March 8, 2018 is World Kidney Day! A joint initiative of the International Society of Nephrology (ISN) and the International Federation of Kidney Foundations (IFKF), World Kidney Day (WKD) began in 2006 as a global health awareness campaign that focuses on the importance of kidneys and the mechanisms that reduce kidney disease. WKD has been celebrated ever since, every second Thursday of March, in more than 100 countries on 6 continents. Each year, the campaign focuses on a theme. The 2018 theme, “Kidneys & Women’s Health. Include, Value, Empower,” focuses on the fact that Chronic kidney disease (CKD) affects almost 195 million women worldwide and is currently the 8th leading cause of death in women, with close to 600,000 deaths each year. CKD is a worldwide public health problem with adverse outcomes of kidney failure and premature death. (Details on WKD can be accessed at: www.worldkidneyday.org)

In honor of WKD, THRCE has scheduled two special events on March 8th 2018:

- From 9am until 3pm, THRCE, the Department of Physiology, the Department of Medicine (Section of Nephrology), and the National Kidney Foundation of Louisiana, will conduct a “Tulane WKD Health Screening Fair” in the Lobby of Tulane University Hospital and Clinics. This free program is designed to screen people at risk for CKD and promote CKD awareness among the public. Participants will be screened for blood pressure & the risk for developing kidney disease.

- At 4pm, a Special WKD THRCE Seminar will be held in Room# 4700 in Tulane University, the School of Medicine. The seminar titled, “Dietary Salt Intake and Hypertension: Role of the Endothelium and Kidney,” will be presented by the distinguished Dr. Paul W. Sanders, Professor of Medicine at the University of Alabama in Birmingham, Alabama.
THRCE participates in the AHA 2017 Heart Walk

THRCE member participated in the 2017 Heart Walk sponsored by the American Heart Association on Saturday, November 11th. The Heart Walk is an annual event to raise money for the American Heart Association. The funds raised is used for critical research and education on cardiovascular diseases. The Heart Walk was held at Champions Square in New Orleans and included numerous fun-filled health and wellness activities, free food and entertainment. Team Coaches for Tulane University were Nina Majid (THRCE & Physiology Team), Gayle Evans (Medicine Team), Dr. Prasad Katakam (Pharmacology Team), Gari Sampey (Psychiatry & Behavioral Sciences Team), and Dr. Robert Hende (Tulane Heart & Vascular Institute Team). Team coaches coordinated fundraisers and recruited members who helped raise funds and participated as walkers. Some of the participants in the Heart Walk were Emanuel Gerard, Charlene Esteves, Juan Viles-Gonzalez, Dewan Majid, Ben Ogola, Eric Simon, Dionne Richard, Kellie Tonglet, Treasure Schwab, Kyle Godfrey, Liu Hongbing, Gabriel Navar, Sarah Lindsey, Ryo Sato, Akemi Sato, Prerna Kumar, and Debbie Olavarrieta. TSOM team coaches and members helped raise over $2,415 for the AHA fundraising campaign. Overall, the AHA Heart Walk, with the fundraising support from Tulane and other companies in New Orleans, raised over $348,819; this fund will be used to accomplish the AHA mission of building healthier lives free from cardiovascular diseases and stroke.
GRANTS, HONORS & RECOGNITION AWARDED TO THRICE AFFILIATED INVESTIGATORS

L. Gabriel Navar, PhD:
- Invited as a Visiting Professor to lecture at the BLDE University and Medical School in Bijapur, India.
- Attended the annual retreat of the Association of Chairs of Departments of Physiology (ACDP) from November 30 till December 3. Discussions include consideration of the relationship between ACDP and the AAMC CFAS group, assessing support for science funding by the new congress and other legislative updates and ways for departments to generate more revenue including on-line courses, core lab facilities, technology transfer and MS programs.
- Selected as the recipient of the 2018 Southern Section of Clinical Investigation (SSCI) Mentor of the Year Award.
- Served on the APS Distinguished Physiologists Committee.

Kailash Pandey, PhD:
- Participated in the APS Physiological Bioenergetics Conference held in San Diego, CA, in August 2017.

Minolfa C. Prieto, MD, PhD:
- Appointed Regular Member, Hypertension & Hemodynamic Study Section, NIH from 2017-2023.
- Appointed Member of the Leadership Committee of the American Heart Association Kidney Council for Cardiovascular Disease.

Zubaida Saifudeen, PhD:
- Participated in a community outreach program called Bard Works Day, Annual Career Day at Bard Early College New Orleans: Illustrate, Ignite and Inspire!
- Spoke with high school students on careers in research and medicine.

T. Cooper Woods, PhD:
- Promoted to Associate Professor with tenure effective November 1.
Received a collaborative project (CRISP) Clinical Research & Innovative Support Program from Ochsner. The title of the project is “Mapping serum biomarkers of carotid plaque rupture to intra-plaque changes: Novel predictors of stroke.”

Dewan S. A. Majid, MD, PhD:

- Selected in November 2017 as the Chairman of the “Welcoming Committee” of the 2018 National Convention of Bangladesh Medical Association in North America (BMANA). BMANA is a professional organization consisting of Physicians of Bangladesh origin in North America (USA & Canada). The Convention will be held in Sheraton Hotel, New Orleans, from July 26-29, 2018.
- December 2\textsuperscript{nd} till 17\textsuperscript{th} attended the BLDE University at Bijapur, Karnataka, India as an invited “Visiting Professor of Medicine.” Activities included the following:
  - Visiting all the Basic and Clinical Sciences departments of BM Patil Medical College, School of Nursing, and School of Pharmacy and discussed with both students and faculties the process as how to achieve and improve academic research in medical education curriculum of BLDE University.
  - Gave a series of lectures and seminar talks to Medical students, Post-graduate Students, MD Students. PhD students, and Faculties and Research Scientists.
  - External Advisor on the Thesis PhD Project of Dr. Gouer Banu, “L-NAME and sub chronic hypoxia induce alteration of vascular and renal pathophysiology in rats treated with Calcium channel blocker (cilnidipine).”
  - External Examiner for grand viva voce examination of PhD candidate, Ms. Vandali Jyoti, of the Department of Physiology at BLDE University. The title of her thesis was, “Effect of Chronic Stress on lactogenesis in humans!”
  - Assessed and reviewed the progress of the following Tulane-BLDE Joint Collaborative research:
    - Project 1: “Relationship of Urinary AGT to Central Hemodynamics and the response to antihypertensive therapy.”
    - Project 2: “Renal and Cardiac functional changes in Cerebrovascular ischemic experimental model on hypoxic rats.”
- On December 23, Dr. Majid visited Dhaka Medical College, Dhaka, Bangladesh and was a key participant at the Joint-discussion meeting with Physiology Faculties, Post-graduate students and graduate students of Dhaka Medical College, Sir-Salimullah Medical College and Bangabondhu Sheikh Mujib Medical University, in Dhaka, Bangladesh. Discussion Topic: “Development of Physiology teaching methodology in present medical curriculum.”
Continued...

- Visited Alma mater, Sylhet Osmani Medical College, in Sylhet, Bangladesh on December 27 and was a key participant at the Joint-discussion meeting with faculties of the medical college. Discussion topic: “How to improve and give emphasis on academic research on medical curriculum in Bangladesh?”

- On December 30, received ‘Memorandum of Honor’ as distinguished alumni from Shaistaganj High School, Habiganj, Bangladesh

Dr. Dewan Majid Honored during his High School’s Centennial Celebration as ‘Most Distinguished Alumni’

A special ceremony was organized by the Centennial Celebration Committee of Shaistaganj High School in Habiganj, Bangladesh.

Joint Collaborations: & Group events:

- Drs. Navar, Sato and Woods, received additional funding through March 2018 for the Janssen project titled “Role of Kidney Production of Angiotensinogen in the reduction of Blood Pressure by SGLT2 inhibition under Diabetic and Non-diabetic conditions.”

- Drs. Derbenev and Zsombok were awarded a sub-award from NIH SPARC, a collaborative grant with Pennington Biomedical Research Center, titled “Genetically-based neuro-modulation of adipose tissue functions.” The project goal is to provide high resolution data at the level of the single cell.

- Drs. Mitchell and Krousel-Wood were awarded a planning grant and selected to submit a full application for the Burroughs Wellcome Fund 2018 Physician Scientist Institutional Program. If funded, the grant will support students, residents and junior faculty.

- A paper by Drs. Saifudeen, Sato and others titled, “Regulation of Nephron Progenitor Cell Self-Renewal by Intermediary Metabolism” was accepted and highlighted by the Journal of the American Society of Nephrology.
Drs. Gabriel Navar, Prerna Kumar, Ryo Sato, Dewan Majid, Prasad Katakam, Sarah Lindsey, and Hongbing Liu, along with Tulane staff, Nina Majid, Debbie Olavarrieta and Akemi Sato, participated at the New Orleans Heart Walk held on November 11, in Champion Square, New Orleans.

SCIENCE IN NEWS: THE DEBATE ON DAILY SODIUM INTAKE

An article on sodium intake that was published in AARP on October 2017 quotes Dr. Gabriel Navar (https://www.aarp.org/health/healthy-living/info-2017/daily-sodium-intake-blood-pressure.html)

For years the standard advice was to cut back on salt. "The food supply is loaded with salt, which we know raises blood pressure," says Lawrence Appel, MD, a professor of medicine at Johns Hopkins University and spokesman for the American Heart Association, who advises almost everyone is to cut back on their salt intake. There has been a greater emphasis on that advice as people age when the body's ability to excrete salt declines.
However, that long-accepted advice has recently come under fire. "The current recommendations are too extreme," insists Suzanne Oparil, M.D., a hypertension expert at the University of Alabama at Birmingham School of Medicine. "There is zero evidence that cutting salt to very low levels like 1,500 milligrams is beneficial." Three studies have shown little or no indication that people are eating an unhealthy amount of sodium. One of those, a 2014 Danish study, set optimum sodium levels at between 2,645 and 4,945 milligrams.

Why is one set of medical experts so certain about declaring salt guilty while another set is passionately defending it? One reason is that salt affects people differently. "It's not how much salt you consume, but whether your kidneys can process the sodium it contains," says L. Gabriel Navar, chair of the Department of Physiology and director of the Center for Biomedical Research Excellence in Hypertension and Renal Biology at Tulane University Medical Center in New Orleans. "Operating efficiently, the kidneys can get rid of a huge amount of sodium, up to 5,000 milligrams/day or more."

But not everyone can handle excess salt. About half of the population is salt sensitive: In this group, blood pressure will rise about 10 points with high salt diet. Unfortunately, scientists have yet to develop an easy-to-administer test for salt sensitivity and dramatically reducing sodium may pose its own risks. Researchers at McMaster University in Hamilton, Ontario, found that both too much sodium (7,000 milligrams/day) and too little (under 3,000 milligrams) were linked to an increased risk of cardiovascular disease. While sodium can raise blood pressure, electrolytes such as potassium keep it from climbing. "Potassium helps the kidneys get rid of salt," Dr. Navar explains, "so it's equally important to make sure you're getting enough." Bananas, sweet potatoes, canned tuna, orange juice, tomato sauce, yogurt and milk are all good sources of potassium.

While experts debate sodium levels, most agree on this: Your kitchen salt shaker isn't the culprit. Roughly 75 percent of the sodium we consume comes in processed or restaurant food. One way to control salt intake is to prepare meals yourself. If you have hypertension or prehypertension (that includes roughly one-third of Americans), then you should reduce your sodium intake. But don't try to count every milligram. Instead of worrying about the numbers, cut back on foods that are laden with salt, such as cold cuts and cured meats, pastas, pizza, baked goods, bread and soups.
THRCE SPONSOR
LOCAL, NATIONAL & INTERNATIONAL SPEAKERS

THRCE sponsors bi-weekly seminars by scheduling local as well as nationally and internationally recognized investigators and clinicians in the field of hypertension research, treatment and education. Speakers who present at the THRCE Seminar Series are asked to provide a brief summary of their talk that we can share with our newsletter audience. From September through December, 2017, the following speakers presented THRCE seminars.

- **EFRAIN REISIN, MD, FASN, FASH;FACP**  
  *Victor Chaltiel Professor of Medicine and*  
  *Chief Section of Nephrology and Hypertension.*  
  *Louisiana State University Health Sciences Center*  
  *New Orleans, LA.*

On September 7, 2017, Dr. Efrain Reisin presented “The Heart and the Kidney. A Forty Year Retrospect.”

**SUMMARY OF PRESENTATION:**

There is an increasing global prevalence of the Metabolic Syndrome and Obesity. Both conditions are associated with higher prevalence of hypertension, cardiovascular and renal disease. The potential underlying mechanisms by which obesity and the metabolic syndrome promote hypertension include changes in cardiovascular and renal physiology induced by leptin, the sympathetic nervous system, insulin resistance, free fatty acid, natriuretic peptide and pro inflammatory cytokines. Weight reduction induced by hypocaloric diet or bariatric surgery has been effective in decreasing hypertension and improving cardiovascular and renal risks. The optimal pharmacological antihypertensive regimen for obese hypertensive subjects has not been defined.
Dr. Lindsey presented, “Estrogen Receptor Signaling in Arterial Stiffness” on September 21, 2017.

SUMMARY OF PRESENTATION:
Menopause increases arterial stiffness which accelerates end organ damage, increases cardiac afterload, and promotes heart failure with preserved ejection fraction, a disease twice as common in women than men. New drugs are needed to protect aging women from cardiovascular disease, and we propose that the Gprotein-coupled estrogen receptor (GPER) is a promising therapeutic target. Our preliminary data indicate a crucial role for this receptor in vascular health: GPER activation attenuates salt-induced vascular remodeling while GPER deletion increases pulse pressure, an in vivo indicator of arterial stiffness. The mechanism for this protection is through attenuation of oxidative stress and extracellular matrix deposition. In addition, we find that aging decreases vascular GPER expression which may decrease the effectiveness of currently available hormone therapies. Taken together, we hypothesize that vascular GPER protects from arterial stiffness, and targeting this receptor will decrease cardiovascular risk in aging women.

Our ongoing studies use a combination of in vivo, ex vivo, and in vitro approaches to assess this hypothesis in multiple ways. High-frequency ultrasound allows in vivo measurement of pulse wave velocity, the gold standard for assessing vascular stiffness. As opposed to traditional uniaxial pressure myography, biaxial mechanical phenotyping performed in collaboration with a biomedical engineer will allow the use of computational models to delineate the contributing factors for arterial stiffness. Measurements of oxidative stress will be obtained using electron spin resonance spectroscopy, a direct and sensitive approach for quantifying free radicals in biological samples. Moreover, an inducible, cell-specific GPER knockout mouse model will allow us to specifically assess the impact of decreased vascular GPER expression during adulthood on the response to nonselective estrogen therapy.
On October 5, 2017, Dr. Kenneth D. Mitchell, Senior COBRE Mentor, presented a seminar entitled “ANG II-Dependent Hypertension: An Unexpected Journey.”

SUMMARY OF PRESENTATION:
Dr. Mitchell explained that studies performed in his laboratory demonstrated that the renal functional and morphological changes that occur in Cyp1a1-Ren2 transgenic rats with ANG II-dependent malignant hypertension are characterized by decreased GFR and RBF, increased RVR, increased proliferating cell number in cortical tubules and cortical interstitium and increased collagen deposition in the renal interstitium. Such renal pathological changes involve activation of PDGF receptor-related kinase, and blocking this pathway ameliorates the renal morphological abnormalities observed in this model of ANG II-dependent malignant hypertension. In addition, chronic PDGF receptor antagonism with imatinib mesylate improves renal hemodynamics independent of changes in blood pressure in Cyp1a1-Ren2 rats with ANG II-dependent malignant hypertension. Collectively, the data presented indicate that elevated levels of PDGF protein and PDGF receptors contribute importantly to the renal injury, the derangements in renal hemodynamics and the increased urinary protein excretion in ANG II-dependent malignant hypertension.
David W. Ploth, MD
Professor, Department of Physiology,
Distinguished Professor, Endowed Chair: Williams
Department of Medicine, Division of Nephrology,
Medical University of South Carolina, Charleston, SC.

On October 12, 2017, Dr. Ploth presented, “Unexpected Prevalence of CKD, Diabetes, & Hypertension in Rural Tanzania.”

SUMMARY OF PRESENTATION:
Non-communicable diseases (NCD) including chronic kidney disease (CKD) and the typically comorbid conditions of diabetes mellitus (DM), hypertension (HTN), and cardiovascular disease represent increasing public health challenges in low- and middle-income countries. The present studies were conducted to explore the hypothesis that there are previously underappreciated and interrelated epidemics of CKD, DM, and HTN in rural Tanzania. To explore this hypothesis we initially assessed prevalence in a probability-based sample of 740 subjects who were randomly sampled from households in a geographic area in Kisarawe District of rural Tanzania, which has a population of 21,205.

In the random household sample the prevalence of CKD stages 3 to 5 was associated with higher age (p < 0.05) and male gender (p<0.05). The prevalence of CKD stage 5 among those aged 18-26 years was surprisingly high (5.7%), which suggests a possible role for infectious agents in the pathogenesis of CKD in rural Tanzania. In the clinic-based sample we found similar results, with elevated markers for CKD, DM, and HTN. The prevalence of all stages of HTN increased with advancing age (p < 0.05). We observed a significant, direct relationship between increasing levels of BP and the prevalence of glycosuria(<0.05). Proteinuria was also associated with elevated BP (p < 0.05).

In summary we observed unexpectedly high and similar prevalence estimates for CKD, HTN and DM in a probability based sample in rural Tanzania and from observations in a walk-in community clinic. The higher than expected prevalence of these NCD’s will likely contribute to rapidly accelerating rates of cardiovascular
morbidity and mortality in these areas. Additional studies are desperately needed to expand the characterization and define the causality of the CKD, HTN and DM that we observed in this rural setting. It is imperative that as these additional studies are performed, the prevalence and incidence of these non-communicative diseases be monitored in response to prevention and treatment paradigms directed at reducing of the risk of kidney disease, DM, HTN and cardiovascular disease in order to prevent a major public health threat in Tanzania.

PRERNA KUMAR, PHD
Instructor, Department of Physiology,
Tulane University School of Medicine,
New Orleans, LA.

Dr. Kumar presented, “Sodium Butyrate and Retinoic acid Attenuate Renal Inflammation and Fibrosis in Npr1 Haplotype Mice” on October 19, 2017.

SUMMARY OF PRESENTATION:
Cardiac hormones atrial and brain natriuretic peptides bind to their receptor guanylyl cyclase/natriuretic peptide receptor-A (GC-A/NPRA), which plays a critical role in the regulation of blood pressure and fluid volume homeostasis. Mice lacking functional Npr1 gene (coding for GC-A/NPRA) exhibit renal insufficiency, cardiac hypertrophy and fibrosis. However, the underlying mechanisms remain largely unclear. Our findings in Npr1 haplotype mice model demonstrate that epigenetic upregulation of Npr1 gene transcription by retinoic acid and histone deacetylase inhibitor, sodium butyrate leads to attenuation of renal inflammation and fibrosis and systolic blood pressure. Moreover, retinoic acid and sodium butyrate enhance signal transducer and activator of transcription 1 acetylation in the kidneys of Npr1 haplotype mice. The acetylated STAT1 forms a complex with nuclear factor-κB p65, thereby inhibiting its DNA-binding activity and downstream proinflammatory signaling cascades. The current findings will help in developing interventional therapies and new treatment strategies for hypertension and renal dysfunction in humans.
November 2\textsuperscript{nd} 2017 THRCE Seminar, “Hypertension, Renal Disease and Cancer” was presented by Dr. Edgar Jaimes.

**SUMMARY OF PRESENTATION:**
Acute and chronic kidney disease are highly prevalent in cancer patients both as result of the cancer itself or as result of treatment either medical or surgical. The development of novel treatments for cancer, including targeted and biological therapies, have resulted in a significant increase in the rate of renal injury both acute and chronic. In this seminar we will review the different mechanisms of vascular and renal injury in the cancer patient including mechanisms due to the cancer itself as well as secondary to novel targeted therapies. We will also discuss potential areas of research that could increase our understanding of the mechanisms involved and strategies for treatment.

“(Pro)renin receptor as a therapeutic target of cancer” was presented by Dr. Nishiyama on November 3\textsuperscript{rd}, 2017.
SUMMARY OF PRESENTATION:
Recent studies have revealed that (pro)renin receptor ((P)RR) is an essential component of the Wnt receptor complex composed of Frizzled and low density lipoprotein receptor-related protein 6 (LRP6). Since constitutive activation of Wnt/β-catenin signaling pathway is prevalent without any active mutation in pancreatic ductal adenocarcinoma (PDAC), we first investigated whether (P)RR becomes a therapeutic target of PDAC. We found an aberrant expression of (P)RR in premalignant PanIN and PDAC lesions of pancreatic tissues, as well as 6 different cultured human PDAC cell lines. Inhibiting (P)RR with siRNA or monoclonal (P)RR antibodies attenuated cultured PDAC cell proliferation, which was associated with inactivation of Wnt/β-catenin signaling pathway. On the other hand, overexpression of (P)RR in human pancreatic ductal epithelial (HPDE) cells activated Wnt/β-catenin signaling pathway and induced inappropriate cell proliferation. In nude mice subjected to subcutaneous implantation of human PDAC cells, intravenous administration of (P)RR antibodies significantly inhibited tumor growth, which was associated with inhibition of Ki-67 expression and β-catenin activity. Similarly, (P)RR expression was aberrant in colon cancer and glioblastoma tissues. Furthermore, both in vitro and in vivo data showed that blockade of (P)RR significantly inhibited the progression of these cancer cells. Finally, recent studies with whole genome analyses have revealed that in addition of the activation of Wnt/β-catenin signaling pathway, (P)RR overexpression directly induces genomic instability. These data are consistent with the hypothesis that (P)RR is essentially involved in carcinogenesis and, therefore, potential therapeutic target of cancer.

- JING CHEN, MD, MD, MMSC, MSC
  Professor, Department of Medicine,
  Division of Nephrology & Hypertension,
  Tulane University School of Medicine,
  New Orleans, LA.

On November 16th 2017, Dr. Chen presented “Lowering Blood Pressure with Anti-inflammatory Agents: A Crazy Idea or an Evolving Paradigm?”
SUMMARY OF PRESENTATION:

Hypertension is highly prevalent and a major cause of cardiovascular disease (CVD) and mortality worldwide. Hypertension is a complex condition, and about 90% of cases that are classified as essential hypertension have no known precise cause. Recently, increased evidence suggests that inflammation, oxidative stress, and endothelial dysfunction may play a key role in the upstream etiology of hypertension. Dr. Chen reviewed the research findings from animal and perspective cohort studies, as well as clinical trials, to illuminate the underlying pathogenesis of inflammation that leads to hypertension and its associated cardiovascular complications. She also presented their study findings that suggested specific inflammatory pathways involving interleukin-6, tumor necrosis factor alpha, and transforming growth factor beta may play a role in resistant hypertension among patients with chronic kidney disease. In addition, she presented their data that suggested that treating inflammation, oxidative stress, and endothelial dysfunction with sodium nitrite and isoquercetin might lower blood pressure. She speculated that reducing inflammation may be critical in the primary prevention of hypertension and the associated cardiovascular disease.

UPCOMING MEETINGS:

- The Experimental Biology Meeting
  ~ San Diego, California, April 21–25, 2018

- 7th Biennial National IDeA Symposium of Biomedical Research Excellence (NISBRE) Conference

- AHA Council on Hypertension | Council on Kidney in Cardiovascular Disease
  ~ Chicago, Illinois, September 6-9, 2018

- American Society of Nephrology (ASN) Kidney Week 2018
  ~ San Diego, California, October 23 - 28, 2018.
Recent Publications (includes those omitted from previous newsletters)


AHA Council on Hypertension Joint Sessions; Sept. 13-16, 2017; San Francisco, CA.

- Satou R, Woods TC, Miyata K, Cypress MW, Katsurada A, Dugas CM, Lightell, Jr D, Navar LG. Blockade of Sodium Glucose Cotransporter 2 by Canagliflozin Suppresses High Glucose induced Angiotensinogen Augmentation in Renal Proximal Tubular Cells. #P414

- Woods TC, Satou R, Miyata K, Katsurada A, Dugas CM, Lightell, Jr D, Navar LG. Sodium Glucose Cotransporter 2 Inhibition by Canagliflozin Attenuates Intrarenal Angiotensinogen Augmentation in Type 2 Diabetes Mellitus. #P464

ASN Kidney Week; Oct 31 - Nov 5, 2017; New Orleans, LA.


Placement of Dialysis Access: Findings from the Chronic Renal Insufficiency Cohort Study. FR-PO774, P-604.


- Navar LG, Satou R, Miyata K, Katsurada A, Dugas CM, Lightell DJ, Woods TC. Amelioration of Kidney Injury by Inhibition of Sodium Glucose Cotransporter 2 with Canagliflozin in Mice with Type 2 Diabetes Mellitus. TH-PO672, P-273.


- Visniauskas B, Reverte V, Rosales CB, Galeas-Pena M, Abshire CM, Lindsey S, Prieto MC. High Fat Diet Increases Plasma Soluble Prorenin Receptor (sPRR), Ang-II, Systolic Blood Pressure (SBP), and Arterial Stiffness in Type 2 Diabetic (T2D) Male but Not in Female Mice. TH-PO694, P-278.
On December 13, Dr. L. Gabriel Navar presented a video Lecture titled, “Regulation of Renal Hemodynamics.” The lecture was prerecorded and the presentation, coordinated by Dr. Majid, was held at the BLDE University and Medical School in Vijayapura, Karnataka, India.

From December 2nd till 17th Dr. Dewan S. A. Majid visited the BLDE University where he toured all the Basic and Clinical Science Departments of BM Patil Medical College, the School of Nursing and the School of Pharmacy of BLDE University, and discussed with the faculties of the institutions how to achieve and improve academic research in the medical education curriculum. During his invited visit, he presented the following five seminars to the students, faculties and investigators at the institution:

- Dec. 6 “Regulation of Blood Pressure; Physiology & Pathophysiology.”
- Dec. 8 “Tumor Necrosis Factor-, Kidney Function & Hypertension.”
- Dec. 12 “Why Physiology?”
- Dec. 14 “Problem Based Learning in Physiology.”
- Dec. 14 “Salt-Sensitive Hypertension: Perspectives on Intrarenal Mechanisms.”

Dr. Majid presented “Renal Physiology; what a nephrologist should know?” on December 24 at the CME conference organized by the “Bangladesh Renal Association” at the Dhaka Club in Bangladesh.

On November 30, Dr. Kailash N. Pandey presented, “Genetic and molecular determinants of natriuretic peptide receptor-A gene: Regulation of blood pressure and cardiovascular homeostasis,” at the Department of Medicinal Chemistry, School of Ayurvedic Medicine, Institute of Medical Sciences, Banaras Hindu University, in Varanasi, India.

On December 4, “Identification of significant genes responsible for regulation of blood pressure, through analysis of microarray data” was presented by Dr. Pandey at the Department of Applied Sciences at the Indian Institute of Information Technology, in Allahabad, India.

Dr. Pandey presented, “Contribution of Npr 1 gene in the regulation of blood pressure and cardiovascular homeostasis: Role of histone modifications and transcription factors,” on December 15 at the Department of Life Sciences, Amity Science, Technology & Innovation Center, Amity University, Noida-Delhi, India.

Dr. Zubaida Saidudeen presented “Novel mechanisms in maintaining nephron progenitors during kidney Development” in October 2017 at the ASN Basic Science Symposium.

Dr. Ryosuke Sato presented, “Inflammation regulates the intrarenal renin angiotensin system” at the ASN Basic Science Symposium in October 2017.
## THRCE Seminars

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<th>Date</th>
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| January 11 | HONGBING LIU, PHD                                  | Assistant Professor, Department of Pediatrics, Tulane University School of Medicine, New Orleans, LA.  
“Intrauterine growth restriction (IUGR) and kidney development.” |
| January 25 | No Meeting                                          | Date conflicts with medical student PBL sessions                     |
| February 8 | SEMINAR CANCELLED & RESCHEDULED TO APRIL 5, 2018   |                                                                     |
| February 22| BENARD O. OGOLA, PHD                               | Postdoctoral Fellow, Department of Pharmacology, Tulane University School of Medicine, New Orleans, LA.  
“GPER Attenuates Angiotensin II-Induced Oxidative Stress via cAMP-Mediated Regulation of NOX4.” |
| March 8    | SPECIAL THRCE SEMINAR IN HONOR OF WORLD KIDNEY DAY 2018 | PAUL W. SANDERS, MD  
Professor, Department of Medicine, Division of Nephrology, University of Alabama at Birmingham, Birmingham, AL.  
“Dietary Salt Intake and Hypertension: role of the Endothelium and Kidney.” |
| March 22   | ROBERT M. CAREY, MD., M.A.C.P., F.A.H.A., F.R.C.P.I. | Professor of Medicine  
Dean, Emeritus, School of Medicine  
Division of Endocrinology and Metabolism  
University of Virginia Health System, Charlottesville, VA  
“Role of AT2 receptors in cardiovascular and renal regulation.” |
| April 5    | JIA L. ZHUO, MD, PHD                               | Elected Fellow of AAAS, Section on Medical Sciences, Overseas Fellow: Royal Society of Medicine, England, Professor, Department of Pharmacology & Toxicology  
Division of Nephrology, Internal Medicine, Cardiovascular-Renal Research Center, University of Mississippi Medical Center, Jackson, MS  
“Roles of Proximal Tubule NHE3 in Angiotensin II-Dependent Hypertension: An Active Player or A Passive Bystander?” |

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.**

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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 Senior Administrative Program Coordinator, Nina R. 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.