More Expansion into North St. Louis County
New Dialysis Center Opens in Hazelwood

To improve access and convenience while also enhancing patient compliance with dialysis treatments, Washington University School of Medicine’s Division of Nephrology has opened its second dialysis center in north St. Louis County. The new center, in Hazelwood, Mo., complements a dialysis center that opened in Florissant in 2018.

“The advantage of the new location in Hazelwood is that it houses a multi-physician group that not only includes the dialysis center but also clinics for nephrologists and endocrinologists to see patients,” says Thomas Gowen, RN, Nurse Manager of the Village Square Dialysis Center in Hazelwood. “A pharmacy also is onsite for patients to conveniently pick up their medications while here and we have a dedicated area for home dialysis education and follow-up.”

In addition, a social worker is available at both locations to coordinate resources, including transportation to and from treatments. “A lot of our patients have financial constraints and about half of them need transportation and other assistance,” explains Patrice Finnie, RN, Nurse Manager of the Florissant dialysis center. “By having these centers closer to their homes, patients are more able to make it to their treatments.”

In Missouri, more than 12,000 patients have end stage renal disease (ESRD). Without dialysis or a kidney transplant, ESRD is fatal. According to the Centers for Disease Control and Prevention, the number of people affected by chronic kidney disease in this country is rising, due in part to an aging population as well as an increase in the number of individuals diagnosed with diabetes and/or hypertension. The two conditions are the main diagnoses impacting ESRD patients in north St. Louis County. In fact, kidney disease ranks in the top 10 of leading causes of death in the region, according to the St. Louis County Health Department.

“Washington University is committed to removing barriers to healthcare services,” says Jodean Baldauf, senior director of business development and operations for the Division of Nephrology. “By opening dialysis centers closer to where our patients live, we can optimize not only the care we provide, but also the overall health and quality of life of the patients we serve.”
Dynamic education and training are critical to advance medicine and I feel proud and energized for our division when I witness passion for the mentorship and teaching of all our learners.

Seth Goldberg, MD, is among them. This Spring, he takes the helm as Program Director of our Nephrology Fellowship and will guide it into its next evolution of premier education and training. He knows the program inside and out, having completed fellowship training here before joining the faculty in 2009. He has also served as associate program director and, along the way, has been honored with multiple awards for Excellence in Teaching in the Field of Nephrology and Distinguished Service Teaching awards at the School of Medicine.

He is passionate about medical education and mentorship. I know he will continue to lead the way in transforming nephrology training at WashU.

As Seth takes on his new role, we also thank and congratulate Steven Cheng, MD, who moves up to take on new responsibilities as director of the Department of Internal Medicine’s Residency Program. This is a tremendous honor and we are all so proud of Dr. Cheng! He now joins a very short list of nephrologist IM residency program directors nationwide. He will continue his clinical service and teaching in our division but his new role will broaden his impact in the field of medical education, for which he has been recognized by medical students, residents, fellows, and colleagues. This year, in fact, he was awarded the Jane Phillips-Conroy Professor of the Year Award during WashU’s Distinguished Service Teaching Awards Ceremony. Another of our colleagues, Timothy Yau, MD, also received two Distinguished Teaching awards this year, adding to his own list of multiple education awards and recognizing Tim’s creativity in teaching the next generation.

These transitions in education and training make me excited for the future and grateful to be a part of our exceptional community. We as a division should be an incubator for future leaders. As we train, hire and mentor those with a true skill and passion for sharing knowledge, we deeply impact the future of nephrology care, education, and research for the better. I hope many of you remember your time in our program and experienced that skill and passion that encouraged you to follow a rewarding career in nephrology.

Benjamin D. Humphreys, MD, PhD
Joseph P. Friedman Professor and Chief
Division of Nephrology
Washington University School of Medicine

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Thank You!

We thank the following individuals and organizations that generously donated to our division October 2022 – January 2023:

- Joel & Susan Allen Charitable Fund
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- United Way of King County, WA

If you would like to support our research and teaching mission or contribute to the Division of Nephrology’s programs and services, please send your contribution to:

Washington University in St. Louis
Office of Medical Alumni and Development
Attn: Rachel A. Hartmann
7425 Forsyth Blvd.
Campus Box 1247
St. Louis, MO 63105

You may also contact Rachel A. Hartmann directly at 314-935-9715 or by email at rachel_hartmann@wustl.edu if you are considering supporting the Division through appreciated stocks, deferred giving, beneficiary plans or other assets.

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Fellowship Notes

By Steven Cheng, MD
Director, Nephrology Fellowship Program

For the 12 years that I have served as Fellowship Program Director, I’ve had the great pleasure of watching this program grow and evolve. Back in 2006, when I discussed career aspirations with then division chief Dr. Marc Hammerman, I mentioned an interest in medical education. He said, “Let’s give it a try and see if you can forge it into a career.” And so, I did.

As the hospital grew, so, too, did our program and complement of trainees. Our program is now approved for 12 positions in general nephrology and 2 advanced fellowship positions in transplant nephrology. As the census and complexity of care grew, we grew right along with it by adding procedure and night float teams and expanding our consult services. As technology developed, we embraced that change, pursuing new real-time ultrasound guidance for biopsies and developing a POCUS curriculum. And, as the commitment towards trainee wellness came to the forefront during COVID, we were among the first to introduce note-writing caps and non-teaching services staffed by physician extenders and faculty.

This program will continue to adapt in the years to come and I predict that our changes will continue to be well ahead of the curve. But one thing will never change — the commitment of this division to support its trainees with world class education, cutting-edge resources, and devoted faculty. This year, I am thrilled to take my passion for education into a new realm as Program Director for WashU’s Internal Medicine Residency Program. It gives me a broader platform to advance medical education and training even as I remain active in clinical nephrology services. Seth Goldberg, MD, who has served as associate program director since 2013, takes the helm of the Nephrology Fellowship Program. Frank O’Brien, MD, will become Senior Associate Program Director.

Thank you to my mentors and colleagues who have been so supportive of this program. I am exceedingly proud that many former fellows are now respected colleagues (and program directors!) and that they represent the future of nephrology at its finest.

2023 Fellows

The Division of Nephrology is pleased to welcome these fellows to our program this summer:

Atlee Baker, MD
Ochsner Louisiana State University Health Science Center
Shreveport, LA

Muhammad Yasir Baloch, MBBS
Florida State University
Tallahassee, FL

Alex Calderon, MD
SSM Health-
St. Mary’s Hospital
St. Louis, MO

Felina Innaci Dass, MBBS
St. Luke’s Hospital
St. Louis, MO

Audrey Netzel
Ochsner Louisiana State University Health Science Center
Shreveport, LA

Olga Postovitenko, MD
Berkshire Medical Center
Pittsfield, MA

2023 Transplant Fellow

Samer Abdulkhalek, MD
University of Southern California, Los Angeles, CA
Donald Kohan, MD, PhD
Emeritus Professor of Medicine
University of Utah
WU Nephrology Fellow, 1985-1987
WU Nephrology Faculty, 1987-1990

Donald Kohan, MD, PhD, says the mentorship of faculty in the Division of Nephrology at Washington University School of Medicine while he was a fellow here was instrumental in guiding and pushing him into a research career that has led to international recognition and pioneering work into the role of endothelin receptor antagonists in kidney health and disease.

“I remember Saulo Klahr asking me whether I wanted to be a bricklayer or an architect; in essence, he encouraged me to think outside of the box and go into a research career,” says Dr. Kohan. “He remained a constant supporter of my career until he passed away in 2010.”

Dr. Kohan joined the faculty in 1987, right after completing his fellowship under the supervision of George Schreiner. Another important early mentor was Eric Simon. Within a year, Dr. Kohan received a biomedical research grant from the National Institutes of Health — the first of many — to study interleukin-1 regulation of renal tubule transport processes. “As I continued my investigations, my basic research examined the physiology and pathophysiology of endothelin in the kidney in health and disease,” he explains.

“Just this year, the FDA granted accelerated approval of an endothelin receptor antagonist and angiotensin receptor blocker (Sparsentan) for the treatment of patients with IgA nephropathy. “This is the first approval by any agency in the world for a drug targeting the endothelin system in chronic kidney disease,” says Dr. Kohan.

His foundational research was conducted at the University of Utah in Salt Lake City, where he and his wife, Sherrie (Perkins), MD, PhD, also a renowned physician scientist, have lived since 1990. She served as chief of hematopathology and president of the American Hematopathology Society as well as CEO of ARUP Laboratories. He rose to become chief of Utah’s Division of Nephrology from 1999 to 2009 and served as the Margaret A. Amundsen Endowed Professor of Medicine and the Dialysis Research Foundation Endowed Chair in Nephrology. He is the recipient of the prestigious Robert W. Berliner Award for distinguished lifetime achievement in renal physiological research from the American Physiological Society and the Tomoh Masaki Award, a biannual scientific award from the Endothelin International Advisory Board.

The two stepped away from their leadership roles in 2021 and have dedicated much of their time to travel. “We live close to seven ski resorts and a national forest with endless hiking trails,” notes Dr. Kohan. “We love skiing, hiking and scuba diving, the last of which we’ve done around the world, including at the Great Barrier Reef. We’ve also hiked the Inca Trail to Machu Pichu and recently came back from Thailand and Cambodia. I’d say we’ve visited 40+ countries so far.”

He delights in maintaining connections with colleagues. Lifelong friendships with Brad Rovin and Kevin Harris as well as Katie Hering-Smith and Adrianna Duso, among many, continue from his days at WashU. “Relationships I made then continued to help me long after I left,” he says fondly. “The incredible range of expertise and talent among WashU faculty was critical in helping me to develop a research plan and focus. I am grateful for my time there.”

Donald Kohan and his wife, Sherrie Perkins, at a cooking school in Chiang Mai, Thailand.
Maternal Fetal Medicine Nephrology Clinic Debuts
Team celebration as dialysis patient has baby

The news came in the form of texts and then calls to the dialysis team in north St. Louis County, which erupted in cheers as word spread throughout the clinic. “We have a baby; we have a baby!”

After seven challenging months, dialysis patient Christina Miles had a baby boy — Orlando Christopher Dean, born two months premature but thriving within weeks of his birth. Miles has juvenile diabetes and was placed on dialysis when her kidneys failed shortly after learning she was pregnant. “Everything was going downhill,” Miles said. “I had high blood pressure and my kidneys stopped working, so I was worried.”

But Christina’s pregnancy occurred as Washington University School of Medicine’s Division of Nephrology debuted a Maternal Fetal Medicine Nephrology Clinic, a practice led by nephrologist Kelli King-Morris, MD, and which has a multidisciplinary partnership between obstetricians, maternal fetal medicine specialists, nephrologists, and dialysis specialists. The clinic oversees the care of high-risk pregnant mothers with conditions such as lupus, Alport syndrome, chronic kidney disease (CKD) and end stage renal disease (ESRD).

“These are women with pre-existing kidney diseases or those who develop preeclampsia, proteinuria or other kidney disease during pregnancy,” explains Dr. King-Morris. “I’m caring for the mother and her kidney function, and the obstetrics team is watching both of them.”

Successful pregnancies are uncommon in patients receiving dialysis. Menstrual cycles are irregular, anemia and diabetes are risk factors, and high blood pressure is a constant concern. As glomerular filtration rates decline, fertility also diminishes. Many dialysis patients are counseled to avoid or sometimes even terminate a pregnancy due to the increased risks for complications in both the mother and baby. Statistics show that only one to seven percent of women on hemodialysis can get pregnant. For patients on peritoneal dialysis, the rate is even lower.

Over the past several years, however, the number of live births is rising, thanks to aggressive, multidisciplinary care and the adoption of intense hemodialysis protocols.

“During pregnancy, we try to achieve clearance closer to functioning kidneys through more frequent dialysis of five or six times a week instead of the more standard three times a week,” says nephrologist and dialysis specialist Reena Gurung, MD. “Also, nutritional requirements, blood pressure and volume management all need close monitoring and frequent adjustments.”

Nephrologist Manasa Metireddy, MD, adds, “When a woman is pregnant, they are gaining weight and their body is changing all the time. We must take that into account and change the amount of fluids almost daily. We have lower thresholds for kidney clearance to preserve brain development of the fetus and we request weekly versus monthly lab tests. Coordination between nephrology, maternal fetal medicine and endocrinology is critical.”

Since the Maternal Fetal Nephrology Clinic opened in mid-2022, Dr. King-Morris has cared for 25+ pregnant patients needing specialized treatment for kidney problems. Miles was the first who required dialysis while pregnant. “I saw her up to 22 weeks gestation when she started dialysis,” says Dr. King-Morris. “Drs. Metireddy and Gurung then oversaw dialysis care until Christina’s baby was born.”

In her seventh month of pregnancy, Miles’ blood pressure rapidly increased, creating a stroke or heart attack risk. She was immediately admitted to the hospital. Her baby boy was born soon after. "Orlando had to stay in the neonatal intensive care unit for almost three months,” says Miles. “I was so proud when I was able to bring him into the dialysis center to show him to everybody!”

For the dialysis team, who had been through three other pregnancies with patients that didn’t result in a live birth, it was a true celebration. “There are just no words; it’s precious to see this baby,” says Dr. Metireddy.

Dr. Kelli King-Morris also is thrilled. “The news about the clinic spread fast among obstetricians and maternal fetal medicine specialists and we have gotten busy very fast,” she says. “The fierce dedication by Christina to have her first child is the driving force behind this successful pregnancy and it’s the teamwork among ourselves in nephrology as well as the other subspecialties that makes this have such a great storybook ending.”
New NIH Grant Funds Pediatric Center of Excellence in Nephrology

Researchers at Washington University School of Medicine have received a grant from the National Institutes of Health to establish a Pediatric Center of Excellence in Nephrology. The prestigious grant is one of only three awarded during a funding cycle and is the result of a highly competitive, five-year selection process overseen by the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK). The grant will be used to study the genetic and molecular mechanisms of childhood kidney disease. High-definition molecular reference maps showing genetic details of normal and diseased kidneys at various stages of childhood growth and development will be created. Physician-scientists also will identify ways to improve patient care.

Sanjay Jain, MD, PhD, Professor of Medicine in the Division of Nephrology, and Vikas Dharnidharka, MD, the Alexis Hartmann, MD, Professor of Pediatrics and director of the Division of Pediatric Nephrology, Hypertension & Pheresis in the Department of Pediatrics are principal investigators. Drs. Michael Rauchman, MD, the Chromalloy Professor of Renal Diseases in Medicine, and Joseph Gaut, MD, PhD, the Ladenson Professor of Pathology & Immunology, are co-investigators. “Our goal is to detail the genetic and cellular mechanisms of childhood kidney disease and its progression to aid development of new diagnostic tests, improved drugs, unique personalized therapies and other clinical improvements that will help us limit or even cure genetic or acquired kidney disorders,” says Dr. Jain. Adds Dr. Dharnidharka, “The development of effective methods for early detection and severity measurement of renal disease in children is lagging in part due to a lack of knowledge of physiological and pathological changes that occur as the kidney matures. The molecular blueprints generated will dramatically enhance our ability to design effective approaches to intervene and prevent kidney dysfunction.” The multidisciplinary and multi-institutional team also includes co-investigators Drs. Gloria Pryhuber from the University of Rochester Medical College and Michael Eadon from Indiana University.

R21 to Fund Further Research on Innovative Bio-Needle Technology

Ying Maggie Chen, MD, PhD, and bioengineer Srikanth Singamaneni, PhD, have been awarded an NIH Exploratory/Developmental Research Grant (R21) to further develop an innovative, minimally invasive bio-diagnostic device that would replace painful blood collection techniques that are currently used to monitor pediatric patients with nephrotic syndrome. The device, an ultrabright plasmonic-fluor-enabled microneedle technology is an extremely sensitive and minimally invasive diagnostic tool that uses the dermal interstitial fluid for rapid sampling and quantification of blood urea nitrogen and creatinine. “This device may revolutionize the pediatric diagnostics from invasive blood draw-based to painless dermal interstitial fluid-based assays for diverse clinical applications,” says Dr. Chen. “Most importantly, the blood draw-free novel diagnostic platform has great potential for early translation to monitor pediatric nephrotic syndrome (NS) patients at home or point-of-care frequently, which will improve the clinical management landscape of pediatric NS in the era of decentralized healthcare systems and precision nephrology.” The team is currently pursuing the study in a NS mouse model.

Innovative Research Scholar Award for Chang-Panesso

Monica Chang-Panesso, MD, has received the 2023 Research Scholar Award from the Southern Society for Clinical Investigation (SSCI). The award is given to an early career physician-scientist for innovative research projects related to internal medicine and its subspecialties. Dr. Chang-Panesso will use the one-year, $25,000 award for her research project titled “Tubular Senescence and Proliferative Capacity of the Aging Kidney.”

Dr. Chang-Panesso investigates the molecular mechanisms underlying the body’s repair response after acute kidney injury. She is interested in how this response differs in aging. In 2019, she was first author on a groundbreaking article in the Journal of Clinical Investigation titled, “FoxM1 Drives Proximal Tubule Proliferation During Repair from Acute Kidney Injury.”
New Transplant Nephrologists

Rohan Singh Paul, MBBS, and Karen Flores, MD, have joined the Division as transplant nephrologists. Dr. Paul previously was an assistant professor of medicine in the Division of Kidney Diseases and Hypertension at George Washington University Hospital in Washington, D.C., and completed his Renal-Electrolyte Fellowship at the University of Pittsburgh Medical Center and his Transplant Nephrology Fellowship at the University of California-San Francisco. Dr. Flores is a 2022 graduate of our Transplant Nephrology fellowship. She previously completed a nephrology fellowship at Ohio State University's Wexner Medical Center. In addition to her medical degree from the University the Philippines College of Medicine, Dr. Flores holds a bachelor’s degree in nursing.

Vijayan to Receive 2023 Dean’s Impact Award

Anitha Vijayan, MD, will be awarded a 2023 Dean’s Impact Award for superior efforts in the face of the COVID-19 pandemic. The award honors faculty members who represent the determination, adaptability, compassion, and innovation required to lead the university through the unprecedented times of the pandemic. Said Benjamin Humphreys, MD, PhD, chief of the Division of Nephrology, "At the very start of the pandemic, Dr. Vijayan redesigned our inpatient nephrology consult structure to remove fellows, faculty with young children, and older faculty from exposure to COVID infected patients. She demonstrated leadership in volunteering to be the first attending on this faculty-only service. In addition, she generated a nephrology/acute dialysis preparedness document for Barnes-Jewish Hospital and coordinated dialysis needs across all BJC medical centers, frequently reallocating resources to hospitals with highest need across the BJC system in collaboration with the BJC command center. She worked tirelessly with BJH and BJC Supply Chain leadership to manage inventory for 14,300 dialysis needs." Dr. Vijayan will be honored with other WashU awardees as part of a special event with Dr. Anthony Fauci, former director of the National Institute of Allergy and Infectious Diseases (NIAID) for almost 40 years. Dr. Fauci will be the keynote speaker at WashU School of Medicine’s 2023 graduation ceremony on May 15.

Cheng Honored as ASN Distinguished Educator

Steven Cheng, MD, professor of medicine, received the Distinguished Educator Midcareer Award from the American Society of Nephrology. The award recognizes clinicians, educators, health professionals and researchers who have at least 10 years of experience after completing nephrology training. Cheng, a popular nephrologist and training program director, is a respected educator. He has served as a member of the ASN’s Workforce and Training Committee and has been honored at Washington University with multiple distinguished teaching awards, including an inaugural honor roll award in 2021 from the university’s Academy of Educators.

Will Ross Honored with Awards

Will Ross, MD, MPH, the Alumni Endowed Professor of Medicine, Nephrology, and Associate Dean for Diversity at Washington University School of Medicine, received the Frankie Freeman Inspirational Award from the Ethical Society of St. Louis. The award is named after Freeman, a prominent civil rights lawyer. Ross, a member of our division since 1996, is recognized internationally for his efforts to promote health equity programs and policies. He previously served as vice president of medical affairs at the former St. Louis Regional Medical Center and was director of Washington University’s hemodialysis unit. He also is a past member of the Center for Disease Control and Prevention’s Health Disparities Committee. Last year, Dr. Ross was named the 2022 Person of the Year by the St. Louis American, a leading newspaper in the region’s African-American community.
#NephStrong was front and center at the St. Louis NKF Kidney Walk this spring! The event, part of the National Kidney Foundation’s annual event to raise money and promote awareness of kidney disease and the need for organ donation, was on hiatus during the Covid-19 pandemic but came back in force in March.

“The event was a great success!” says Laura Begnel, RD, CSR, LD, organizer of our division’s team, called the WashU Walkers #NephStrong. “We had a lot of participation and support from the Nephrology Division and even got our Barnes-Jewish Hospital inpatient dialysis team involved, with help from Anitha Vijayan, MD. We had plenty of outside support as well from family and friends.

It was very encouraging to see how many of our team members were interested not only in fundraising, but in showing up at the walk. Seeing how involved our group was made me realize how lucky I am to work for such a wonderful team who not only supports our local NKF organization, but also our patients, too!

More than 38 people from the division participated in the walk and/or raised funds, raising a total of $2,043. Adds Begnel, “We had beautiful weather this year and really got to represent our organization with smiling faces, fun t-shirts, and lots of team spirit. We have such a compassionate and dedicated team working towards a brighter future for our patients and for research!”