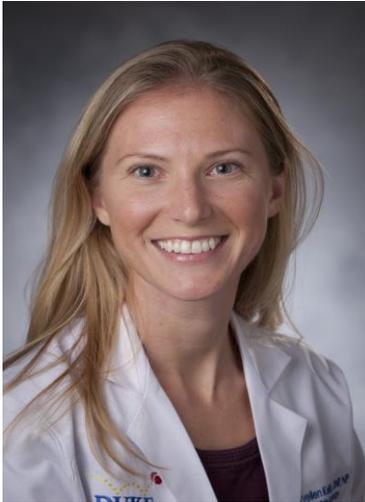


Duke KURe Scholars



Maryellen S. Kelly, DNP, CPNP
Clinical Associate, School of Nursing
Nurse Practitioner, Department of Surgery
Division of Urology
Duke University Medical Center

Dr. Kelly earned a BS in biology from Fairfield University and a BS in nursing from Columbia University. She then obtained her Masters in Nursing from Columbia University and a Doctorate in Pediatric Nursing from the University of Pittsburg. In 2015, Dr. Kelly joined Duke University where she practices pediatric urology and conducts clinical research.

Dr. Kelly's current research focuses on lower urinary tract symptoms for patients with diabetes. With the increasing number of children being diagnosed with diabetes, known complications of this disease are now being identified in ever-younger patients. Lower urinary tract symptoms are a known complication of diabetes and Dr. Kelly is investigating the prevalence of these symptoms in

children with diabetes and is evaluating possible treatment and prevention options. This work will affect the identification of patients at risk for developing lower urinary tract symptoms and how they are managed.



Derek S. Ho, PhD
Postdoctoral Associate
Department of Mechanical Engineering and Materials Science
Duke University Pratt School of Engineering

Dr. Ho earned his BS degree in Biomedical Engineering from the University of Texas at Austin. He went on to complete his PhD degree in Biomedical Engineering at Duke University in 2019 where his research focused on the development of optical technologies for clinical detection of cervical dysplasia. After earning his degree, Dr. Ho joined Dr. Pei Zhong's research group at Duke University as a postdoctoral associate.

Dr. Ho's K12 research focuses on investigating the fundamental mechanisms of kidney stone fragmentation during laser lithotripsy treatment. Understanding the laser interactions during treatment may improve treatment strategies by varying laser pulse settings for a given clinical scenario. Michael Lipkin, MD will mentor Dr. Ho in the clinical aspects of optimizing laser lithotripsy treatment for improved patient-oriented outcomes and long-term surgical management of stone disease.



Casey Steadman, PhD
Postdoctoral Associate
Department of Biomedical Engineering
Duke University Pratt School of Engineering

Dr. Casey Steadman earned her B.S. in Biological Engineering and her M.S. in Biomedical Engineering from Mississippi State University. She then completed her PhD at the University of Louisville where she studied the effects of spinal cord injury on sexual function in a rat contusion model. In 2019, Dr. Steadman joined the Grill Laboratory at Duke University.

Dr. Steadman is passionate about researching top priority quality of life issues after spinal cord injury. Her current research focuses on neuromodulatory therapeutic targets for improving bladder and sexual function post-injury. Dr. Steadman seeks to practice bench-to-bedside research, in which she will take therapeutic interventions from the animal model to the patient to impact individuals with spinal cord injury under the mentorship of Dr. Helen Hoenig.



Michael R. Odom, PhD
Postdoctoral Associate
Department of Surgery, Division of Urology
Duke University Medical Center

Dr. Odom began his career as a paramedic and obtained a BS in Emergency Medical Care from Western Carolina University before transitioning into basic science research. He then earned a PhD in Physiology from East Carolina University where his research focused on neurovascular mechanisms responsible for erectile dysfunction following prostate cancer treatment. In 2020, he joined the Duke University Urinary Dysfunction Laboratory as a postdoctoral associate.

Dr. Odom's current research focus is diabetic bladder dysfunction. Inflammation mediated through NLRP3 inflammasome activation directly contributes to the progression of diabetic bladder dysfunction through unknown mechanisms. Dr. Odom strives to determine these physiologically relevant mechanisms under the guidance of Dr. J. Todd Purves and Dr. Francis "Monty" Hughes. Currently, there are no effective treatments for diabetic bladder dysfunction and NLRP3 inhibition is a promising potential therapeutic intervention.