Grants & Research Support Awarded to THRCE Affiliated Investigators

Dr. Andrea Zsombok received a pilot project grant from the Center for Aging COBRE Mentoring Research Excellence in Aging & Regenerative Medicine for her project titled “Central regulation of glucose homeostasis by SIRT1.”

Dr. Minolfa Prieto received a second pilot grant from UAB Center for Clinical and Translational Sciences for her project titled “Soluble Form of the Prorenin Receptor in the Urine of Diabetic Patients.” Her first pilot award, “Relevance of Urinary Renin, Prorenin, and TGF-beta in Patients with Diabetes and Hypertension: Impact of Gender,” was received earlier in 2012.

Dr. Minolfa Prieto received a $50,000 pilot project from LaCaTS for a project titled “Urinary Excretion of Renin and Soluble Prorenin Receptor and Blood Pressure: Potential Biomarkers of Activation of the Renin-angiotensin System in Hypertensive Patients.”

Drs. Dewan S. A. Majid, Kenneth D. Mitchell, and Andrei Derbenev all received Bridge Funding Awards from the Office of Research Bridge Funding Competition.

Dr. Cooper Woods received a Basic Science Research Award Grant from American Diabetes Association for his study, “Acceleration of intimal hyperplasia by Diabetes induced increases in miR-221 and -222.”

Dr. Andrea Zsombo was awarded $25,000 from the School of Medicine Research Pilot Program.

Dr. LG Navar and Dr. Gary Sanders are Co-Investigators of a Pilot Grant titled “Relationship of uAGT to Blood Pressure and Response to Antihypertensive Therapy” from Louisiana Clinical and Translational Science Center (LaCATS).
Dr. Navar was presented the 1st Annual Urlich Hopfer Lecture, Case Western Reserve University School of Medicine, Department of Physiology and Biophysics, Cleveland, OH on April 12, 2013.

Dr. Prieto was elected as Secretary of the Renal Section of the American Physiological Society (APS). The title of his talk was, “The Intratubular RAS in Hypertension.”

Dr. Pandey completed seven years of service as Editorial Board Member of Physiological Genomics.

Dr. Majid and Dr. Feng both received travel awards to attend the International Union of Physiological Sciences (IUPS) 2013 Congress scheduled for July 21 to July 25 in Birmingham, UK. Dr. Majid’s abstract has been accepted for inclusion as a Poster Presentation. Dr. Yumei Feng received additional travel assistance from the Board of Regents, the “Emerging Faculty Travel Grant” for the same meeting. She will be participating as an invited speaker and participate in a symposium entitled “Recent Advances in Renin-angiotensin System in Health and Disease.”

Carlo Milani (Mentor Dr. Mitchell), medical student, received an APS Excellence in Professional Student Travel Award to attend the Experimental Biology (EB) 2013 meeting.

The following honors were presented at the Southern Regional Meeting held in New Orleans, LA in February, 2013:

- **Dr. Purnima Singh** (mentor: Dr. Dewan Majid), Postdoctoral Fellow received a travel award.
- **W. Cameron McGuire** and **Christina Luffman** (Mentor Dr. Prieto), medical students, received Outstanding Medical Student Research Awards.
- **Gabrielle Dawkins** (Mentor Dr. Prieto), medical students, was awarded a travel award.
- **Carlo Milani** (Mentor Dr. Mitchell), medical student, received a SAFMR/SSCI Student Travel Award.
- **Christina Thorngren** (Mentor Dr. Mitchell), medical student, received a SAFMR/SSCI Student Research Award for Medical Research. Ms. Thorngren also was selected to be considered for a “Henry Christian Award” that is given to the presenter and first author of the most outstanding abstracts submitted to the 2013 AFMR Eastern Regional Meeting, Washington, DC, April 17, 2013.
- Renfeng Song R, (Mentor Dr. Yosypiv), postdoctoral, received the Young Investigator Award for her talk, “Targeted Inactivation of the Prorenin Receptor (PRR) in the Ureteric Bud (UB) Inhibits UB Branching Morphogenesis.”
THRCE regularly sponsors bi-weekly seminars by scheduling nationally and internationally recognized investigators and clinicians in the field of hypertension research, treatment and education. From January through April, 2013, the center invited the following speakers to present THRCE seminars:

- **Damir B. Khismatullin, PhD**  
  *Associate Professor,*  
  *Department of Biomedical Engineering,*  
  *Tulane University School of Science & Engineering,*  
  *New Orleans, LA.*

On January 3, 2013, **Dr. Damir Khismatullin** presented “Role of macrophage- and mast cell-derived inflammatory mediators in endothelial dysfunction and circulating cell adhesion.” The release of TNF-alpha from tissue-resident macrophages plays a key role in chronic inflammation because it leads to dysfunction of vascular endothelium and increases the flux of leukocytes and other circulating cells to the inflamed tissue. However, macrophages are not the only cells in the subendothelial space that orchestrate the chronic inflammatory response. For example, a large number of mast cells are co-localized with macrophages in atherosclerotic plaques and other chronically inflamed tissues. The activation and degranulation of these cells lead to the release of histamine and other cytokines, which is a hallmark of allergic inflammation. In this talk, Dr. Khismatullin presented the static and microfluidic data from his laboratory indicating that 1) TNF-alpha and histamine synergistically increase monocyte adhesion to vascular endothelium and 2) the synergistic effect of these two mediators is the mechanism behind endothelial dysfunction induced by macrophages and mast cells activated by oxidized low-density lipoprotein. Thus, a vicious cycle that leads to an advanced stage of atherosclerosis (or another chronic inflammatory condition) may begin with co-activation and interaction of mast cells and macrophages in the subendothelial space. The talk concluded by discussion of the data on adhesion of other circulating cells to endothelium exposed to TNF-alpha and histamine.
Dr. Orson Moe presented, “A Nephrocentric View of the Klotho-FGF23 Network,” on January 17, 2013. The use of a calcium phosphate-based endoskeleton in vertebrates creates a situation where mineral homeostasis assumes pivotal importance in physiology. In addition to the critical role of external calcium and phosphate balance, internal balance of minerals is of paramount importance because physiologic bio-mineralization should be confined to specific tissues. Mineralization of soft tissue will lead to most undesirable consequences for the organism. Along with the evolution of the calcium phosphate endoskeleton followed by the aquatic-to-terrestrial migration of vertebrates, a number of safeguard mechanisms emerged to ensure external and internal balance of calcium and phosphate are exquisitely controlled. Amongst the various hormones are parathyroid hormone, vitamin D, fibroblast growth factor (FGF)-23, and Klotho. Chronic kidney disease in humans represent a state where most if not all the calico-phosphor-regulatory substances are deranged. The number one most important cause of mortality in human chronic kidney disease is cardiovascular death and both cardiac and vascular disease can be pathophysiologically traced to abnormal mineral metabolism. Animal data strongly supports the joint pathogenic role of multiple disturbances in this complex mineral disease. The earliest events are Klotho and vitamin D deficiency followed by excess FGF23 and parathyroid hormone; all of these events can be exacerbated by phosphotoxicity. Once initiated, these derangements set off a self-amplifying downhill vortex that accelerate the progression of cardiovascular pathology. Intervention of Klotho and vitamin D deficiency, FGF23, parathyroid hormone, phosphate excess all leads to amelioration of cardiac hypertrophy and fibrosis and vascular calcification in rodent models. This derangement in mineral homeostasis in chronic kidney disease represent a disruption of a system established in vertebrate evolution over 400 million years which results in major cardiovascular morbidity and mortality. Understanding how these events occur will help devise specific strategies to delay progression of renal disease and most importantly prevent, forestall, and reverse cardiovascular complications.
On January 31, Dr. Dewan Majid presented, “Nitric oxide in the regulation of inflammatory cytokines in the kidney.” Previous studies performed in Dr. Majid’s laboratory using dogs, rats and mice have demonstrated that inhibition of nitric oxide (NO) increases superoxide activity in the kidney and this imbalance enhances tubular sodium reabsorption leading to salt retention and the development of salt sensitive hypertension. However, his recent findings show that systemic NO inhibition results in an increase in tumor necrosis factor-alpha (TNF-α; a pro-inflammatory cytokine) and a decrease in interleukin-10 (IL-10; an anti-inflammatory cytokine) levels in plasma and in renal tissue which are associated with marked infiltration of macrophages in the kidneys. As these cytokines are suggested to be involved in the pathophysiology of salt-sensitive hypertension, Dr. Majid’s research team examined the hypothesis that high salt (HS) intake in NO deficient condition enhances the production of pro-inflammatory cytokines in the kidney. Using appropriate ELISA kits, the levels of different cytokines (pro-inflammatory, TNF-α, and IL-6 and anti-inflammatory, IL-10) were measured in plasma and renal tissues collected from wild type (WT; C57BL6) and eNOS enzyme knockout (eNOS-KO) mice (~8 wks old) which were fed either normal (NS) or HS (4% NaCl) containing diet for 2 weeks. Mean systemic blood pressure (measured by tail-cuff plethysmography) was significantly increased in eNOS KO (111±4 to 136±8 mmHg) but not in WT (99±5 to107±4 mmHg) due to HS intake. The plasma level of TNF-α remains undetectable in both WT & eNOS KO mice during NS intake but was slightly increased during HS intake. During NS intake, the plasma level of IL-6 was higher and that of IL-10 was lower in eNOS KO mice compared to WT mice. However, compared to the values during NS intake, all the renal levels of cytokines were lower in the kidney during HS intake both in WT as well as eNOS KO mice. These findings indicate that HS intake generally suppresses the levels of both anti- as well as pro-inflammatory cytokines, particularly in the kidney. These data suggest that NO inhibition induced by deficient activity of eNOS enzyme generally responsible for upregulation of inflammatory cytokines in the kidney.
On April 11 Dr. Bysani Chandrasekar presented a seminar titled “TRAF3IP2 in Angiotensin-II-induced cardiomyocyte hypertrophy in vitro and in vivo”. Dr. Chandrasekar’s research is focused on understanding the molecular mechanisms responsible for myocardial injury and inflammation, using various gene-altered mouse models. His particular emphasis is the role of the pleiotropic, proinflammatory cytokine, interleukin-18. He has demonstrated that IL-18 gene deletion, or neutralization of IL-18 protein, blunts myocardial ischemia/reperfusion injury, infarction, and pressure overload hypertrophy. IL-18 is a NF-κB and AP-1 responsive gene, as well as a potent inducer of their activation. Recently, he identified a causal role for IL-18 in angiotensin-II induced myocardial hypertrophy and fibrosis. Ang-II induced IL-18 expression via IKK/NF-κB and JNK/AP-1 activation. This induction was redox sensitive since it required the generation of reactive oxygen species (ROS). The primary source of the ROS was the NADPH oxidase. Further, Ang-II not only induced Nox activity but also enhanced AT1/Nox physical association, suggesting that the AT1/Nox interaction is a critical mechanism in Ang-II/AT1 signaling. His preliminary studies show that AT2 can also bind various Nox isoforms, and induce cardiomyocyte growth independent of ligand binding. Ang-II induces aldosterone secretion. Aldosterone signals via mineralocorticoid receptor. He showed that MR can physically associate with Nox isoforms. Since Noxes bind AT1, AT2 and MR, his future studies will identify the binding motifs precisely responsible for their association, generate small molecule/peptide inhibitors, and examine their therapeutic efficiency in myocardial injury and inflammation.

Dr Chandrasekar recently reported that TRAF3IP2, a cytoplasmic adapter protein, known for its role in transducing signals from the IL-17 receptor, and an upstream regulator of IKK/NF-kB and JNK/AP, plays a causal role in Ang-II/AT1-mediated myocardial hypertrophy both in vitro and in vivo. His data show that TRAF3IP2 also plays a critical role in IL-18, IL-1 and TLR4 signaling. Although TRAF3IP2 does not bind AT1, his ongoing studies will determine whether TRAF3IP2 associates with IL-18R, IL-1R and TLR4, identify the binding motifs, and target their association with small molecule/peptide inhibitors. His goal is to block the interactions of Nox with Ang-II receptors, and those of TRAF3IP2 with cytokine receptors, and blunt progression of myocardial injury, inflammation, and adverse remodeling.
Dr. Camilo Fernández presented “Comparison of Multiple Non-invasive Vascular System Measurements in Predicting Left Ventricular Hypertrophy: The Bogalusa Heart Study,” on April 25, 2013. This study, derived from the long term follow up of the Bogalusa Heart Study biracial (black/white) cohort, provided a detailed comparative analysis on prediction of Left Ventricular Hypertrophy (LVH) using a series of measurements and indices of arterial compliance, obtained from non-invasive analyses of the pulse wave by applanation tonometry (radial artery applanation tonometry). The effect of impaired arterial compliance on cardiac structure has been broadly emphasized; however, information is limited on which of the available non-invasive measurements of arterial compliance better indicates changes of cardiac structure (as defined by LVH) in relatively young asymptomatic individuals. The cohort considered for this assessment consisted of 895 non-institutionalized individuals aged 29-50 years (mean age 43.3 years), 72.2% whites, 36.6% males. The compared measurements and indices were: C1 (large artery elasticity index), C2 (small artery elasticity index), SVR (systemic vascular resistance), Ep (Peterson´s elastic modulus), YEM (young´s elastic modulus), afPWV (aorto-femoral pulsewave velocity), and AI@75 (augmentation index normalized to 75 beats per minute). The main outcome was to identify AI@75 as the arterial compliance index with the strongest association with LVH, followed by afPWV, SVR, C2, C1, Ep and YEM. These observations suggest that analyses of the pulse wave serves as an accurate indicator of mass changes in cardiac structure. Such observations may aid to enhance assessment of CV risk as evaluated with the clinical Framingham and Reynolds scores.

The Bogalusa Heart Study has been continuously following up the evolution of cardiovascular risk with normal aging since 1973. Now in its 40th year, it was recently awarded by several institutes of the NIH to continue conducting its projects. The Bogalusa Heart Study is the flagship study of the Tulane Center for Cardiovascular Health.


From January through April, 2013, investigators and physicians affiliated with T.H.R.C.E. participated in many regional, national, & international meetings.

Southern Regional Meeting, NO, LA; Feb. 21-23, 2013.

- **Arita DY, Luffman C, Theti T, Prieto MC.** Free soluble (pro)renin receptor levels are decreased in the urine of diabetic patients. Abstract#240, Poster.
- **Dawkins G, Accavitti M, Luffman C, Thethi T, Prieto MC.** Prorenin levels in the urine of patients with Diabetes: A potential biomarker of intrarenal RAS activation?
- **Higashi Y, Goodwin B, Pandey A, Delafontaine P.** Insulin-like growth factor-1 prevents premature cell senescence in vascular endothelial cells via upregulation of GPX1 expression: A novel mechanism for IGF-1 prevention of endothelial dysfunction. Abstract#402, Oral presentation.
- **Liu L, Lara LS, Gonzalez AA, Bourgeois CR, Seth DM, Prieto MC.** Angiotensin II stimulates renin synthesis and secretion via a pkc-mediated CAMP stimulation in collecting duct M1-Cells. Abstract#502, Poster. (SAFMR/SSCI Student Research Travel Award Winner)
- **Luffman C, Seth DM, Tethi T, Prieto MC.** Levels of renin in the urine are augmented in diabetic and hypertensive patients: Is urinary renin (UREN) a potential marker of intrarenal activation of the renin-angiotensin system (RAS)? Abstract#505, Poster.
- **Mani I, Garg R, Nguyen VA, Pandey KN.** Immunofluorescence study demonstrates the internalization and trafficking of guanylyl (Guanylate) cycase/Natriuretic peptide receptor-A in human embryonic kidney-293 cells. Abstract#405, Poster.
- **McGuire WC, Liu L, Bourgeois C, Prieto MC.** Collecting duct renin regulation by Endothelin-1.
- **Milani CJ, Howard CG, Seth DM, Davis PD, Mitchell KD.** PDGF receptor antagonism prevents the increase in urinary angiotensin II excretion in CYP1A1-Ren2 transgenic rats with angiotensin-II dependent malignant hypertension. Abstract#389, Poster. (SAFMR/SSCI Student Research Travel Award Winner)


Singh P, Stephenson R, Majid DSA. Changes in plasma and renal tissue levels of inflammatory cytokines during chronic high salt intake in wild type and e-NOS knockout mice. J Invest Med. 61(2) - 484, abstract#392, Poster. (SAFMR/SSCI Trainee Research Travel Award Winner)


Wang F, Saifudeen Z, El-Dhar SS. Histone H3K79 Methyl transferase, Dot1L, is developmentally regulated but is dispensable for kidney development. Abstract#390, Poster. (SSPR/APA Trainee Travel Award Winner)

Health Sciences Research Days, Tulane, New Orleans, LA; April 3-4, 2013.

- Anwar IJ, Derbenev AV. TRPV1 regulation of the Dorsal Motor nucleus of the vagus nerve.
- Caner T, Abdulnour-Nakhoul S, Brown K, Hamm LL, Nakhoul NL. Ammonium and Methyl ammonium transport by RHAG.
- Chen SW, Yao X, and El-Dahr SS. HDAC1 and HDAC2 are essential for nephron development beyond the renal vesicle stage.
- Galvez S, Yoshida T, Sukhanov S, Delafontaine P. Angiotensin II reduces satellite cells and suppresses muscle regeneration.
- Hilliard SA, Yao X, and El-Dahr SS. The Mdm2-p53 pathway controls survival and maintenance of the nephron progenitor niche.
- Jiang Y, Gao H, Krantz AM, Derbenev AV, Zsombok A. Reduced gabaergic inhibition of kidney-related PVN neurons in streptozotocin-treated Type1 Diabetic mouse.
- Kumar P, Neerukonda S, Pandey KN. Histone Deacetylase inhibitors upregulate natriuretic peptide receptor-A gene transcription via histone modifications and SP1 acetylation.
- Liu J, Zubaida S, El-Dahr SS. P53 regulates progenitor cell renewal and survival in the nephrogenic niche of the developing kidney.
- Monlezun DJ, Song R, Yosypiv IMC. Pediatric cohort clinical characterization for multicystic dysplastic kidney (MCDK)
- Milani CJ, Seth DM, Howard CG, Davis PD, Mitchell KD. PDGF receptor antagonism prevents the increase in urinary angiotensin II excretion independent of changes in blood pressure in CYP1A1-REN2 transgenic rats with Angiotensin-II dependent malignant hypertension.
• Miyata K, O’Hare J, Derbenev AV, Zsombok A. Activation of TRPV1 in the paraventricular nucleus of hypothalamus regulates systemic blood glucose levels.

• Monlezun DJ, Song R, Yosypiv IV. Pediatric cohort clinical characterization for multicystic dysplastic kidney (MCDK).


• Singh Purnima, Stephenson Roxan A., Castillo Alexander, Majid Dewan SA. Suppression of inflammatory cytokines in the kidney during chronic high salt intake in wild type and e-NOS knockout mice.


• Song R, Preston G, Monlezun D, Yosypiv IV. Targeted Inactivation of the Prorenin Receptor (PRR) in the Ureteric Bud (UB) Inhibits UB Branching Morphogenesis.

• Subramanian U, Kumar P, Pandey KN. All-trans retinoic acid blocks cardiac hypertrophy and remodeling in guanylyl cyclase/natriuretic peptide receptor-A gene disrupted mice.

• Wang F, Saifudeen Z, Khan AM, Batuman V, El-Dahr SS. Histone H3K79 methyltransferase, DOT1L, is developmentally regulated but is dispensable for kidney development.

• Yan L, Yao X, Dipp S, Saifudeen ZR, El-Dahr SS. Repression of the transcription factor and epigenetic regulator PAX2 in congenital renal dysgenesis secondary to gene-environment interactions.


2013 EB Meeting, Boston, MA; Apr. 20-24, 2013.


• Castillo A, Majid DS. Natriuresis induced by angiotensin II infusion is attenuated in knockout mice lacking tumor necrosis factor-α receptors. Poster Presentation. Abstract#B164/909.13.
Continued...

- **Cao T, Li W, Seth DM, Feng Y.** Brain (Pro)renin receptor knockdown modulates the body fluid homeostasis during angiotensin II-dependent hypertension. Oral Presentation. Abstract#B136/906.20.


- **Islam M, Maiti AK, Satou R, Majid DSA.** Inhibition of nitric oxide generation enhances superoxide production in cultured HK2 and MI cells. Poster Presentation. Abstract#B317/704.11.


- **Kimball CD, Li W, Zsombok A, Derbenev AV, Francis J, Raizada MK, Feng Y.** Expression of (pro)renin receptor and angiotensin II type 1 receptor on bone marrow-related neurons in the central nervous system. Poster Presentation. Abstract#W228/1187.15.

- **Kuczeriszka M, Prieto MC, Kompanowska-Jezierska, Navar LG.** Dissociation of vascular and natriuretic Ang(1-7) actions in AngII hypertensive and normotensive rats. Poster Presentation. Abstract#B162/909.11. FASEB J


- **Milani CJ, Howard CG, Seth DM, Davis PD, Mitchell KD.** PDGF receptor antagonism prevents the increase in urinary angiotensin II excretion in CYP1A1-Ren2 transgenic rats with angiotensin-II dependent malignant hypertension. Poster Presentation. Abstract#B300/703.1.
Presentations


- Stapor PC, Murfee WL. Class III b-tubulin expression and function by human vascular pericytes in vitro. Poster Presentation. Abstract#B16/ 897.3.


- Thorngren CK, Patterson ME, Davis PD, Mitchell KD. The a2-adrenoceptor agonist, dexmedetomidine, elicits pronounced decreases in arterial blood pressure and renal hemodynamics in Cyp1a1-Ren2 transgenic rats with angiotensin II-dependent malignant hypertension. Abstract#B22/ 1110.3.


Continued...
THRCE investigators and physicians were invited to lecture at various national and international events.

L Gabriel Navar, PhD, Chairman & Professor of Physiology:
- Presented 1st Annual Ulrich Hopfer Lecture entitled “The Intratubular Renin-Angiotensin System in Hypertension” on April 12, 2013 at Case Western Reserve University School of Medicine, Department of Physiology and Biophysics, Cleveland, OH.
- Participated in the symposium, “Paracrine Regulation of Renal Tubule Function” and presented, “Effects of luminal angiotensin on tubular function” on April 21 at the 2013 Experimental Biology meeting, Boston, MA.
- Presented “Regulation of Intrarenal/Intratubular Angiotensin in Hypertension”, on April 27, 2013 at the 15th National Congress of Hypertension and Renal Diseases - Turkish Nephrology Hypertension meeting, Antalya, Turkey.

Kailash N. Pandey, PhD, Professor of Physiology, presented:
- “Physiological Genomics and Molecular Signaling of Natriuretic Peptides Receptor in Hypertension and Cardiovascular Disease States” for the Department of Endocrinology, All India Institute Medical Sciences Ansari Nagar, New Delhi, India on Feb 4th.
- “Role of Natriuretic Peptides, Genetic, and Salt in Cardiovascular Regulation and Function” for the Delhi Institute of Pharmaceutical Sciences and Research, New Delhi, India on Feb 5th.
- “Blood Pressure (hypertension)- Cause and Management” for the Department of Medicinal Chemistry, Institute of Medical Sciences, Banaras Hindu University, Varanasi, India on Feb 8th
### THRCE Seminars

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<th>Date</th>
<th>Speaker</th>
<th>Affiliation</th>
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<tr>
<td>January 3, 2013</td>
<td>Damir B. Khismatullin, PhD.</td>
<td>Associate Professor, Department of Biomedical Engineering, Tulane University</td>
<td>“Role of macrophage- and mast cell-derived inflammatory mediators in endothelial dysfunction and circulating cell adhesion”</td>
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<td>January 17, 2013</td>
<td>Orson Moe, MD.</td>
<td>Donald W. Seldin Professor in Clinical Investigation, The Charles Pak Distinguished Chair in Mineral Metabolism, Director, Charles &amp; Jane Pak Center for Mineral Metabolism &amp; Clinical Research, Professor, Department of Internal Medicine, University of Texas Southwestern Medical Center, Dallas, TX.</td>
<td>“A Nephrocentric View of the Klotho-FGF23 Network”</td>
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<td>January 31, 2013</td>
<td>Dewan S.A. Majid, MD, PhD.</td>
<td>Professor, Department of Physiology, Tulane University School of Medicine, New Orleans, LA.</td>
<td>“Nitric oxide in the regulation of inflammatory cytokines in the kidney”</td>
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<td>March 4 **, 2013</td>
<td>2013 MAYERSON-DILUZIO LECTURE</td>
<td>Joint Seminar: THRCE &amp; Department of Physiology</td>
<td>Irving H. Zucker, PhD Professor and Chairman Department of Cellular and Integrative Physiology, Omaha, Nebraska</td>
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<td>April 11, 2013</td>
<td>Bysani Chandrasekar, DVM, PhD.</td>
<td>Robert Morgadanes Professor, Tulane University Heart &amp; Vascular Institute, Tulane University School of Medicine, New Orleans, LA</td>
<td>“TRAF3IP2 in Angiotensin-II-induced cardiomyocyte hypertrophy in vitro and in vivo”</td>
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<td>April 25, 2013</td>
<td>Camilo Fernández A, MD, MSc.</td>
<td>Post-Doctoral Fellow Tulane University Center for Cardiovascular Health Tulane University School of Medicine, New Orleans, LA.</td>
<td>“Comparison of Multiple Non-invasive Vascular System Measurements in Predicting Left Ventricular Hypertrophy: The Bogalusa Heart Study”</td>
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<td>May 9, 2013</td>
<td>Tanika Kelly, PhD</td>
<td>Assistant Professor, Tulane School of Public Health &amp; Tropical Medicine, New Orleans, LA.</td>
<td>“Genomic and Environmental Determinants of Human Hypertension”</td>
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<td>May 23, 2013</td>
<td>Yusuke Higashi, PhD</td>
<td>Research Assistant Professor, Tulane University Heart &amp; Vascular Institute, Tulane School of Medicine, New Orleans, LA.</td>
<td>“Anti-oxidant effect of Insulin-like growth factor-1 in vascular endothelial cells – a potential mechanism for atheroprotection”</td>
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### Calendar of Events

**Continued...**

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<th>Date</th>
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| June 6, 2013 | Sergiy Sukhanov, PhD  
Tulane Heart & Vascular Institute,  
Tulane School of Medicine, New Orleans, LA.  
“GAPDH: New fate of old housekeeping protein” |
| June 20, 2013 | Ulrich Hopfer MD, PhD  
Professor Emeritus Department of Physiology & Biophysics  
Case Western Reserve University School of Medicine Cleveland, OH.  
“Vitamin D and Hypertension: What is the connection?” |
| July 4, 2013 | No Meeting  
Independence Day Holiday |
| No meeting July 18; Seminar rescheduled to July 22, 2013** | Joint Seminar:  
THRCE & Department of Physiology  
Edgar A. Jaimes, MD  
Professor of Nephrology,  
UAB School of Medicine, Birmingham, AL  
TBA |
| August 1, 2013 | Patrice Delafontaine, MD  
Sidney W. and Marilyn S. Lassen Professor of Cardiovascular Medicine  
Chief, Section of Cardiology  
Director, Tulane University Heart and Vascular Institute  
Tulane University School of Medicine, New Orleans, LA.  
TBA |
| August 15, 2013 | Andrea Zsombok, PhD  
Assistant Professor,  
Department of Physiology,  
Tulane School of Medicine, New Orleans, LA.  
TBA |
| August 29, 2013 | Keith C. Ferdinand, MD  
Professor of Clinical Medicine,  
Tulane University Heart and Vascular Institute, New Orleans, LA.  
TBA |
| September 12, 2013 | No Meeting  
High Blood Pressure Meeting in New Orleans, LA. |
| September 26, 2013 | Paul K. Whelton, MD  
Show Chwan Professor of Global Public Health,  
Department of Epidemiology,  
Tulane University School of Public Health and Tropical Medicine, New Orleans, LA.  
TBA |

*Conferences are held alternative Thursdays at 4:00pm in the Tulane Medical School, Pharmacology Library, Room 4700*

**Denotes the seminar date is not our normally scheduled day.**
Awards and Acknowledgment

Dr. Navar received the Inaugural Oliver Fund Award for Excellence for faculty mentoring at Tulane. The award was established to honor the commitment of senior faculty members to the success of junior faculty members and Tulane as a whole through mentoring. As recipient of this award Dr. Navar was featured in the April 26 edition of New Wave. He received the award at the School of Medicine Ivy Day on May 17 during Commencement week.

Dr. Hamm received the Founder’s Medal at the Southern Regional Meeting held in New Orleans, Louisiana on February, 2013. This highly prestigious and selective honor is awarded to an investigator who meets all of the following conditions:

- Played an important role in the SSCI, both through participation in the annual meeting and in providing leadership for the growth of the Society.
- Have been recognized nationally as a leader in medicine.
- Have been recognized as a leader in his/her institution.

Myra A. Kleinpeter, MD, MPH, was selected by the Board of Governors for the 2012 LSMS Physician Award for Community Service for her many contributions to the civic life of her community. Her involvement in areas outside of medicine demonstrates her continued concern for the citizens of her community. The award was presented during the House of Delegates meeting on January 25, 2013 at the Hilton Riverside Hotel in New Orleans.

Tulane Hypertension And Renal Center of Excellence will appreciate any support for the continual development of the center, the publication of the THRCE newsletters, and the support of the THRCE bi-weekly seminars series. Any donations to the center and its activities are considered tax-deductible.

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, Nina Majid by e-mail at htnctr@tulane.edu or regular mail to the address provided. Also, please forward all information (awards, publications, presentations and other news items) to this email address for inclusion in the next newsletter.