Biomarkers of Diabetic Kidney Disease to Be Subject of Schrier Lectureship

Robert G. Nelson, MD, PhD

A researcher with decades of experience will deliver the Robert W. Schrier, MD, Endowed Lectureship, entitled “Biomarkers of Structural Pathology in Diabetic Kidney Disease and Renal Function Decline,” on Friday, Nov. 18.

Robert G. Nelson, MD, PhD, is a senior investigator with the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK). He has conducted studies of type 2 diabetes and its complications in the Pima Indians for the past 50 years. His research focuses primarily on the kidney complications of type 2 diabetes, and his areas of special interest include the natural history, genetic and environmental determinants, pathophysiology, and treatment of diabetic nephropathy. His most recent work focuses on studies of glomerular structure, gene expression in kidney tissue, and biomarkers of diabetic nephropathy.

He has worked with National Kidney Foundation committees on practice guidelines for diabetes and chronic kidney disease (CKD); proteinuria and other markers of CKD; and evaluation, classification, and stratification of CKD. He serves on an expert group on diabetes complications for the World Health Organization’s global burden of disease study. He has served on the executive committee of the European Diabetic Nephropathy Working Group and on the scientific sessions planning committee of the American Diabetes Association. He is currently a member of the World Congress of Nephrology’s scientific program committee.

Dr. Nelson has been on the editorial board of the American Journal of Kidney Diseases and is currently on the boards of Primary Care Diabetes and Nephrology News & Issues. His research and other activities have resulted in almost 300 publications.

He has received many awards, including the Ruth Osterby Award from the European Diabetic Nephropathy Study Group, several plain language awards for educational videos from the National Institutes of Health, and the L.S. Goerke Memorial Award from the UCLA School of Public Health.

Dr. Nelson received his medical degree from Loma Linda University, an MPH from Harvard University, and a PhD in epidemiology from the University of California, Los Angeles.

State-of-the-Art Lecture
Lecturer Will Discuss Replacing Drugs with Electronic Devices

Kevin J. Tracey, MD

Reflex Circuits in Immunity: Bioelectronic Medicine is the title of a state-of-the-art lecture on Friday, Nov. 18.

Kevin J. Tracey, MD, is president and CEO of the Feinstein Institute for Medical Research, professor of neurourology and molecular medicine at Hofstra Northwell School of Medicine, and executive vice president for research at Northwell Health in Manhasset, NY.

The main focus of Dr. Tracey’s laboratory is the molecular basis of inflammation and the mechanism by which neurons control the immune system. His laboratory discovered the molecular mechanism for the neural control of inflammation, now termed the inflammatory reflex. This discovery led to the development of devices that use electrons delivered to neurons as a replacement for anti-inflammatory drugs—a new approach called bioelectronic medicine.

His lab participated in the first successful clinical trial demonstrating that vagus nerve stimulation can be effective in methotrexate-resistant rheumatoid arthritis patients.

An inventor with more than 60 US patents, Dr. Tracey is also cofounder of the Global Sepsis Alliance, a nonprofit organization supporting the efforts of 1 million caregivers in more than 70 countries to understand and combat sepsis.

He has been inducted into the American Society of Clinical Investigation, the American Association of Physicians, and the Long Island Technology Hall of Fame, and is a fellow in the American Association for the Advancement of Science. His honors include an honorary degree from the Karolinska Institute, Stockholm, Sweden, and lectureships from Harvard, Yale, Rockefeller University, the National Institutes of Health, among others.

Dr. Tracey received his MD from Boston University. He trained in nephrology at the New York Hospital/Cornell University Medical Center, and was a guest investigator at the Rockefeller University. Since 1992, he has directed the Laboratory of Biomedical Science in Manhasset, where he was appointed president of the Feinstein Institute in 2005.

Fibrotic Changes Could Be Key to Progression from Injury to Chronic Disease

Benjamin D. Humphreys, MD, PhD

The leader of a laboratory focused on kidney injury will speak on “Fibrotic Changes Mediating AKI to CKD Transition,” on Friday, Nov. 18.

Dr. Humphreys is the Chromalloy Associate Professor of Medicine and chief of the division of nephrology at Washington University School of Medicine in St. Louis. He leads a division of 33 faculty members with $5.5 million in yearly research grants.

His National Institutes of Health-funded laboratory focuses on adult kidney injury (AKI) and repair. The laboratory has special expertise in genetic mouse models of kidney diseases and stem cell biology, employing these approaches to identify new treatments for patients suffering from acute and chronic kidney diseases. To validate its discoveries in mice, the laboratory generated a substantial human kidney biobank. The researchers’ current efforts focus on defining transcriptional profiles in individual kidney cell types from human kidney biopsies.

Prior to joining Washington University in 2015, Dr. Humphreys was director of the Harvard Stem Cell Institute Kidney Program and associate professor of medicine at Harvard Medical School and Brigham and Women’s Hospital in Boston. The Harvard Stem Cell Institute uses mouse genetics, genomic techniques, and traditional molecular and biochemical approaches to study and model human kidney diseases in two main areas: 1) In AKI, where research into signaling pathways that enable kidney repair identified novel pathways regulating epithelial proliferation and re-differentiation after injury. 2) In chronic kidney disease, where the researchers identified the cells responsible for kidney fibrosis and designed new approaches to limiting the damage these cells do to kidney tissue.

Dr. Humphreys has authored over 100 publications and many book chapters. He holds five patents.

He is a member of the American Society of Clinical Investigation and an established investigator with the American Heart Association.

He received the National Kidney Foundation Young Investigator Award and the American Society of Nephrology Gottschalk Research Scholar Award.

Dr. Humphreys earned his medical and doctoral degrees from Case Western Reserve University. He completed a residency in internal medicine at Massachusetts General Hospital and a fellowship in nephrology at Brigham and Women’s Hospital.