

# WISCONSIN UROLOGY

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THE ONLINE NEWS SOURCE FOR ALUMNI AND FRIENDS OF THE UW UROLOGY PROGRAM



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## Notable and Newsworthy

Dr. Petra Popovics, co-mentored by Drs. Will Ricke and Chad Vezina at the UW O'Brien Center, has been awarded a NIH K01 Scientist Development Award for her project titled "Osteopontin: A Novel Mediator of Prostatic Inflammation and Fibrosis".

Dr. Kristina Penniston was recently appointed to serve on the NIH/NIDDK Consortium Monitoring Board for the Polycystic Kidney Disease Research Consortium. Dr. Penniston will serve on this board as part of a new initiative within the Division of Kidney, Urologic, and Hematologic Diseases of the NIDDK.

Dr. Kyle Richards has been selected as the Society of Academic Urologists (SAU) nominee to present at the 2021 American Urological Association Meeting's Early-Career Investigators Showcase in Las Vegas, NV. This forum is meant to showcase basic, translational, and clinical research on innovative, relevant, and potentially impactful research projects that will be of high interest to the basic and clinical research communities.

Dr. Tracy Downs recently co-led the University of Wisconsin School of Medicine and Public Health's Martin Luther King Jr. Day events.

Dr. Jason Abel recently gave the American Urological Association (AUA) Lecture at the Plenary session for the Société Internationale d'Urologie titled: The Future of Surgery for Advanced Renal Cell Carcinoma in the Era of Immune Checkpoint Inhibitors.

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## Department of Urology Scientist Studying BPH and Aging

Scientists and doctors can tell you that as a man ages, the likelihood of experiencing Benign Prostatic Hyperplasia (BPH) is higher, but why? What is happening to men as they age that predisposes them to this disorder? Assistant Scientist, Teresa Liu, PhD is using her recently awarded five-year NIH K01 Mentored Career Development award to study aging and steroid hormone change with BPH.



“We know that a man in his 20s and 30s will not be diagnosed with BPH... this condition occurs specifically with age. What we don’t know, is why. If we can better understand the risk factor that is aging, we may come closer to systematically understanding this disease, rather than simply treating for its symptoms after the fact.”

While BPH is a benign, common condition with more than three million cases in the United States per year, it dramatically impacts the quality of life on an individual. “Although this is not a cancerous disease, it does lead to a poor quality of life for these men. It hampers how they enjoy all other aspects of life. We want to extend a healthy aging process and life span, and as the population continues to get older, this research becomes more and more critical.”

Dr. Liu’s research is in its beginning stages, and is currently ramping up for the experiments planned for years two and three of research. To better understand disease progression and examine the effects of clinical interventions, Dr. Liu has developed a variety of imaging tools (from cell and tissue based techniques to ultrasound and MRI) and pre-clinical models (*in vitro* and *in vivo*); these will be integral in the identification of biomarkers for better disease stratification. Additionally, in collaboration with Professor William Ricke, PhD, she is examining defects in mitochondria. Together they’ve seen how a change in mitochondrial dysfunction can lead to an increase in prostatic fibrosis. Dr. Liu is a member of the University of Wisconsin’s O’Brien Center of Research Excellence, the flagship center elucidating the mechanisms behind urologic fibrosis and collagen deposition. Her research has contributed greatly to the center’s mission of identifying factors that cause urinary dysfunction in aging men.

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