



SSCI Nephrology Young Investigators' Forum
Paul W. Sanders, MD, Program Chair
February 24, 2021



The 20th Annual Southeastern Regional Nephrology Young Investigators' Forum (NYIF), sponsored by the Southern Society for Clinical Investigation (SSCI) with generous support from an educational grant from AstraZeneca Pharmaceuticals, was held virtually on February 24, 2021. The NYIF served as a pre-course to the Annual Southern Regional/Southern Society for Clinical Investigation Meetings, which occurred virtually on February 25-27, 2021.

Postdoctoral fellow trainees in nephrology programs throughout the Southeast were invited to present their research at the NYIF, which continued in the pattern of previous meetings with all of the presentations representing superior quality research. This year, sixteen fellows representing nine academic medical centers in eight states (Alabama, Tennessee, Georgia, Texas, Louisiana, and Virginia) were selected to participate. The research presentations were divided into basic and clinical research categories with the morning devoted to clinical research presentations and the afternoon program dedicated to basic science talks. We had six preclinical abstracts and nine clinical/translational abstracts. All those present contributed to a lively and constructive question-and-answer session following each of the presentations.

The event was initiated with a particularly excellent and relevant lecture entitled "Own Your Career But Know the Rules of the Game" presented by Eleanor Lederer, MD, Professor of Medicine and John S. Fordtran, MD Professorship in Calcium Research at the University of Texas Southwestern Medical Center. Dr. Lederer trained in Medicine at Baylor College of Medicine in Houston and served as Chief Medical Resident at Ben Taub General Hospital. She completed her nephrology training also at Baylor College of Medicine in Houston. In 1991, she moved to the University of Louisville where she rose in the ranks to Professor of Medicine and became Chief of the Division of Nephrology and Hypertension in 2010. Dr. Lederer has been very active in the American Society of Nephrology and in 2017 became the 51st President of the ASN. Having held most every medical administrative position at the University of Louisville and the adjacent Robley Rex VA Medical Center, she moved to the University of Texas Southwestern where she holds the John S. Fordtran Endowed Professorship in Calcium Research. She has continued her research and clinical activities and is funded through the VA to study the regulation of PTH, phosphate, and calcium in CKD. Dr. Lederer is a recognized scholar in career development and barriers to advancement for women and it is on this subject that she was asked to address.

Subsequent presenters all performed at a very high level, and their knowledge of their area of research and the background literature was impressive. Similarly, their ability to address wide-ranging and probing questions from the audience was equally impressive. This year's program, as with past programs, continued to reflect the superior investigative talent in nephrology training programs in the Southeast.

This year, awards were presented to the four top-rated presentations in each of the Clinical Science and Basic Science categories. A first and second alternate were also selected in each category. The winners advanced to the National Nephrology Young Investigators Forum that will be held in conjunction with the 2021 Spring National Kidney Foundation Clinical Meeting.

This year's award winners are listed below.

Basic Science Research Awardees

First Place

Laurence M. Black, PhD, University of Alabama at Birmingham

Characterizing de novo Lymphangiogenesis During Acute Kidney Injury Using Three-Dimensional Imaging and Tissue Cytometry

Second Place

Keyona King-Medina, PA-C, PhD, Emory University

The Effect of EGF Inhibition on Salt-Sensitivity

Third Place

Gema Bolas, PhD, Vanderbilt University Medical Center

Discoidin Domain Receptor 1 Regulates Mitochondrial Oxidative Stress

Fourth Place

Murat Dogan, MD, PhD, University of Virginia

PD-1 Regulates Metabolic Fitness in Protection from Kidney Ischemia Reperfusion Injury

Honorable Mention #1 (first alternate)

Yosuke Osaki, MD, PhD, Vanderbilt University Medical Center

Cell Cycle Changes in Proximal Tubules Improve Response to Chronic Kidney Injury

Honorable Mention #2 (second alternate)

Ana Paula de Oliverira Leite, PhD, Tulane University

Proximal Tubule-Specific Deletion of Mitochondrial Protein Sirtuin 3 in the Kidney Attenuates Angiotensin II-Induced Hypertension and Augments Natriuretic Responses in Female Mice

Clinical Research Awardees

First Place

Richard Chia, MD, University of Texas Southwestern

High Dietary Inorganic Phosphate Impairs Exercise Tolerance in Healthy Adults with Normal Renal Function

Second Place

Terrance Wickman, MD, Ochsner Health System

Risk of Acute Kidney Injury in COVID-19 is Increased in African Americans With Apolipoprotein L1 High-Risk Genotype

Third Place

Elvis Akwo, MD, MS, PhD, Vanderbilt University Medical Center

Refining Individualized Risk Prediction for Apparent Treatment-Resistant Hypertension in a Large Multiethnic Biobank: The Million Veteran Program

Fourth Place

Meredith McAdams, MD, University of Texas Southwestern

Acute Kidney Injury in Patients Hospitalized with COVID-19: Correlates and Outcomes

Honorable Mention #1 (first alternate)

Arun Rajasekaran, MD, University of Alabama at Birmingham

Characteristics of IgA Nephropathy in African American Transplant Recipients

Honorable Mention #2 (second alternate)

Masood Ahmad, MD, University of Alabama at Birmingham

Peritoneal Dialysis Related Outcomes in Obese Patients

The value of this NYIF for the trainee participants is extraordinary. This unique setting provides a forum where fellows can present original research orally to a small group of peers. Often this is the first extramural opportunity for the trainee to present his/her work at a formal meeting. This setting provides a novel, non-threatening environment for presentation and discussion for fellows and among fellows from different training programs in the region. There are no other meeting venues or environments that allow this high level of oral presentation and personal interaction for this level of training. Between and after sessions, trainees are afforded the extraordinary opportunity to interact personally with their peer group of researcher-trainees from the region and nationally if selected to advance to the national meeting. They also interact with a panel of judges who comprise a group of senior nephrologists and program leaders in the Southeast. They have the opportunity to network with other trainees in the region and nationally. It should also be noted that a number of trainee presenters at earlier NYIF programs have graduated to become our new young academic faculty for a number of nephrology programs in the Southeast and elsewhere.

Participants uniformly commented that this type of forum is strongly needed by the community and offered a great opportunity for networking. Many of the trainees spontaneously remarked that the meeting was a resounding success and an outstanding event for fellow participation. All recommended participation in this forum for future nephrology fellows.

The presenters, parent institutions, and titles of their presentations follow.

8:30 – 8:45 AM

Welcome & Opening Remarks

Paul Sanders, MD

*Thomas E. Andreoli Endowed Chair in Nephrology
Director, Nephrology Research & Training Center
University of Alabama at Birmingham*

- 8:45 – 9:30 AM **Keynote Address**
 “Own Your Career But Know the Rules of the game”
Eleanor Lederer, MD
Professor of Medicine
John S. Fordtran, MD Professorship in Calcium Research
University of Texas Southwestern Medical Center
- 9:30 – 9:45 AM **BS-01** – *Laurence M. Black, PhD, University of Alabama at Birmingham*
 Characterizing de novo Lymphangiogenesis During Acute Kidney Injury
 Using Three-Dimensional Imaging and Tissue Cytometry
- 9:45 – 10:00 AM **BS-02** – *Gema Bolas, PhD, Vanderbilt University Medical Center*
 Discoidin Domain Receptor 1 Regulates Mitochondrial Oxidative Stress
- 10:00 – 10:15 AM **BS-03** – *Murat Dogan, MD, PhD, University of Virginia*
 PD-1 Regulates Metabolic Fitness in Protection from Kidney Ischemia
 Reperfusion Injury
- 10:15 – 10:30 AM **Break**
- 10:30 – 10:45 AM **BS-04** – *Keyona King-Medina, PA-C, PhD, Emory University*
 The Effect of EGF Inhibition on Salt-Sensitivity
- 10:45 – 11:00 AM **BS-05** – *Ana Paula de Oliverira Leite, PhD, Tulane University*
 Proximal Tubule-Specific Deletion of Mitochondrial Protein Sirtuin 3 in the
 Kidney Attenuates Angiotensin II-Induced Hypertension and Augments
 Natriuretic Responses in Female Mice
- 11:00 – 11:15 AM **BS-06** – *Yosuke Osaki, MD, PhD, Vanderbilt University Medical Center*
 Cell Cycle Changes in Proximal Tubules Improve Response to Chronic
 Kidney Injury
- 11:15 – 12:15 **Lunch Break**
- 12:15 – 12:30 pm **CR-01** – *Emmanuel A. Adomako, MB, ChB, University of Texas*
Southwestern
 Idiopathic Hypokalemia in Lupus Nephritis: A Previously Unrecognized
 Entity
- 12:30 – 12:45 PM **CR-02** – *Masood Ahmad, MD, University of Alabama at Birmingham*
 Peritoneal Dialysis Related Outcomes in Obese Patients
- 12:45 – 1:00 PM **CR-03** – *Elvis Akwo, MD, MS, PhD, Vanderbilt University Medical Center*
 Refining Individualized Risk Prediction for Apparent Treatment-Resistant
 Hypertension in a Large Multiethnic Biobank: The Million Veteran Program

- 1:00 – 1:15 PM **CR-04** – *Richard Chia, MD, University of Texas Southwestern*
High Dietary Inorganic Phosphate Impairs Exercise Tolerance in Healthy Adults with Normal Renal Function
- 1:15 – 1:30 PM **CR-05** – *Ivan L. Claudio-Gonzalez, MD, Emory University*
D-Dimer Levels in End-Stage Renal Disease Patients During the COVID-19 Pandemic
- 1:30 – 1:45 PM **Break**
- 1:45 – 2:00 PM **CR-06** – *Meredith McAdams, MD, University of Texas Southwestern*
Acute Kidney Injury in Patients Hospitalized with COVID-19: Correlates and Outcomes
- 2:00 – 2:15PM **CR-07** – *S. Arvind Mudunuru, MD, Emory University*
Differences in Clinical Characteristics of Calciphylaxis (Calcific Uremic Arteriopathy) Patients Depending on Warfarin Status
- 2:15 – 2:30 PM **CR-08** – *Arun Rajasekaran, MD, University of Alabama at Birmingham*
Characteristics of IgA Nephropathy in African American Transplant Recipients
- 2:30 – 2:45 PM **CR-09** – *Terrance Wickman, MD, Ochsner Health System*
Risk of Acute Kidney Injury in COVID-19 is Increased in African Americans With Apolipoprotein L1 High-Risk Genotype
- 2:45 – 3:15 PM **Break – Judges’ Deliberation**
- 3:15 – 3:45 PM **Fellows Networking with Judges (assignments will be provided)**
- 3:45 – 4:15 PM **Awards Ceremony**

ADDENDUM TO EXECUTIVE SUMMARY

The SSCI NYIF participants in the National YIF held virtually on April 22-23 did very well.

Clinical Research

3rd place: *Richard Chia, MD, University of Texas Southwestern*

High Dietary Inorganic Phosphate Impairs Exercise Tolerance in Healthy Adults with Normal Renal Function

Basic Science

2nd place: *Laurence M. Black, PhD, University of Alabama at Birmingham*

Characterizing de novo Lymphangiogenesis During Acute Kidney Injury Using Three-Dimensional Imaging and Tissue Cytometry

The National Young Investigators Forum was sponsored by an educational grant from *Amgen and AstraZeneca*.