epub 2010 May 31.
- Carlo WA, Finer NN, Walsh MC Rich W, Gantz MG Laptook AR, Yoder BA, Faix RG, Das A, Poole WK, Schibler K, Newman NS, Ambalavanan N, Frantz ID, Sánchez PJ, Piazza AJ, Morris BH, Laroia N, Phelps DL, Poindexter BB, Cotton CM, Van Meurs KP, Duara S, Narendran V, Sood BG, **O'Shea TM**, Bell EF, Ehrenkranz RA, Watterberg KL, Higgins RD for the NICHD Neonatal Research Network and the Surfactant, Positive Pressure, and Oxygenation Randomized Trial (SUPPORT) *Study Group of the Eunice Kennedy Shriver National Institute of Child Health and Human Development Neonatal Research Network*. A Randomized Trial of Oxygen Saturation Targets in Extremely Preterm Infants. NEJM 2010 (accepted)
- Chappell MC. Angiotensin-converting enzyme 2 autoantibodies: further evidence for a role of the renin-angiotensin system in inflammation. Arthritis Res Ther. 2010;12(3):128. PMC2911909
- Chappell MC. Does ACE2 contribute to the development of hypertension? Hypertens Res. 2010 Feb;33(2):107-9.
- Cohen JA, Lindsey SH, Pirro NT, Brosnihan KB, Gallagher PE, Chappell MC. Influence of estrogen depletion and salt loading on renal angiotensinogen expression in the mRen(2).Lewis strain. Am J Physiol Renal Physiol. 2010 Jul;299(1):F35-42. PMC2904164
- Collins SP, Pang PS, Lindsell CJ, Kyriacou DN, Storrow AB, Hollander JE, Kirk JD, **Miller CD**, et al. International Variations in the Clinical, Diagnostic, and Treatment Characteristics of Emergency Department Patients with Acute Heart Failure Syndromes. European Journal of Heart Failure; 2010. doi:10.1093/eurjhf/hfq133
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**Dr. Mark Chappell** is a co-author on Dr. Lisa Harrison-Bernard's paper entitled "Major role for ACE-independent intrarenal ANGII formation in type II diabetes" [84] that was recognized as the paper of the year in the American Journal of Physiology – Renal Physiology for 2010.

**Dr. Kathi Kemper's** editorial entitled "When Doctors Become Patients: Advocating a Patient-Centered Approach for Health Care Workers in the Context of Mandatory Influenza Vaccinations and Informed Consent" [63] Wake Forest Law Review 2010 received a Social Science Research Network (SSRN) Top Ten Award.

**Dr. Manisha Nautiyal's** paper entitled "Neuronal localization of the mitochondrial protein NIPSNAP1 in rat nervous system" [78] was featured on the cover of the August 2010 issue of the European Journal of Neuroscience (EJN).

## **American Heart Association Links**

www.heart.org/ncadvocacy

www.yourethecure.org

Wear Red: <u>www.wearredforheart@heart.org</u>

Donation site: www.heart.org/care

https://www.research.americanheart.org

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The Hypertension & Vascular Research Center newsletter was edited by Rachel Reynolds and Mark Chappell

#### Begin the Year with "Life's Simple 7"

Based on the knowledge and expertise of The American Heart Association, this self-assessment will help you understand simple steps you may need to take to improve your heart health and quality of life. You will be directed to specific action plans that will help you get informed, change your behaviors and move you toward your individual health goals. http://mylifecheck.heart.org/

## **Job Opportunities**

http://www.wfubmc.edu/School/Hypertensi on-and-Vascular-Research-Center/Job-Opportunities.htm



Sarah Lindsey, PhD was promoted to faculty as Instructor in the Division of Surgical Sciences, Department of General Surgery-Hypertension and membership in the Hypertension & Vascular Research Center.



Janie Marshall has recently been hired as COSEHC IT Programmer to assist with COSEHC's rapidly expanding database processing.



Liliya Yamaleyeva, MD, PhD was promoted to faculty as Instructor in the Division of Surgical Sciences, Department of General Surgery-Hypertension and membership in the Hypertension & Vascular Research Center.