

Section on Nephrology **Clinical Faculty** (continued)

Amber M. Reeves-Daniel, DO

Associate Professor of Internal Medicine (Nephrology); Medical Director, Living Donor Kidney Program; Medical Director, Pancreas Transplantation Program

- **Specialties:** Kidney and pancreas transplantation, kidney transplantation and living kidney donation in African-Americans
- **Research:** Outcomes following live kidney donation, ethnic and gender barriers to transplantation
- Best Doctors in America,® 2014–2016



Alison J. Fletcher, MD

Assistant Professor of Internal Medicine (Nephrology); Associate Director, Nephrology Fellowship Program

- **Specialties:** Chronic kidney disease, geriatric kidney disease, ESRD
- **Research:** Geriatric nephrology



Todd W. Robinson, MD

Assistant Professor of Internal Medicine (Nephrology)

- **Specialties:** General nephrology, acute kidney injury, chronic kidney disease and dialysis, glomerular diseases
- **Research:** Cell-based chronic kidney disease therapies, regenerative medicine



Anita M. Saran, MD

Associate Professor of Internal Medicine (Nephrology); Director, Continuous Renal Replacement Therapy Program

- **Specialties:** General nephrology, diabetic kidney disease
- **Research:** Diabetic kidney disease



Isai Gopalakrishnan Bowline, MD

Assistant Professor of Internal Medicine (Nephrology)

- **Specialties:** Clinical nephrology, hypertensive nephropathy (HTN), chronic kidney disease, glomerular diseases, peritoneal dialysis
- Best Doctors in America,® 2014–2016



Professors Emeritus



Patricia L. Adams, MD

Professor Emeritus, 1979–2015



Vardaman M. Buckalew Jr., MD

Professor Emeritus, 1973–2015



Thomas D. DuBose Jr., MD

Professor Emeritus, 2002–2015

James L. Pirkle Jr., MD

Assistant Professor of Internal Medicine (Nephrology); Director, Nephrology Fellowship Program

- **Specialties:** Peritoneal dialysis, clinical nephrology
- **Member:** American College of Physicians, American Society of Nephrology, National Kidney Foundation, Renal Physicians Association



Amudha Palanisamy, MD

Assistant Professor of Internal Medicine (Nephrology)

- **Specialties:** Kidney and pancreas transplantation, live kidney donation, chronic kidney disease
- **Research:** Outcomes of kidney transplant recipients with preformed donor specific antibodies
- Best Doctors in America,® 2015–2016



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On the forefront of nephrology education: A focus on Dr. John Burkart

THE WAKE FOREST BAPTIST MEDICAL CENTER SECTION ON NEPHROLOGY has a longstanding tradition of educating the global nephrology community about advances in the care of patients with and at risk for kidney disease. For more than 40 years, Wake Forest Baptist faculty have presented research findings and taught didactic sessions at national and international meetings. Much of this work involved optimizing patient outcomes, improving treatment approaches, and better defining clinical diagnoses in patients with kidney disease. Results of these projects have been directly translated into clinical practice and caused medical therapies to evolve.

John M. Burkart, MD, Professor of Internal Medicine, Section on Nephrology, Corporate Medical Director of the Wake Forest University Outpatient Dialysis Program, and Corporate Medical Director of Health Systems Management, Inc., has been at the forefront of Wake Forest Baptist Nephrology's educational mission for more than 30 years. Dr. Burkart was founding chair of the joint Wake Forest Baptist and International Society for Peritoneal Dialysis (ISPD) home dialysis education course. Initially known as Peritoneal Dialysis University (PDU) and now called Home Dialysis University (HDU), these courses have taught nephrology fellows, practicing nephrologists, physician assistants and nurse practitioners about advances in home dialysis for the past 16 years. **It is estimated that more than 50 percent of all practicing U.S. nephrologists who finished their training after 1999**



John M. Burkart, MD

attended one of these courses, some returning many times. Physicians from Asia, Europe and South America have also attended.

Members of the faculty also actively participate in or direct educational efforts at national and international societies. Dr. Burkart served as a co-chair of the American Society of Nephrology's (ASN) annual Board Review Course and Update—the nation's premier nephrology review—from 2009 to 2014. During his tenure, he helped transition content to online learning, facilitated development of a post-course review examination and established live audience response to re-certification board exam-type questions. Dr. Burkart also served the ASN in other roles, including Dialysis Sub-group Committee member, Dialysis Practice Improvement Module Committee chair, Home Hemodialysis

Fellowship Benchmark Working Group member and In-Depth Course on Maintenance Dialysis co-chair during annual ASN meetings. In honor of these accomplishments, Dr. Burkart was presented the 2014 Lifetime Achievement Award in Peritoneal Dialysis at the Annual Dialysis Conference held by the University of Missouri. This award recognizes his lifetime of dedication to educating health care professionals and students, as well as improving the lives of patients with kidney disease.

An extension of Dr. Burkart's educational efforts and drive to improve the health of patients with kidney disease includes strategies to optimize dialysis outcomes by better standardization of care. One leading effort has been formulating guidelines by the Kidney Dialysis Outcomes Quality Initiative (KDOQI). This process started as a national

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On the forefront of nephrology education (continued from cover)

initiative, but subsequently grew into an international effort, the Kidney Disease Improving Global Outcomes (KDIGO). To date, Dr. Burkart has served as committee member or co-chair of every existing published KDOQI guideline for adequacy of peritoneal dialysis. He also served on the ISPD committee that developed initial global guidelines for adequate peritoneal dialysis therapy.

Dr. Burkart's colleague, **Michael V. Rocco, MD**, Vardaman M. Buckalew Jr. Professor, has been chair of KDOQI since 2008 and was vice chair from 2003-2008. During his tenure as vice chair, KDOQI has updated guidelines on Nutrition

in Children and in Diabetes, as well as provided numerous U.S. commentaries on KDIGO international guidelines. KDOQI is currently updating guidelines in Hemodialysis, Vascular Access and Nutrition. Dr. Rocco was awarded the National Kidney Foundation's Dr. Garabed Eknoyan Award in 2013, based on his service with KDOQI.

Wake Forest Baptist's Outpatient Dialysis (WFOPD) program provides care to more than 1,650 patients with ESRD at 16 facilities throughout northwestern N.C. Dr. Burkart is the chief medical officer for the program and actively practices in these facilities. He serves as a role model to his

15 Wake Forest Baptist partners, as well as to other local nephrologists and dialysis staff. Most importantly, he has always kept the patient's best interests at heart. That is why WFOPD has been at the forefront of changes in delivering dialysis in the country. WFOPD research studies such as the NIH-sponsored HEMO trial and Frequent Hemodialysis trial have evaluated new technologies for peritoneal dialysis and home hemodialysis, some have examined use of novel medications, while others have extended the application of existing technologies. These studies have improved or defined optimal approaches to the care of patients with ESRD.

One of the most active kidney and pancreas transplant centers in the U.S.



Left to Right: Amudha Palanisamy, MD; Robert Stratta, MD; Amber Reeves-Daniel, MD; Barry Freedman, MD

WAKE FOREST BAPTIST MEDICAL CENTER'S ABDOMINAL ORGAN TRANSPLANT PROGRAM is nationally recognized as a high quality and high volume center, as well as a center of excellence. Ranked as one of the 30 most active kidney and pancreas transplant centers in the country, it is also the largest kidney transplant center in N.C. and one of the leading transplant centers in United Network for Organ Sharing (UNOS) Region 11, which includes N.C., S.C., Ky., Tenn. and Va. In fact, Wake Forest Baptist has more patients living with a functioning kidney transplant than any other transplant center in the state, and more than 3,000 kidney transplants have been performed in its 45-year history. The program is widely known for providing broad access to underserved popula-

tions, particularly the extremes of age and ethnic minorities. Additionally, it is recognized for providing access to high-risk candidates including patients with controlled chronic viral infections, morbid obesity and prior transplants. Living donation is encouraged, with prudent use of deceased donor organs when living donors are unavailable.

In fiscal year 2015, the Abdominal Organ Transplant Program performed 165 organ transplants. This was the ninth consecutive year that Wake Forest Baptist transplanted in excess of 150 patients, including 115 deceased donor kidney transplants, of which 21 percent were from expanded criteria donors and 19 percent from donation after cardiac death. Overall patient, kidney and pancreas graft survival rates were 99.4 percent, 98 percent and 100 percent, respectively.

Our multidisciplinary clinical, educational and research program has been highly successful due to close collaboration among the transplant surgeons (**Drs. Robert Stratta, Alan Farney, Jeffrey Rogers and Giuseppe Orlando**), the American Society of Transplant (AST)-certified nephrologists (**Drs. Amber**

Reeves-Daniel and Amudha Palanisamy) and the section's genetics team (**Drs. Barry Freedman and Anthony Bleyer**). The volume of transplant procedures permits our investigative team to perform translational research, including assessment of the impact of donor genetic risk variants on outcomes following kidney transplantation. This research team first reported that risk variants in the apolipoprotein L1 gene (APOL1) in deceased African-American organ donors were associated with shorter renal allograft survival. This novel finding was recently replicated in additional deceased donor kidney transplants performed at Wake Forest Baptist and other collaborators in the southeastern U.S., pioneering work that is actively funded by the National Institutes of Health. There is now healthy debate in the field regarding the role for screening potential kidney donors for common gene variants associated with kidney disease, particularly APOL1.

The landscape in transplantation medicine is rapidly evolving based on breakthroughs in precision medicine. Wake Forest Baptist's Abdominal Organ Transplant Program and Section on Nephrology are at the forefront of this burgeoning and dynamic field—translating laboratory breakthroughs to the benefit of patients while also providing the full spectrum and continuum of care.

Section on Nephrology Clinical Faculty

Barry I. Freedman, MD

John H. Felts III, MD, Professor of Internal Medicine (Nephrology); Chief, Section on Nephrology, Professor of Urology



- **Immediate Past Chair:** End-Stage Renal Disease (ESRD) Network 6
- **Specialties:** General nephrology, diabetic kidney disease
- **Research:** Genetic factors in kidney and cardiovascular disease, diabetes and hypertension
- **Fellow:** American College of Physicians
- Recipient of the National Kidney Foundation Shaul G. Massry Distinguished Lecture Award, 2013
- Best Doctors in America,® 2007–2016

Anthony J. Bleyer, MD, MS

Professor of Internal Medicine (Nephrology)



- **Specialties:** International expert on inherited tubulo-interstitial kidney disease
- **Research:** Genetic causes of kidney disease, medullary cystic kidney disease (with partners at the NIH, identified mutation in the Tamm-Horsfall protein gene that causes medullary cystic kidney disease), cardiovascular disease in dialysis patients
- **Fellow:** American College of Physicians; Member, American Society of Nephrology
- Published on sudden cardiac death in dialysis patients, use of non-calcium containing phosphate binders in dialysis patients and antimicrobial catheter lock solutions to prevent infection in dialysis patients
- Best Doctors in America,® 2005–2016

John M. Burkart, MD

Professor of Internal Medicine (Nephrology); Corporate Director, Wake Forest University Outpatient Dialysis Facilities



- **Chair:** Home Dialysis University (HDU) sponsored by International Society for Peritoneal Dialysis and Wake Forest University (CME)
- **Past president:** International Society for Peritoneal Dialysis
- **Specialties:** General nephrology, all aspects of peritoneal dialysis, clinical aspects of hemodialysis
- **Research:** Peritoneal dialysis, hemodialysis
- Best Doctors in America,® 1998–2016

Michael V. Rocco, MD, MSCE

Vardaman M. Buckalew Jr., MD, Professor of Internal Medicine (Nephrology); Professor of Public Health Sciences



- **Chair:** National Kidney Foundation's Kidney Disease Outcomes Quality Initiative (Vice Chair, 2003–2008)
- **Specialties:** Clinical nephrology, hemodialysis, peritoneal dialysis, chronic kidney disease, medical treatment of nephrolithiasis
- **Research:** More frequent hemodialysis therapies, hemodialysis vascular access, acute renal failure, progression of chronic kidney disease
- **Fellow:** American College of Physicians
- Recipient of the National Kidney Foundation Garabed Eknoyan Award, 2013
- Best Doctors in America,® 2005–2016

Pirouz Daeiagh, MD

Associate Professor of Internal Medicine (Nephrology)



- **Specialties:** Clinical nephrology, dialysis, hypertension
- **Research:** Regenerative medicine, acute renal failure, renal replacement therapy in ICU
- Best Doctors in America,® 2011–2012, 2015–2016

Amret T. Hawfield, MD

Associate Professor of Internal Medicine (Nephrology)



- **Specialties:** Chronic kidney disease, pregnancy and kidney function, hypertensive disorders of pregnancy, hypertension, dialysis and renal transplantation
- **Research:** Genetics of preeclampsia, NIH-funded SPRINT trial co-investigator studying hypertension management in chronic kidney disease

Shahriar Moossavi, MD, PhD

Associate Professor of Internal Medicine (Nephrology); Medical Director, Dialysis Access Group (DAG)



- **Specialties:** Interventional nephrology (dialysis vascular access), general nephrology
- **Research:** Dialysis vascular access, dialysis access surveillance, interventional procedures and outcomes
- **Member:** Medical Review Board of End-Stage Renal Disease (ESRD) Network 6
- **Member:** American Society of Transplantation Diversity and Minority Affairs Committee
- Best Doctors in America,® 2011–2016

Mariana Murea, MD

Associate Professor of Internal Medicine (Nephrology)



- **Specialties:** Hemodialysis, geriatric nephrology, glomerular diseases, chronic kidney disease, clinical nephrology
- **Research:** Vascular access in hemodialysis, clinical outcomes of elderly on hemodialysis, anticoagulation in hemodialysis, glomerular diseases of genetic etiology
- **Fellow:** American Society of Nephrology
- Best Doctors in America,® 2015–2016

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