

Tulane Hypertension and Renal Center of Excellence

Volume 19, Issue 1

Meet our New Director



Dr. Jia L. Zhuo, M.D., Ph.D., is the new Director of Tulane Hypertension and Renal Center of Excellence (THRCE) and a tenured Professor in the Departments of Physiology at Tulane University, School of Medicine. He joined Tulane University School of Medicine from the University of Mississippi Medical Center, where he served as a tenured professor and the Director of Receptor and Signal Transduction Laboratory in the Department of Pharmacology and Toxicology.

Dr. Zhuo received a Doctor of Medicine degree (MD) from Guangxi Medical University, Nanning, China in January 1983, and a PhD degree in renal physiology and hypertension from the Department of Physiology in 1990 at the University of Melbourne, Victoria, Australia. He served as a National Health and Medical Research Council of Australia Senior Research Officer at the Austin and Repatriation Medical Center & Howard Florey Institute of Experimental Physiology and Medicine at the University of Melbourne from 1993 to 2000, and a Senior Staff Investigator in the Hypertension and Vascular Research Division at Henry Ford Hospital, Detroit, Michigan from 2001 to 2010.

Dr. Zhuo has more than 30 years' sponsored research investigating the roles of circulating (endocrine), tissue (paracrine), and intracellular (intracrine) angiotensin II and its receptor mapping and signaling mechanisms in renal physiology and hypertension. His research has been continuously supported by grants from the National Health and Medical Research Council of Australia, American Heart Association (AHA), American Society of Nephrology (ASN), and National Institute of Health (NIH). As one of the renowned experts in the renin-angiotensin research field, Dr. Zhuo is a regular invited national and international speaker; and has published over 115 peer-reviewed journal articles and book chapters. He is an elected Fellow of the American Association for the Advancement of Science, Section on Medical Sciences, Overseas Fellow of Royal Society of Medicine, England, and a Fellow of American Heart Association and American Society of Nephrology, respectively. Dr. Zhuo was the past Chair of the American Physiological Society Physiological Genomics Group, a permanent member for NIH/Center for Scientific Review (CSR) Hypertension and Microcirculation Study Section, and an Ad Hoc reviewer for several CSR special emphasis panels. His current hypertension and kidney research is supported by multiple R01 grants from the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK).



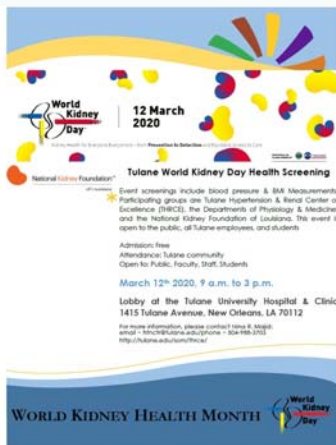
Inside this issue

2020 WKD Health Fair.....	2
THRCE Seminars	2-4
Honors to Investigators	3-4
Funding Awards.....	5
Abstracts & Presentations.....	5-7
Publications.....	7
CORE Facilities.....	8
Upcoming Meetings.....	8

2020 World Kidney Day Health Fair

March 12, 2020 was World Kidney Day (WKD) and to commemorate this event THRCE, as in previous years, was planning to host a Tulane Kidney Health Screening Fair in collaboration with the National Kidney Foundation of Louisiana and the Department of Physiology. The plan was cancelled at the final stage due to the COVID-19 pandemic. Seven students from Tulane Medical School had signed up to volunteer their services to the event. The student's names are David Long, Fiona R. Sylvies, Jennifer J. Hayashi, Emily Zlotnick, Christiania V. Edstrom, Emily M. Pemberton, and Annie L. Bell.

The purpose of the public event was to screen participants for blood pressure & the risk for developing kidney disease and the student volunteers were to take blood pressure & BMI Measurements, and provide information of the various kidney diseases and health risks. Although the Health Fair was cancelled, a special WKD Seminar was hosted as planned and was presented by Dr. Zhuo. WKD is an international health awareness campaign that focuses on the importance of kidneys and on reducing chronic kidney disease and its associated health problems.

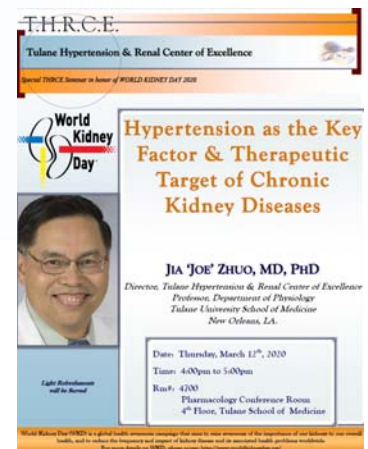


Health Fair notice



Students preparing for the WKD Health Fair

Students Volunteers at a Pre-WKD meeting



Special WKD Seminar Notice

THRCE Frontiers in Hypertension & Kidney Research Seminars

Researchers in the field of kidney, cardiovascular, hypertension, and its related diseases are invited to present a THRCE Seminar. Speakers who present are asked to provide a brief summary of their talk that we share with our newsletter audience.

From January through June 2020, the following speakers presented THRCE-sponsored presentation.

To commemorate World Kidney Day 2020, THRCE hosted a special seminar on March 12th 2020 that was presented by Dr. Jia L. Zhuo. The title of the 2020 WKD THRCE Seminar was "Hypertension as the Key Factor & Therapeutic Target of Chronic Kidney Diseases."

SUMMARY OF PRESENTATION:

Hypertension is a well-established risk factor for morbidity and mortality associated with coronary artery disease, chronic heart failure, stroke, and chronic kidney disease. In the United States, 46% adults develop hypertension and require antihypertensive treatments; but only 50% of hypertensive patients have their blood pressure adequately controlled despite of treatment with multiple antihypertensive drugs. Poorly controlled hypertension is especially prevalent in aging male and female patients, especially in African, Hispanic, and mixed-race Americans. The factors contributing to hypertension and the fact that it is so difficult to control in aging men and women remain poorly understood. This objective of this presentation it to commemorate the World Kidney Day 2020 by raising public awareness of hypertension as one of the most important risk factors for cardiovascular, stroke, and kidney diseases in the State of Louisiana and United States of America. The presentation also highlights recent research efforts at Tulane Hypertension and Renal Center of Excellence on investigating intratubular renin-angiotensin system and the Na⁺/H⁺ exchanger 3 as important renal mechanisms and therapeutic targets of angiotensin II-induced hypertension.

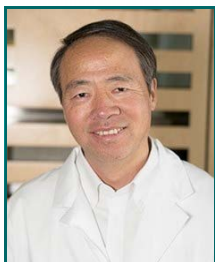
THRCE Seminars continued



On April 20th, 2020 Meenakshi Swaminathan Madhur, MD, PhD, Assistant Professor, Vanderbilt University School of Medicine, presented a Seminar that was Co-Sponsored by THRCE and the Department of Physiology titled, “Hypertension and the Maladaptive Immune Response.”

SUMMARY OF PRESENTATION:

Hypertension is a major global health concern and the number one risk factor for worldwide morbidity and mortality. However, it is only in the past 50 years that we realized the importance of treating hypertension, or high blood pressure, to reduce the risk of heart disease, strokes, and chronic kidney disease. In this lecture, Dr. Madhur reviewed historical views surrounding hypertension management, the targets of current anti-hypertensive medications and a critical component that is missing in the current management of hypertension – namely, targeting the inflammatory response that accompanies hypertension. Dr. Madhur presented evidence that this heightened inflammatory response plays a major role in the renal and vascular damage that occurs in hypertension and showed in animal models that interventions to decrease this inflammatory response can lower blood pressure and alleviate the target organ damage in hypertension. She also presented corroborative data in humans that inflammation plays a role in human hypertension. Dr. Madhur’s team is using innovative single cell methods to determine the precise immune cell subsets that might be important in human hypertension. Since global immune-suppression is not feasible and would present risks of infection and malignancy, these key cells and/or their products could potentially be specifically targeted in the future to ‘fine tune’ rather than ‘suppress’ the immune system as a novel treatment for hypertension.



Tianxin Yang, MD, PhD, Professor of Medicine & Physiology at University of Utah, presented “Discovery of Biological Function of Soluble (Pro)Renin Receptor” on May 11th. The Seminar was Co-Sponsored by THRCE and the Department of Physiology.

SUMMARY OF PRESENTATION:

(Pro)renin receptor (PRR), also known as ATP6ap2, belongs to type-I transmembrane receptor family and binds both prorenin and renin, representing a potential regulator of the renin-angiotensin system (RAS). A large body of experimental evidence has demonstrated that PRR is involved in variety of physio-pathological processes in addition to its well-established role in development. Within the kidney, PRR has emerged as a key regulator of many aspects of renal function including tubular Na⁺ and water transport, intrarenal RAS, urine concentrating capability, renal control of blood pressure, etc. Recent evidence reveals biological function of the 28 kDa soluble (pro)renin receptor {sPRR}. sPRR is a product of PRR cleavage via site-1 protease. Not only does sPRR regulate renal tubular water transport but it also mediates pathogenic responses to renal cellular injury. sPRR is likely involved in a wide range of physio-pathological processes. The presentation highlighted some of the major advances in understanding the biology of sPRR as it is related renal control of electrolyte and fluid homeostasis and blood pressure.

Honors to THRCE Affiliated Investigators

Dr. L. Gabriel Navar was selected by the American Physiological Society (APS) for the “A. Clifford Barger Underrepresented Minority Mentorship” Award.

Dr. Navar recognized for the Albert Nelson Marquis Lifetime Achievement Award.

Dr. Jia L. Zhuo was awarded the APS Certificate Of Appreciation for “Distinguished Service as Past Chair of the Physiological Omics Group.”

Dr. Minolfa Prieto elected APS Joint Program Committee (JPC) Renal Section representative.

Dr. Prieto elected Chair of the 2022 Gordon Research Conference (GRC) in Angiotensin.

Dr. Hering-Smith elected as Chair of the APS Renal Section.

Dr. Andrea Zsombok participated in the NNRS NIH Study section February 13-14, 2020.

Dr. Zsombok was elected as a member of the APS Committee.

Honors to Investigators Cont.

The following honors were awarded to students mentored by THRCE Affiliated Investigators:

Graduate & Medical Students:

- Ehiamen Okoruwa and Helen Chen (Mentor: Dr. Pandey) received the 2020 Nicholas R. DiLuzio Award.
- Michael Kremer and Donald Wathiew (Mentor: Dr. Woods) received the 2020 Hymen S. Mayerson Award.
- Kenny Vongbunyong (Mentor: Dr. Woods) received 2nd place in the poster competition at the AMA Region-3 Conference
- Christin Tee (Mentor: Dr. Woods) received 3rd place in the poster competition at the AMA Region-3 Conference

During the Southern Regional Meeting:

- Annie L. Bell (Mentor: Dr. Navar): SAFMR/SSCI Student Research Award
- Owen Richfield (Dr. Navar): SAFMR/SSCI Student Research Award
- Jennifer Hong (Mentor, Dr. Prieto) was selected as the 1st place winner for the SSCI Young Investigator Award
- Tadashi Yoshida (Mentor: Dr. Delafontaine): SAFMR/SSCI Junior Faculty Research Travel Award.



Junwang Xu, PhD, Assistant Professor at the University of Colorado presented a Seminar on June 11th titled, “Non-coding RNAs in diabetic wounds.”

SUMMARY OF PRESENTATION:

Complications of diabetes, such as impaired wound healing, represent a major clinical problem and result in significant morbidities and mortality. Dr. Xu’s presentation discussed Novel non-coding RNAs based therapy. A Brief introduction of diabetic wound impairment and animal model was followed by the studies of microRNA-146a, its role in diabetic wounds, and the therapeutic application of nanoparticle-conjugated miR-146a. Two long non-coding RNAs (lncRNA) and their relevance in the study was discussed in the presentation. It has been found that lncRNA Lethe, an anti-inflammatory lncRNA is involved in the regulation of ROS production in macrophages through modulation of NOX2 gene expression via NFκB signaling. lncRNA GAS5 (Growth Arrest-Specific 5) was up-regulated in diabetic wounds, and the persistence of the proinflammatory macrophage phenotype in diabetic wounds was mediated partly by GAS5/STAT1 pathway. Modulation of expression of Lethe or GAS5 in diabetic wounds was uncovered during the talk.



Dr. Mingyu Liang, MB, PhD, Professor of Physiology at Medical College of Wisconsin, presented a Seminar on June 25th that was titled, “miR-204: A High-Value MicroRNA.”

SUMMARY OF PRESENTATION:

MicroRNAs are potent regulators of physiology and disease including cardiovascular and renal disease. The miRNA miR-204-5p is highly expressed in the kidney but whether miR-204 plays any role in the development of chronic renal injury is unknown. We determined levels of miR-204 in human kidney biopsies and analyzed the potential role of miR-204 in three models of renal injury. Kidneys of patients with hypertension, hypertensive nephrosclerosis, or diabetic nephropathy exhibited a significant decrease in miR-204-5p. Mir204 gene Knockout or miR-204-5p knockdown significantly exacerbated chronic renal injury in a rat model derived from the Dahl salt-sensitive rat, a mouse model of hypertensive renal injury induced by uninephrectomy, angiotensin II, and a high-salt diet, and diabetic db/db mice. In all three models, inhibition of miR-204 led to upregulation of protein tyrosine phosphatase SHP2, a target gene of miR-204-5p, and p-STAT3. These findings indicate that the highly expressed miR-204-5p plays a prominent role in safeguarding the kidneys against common causes of chronic renal injury. The unequivocal role in disease development, significant evidence for human relevance, and high abundance in relevant tissues make miR-204 a “high value” microRNA worthy of further investigation. The study is an illustration of the emerging discipline of molecular systems medicine.

Current and past THRCE Seminars along with cloud recordings of Zoom Seminars can be accessed at our THRCE website at <https://medicine.tulane.edu/tulane-hypertension-renal-center-excellence/seminar-series>.

Abstracts & Presentations

Between January through June 2020, although meetings were cancelled due to COVID-19, the following abstracts were accepted by THRCE affiliated investigators & physicians.

AMA PHYSICIANS OF THE FUTURE SUMMIT—REGION 3, FEB. 7-8, 2020

Vongbunyong K, Brug A, Smith C, Bazan H, Woods T. Acute carotoid plaque rupture is characterized by an anti-proliferative serum miRNA profile.

Tee, C, Bazan H, Woods T. Diabetes Alters the Molecular Mechanisms underlying Atherosclerotic Plaque Rupture.

SOUTHERN REGIONAL MEETING, FEB. 13-15, 2020

Bell AL, Shao W, Katsurada A, Satou R, Navar LG. Sex-dependent protective influence on the intrarenal renin-Angiotensin system (RAS) and blood pressure in unilateral renal artery stenosis. (SAFMR/SSCI Student Research Travel Award Winner) Abstract 670

Sukhanov S, Hou X, Snarski P, Yoshida T, Delafontaine P. Smooth muscle specific glyceraldehyde-3'-Phosphate Dehydrogenase reduces atherosclerosis and promotes the stable plaque phenotype. Abstract 6.

Chen H, Samivel R, Subramanian U, Pandey KN. Cardiac Fibrosis and Heart Failure in mice carrying genetic ablation of natriuretic peptide receptor-A: Role of TGF-Beta1 Pathway. (SAFMR/SSCI Student Research Travel Award Winner) Abstract 1.

Razavi AC, Kelly TN, He J, Krousel-Wood M, C Fernandez C, Bazzano L. Lifetime burden of traditional Cardiovascular disease risk factors and incidence of cancer: The Bogalusa Heart Study. (2nd Place Winner: SSCI Young Investigator Award) Abstract 576/ Abstract 463B.

Higashi Y, Danchuk S, Li Z, Yoshida T, Sukhanov S, Delafontaine P. Insulin-like growth factor-1 upregulates junction proteins, while it downregulates adhesion proteins in vascular endothelial cells: Potential mechanisms for anti-atherogenic effects. Abstract 2.

Richfield O, L Navar LG, Cortez R. Hoop stress and shear stress in the remaining glomeruli in diabetes and 5/6-Nephrectomy. (SAFMR/SSCI Student Research Travel Award Winner). Abstract 574.

Hong J, Visniauskas B, Crabtree SL, Arita DY, Rosales C, Feroz M, Thethi TK, Fonseca V, Mauvais-Jarvis F, Prieto MC. Soluble Prorenin receptor (sPRR) is associated with Type-II Diabetes in women. (1st Place Winner: SSCI Young Investigator Award) Abstract 463A/ 576.

Upadhyay R, Nasrin Z, Saqqa O, Safah H, V Batuman V. Effect of Bortezomib on proximal tubule cells exposed with urinary free light chains isolated from multiple myeloma patients. (SSCI Nephrology Young Investigator Scholar Award Winner). Abstract 575.

Hering-Smith K, Huang H, Teran F, Hamm LL. Succinate effects on blood pressure: Influence of acidosis. Abstract 577.

Yoshida T, Delafontaine P. Inhibition of angiotensin II Type 1 receptor in skeletal muscle stem (satellite) cells prevents angiotensin-II induced skeletal muscle wasting. (SAFMR/SSCI Jnr Faculty Research Travel Award Winner) Abstract 5/465.

Funding Awards to THRCE affiliated faculty

Dr. Jia Zhuo received a 4-year R01 grant totaling \$1,759,942 from NIH/NIDDK beginning May 2020 for his study, "Intratubular Angiotensin II and AT1_a Receptors in the Proximal Tubules: Roles in Hypertension and Kidney Injury." Dr. Xiao C. Li will be the Co-Investigator on this award.

Beginning May 2020, Drs. Andrei Derbenev and Andrea Zsombok received a 4-year Multi-PI R01 award totaling \$2,362,540 from NIH/NIDDK for their study, "Brain circuits involved in the sympathetic control of the liver."

Dr. Minolfa Prieto was awarded a Tulane Carol Lanvin Bernick Faculty Grant for her project, "Assessment of clinical significance of plasma sPRR in Rhesus Macaques: Translational Research in a Nonhuman Primate Model."

The abstracts accepted for the **2020 EB Meeting** were all published in *The FASEB Journal* Volume 34, Issue S1.

EB MEETING, APRIL 4-7, 2020

Arise KK, Kumar P, Samivel R, Zhao H, Lindsey S, Pandey KN. Angiotensin-II Represses Guanylyl Cyclase/ Natriuretic Peptide Receptor-A Gene Expression and Receptor Signaling and Function.

Bell AL, Shao W, Katsurada A, Satou R, Navar LG. Sex Differences in Urinary Angiotensinogen (uAGT) Excretion, Renal Function, and Systolic Blood Pressure in 2-Kidney, 1-Clip Hypertensive Rats.

Gao H, Desmoulins LD, Zsombok A, Derbenev AV. Co-release of inhibitory neurotransmitters in the RVLM.

Harris NR, Ogola BO, Visniauskas B, Katakam PV, Meadows SM, Prieto MC, Lindsey SH. Trafficking of the Prorenin Receptor in Endothelial Cells.

Hering-Smith K, Huang W, Teran F, Sato R, Hamm LL. Luminal Succinate and Acidosis: Effects on Blood Pressure.

Kilanowski-Doroh IM, Ogola BO, Harris NR, Gentry K, Satou R, Lindsey SH. Impact of GPER, Sex, and Age on Arterial Stiffness and Fibrotic Gene Expression.

Leite AP, Li XC, Casarini DE, Zhuo JLC. The Role of AT1a Receptors in Angiotensin-II induced Hypertension: No Clear Sex Differences in The Pressor Response to Angiotensin II in Male and Female Wild-type and Proximal Tubule-specific AT1a Receptor Knockout Mice.

Li XC, Leite AP, Zheng X, Zhao C, Zhu D, Zhuo JL. The Deletion of AT1a Receptors Selectively in the Proximal Tubules of the Kidney Lowers Blood Pressure by Inducing Glomerular Hyperfiltration & Pressure-Natriuresis Responses in PT-Agtr1a^{-/-} Mice.

Majid DSA, Castillo A. Isotonic saline infusion increases plasma and urinary levels of tumor necrosis factor-alpha (TNF α) in mice; evidence for a physiological role of this cytokine in regulating renal function during saline volume expansion.

Ogola BO, Zimmerman MA, Harris NR, Kilanowski-Doroh I, Groban L, Lindsey S. Impact of Aging and G Protein-Coupled Estrogen Receptor Deletion in Arterial Stiffening and Cardiac Function in Male and Female Mice.

Richfield O, Cortez R, Navar LG. Quantifying Mechanical Stress in the Remaining Glomeruli in 5/6-Nephrectomy.

Snarski P, Danchuk S, Sukhanov S, Yoshida T, Higashi Y, Shai S-Y, Chandrasekar B, Delafontaine P. Features of Stable Plaque Phenotype Are Increased by Macrophage Specific Insulin-Like Growth Factor 1.

Sukhanov S, Hou X, Snarski P, Yoshida T, Delafontaine P. Atheroprotective Effects Induced by Glyceraldehyde-3'-phosphate Dehydrogenase (GAPDH) in Murine Model of Atherosclerosis.

Tortelote GG., Hillard SA, Colon-Leyva M, Hughes JB., El-Dahr SS., Saifudeen Z. Linking Energy Metabolism to Cell Fate Decision During Kidney Development.

Wong TJ, Ogola BO, Kilanowski-Doroh IM, Harris NR, Clark GL, Miller KS, Lindsey SH. Impact of Ovariectomy on Arterial Stiffness.

Zimmerman M, Ogola B, Lindsey S. G Protein-coupled Estrogen Receptor Protects Against Aging-Induced Vascular Dysfunction in Females but Not Males.

TULANE ANNUAL HEALTH SCIENCES RESEARCH DAYS, MARCH 11-12, 2020

Bell AL, Shao W, Katsurada A, Satou R, Navar LG. Sex-dependent protective influence on the intrarenal renin-Angiotensin system (RAS) and blood pressure in unilateral renal artery stenosis.

Gao H, Desmoulins LD, Zsombok A, Derbenev AV. Co-release of inhibitory neurotransmitters in the RVLM.

Higashi Y, Danchuk S, Li Z, Yoshida T, Sukhanov S, Delafontaine P. Insulin-like growth factor-1 up-regulates junction proteins, while it downregulates adhesion proteins in vascular endothelial cells

Hong J, Visniauskas B, Crabtree SL, Arita D, Rosales C, Feroz M, Thethi T, Fonseca V, Mauvais-Jarvis F, Prieto MC. Soluble Prorenin receptor (SPRR) is associated with Type-II Diabetes in women.

Molinas AJR, Zsombok A. Altered activity of liver-related PVN neurons in a model of Alzheimer's disease.

Ogola BO, Clark GL, Abshire CM, Harris NR, Gentry KL, Lawrence D, Zimmerman MA, Bayer CL, Miller KS, Lindsey SH. Sex

Differences in Aging and G Protein-Coupled Estrogen Receptor Deletion in Arterial Stiffening and Cardiac Function in Mice.

Richfield O, L Navar LG. Quantifying Mechanical Stress in the Remaining Glomeruli in Diabetes and 5/6-Nephrectomy

Sindi F. Role of Circular RNA-284 on Coronary Artery Smooth Muscle Cells Proliferation

Wathieu D. The role of microRNA in stimulating pro-inflammatory polarization of macrophages in diabetics

Zimmerman M, Ogola B, Lindsey S. Medroxyprogesterone Upregulates the Glucocorticoid Receptor in Female Long Evans Rats

Publications

Bautista-Pérez R, Pérez-Méndez O, Cano-Martínez A, Pacheco U, Santamaría J, Rodríguez-Iturbe FRB, Navar LG, Franco M. The Role of P2X7 Purinergic Receptors in the Renal Inflammation Associated with Angiotensin II-induced Hypertension. *Int J Mol Sci.* 2020 Jun 5;21(11):E4041. doi: 10.3390/ijms21114041. PMID: 32516946.

Chaanine AH, Navar LG, Delafontaine P. A Rat Model of Pressure Overload Induced Moderate Remodeling and Systolic Dysfunction as Opposed to Overt Systolic Heart Failure. *J Vis Exp.* 2020 Apr 30;(158). doi: 10.3791/60954. PMID: 32420983.

Kulthinee S, Shao W, Franco M, Navar LG. Purinergic P2X1 receptor, purinergic P2X7 receptor, and angiotensin II type 1 receptor interactions in the regulation of renal afferent arterioles in angiotensin II-dependent hypertension. *Am J Physiol Renal Physiol.* 2020 Jun 1;318(6):F1400-F1408. doi: 10.1152/ajprenal.00602.2019. Epub 2020 Apr 20. PMID: 32308022.

Li XC, Zhou X, Zhuo JL. Evidence for a Physiological Mitochondrial Angiotensin II System in the Kidney Proximal Tubules: Novel Roles of Mitochondrial Ang II/AT1a/O2- and Ang II/AT2/NO Signaling. *Hypertension.* 2020 Jul;76(1):121-132. doi: 10.1161/HYPERTENSIONAHA.119.13942. Epub 2020 Jun 1. PMID: 32475319.

Reverte V, Gogulamudi VR, Rosales CB, Musial DC, Gonzalez SR, Parra-Vitela AJ, Galeas-Pena M, Sure VN, Visniauskas B, Lindsey SH, Katakam PVG, Prieto MC. Urinary angiotensinogen increases in the absence of overt renal injury in high fat diet-induced type 2 diabetic mice. *J Diabetes Complications.* 2020 Feb;34(2):107448. doi: 10.1016/j.jdiacomp.2019.107448. PMID: 31761419.

Satou R, Cypress MW, Woods TC, Katsurada A, Dugas CM, Fonseca VA, Navar LG. Blockade of sodium-glucose cotransporter 2 suppresses high glucose-induced angiotensinogen augmentation in renal proximal tubular cells. *Am J Physiol Renal Physiol.* 2020 Jan 1;318(1):F67-F75. doi: 10.1152/ajprenal.00402.2019. PMID: 31682172.

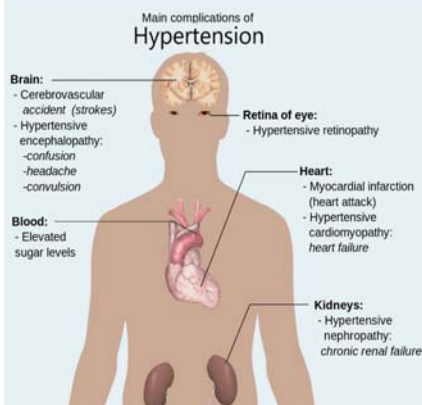
[Abstracts & Presentations cont.](#)

Publications listed on the left include those published between January through June, 2020 and publications that were omitted in previous THRCE newsletters.

Publications listed acknowledges either funding awards affiliated to the center, the THRCE center itself, or one of the center's CORE facilities.

Your support are welcome

Tulane Hypertension & Renal Center of Excellence will appreciate any support for the continual development of the center and its CORE Facilities, the support of the THRCE seminars series, and the publication of the THRCE newsletters. All donations to the center and its activities are tax-deductible.



CORE Facilities & Services

Tulane Hypertension and Renal Center of Excellence (THRCE) houses 2 research core facilities that were developed during COBRE phases I and II and are now maintained and supported by a COBRE Phase III grant awarded by the NIH/NIGMS. These core facilities are essential for the support of basic, clinical, and translational research in hypertension and renal biology and provide unique research opportunities for emerging leaders by establishing an enriched environment in which to develop investigators in both the clinical and basic hypertension research. The resources and services provided by the Center's COBRE Core facilities can be utilized by both COBRE and other investigators within Tulane and other institutions for hypertension, cardiovascular and renal research. The 2 research Core facilities are:

- ◇ The Molecular, Imaging, and Analytical Core: Serves as the resource for instruments and equipment needed to perform advanced molecular biology, semi-quantitative immuno-histochemistry and bio-analytical experiments.
- ◇ Mouse Phenotyping Research Core (MPRC): Contains resources to support high-tech data collection capabilities that are unique in the State of Louisiana and essential to research requiring the utilization of an array of methodologies to perform measurements of cardiovascular, blood pressure and renal function in mice.

Other activities of the Center include the sponsorship of local and regional meetings on hypertension and public education programs to increase awareness of the dangers of hypertension and its complications.

Upcoming Meetings & Events

Hypertension 2020 Scientific Sessions
~ Virtual Meeting: Sept. 10-13, 2020

ASN Kidney Week
~ Virtual Meeting: Oct. 22-25, 2020

AHA Scientific Sessions
~ Virtual Meeting: Nov. 14-16, 2020

Joint Meeting ESH – ISH 2021
~ Glasgow, UK: April 11-14, 2021

Contact Address

Nina R. Majid
Senior Program Administrator
Tulane University School of Medicine
Hypertension & Renal Center of Excellence
1430 Tulane Avenue, Room M726A
New Orleans, LA 70112
Louisiana, USA

Phone: 504-988-3703
Fax: 504-988-2675
E-mail: htncr@tulane.edu

<https://medicine.tulane.edu/tulane-hypertension-renal-center-excellence/>



THRCE Frontiers in Hypertension & Kidney Research Seminar

Aug. 20, 2020

Dewan S. A. Majid, MD, PhD

Professor, Department of Physiology; Chair, Seminar Committee,
Director, Phenotyping Core of the Tulane Hypertension & Renal Center of Excellence
Tulane University School of Medicine, New Orleans, LA.

"Protective role for TNF receptor type 1 in the renal responses to high salt intake"

Sept. 3, 2020

Ryosuke Sato, PhD

Assistant Professor, Department of Physiology
Director, Molecular Core of the Tulane Hypertension & Renal Center of Excellence
Tulane University School of Medicine, New Orleans, LA.

Talk: TBA

Sept. 17, 2020

Ryuji Morizane, MD, PhD

Visiting Scholar, Wyss Institute, Harvard University
Asst. Professor, Dept. of Medicine, Harvard Medical School (HMS)
Research Staff, Nephrology Division, Massachusetts General Hospital (MGH), Boston, MA
Affiliated Faculty, Harvard Stem Cell Institute (HSCI), Cambridge, MA

"Kidney Organoids for Disease Modeling and Regenerative Medicine"

Oct. 1, 2020

Curt D. Sigmund, PhD

James J. Smith & Catherine Welsch Smith Chair of Physiology
Chair, Department of Physiology, Associate Director, Cardiovascular Center
Medical College of Wisconsin, Milwaukee, WI.

"Post-translational Mechanisms in Vascular Smooth Muscle Regulate Arterial Stiffness and Blood Pressure: Role of RhoBTB1/Cullin-3."

Nov. 12, 2020

Robert M. Carey, MD

David A. Harrison III Distinguished Professor of Medicine
Dean, Emeritus and Professor
University of Virginia, School of Medicine, Charlottesville, VA.

Talk: TBA

Jan. 7, 2021

Bruce A. Molitoris, MD

Distinguished Professor & Professor of Medicine, Nephrology
Adjunct Professor of Anatomy, Cell Biology & Physiology
Indiana University School of Medicine, Indianapolis, IN.

Talk: TBA

DURING COVID-19 RESTRICTIONS: ZOOM MEETINGS WILL REPLACE IN-PERSON MEETINGS AND ARE SCHEDULED ALTERNATIVE THURSDAYS FROM 12 NOON TILL 1 PM.