



# T.H.R.C.E.

TULANE HYPERTENSION AND RENAL CENTER OF EXCELLENCE

Fall 2004

Volume 3, Issue 3



## Drs. Hamm and Navar to assume positions in national organizations



Dr. L. Lee Hamm, Director of the Hypertension Center, and Dr. L. Gabriel Navar, Co-Director, will both be assuming positions in national organizations. Dr. Navar has been elected to serve as the Vice-Chair of the High Blood Pressure Council of the American Heart Association. This elected position is responsible for organizing the annual meeting of the High Blood Pressure Council. After a tenure of two years, the Vice-Chair moves into the Chair position. Dr. Hamm recently began his responsibilities as the Chair of the Kidney Council of the American Heart Association. As chair of the Council, Dr. Hamm directs activities, meetings, and conferences related to the Council. The mission of the Kidney Council is to reduce cardiovascular-related disability and death through research, communication, advocacy and education about the kidney.

### In This Issue

Center Co-Directors assume National positions	1
COSEHC meeting	1
COBRE Research Symposium	2
IASH meeting	2
Publications	3,4
Open House	4
Presentations	5,6
Calendar of Events	7
Awards/Other News	8

## COSEHC Annual Meeting held in New Orleans August 25-27

The 11th Annual Consortium for Southeastern Hypertension Control (COSEHC) National Scientific Sessions was held in New Orleans August 25-27 at the Motel Monteleone. Dr. Navar served as co-chair with Dr. Edward Frohlich of the Ochsner Clinic Foundation. In association with the Scientific Sessions, COSEHC sponsored a free public health fair held downtown at the New Orleans Centre in the early evening on Wednesday, August 25. The Hypertension Center was represented by Dr. Albert Dreisbach's booth where free blood pressure screenings were available to the public. Dr. Dreisbach is a COBRE junior faculty investigator. Prior to the event, Dr. Navar participated in a media campaign to promote the health fair and was featured on WWLTV Channel 4 News with Meg Farris on a special report on high blood pressure in New Orleans.



Dr. Navar meets with Meg Farris of Channel 4 News to promote the COSEHC Public Health Fair.



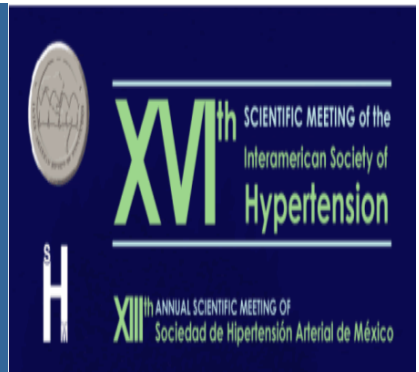
Dr. Albert Dreisbach and Dr. Navar at the COSEHC Public Health Fair in front of Dr. Dreisbach's booth.

# COBRE Director attends Research Symposium of Cardiovascular related COBRE programs

L. Gabriel Navar, Ph.D attended a meeting of COBRE programs in cardiovascular sciences in West Yellowstone, Montana, August 4-7. The symposium was organized by Dr. Martin Gerdes, COBRE Director of the program at the University of South Dakota. Other COBRE programs represented were the University of Wyoming, the University of South Carolina, and the University of Montana. Representatives from each of the COBRE programs provided brief overviews of the projects at their respective institutions with the objectives of establishing collaborations and interactions. Research presentations from representatives of the various COBRE programs and members of external advisory committees covered transgenic models of cardiovascular, cardiovascular toxicology, various aspects of heart failure, and oxidative stress and endothelial dysfunctions. Dr. Navar's presentation was on the role of the Intrarenal Renin-Angiotensin System in the Pathophysiology of Hypertension. Dr. Navar also attended the COBRE Principal Investigator's meeting in Bethesda, November 8-9, to discuss new directions of the COBRE program. Paul Muntner, Ph.D., junior investigator for Project 5 on the Tulane COBRE, was invited to attend the PI meeting to participate on a panel discussing the mentoring process.

NEWS

## InterAmerican Society of Hypertension Meeting April 17-20, 2005, Cancun, Mexico



The Interamerican Society of Hypertension will be holding its XVIth Scientific Meeting in Cancun, Mexico at the Hotel Gran Melia, April 17-20, 2005. The meeting provides a forum for presenting new advances in basic clinical and epidemiological research in hypertension and target organ injury. In the tradition of the Society, the meeting also represents an important means for promoting interaction among basic and clinical hypertension and cardiovascular researchers from different countries in the Americas (North, Central, and South America) as well as other continents. A special emphasis of the Society is to support and encourage the participation of young investigators throughout the Americas. The Society has established the Young Investigator and Travel awards to stimulate the research and participation of young investigators in the beginning of their careers. The Lifetime Achievement award recognizes the contribution of senior scientists in the field of hypertension. For more information, please visit the IASH meeting website: <http://www.ias16meeting.org/>.

### **Important Deadlines:**

Abstract submission: December 15, 2004

Early Registration: by January 31, 2005

Young Investigator Awards: December 15, 2004

Lifetime Achievement Award: December 15, 2004

## Recent Publications

Davis BR, Furberg CD, Wright JT, Cutler JA, Whelton PK, for the ALLHAT Collaborative Research Group. ALLHAT: Setting the record straight. *Annals of Internal Medicine*. 141: 39-46, 2004.

Gonzalez-Villalobos R, Klassen RB, Allen PL, Navar LG and Hammond TG. Megalin binds and internalizes Angiotensin II. *Am J Physiol Renal Physiol*, Oct 2004 (epub ahead of print).

Gu D, Wu X, Reynolds K, Duan X, Xin X, Reynolds R, Whelton PK, He J, for the InterASIA Collaborative Group. Cigarette smoking and exposure to environmental tobacco smoke in China: The International Collaborative Study of Cardiovascular Disease in Asia. *American Journal of Public Health* 11: 1972-1976, 2004.

He J, Gu D, Reynold K, Wu Z, Muntner P, Zhao J, Chen J, Liu D, Mo J, Whelton P, for the InterASIA Collaborative Group. Serum total and lipoprotein cholesterol levels and awareness, treatment, and control of hypercholesterolemia in China. *Circulation* 110: 405-411, 2004.

He J, Neal B, Gu D, Suriyawongpaisal P, Xin X, Reynolds K, MacMahon S, Whelton PK, for the InterASIA Collaborative Group: International Collaborative Study of Cardiovascular Disease in Asia (InterASIA). Design, rationale, and preliminary results. *Ethnicity and Disease* 14: 260-268, 2004.

Huang J, Wildman RP, Gu D, Muntner P, Su S and He J. Prevalence of Isolated Systolic and Isolated Diastolic Hypertension subtypes in China. *American Journal of Hypertension* 17: 955-962, 2004.

Muntner P, Gu D, Wu X, Duan X, Whelton PK, He J, for the InterASIA Collaborative Group. Factors associated with hypertension awareness, treatment, and control in a representative sample of the Chinese population. *Hypertension* 43: 578-585, 2004.

Muntner P, He J, Chen J, Fonseca V, Whelton PK. Prevalence of non-traditional cardiovascular disease risk factors among persons with impaired fasting glucose, impaired glucose tolerance, diabetes, and the metabolic syndrome: Analysis of the Third National Health and Nutrition Examination Survey (NHANES III). *Annals of Epidemiology*. 9: 686-695, 2004.

Muntner P, He J, Cutler JA, Wildman RP, Whelton PK. Trends in blood pressure among children and adolescents in the United States. *Journal of the American Medical Association*. 291: 2107-2113, 2004.

Nakhoul, NL, DeJong H, Abdulnour-Nakhoul SM, Boulpaop EL, Hering-Smith K, Hamm LL. Characteristics of Renal Rhbg as an NH<sub>4</sub><sup>+</sup> Transporter. *Am J Physiol Renal Physiol*. Sep 7 2004 (Epub ahead of print)

Reyna SV, Ensenat MS, Johnson FK, Wang H, Schafer AI, Durante W. Cyclic strain stimulates L-proline transport in vascular smooth muscle cells. *Am J Hypertens* 17: 712-717, 2004.

Schofield GG. PicoGmeter, a custom-made fluorometer for the quantification of dsDNA by PicoGreen® fluorescence. *BioTechniques* 37: 778-782, 2004.

Teran FJ, Johnson RA, Jackson KE, Appleton SD, Durante W, Peyton KJ, Johnson FK. Heme oxygenase-mediated endothelial dysfunction develops gradually in Dahl rats with salt-induced hypertension. *Am J Physiol Regul Integr Comp Physiol* doi: 10.1152/ajpregu.00123.2004

# Recent Publications

(published online November 4, 2004)

Vellaichamy E and Pandey KN. Activation of matrix metalloproteinases and proinflammatory mediators in Npr1 gene-targeted mutant mouse model: Role in cardiac hypertrophy, fibrosis, and remodeling. *Hypertension* 44: 537-538, 2004.

Vupputuri S, Batuman V, Muntner P, Bazzano LA, Lefante JJ, Whelton PK, He J. The risk for mild kidney function decline associated with illicit drug use among hypertensive men. *American Journal of Kidney Diseases*. 43: 629-635, 2004.

Whelton PK, Beevers DG, Sonkodi S. Strategies for improvement of awareness, treatment and control of hypertension: Results of a panel discussion. *Journal of Human Hypertension* 0: 1-3, 2004.

Whelton SP, He J, Whelton PK, Muntner P. Meta-analysis of observational studies on fish intake and coronary heart disease. *American Journal of Cardiology*. 93: 1119-1123, 2004.

## Center hosts Open House as part of Tulane University Doors to Discovery Symposium

The Hypertension Center opened the doors of our newly renovated lab space during the Tulane University Doors to Discovery Symposium held in late September. All participants of the Symposium were invited, which included alumni, to tour the new area and browse through posters presented by Hypertension Center investigators. Renovations for the lab were made possible through funding provided by NIH Grant Number P20 RR17659 from the National Center for Research Resources, IDeA Program. The lab will house the Center's CORE facilities.



Visiting Professor Jorge Rodriguez, Postdoctoral Fellow Rudy Ortiz, and Graduate Student Romer Gonsales-Villalobos.



Poster presentations by Hypertension Center investigators displayed in the newly renovated lab space at Tulane's Medical School.

# Tulane Investigators Participate in International, National, and Regional Meetings

## **Congress of the International Pediatric Nephrology Association Adelaide, Australia, August 2004**

Yosypiv, Ihor. Angiotensin (ANG) II Stimulates Ureteric Bud (UB) Cell Branching morphogenesis in vitro via transactivation of epidermal growth, presentation

## **International Conference on Second Messengers and Phosphoproteins in Montreal, Canada, August 3-7, 2004**

Pandey KN, Nguyen HT, and Garg R. GDAY acts as a signal motif for internalization of single transmembrane domain receptor. *12th Int. Congr. Second Messeng. And Phosphoproteins*, pg. 96, 2004.

## **11th Annual Consortium for Southeastern Hypertension Control (COSEHC) National Scientific Sessions in New Orleans, LA, August 26-28, 2004**

Navar LG. Co-Chair, 11th National Scientific Sessions Program Committee

Arise K. Transcriptional repression of Npr1 gene by Vasoactive hormone Angiotensin II.

Batuman V. "New Insights into the Kidney in Cardiovascular Disease" chair

Botros F. Effect of renin-angiotensin system on heme oxygenase gene in the clipped and non-clipped kidneys of renovascular hypertensive rats.

Gonzalez-Villalobos R, Klassen RB, Allen PL, Navar LG, and Hammond TG. Megalin is a receptor for Angiotensin II.

Graciano M. Clopidogrel inhibits mesangial transformation in Angiotensin II dependent hypertension.

Hamm LL. "Cardiovascular Disease in Patients with Chronic Kidney Disease"

Navar LG. Renal Vascular Disease session co-chair

Ortiz RM. Adrenal and Excreted Aldosterone Increase with Chronic Eplerenone Treatment during Angiotensin II-induced Hypertension.

Prieto-Carrasquero MC. Role of AT1 receptor in increased distal nephron renin expression in Angiotensin II-infused hypertensive rats.

Whelton, P. "The benefits of lifestyle changes".

## **International Heart Forum in Beijing, China, September 2004**

Whelton, P. "The Antihypertensive and Lipid-lowering Treatment to Prevent Heart Attack Trial. Findings and implications for China", Plenary Session Presentation.

## **Industrial Technology and Research Institute in Taipei, Taiwan, September 2004**

Whelton, P. "Regenerative Medicine. An emerging therapeutic field".

## **Tulane University Doors to Discovery Symposium in New Orleans, Louisiana, October 2004**

Whelton, P. "Tulane University Health Sciences Center: Promise and Distinction", Vision Lunch Talk

Whelton, P. "The emerging world-wide burden of cardiovascular disease", Symposium Presentation

## **58th Annual Fall Conference and Scientific Sessions of the Council for High Blood Pressure Research in Chicago, Illinois, October 9-12, 2004**

Gonzalez-Villalobos R, Klassen RB, Allen PL, Navar LG and Hammond TG. Megalin mediates Angiotensin II uptake.

# Presentations continued

Hamm LL. Workshop: Kidney as Villian and Victim of Hypertension, organizer and session chair

Johnson RA, Ortiz RM, Appleton SD, Jackson KE, Navar LG, Johnson FK. AngII induces adrenal heme oxygenase-1 to promote feedback inhibition of aldosterone synthesis. (Abstract 86) - Oral presentation

Johnson FK, Durante W, Peyton KJ, Johnson RA. Endogenous carbon monoxide abolishes flow-induced dilation in hypertensive Dahl arterioles in an L-arginine sensitive manner. *Hypertension* (Abstract P137) - Poster presentation

Kobori H, Ozawa Y, Nishiyama A, Navar LG. Enhancement of Intrarenal Angiotensinogen in Spontaneously Hypertensive rats.

Navar LG. Renal Mechanisms and Natriuretic Factors, Session Moderator

Nishiyama A, Jackson KE, Majid DSA, Rahman M, Navar LG. Renal Interstitial Fluid ATP Responses to Arterial Pressure and Tubuloglomerular Feedback Activation During Treatment With a Calcium Channel Blocker. *Hypertension* 44: A511, 2004.

Ortiz RM, Bailey AN, Cabrera M, Graciano ML, Navar LG. Eplerenone Enhances Adrenal and Excreted Aldosterone During Angiotensin II-Induced Hypertension.

Ozawa Y, Kobori H, Suzuki Y, Navar LG. Residual Intrarenal Effects Following Cessation of Angiotensin II Infusion in Angiotensin II-Dependent Hypertension.

Prieto-Carrasquero MC, Kobori H, Gutierrez A, Seth D, Navar LG. Role of AT<sub>1</sub> Receptor in Increased Distal Nephron Renin in Angiotensin II-Infused Hypertensive Rats.

Vellaichamy E and Pandey KN. Activation of matrix metalloproteinases and proinflammatory mediators in Npr1 gene-targeted mutant mouse model: Role in cardiac hypertrophy, fibrosis, and remodeling.

## **American Society of Nephrology Meeting, St. Louis, Missouri, October 2004**

Dreisbach AW, Japa S, Sigel A, Fonseca JP, Parenti MB, Farin FM, Rettie AE, Lertora JLL. Prevalence of CYP2C9, CYP2J2 and Soluble Epoxide Hydrolase in African-Americans on Hemodialysis. Poster presentation

Kobori H, Ozawa Y, Nishiyama, A, Navar LG. Enhanced Intrarenal Angiotensinogen (AGT) Contributes to Renal Injury in Spontaneously Hypertensive Rats (SHR).

Kopkan L, Castillo A, Navar LG, Majid DSA. Superoxide Anion Modulates Renal Hemodynamics and Excretory Function in Angiotensin II Infused Rats.

Mitchell KD, Patterson ME, Mullins JJ. Interactive Effects of Superoxide Anion and Nitric Oxide on Blood Pressure and Renal Hemodynamics in Transgenic Rats with Inducible Malignant Hypertension.

## **American Heart Association Scientific Sessions in New Orleans, LA, November 2004**

Navar LG, "Receptor-mediated signaling: new paradigms in disease mechanisms" session chair

Vellaichamy E and Pandey KN, "Activation of growth factors and cytokines in mice lacking natriuretic peptide receptor-A lacking mice: role in cardiac hypertrophy and fibrosis" oral session

### **Invited Speakers:**

LG Navar, University of North Carolina, Chapel Hill. "Regulation of Intrarenal Angiotensin II and Angiotensinogen in Hypertension" October 18

LG Navar, Ochsner Symposium on Cardiac Renin-Angiotensin System, New Orleans, LA. "The potential of a reciprocal renin-angiotensin system in the kidney" November 10

# T.H.R.C.E.

## CONFERENCES

Thursday, August 19

Vecihi Batuman, MD  
Tulane University Health Sciences Center  
"Light Chain-Proximal Tubule Cell Interactions"

Thursday, August 25

Javier Diez, MD, PhD  
University of Navarra, Pamplona, Spain  
"Studies on the mechanisms involved in the transition from LVH to heart failure in hypertension"

Thursday, September 2

Labor Day

Tuesday, September 16

*Canceled due to Hurricane Ivan*

Thursday, September 30

Tulane 170 Anniversary Celebration  
THRCE Open House

Thursday, October 14

Jiang He, MD  
Tulane University Health Sciences Center  
"Hypertension in China"

Thursday, October 28

Jeff Sands, MD  
Emory University School of Medicine  
"Regulation of Renal Urea Transporters"

Thursday, November 11

Rhian Touyz, MD, PhD  
Clinical Research Institute of Montreal  
"ANG II, NAD(P)H Oxidase, Oxidative Stress, and Hypertension"

Thursday, November 25

Thanksgiving

Thursday, December 9

Kailash N. Pandey, PhD  
Tulane University Health Sciences Center  
"Genomic Mutation of Guanylyl Cyclase/Natriuretic Peptide Receptor-A Defines Role in Hypertension and Cardiovascular Disease States"

Thursday, December 23

Christmas

## Recent Awards

The Hypertension Center would like to recognize the generous support from **Takeda Pharmaceuticals North America, Inc.** Through an Educational Grant, Takeda is sponsoring out-of-town guest speakers to present at the THRCE Seminar Series. We recently welcomed our first Takeda Seminar Speaker, Rhian Touyz, MD, PhD, from the Clinical Research Institute of Montreal, Canada, on Wednesday, November 10, 2005. Dr. Touyz gave a lecture titled, "ANG II, NAD (P)H Oxidase, Oxidative Stress, and Hypertension." We extend our thanks to Takeda for their support and look forward to continuing this valuable program.

Since the Center's establishment, we have been successful at obtaining funding from the National Institutes of Health and the Louisiana Board of Regents Millennium Health Excellence Fund for studies that address the broad spectrum of major current issues related to hypertension.

While we have enjoyed considerable success receiving funding for research, the Center

## Other Announcements

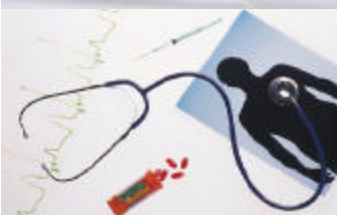
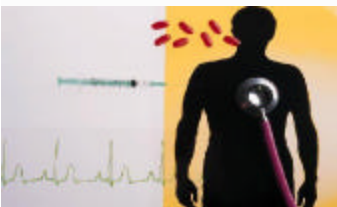
lacks the resources necessary to develop outreach programs in the community and to expand our faculty. One of our goals is to create a vertically integrated research, clinical, and public education program. We are ready to embark on the next phase of our expansion, but lack the essential resources.

In light of this situation, we have decided to establish the *Tulane Hypertension Center Development Fund*. We are writing to appeal for your support in the next phase of the Center's growth. We believe that you share our goal of establishing the Center as the premier source of information on hypertension, not only in the academic community, but among the public as well.

As you think about your year-end charitable donations, please consider giving to the *Tulane Hypertension Center Development Fund*. All gifts are fully tax deductible. For more information, please contact the Center's Program Coordinator, Kathryn Henderson, at (504) 988-3703 or [khender@tulane.edu](mailto:khender@tulane.edu)

We appreciate your continued support.

news



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**The directors invite faculty members interested in participating in the activities of the T.H.R.C.E. to submit your name, phone number, fax number, and e-mail address to the Program Coordinator by e-mail at [khender@tulane.edu](mailto:khender@tulane.edu) or regular mail to the address provided. Also, please forward all information (awards, publications, presentations) to this email address for inclusion in the next newsletter.**