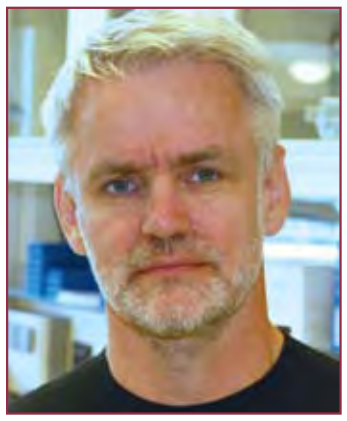
Genetic Associations in Complex Human Diseases



Kári Stefánsson

State-of-the-Art Lecture

The ASN is pleased to welcome Kári Stefánsson, MD, to present a state-of-the-art lecture on Friday, October 30, during the plenary session starting at 8 a.m. Dr. Stefánsson is Chief Executive Officer and Chairman of the Board of Directors for deCODE genetics, a biopharmaceutical company in Reykjavik, Iceland, which he co-founded in 1996.

A neurologist, Dr. Stefánsson has helped unravel the links between genes and specific diseases. His work paves the way for development of new tests and treatments for many of today's most insidious diseases, including cancer and diabetes. His lecture is titled "Genetic Associations in Complex Human Diseases."

During the 1990s, Dr. Stefánsson was a professor of neurology, neuropathology, and neuroscience at Harvard University and Director of Neuropathology at Beth Israel Hospital in Boston. He left academia to pursue his ambition of studying genetics on a large scale. In 1996, he returned to Iceland to establish the first commercial venture—deCODE genetics— to research population-based molecular genomics. The company's first focus is to isolate key genes contributing to major public health challenges such as cardiovascular disease and stroke. These genes then provide targets for drugs to treat the diseases.

Dr. Stefánsson and his colleagues search for disease genes by first choosing a target disorder, such as osteoporosis or schizophrenia, whose genetic contribution in unknown. They then identify family groups in which the disease genes are statistically more prevalent than in the general population. Scientists collect blood samples from these individuals and analyze their DNA to identify regions of the genome that are linked to the disease. More than 65 percent of adult Icelanders have allowed deCODE genetics to study their DNA. The company has identified more than 15 variants thus far, each linked to a greater risk of one of a range of disorders.

Aside from DNA-based diagnostics and drug discovery, deCODE is working to offer innovative products and services in bioinformatics, genotyping, structural biology, and clinical development.

Dr. Stefánsson received his medical degree in 1976 and his DrMed in 1986 from the University of Iceland School of Medicine. He completed postdoctoral training in neurology, neuropathology, and neuroscience at the University of Chicago, and is board-certified in neurology and neuropathology in the United States. Dr. Stefánsson has published numerous articles on the genetics of common and complex diseases.

Kretzler to be Honored with Young Investigator Award at Friday Plenary Session

Matthias Kretzler

The American Society of Nephrology is delighted to present this year's Young Investigator Award to Matthias Kretzler, MD, whose work to define the molecular mechanisms of kidney disease is helping to identify better ways to predict and treat it.

Initiated in 1985, the Young Investigator Award each year recognizes an individual with an outstanding record of achievement and creativity in basic or patient-oriented research related to the functions and diseases of the kidney. The award is co-sponsored by the American Heart Association's Council on the Kidney and is limited to individuals who are younger than 41 on the first day of the ASN meeting at which the award is presented, or who are less than eight years from the start of their first faculty or staff research scientist position beyond postdoctoral training.

Dr. Kretzler is an associate professor of internal medicine in the division of nephrology at the University of Michigan, Ann Arbor, where he teaches medical students, internal medicine residents, and nephrology fellows.

In addition to his teaching responsibilities, he is involved in a number of research initiatives at the state, national, and international levels. His research on chronic kidney disease addresses mechanisms for diabetic nephropathy, nephrotic syndrome, lupus nephritis, and IgA nephritis.

Since arriving at the University of Michigan in 2005, Dr. Kretzler has established the Personalized Molecular Nephrology Laboratory and the Michigan Renal Biobank.

The laboratory uses modern molecular biology tools to better understand disease mechanisms activated in human renal biopsies. Dr. Kretzler and his team use these tools for molecular diagnosis of kidney and transplant failure in international multicenter studies.

The Michigan Renal Biobank is a registry of medical histories, biopsy tissues, and specimens from patients with nephrotic syndrome and focal segmental glomerulosclerosis (FSGS). The biobank allows for development of a system of markers to subdivide different forms of FSGS, providing finer details as to prognosis, responsiveness to various drugs, and why some patients fail to respond to treatment.

At the national level, Dr. Kretzler initiated the Nephcure Biobank to establish prospective cohorts of patients with nephrotic syndrome for molecular phenotyping. In the international realm, he continues to integrate regional and national resources with the European Renal cDNA Bank, which he founded.

Dr. Kretzler serves on the advisory board of the European Kidney Research Association and on the editorial boards of the *Journal of the American Society of Nephrology*, the *Journal of Nephrology, Clinical Nephrology*, and *Nephrology, Dialysis, and Transplantation*.