

## Plenary Session

### State-of-the-Art Lecture

## Address to Explore Relationship of Autophagy and Metabolic Disease



Beth C. Levine

“Autophagy and Metabolic Diseases” is the title of a state-of-the-art lecture to be presented by one of the founders of the autophagy field on Sunday, Nov. 16.

Beth C. Levine, MD, is the director of the Center for Autophagy Research and the Charles Cameron Sprague Distinguished Chair in Biomedical Science at the University of Texas Southwestern.

Dr. Levine’s laboratory has made fundamental discoveries that have helped to open up a new field of biomedical research—the role of autophagy in human health and disease. Autophagy is an essential, homeostatic process by which cells break down their

own components. Dr. Levine’s laboratory identified the mammalian autophagy gene, *beclin 1*, and defined a role for it and the autophagy pathway in tumor suppression, antiviral immunity, development, cell death regulation, lifespan regulation, and exercise-induced metabolic effects.

For example, Dr. Levine demonstrated how *Akt*, a gene in the insulin-signaling pathway activated in many cancers, inhibits autophagy by inactivating *beclin 1*, allowing unregulated tumor cell growth. She has also shown that the epidermal growth factor receptor, which is expressed at abnormally high levels by many types of cancer cells, deactivates autophagy by binding the protein *beclin 1*, leading to increased rates of tumor growth and chemotherapy resistance in non-small cell lung cancer.

Dr. Levine joined the faculty at Columbia University College of Physicians and Surgeons as associate professor of medicine in 1993. In 2004, she became the Jay P. Sanford Professor and chief of the division of infectious diseases at the University of Texas Southwestern Medical Center. In 2011, she became the director of the newly created Center for Autophagy Research. She has been a Howard Hughes Medical Institute Investigator since 2008.

Dr. Levine is a member of the American Society for Clinical Investigation, the American Association of Physicians, and the National Academy of Sciences. She received the 2014 Stanley J. Korsmeyer Award from the American Society for Clinical Investigation as well as an award for outstanding research from the American Cancer Society.

She received her MD from Cornell University Medical College and completed her postdoctoral training in infectious diseases and viral pathogenesis at the Johns Hopkins University School of Medicine.

## Young Investigator Recognized for Mineral Metabolism Research



Myles Wolf

The ASN-AHA Young Investigator Award will be presented to Myles Wolf, MD, MMSc, for his groundbreaking research on mineral metabolism. He will describe his recent findings in an address: “Mineral (Mal)Adaptation to Kidney Disease.”

Dr. Wolf is the Margaret Gray Morton Professor of Medicine at the Feinberg School of Medicine at Northwestern University in Chicago. He is the founding director of the Center for Translational Metabolism and Health and director of the physician-scientist training program at Feinberg.

The focus of Dr. Wolf’s research is disordered mineral metabolism across the spectrum of chronic kidney disease, including dialysis, kidney transplantation, and earlier stages. His primary contributions have been in the area of hormonal regulation of phosphate homeostasis. He helped to characterize the physiological role of fibroblast growth factor 23 in health and in chronic kidney disease, and the impact of elevated levels on adverse clinical outcomes.

He serves on the editorial boards of the *Journal of the American Society of Nephrology*, *Clinical Journal of the American Society of Nephrology*, and *Seminars in Nephrology*, and as editor of the mineral metabolism section of *Current Opinion in Nephrology and Hypertension*. Dr. Wolf has been invited to deliver numerous national and international lectures on his research, and he has received several teaching, mentoring, and research awards.

After serving on the faculty of Harvard Medical School for five years, Dr. Wolf moved to Florida and the University of Miami’s Miller School of Medicine, where he eventually served as chief of the division of nephrology and hypertension, director of the clinical research center, and assistant dean for translational and clinical research. He joined the Feinberg School of Medicine in 2013.

Dr. Wolf received his medical degree from the State University of New York Downstate College of Medicine in Brooklyn. He completed internal medicine training at the Massachusetts General Hospital and a nephrology fellowship at the Massachusetts General Hospital and the Brigham and Women’s Hospital in Boston. During his research fellowship training, Dr. Wolf obtained a master’s of medical sciences in clinical and physiological investigation from Harvard Medical School.

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