Seminars by Chicago KUH FORWARD

Wednesday, December 15, 2021
11:00 AM – 12:00 PM Central Time

Host institution: Lurie Children’s Hospital

Join Zoom Meeting: https://northwestern.zoom.us/j/98284850748
Meeting ID: 982 8485 0748

AGENDA

11:00 – 11:05 AM Welcome and logistics  
Priya Verghese, MD, MPH

11:05 – 11:55 AM Presentations  
Anoosh Moin, MD
Food insecurity in pediatric kidney transplant patients
SARA in the kidney – regulation of cell phenotype as a potential therapeutic target in renal fibrosis
Mind the Gap: Adult Heart Disease in Pediatric Chronic Kidney Disease
Vidhi Dalal, MD
Alex Kula, MD, MHS

11:55 AM – 12:00 PM Closing remarks  
Priya Verghese, MD, MPH

SPEAKERS

The faculty host for this seminar is Priya Verghese, MBBS, MPH, Chief of Nephrology at Lurie Children’s Hospital of Chicago. She currently serves as the Interim Medical Director of Pediatric Kidney Transplant Program and is the Isaac A. Abt, MD Professor in Kidney Diseases.

Anoosh Moin, MD
Fellow in Pediatric Nephrology,  
Ann & Robert H. Lurie Children’s Hospital

Bio: Dr. Anoosh Moin is a third-year pediatric nephrology fellow at Lurie Children's Hospital. She completed her residency in pediatrics at John H Stroger Hospital of Cook County in Chicago and attended medical school at Aga Khan University, Pakistan.

Title: Food insecurity in pediatric kidney transplant patients

Abstract: USDA defines food insecurity (FI) as inconsistent access to food or worry over food shortage that prevents an active, healthy life. In the USA, 17% of children were FI in 2019, which worsened to 19.9% in July 2020 with the start of the COVID 19 pandemic. FI has wide impacts on families and children. There is increased healthcare use, non-communicable diseases, behavioral, scholarly, and emotional problems. FI families are more likely to have single female parents, black race, Hispanic ethnicity, low-income levels, unemployment, and high medical costs. Having a chronic medical disease is associated with FI and having FI increases risk for end stage kidney disease in patients with chronic kidney disease. Children with chronic kidney disease are more at risk for FI, have lower quality of life and increased healthcare utilization. FI increases risk of obesity and obese pediatric kidney transplant patients
have worse outcomes. FI is associated with lower socioeconomic status which in turn is associated with worse graft function. Pediatric transplant patients have high demands, requiring a prolonged stay in the hospital post transplantation, multiple close clinic visits, multiple medications, and increased likelihood of future admissions, and therefore they are at high risk of developing food insecurity which will likely impact transplant outcomes. There are currently no studies reporting on FI in pediatric kidney transplant patients and its impact on transplant outcomes. I will review our current data on food insecurity in pediatric kidney transplant patients and impact on transplant outcomes.

Vidhi Dalal, MD
Junior Attending Physician, Division of Pediatric Nephrology
Ann & Robert H. Lurie Children's Hospital of Chicago

Bio: Dr. Vidhi Dalal completed her pediatric nephrology fellowship at Lurie Children's Hospital earlier this year and joined the division as a junior attending. She received a two-year fellowship grant from the National Kidney Foundation of Illinois to support her research endeavors in understanding the molecular mechanisms of renal fibrosis, especially in the context of glomerulosclerosis. Her talk today will focus on the findings of the work she completed in fellowship.

Title: SARA in the kidney – regulation of cell phenotype as a potential therapeutic target in renal fibrosis

Abstract: Podocytes play a central role in the development and progression of glomerulopathies. Injury to podocytes leads to their dedifferentiation, whereby the expression of podocyte-specific proteins is suppressed, and the expression of mesenchymal-specific proteins is induced. The consequent podocyte foot process effacement and detachment of podocytes from the glomerular basement membrane result in glomerulosclerosis. Our laboratory has identified Smad Anchor for Receptor Activation (SARA) as a key protein for maintaining cellular phenotype in the face of fibrogenesis. In a mouse model of Adriamycin-induced glomerulosclerosis, we found that mice overexpressing SARA specifically in podocytes demonstrated decreased proteinuria and fibrosis both in glomeruli and the tubulointerstitium compared to wild-type (WT) mice. Furthermore, SARA positive mice exhibit a higher expression of podocyte-specific genes, suggesting that SARA ameliorates glomerulosclerosis by preserving the podocyte phenotype. Molecular mechanisms by which SARA exerts its function are being analyzed by RNAseq of podocytes isolated from these mice.

Alex Kula, MD, MHS
Attending Physician, Division of Pediatric Nephrology,
Ann & Robert H. Lurie Children's Hospital of Chicago
Assistant Professor of Pediatrics,
Northwestern University Feinberg School of Medicine

Bio: Alex Kula, MD, MHS received his medical degree and master's in health science from Yale University. Subsequently, he completed his pediatric residency and pediatric nephrology fellowship at Seattle Children's Hospital/University of Washington. While in fellowship, he investigated cardiovascular disease in young adults with chronic kidney disease under the mentorship of Nisha Bansal, MD, MAS. Currently, he serves as an attending physician in the Division of Pediatric Nephrology at Ann and Robert H. Lurie Children's Hospital of Chicago and as an Assistant Professor of Pediatrics at the Northwestern University Feinberg School of Medicine.

Title: Mind the Gap: Adult Heart Disease in Pediatric Chronic Kidney Disease

Abstract: Cardiovascular disease is a significant source of morbidity and mortality for patients with chronic kidney disease (CKD) of all ages. However, connecting intermediate cardiovascular findings in children with CKD to cardiovascular events later in life remains challenging. This disconnect primarily reflects a paucity of observational or clinical trial data in young adults with CKD or spanning the pediatric-adult divide. The objective of this talk is to describe current knowledge gaps and identify methods to overcome challenges impeding our understanding, and treatment, of cardiovascular disease as a lifelong process in patients with CKD.
**Chicago KUH FORWARD** is a NIDDK-funded interdisciplinary training program for pre- and postdoctoral trainees in basic, translational, or clinical research in the fields of kidney, benign urologic, and benign hematologic diseases across Chicago. Partnering institutions include Northwestern University, Loyola University, Lurie Children’s Hospital, Rush University, University of Chicago, and University of Illinois at Chicago. NIH U2CDK129917 and TL1DK132769

**Seminars by Chicago KUH FORWARD** is a forum that brings together our city-wide KUH research community to learn about new and existing cross-cutting tools and promote cross talk among scientists at Chicago KUH FORWARD institutions. Seminars are virtual and open to all levels of researchers interested in advancing KUH training and research. Seminar recordings may be made available upon request.

Your participation in Chicago KUH FORWARD seminars and events helps us maximize integration and promote a true trainee community that engages, recruits, prepares, and sustains the next generation of kidney, urology, and hematology researchers. Any predoctoral or postdoctoral fellow or early career investigator interested in presenting at a future KUH Seminar can let us know by sending a message to chicago.kuhforward@northwestern.edu.

Please take the time to provide your feedback on Chicago KUH FORWARD programs. Seminar attendees will be given the opportunity to complete a brief survey at the end of the seminar.

**contact:** chicago.kuhforward@northwestern.edu