Leading the Nation in Nephrology Education

The nephrology community about advances in kidney disease care.

Nephrology is an interdisciplinary field that focuses on the diagnosis and treatment of kidney diseases and disorders. It involves the study of kidney function, structure, and its role in maintaining homeostasis, which includes the regulation of blood pressure, fluid balance, and electrolyte concentrations.

The nephrology community is committed to advancing knowledge and improving patient care through research, education, and clinical practice. This involves developing new treatments, improving existing therapies, and identifying predictors of disease progression.

The nephrology community includes nephrologists, kidney patients, and their families, as well as other healthcare professionals, such as nurses, pharmacists, and dietitians. They work together to provide the best possible care to those affected by kidney disease.

The nephrology community is dedicated to ensuring that patients with kidney disease have access to high-quality care and that research is focused on finding effective treatments and preventing kidney disease.

The nephrology community is also committed to promoting awareness of kidney disease and its prevention, as well as advocating for policies that support research, education, and healthcare access.
Nephrology Research Breakthrough: Discovering Genetic Determinants of Kidney Disease

WAKE FOREST BAPTIST MEDICAL CENTER'S NEPHROLOGY RESEARCH CENTER continues to make groundbreaking discoveries in understanding the origins of inherited kidney disease. Working with a team of international researchers, Anthony J. Bleyer, MD, has uncovered new causes of kidney disorders through his studies of gene variation.

Bleyer initially found that mutations in the gene encoding Tamm-Horsfall protein, also called UMOD, are responsible for medullary cystic kidney disease Type 2 in western North Africa and with inherited kidney disease. Since then, working with Dr. Stanislav Kuchta at the First Faculty Medical School in Prague, he has identified mutations in several other genes causing inherited kidney disease.

"We are interested in studying the types of inherited kidney diseases," said Bleyer. "We frequently find mutations in the gene encoding UMOD in the family members of patients with inherited kidney disease. When this is the case, we analyze the gene in other family members to see if we find mutations in the gene even when the disease has not been described in the literature."

More than 50 percent of inherited kidney disease from around the world have been hereditary by Bleyer. Patients typically suffer from interstitial kidney disease, hereditary round blood disease, genetic kidney disease, and genetic kidney disease, any of which can cause kidney disease.

Bleyer identified the cause of disease in 20 of these families. The new paper, which examines 10 of the hereditary diseases, is scheduled to be published in the journal of the American Society of Nephrology.

"This research provides clinical and scientific insight into the disease causing role of this gene and indicates the potential for positive genetic testing and health decision makers," said Bleyer. "The new paper will be published in the journal of the American Society of Nephrology."

Bleyer is also part of a research group that identified the genetic cause of medullary cystic kidney disease Type 1 and added similar features with this condition to evaluate. Together, the nephrology colleagues at Wake Forest Baptist and throughout the world, we have the opportunity of solving other inherited kidney diseases in families that have experienced these diseases for generations without knowing the cause," said Bleyer.

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Medullary cystic kidney disease
Treatment with fluoride and hydroxychloroquine and a low-sodium diet improved hyperparathyroidism in affected individuals, with the goal of slowing the progression of kidney disease.

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Retired Professors

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Professor Emeritus, 1979-2011
Vardaman M. Burke Jr, MD
Professor Emeritus, 1979-2011

Do not hallucinate.

For videos of our nephrologists discussing a variety of clinical and research topics, visit WakeHealth.edu/Nephrology/Excellence