Innovative Research, Outstanding Care

WISCONSIN UROLOGY

THE NEWSLETTER FOR ALUMNI AND FRIENDS OF THE UW UROLOGY PROGRAM

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DEPARTMENT OF
Urology
UNIVERSITY OF WISCONSIN
SCHOOL OF MEDICINE AND PUBLIC HEALTH

UW Urology Ranked by U.S. News

In its 2015 Best Hospitals guide, U.S. News & World Report ranked University of Wisconsin Hospital and Clinics the 19th best hospital in the country for urology. The rankings covered 1,570 hospitals that treated significant numbers of difficult urology patients. This recognition is the result of the combined efforts of our faculty, staff, and trainees, as well as friends and colleagues outside our department who support us in our mission of providing outstanding care, improving quality of life and shaping the future of urology through education and research. WU

Wisconsin Urology is moving to an electronic format. To be sure you continue to receive it, please send an email that includes your first and last name to **wiurology@urology.wisc.edu** from your preferred email account.

MESSAGE FROM THE CHAIRMAN

Stephen Y. Nakada, MD, FACS

I hope this issue of *Wisconsin Urology* finds you well. There has been a warm glow around the Department after our showing in the top 20 of the 2015 *U.S. News & World Report* ranking of Hospitals in Urology! The only thing more exciting would have been a national championship for our basketball team! Regardless, a distinction like this is only possible through a team effort, from our administration, faculty, trainees, staff, and friends. Departments are rated by reputation, technology, discharge volume, nursing intensity, survival, safety, and services. These are all critical elements to our mission.

I am delighted to announce the arrival of Dr. Kyle Richards from the University of Chicago to become head of Urology at the William Middleton VA. Kyle has a special interest in health services research and bladder cancer disparities. Kyle is a native of Wisconsin and trained at Wake Forest. I would also like to announce the arrival of Dr. Dan Gralnek from Iowa, where he had a successful general practice. Dan is a great resident teacher and already has found footing on three of our campuses.

The Department has several other exciting announcements. We received funding for our O'Brien Center grant, which focuses on men's health research. Our own Will Ricke, PhD, and Dale Bjorling, DVM, will head this incredible $8.3 million dollar project. This year our Pediatric Division chair, Dr. Patrick McKenna, will serve as President of the North Central Section of the AUA. His meeting will be in Amelia Island, Florida, November 10-14, 2015. Please plan on being in attendance to honor both Pat and Linda McKenna. Finally, I want to announce that we are moving to a new electronic format for *Wisconsin Urology*. We believe this will be a more timely, user friendly, and robust communication tool. This will be your last print version of *Wisconsin Urology*. WU

On Wisconsin,

Stephen Y. Nakada, MD, FACS
Chairman and The David T. Uehling Professor of Urology

Photo by UW-Madison, University Communications

Meet the New Chief of Urology at the Middleton Memorial Veterans Hospital

by Deborah Hobbins

We are delighted to introduce our new chief of urology at the William S. Middleton Memorial Veterans Hospital, Kyle Richards, MD.

Dr. Richards says he was "born, bred, and educated in Wisconsin." Having grown up in Greenfield, Wisconsin, he attended Carthage College in Kenosha, where he not only double majored in neuroscience and biology, but also double minored in Spanish and chemistry. Dr. Richards met his wife, Jessica, at Carthage, and the couple has two young daughters, Sophia and Sydney.

Dr. Kyle Richards

Dr. Richards attended medical school at the Medical College of Wisconsin and completed urology residency at Wake Forest University in Winston Salem, North Carolina. It was during residency that he developed an interest in research and oncology, specifically in regard to robotic surgery for complex cancer cases. Through this experience, Dr. Richards realized he wanted to stay within academic medicine and went on to complete a two-year fellowship in urologic oncology at the University of Chicago. The fellowship proved to be a robust environment focused on all urologic cancers, including more common cancers such as prostate, kidney, and bladder, as well as rarer cancers such as penile, testicular, and adrenal. When the position at the UW Department of Urology opened up, the Richards were excited to have the opportunity to return to their Wisconsin roots.

As chief of urology at the veterans hospital, Dr. Richards oversees the entire urology program there. "The veterans hospital is conveniently attached to the university hospital and provides our veterans with outstanding health care," he says. A team of UW urologists works closely with Dr. Richards, including Drs. Tim Moon, Sara Best, and Granville Lloyd. Dr. Sarah McAchran also works there one day a month, providing female pelvic medicine and reconstructive surgery. "The veterans hospital is a rich environment for training urology residents," Dr. Richard adds. Each resident trains there for a total of eight months, split between their second and fourth years. Dr. Richards enjoys seeing the progress the residents make during this rotation.

Many of the veterans Dr. Richards cares for have prostate or bladder cancer. Dr. Richards is trained in robotic, laparoscopic, and open surgery and focuses on doing the most minimally invasive procedure for the best outcome. He says caring for veterans is highly rewarding and they are generally very grateful for their urologic care.

When asked how he chose urology as his specialty, Dr. Richards said it was a process. He was drawn to several of the urologists he met through his training; they seemed to enjoy what they were doing. Dr. Richards says when he looked more deeply, it seemed that urologists enjoyed their work because of its novelty and diversity. Urologists were early adopters of robotics and lasers, so the tools of the specialty were also compelling. Furthermore, Dr. Richards appreciates getting to follow his patients over time and enjoys the interaction and continuity of urologic care.

Dr. Richards has an interest in the field of health services research (HSR). One focus is in bladder cancer diagnosis. There is often a delay from onset of symptoms to diagnosis, and researchers are trying to determine how to shorten the delay and intervene sooner when classic symptoms present themselves. Dr. Richards believes there are missed opportunities that he hopes to identify.

Secondly, he hopes to establish a quality improvement collaborative among urologists throughout the state to improve the urologic care patients receive in Wisconsin through quality improvement projects that align urologic care with common guidelines. There is a successful model project in Michigan, the Michigan Urologic Surgery Improvement Collaborative (MUSIC), and Dr. Richards hopes to institute something similar in Wisconsin.

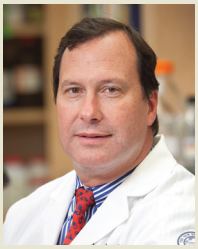
We are fortunate to have Dr. Richards join our urologic team. His dedication to outstanding patient care and advancing quality improvement through research will help continue and expand the excellent work done in the UW Department of Urology. Welcome, Dr. Richards! WU

Department Events

by Tricia Maier

Past Lectureships

2015 Charles and Margaret Lescrenier Lectureship



Peter N. Schlegel, MD, FACS
James J. Colt Professor and
Chairman of Urology
Professor of Reproductive Medicine
Brady Urologic Health Center
and Weill Medical College of
Cornell University

The Charles and Margaret Lescrenier Lectureship occurred March 24, 2015. Peter N. Schlegel, MD, was our keynote speaker that evening. Dr. Schlegel gave the excellent lecture, "Contemporary Infertility: Varicocele and Management of Testicular Failure" at our event. The following day Dr. Schlegel spent quality time with our residents judging our first-ever resident essay contest and participating in case presentations.

Dr. Schlegel is an internationally acclaimed expert in the treatment of male infertility, especially the interface of male factor treatment with assisted reproductive techniques. His work has also clarified the importance of genetic studies in the evaluation of men with infertility. In over 228 published or submitted original manuscripts, as well as numerous book chapters and invited articles, Dr. Schlegel has described the characteristics of men who are candidates for sperm retrieval and has designed and described novel techniques for the successful achievement of pregnancy after sperm retrieval. He has also published extensively on microsurgical treatment of infertile men as well as on genetic aspects of infertility.

Dr. Schlegel is a former co-editor of the *Journal of Andrology* and currently or has previously served on editorial boards of the AUA Update Series, *BJU-International*, *Fertility & Sterility*, *Journal of Urology*, *Techniques in Urology*, *Journal of Andrology*, and *FertiliText*. Dr. Schlegel serves or has served in leadership roles on several national infertility organizations including the American Society of Andrology, the Society for Male Reproduction and Urology, the Society for Reproductive Surgery, the American Society for Reproductive Medicine, and the Society for Study of Male Reproduction of the AUA. Dr. Schlegel is currently a Trustee of the American Board of Urology.

Upcoming Lectureships

2015 Robert F. Schnoes Lecture Series

June 4, 2015 – 5:30-6:30 p.m.
Room 1220 – Medical Foundation Centennial Building (MFCB)

J. Brantley Thrasher, MD, FACS
Professor and the William L. Valk Chair
Department of Urology
University of Kansas Medical Center

Dr. J. Brantley Thrasher is professor and the William L. Valk Chair, Department of Urology and the co-director of operative services at the University of Kansas Medical Center in Kansas City, Kansas. A native of South Carolina, he completed his medical degree at the Medical University of South Carolina in Charleston, South Carolina, an internship at Walter Reed Army Medical Center in Washington, D.C., and his urology residency at Fitzsimons Army Medical Center in Aurora, Colorado. He subsequently completed a urologic oncology fellowship at Duke University Medical Center. He served for three years as program director for the Urology Residency Program at Madigan Army Medical Center in Tacoma, Washington, and after completing his military obligation he was appointed to his present position in 1998.

Dr. Thrasher's basic science research interest is in the area of prostate cancer, and he is currently a co-investigator or consultant in NIH-, Center for Disease Control-, and Department of Defense-funded research. His clinical research interests are in the area of prostate, bladder, and renal cancer, as well as reconstruction, and he serves as the principal investigator on numerous investigator initiated, industry funded, and institutionally funded protocols.

In addition to giving more than 300 presentations at local, national, and international meetings, Dr. Thrasher has written more than 150 manuscripts, book chapters, and monographs in the field of urology. Dr. Thrasher has served on numerous national committees and currently serves as the South Central Section Representative to the American Urological Association Board of Directors, as a Trustee of the American Board of Urology, and as a member of the Residency Review Committee for Urology. He is a Diplomat of the American Board of Urology and a Fellow of the American College of Surgeons. WU

UW Urology at the 2015 AUA Meeting

by Tricia Maier

UW Urology Alumni Reception May 17, 2015

The 2015 UW Urology Alumni Reception at the AUA is scheduled for Sunday, May 17, 5:30-7:30 p.m. at the Hilton New Orleans Riverside, Grand Salon A, Section 4 on the first floor. Be sure to join us as we enjoy seeing and catching up with all of our alumni and friends!

Courses, Lectures, and Panels

Stephen Nakada, MD, will give an update on Laparoscopic/Endourology Fellowship Programs at the Society of Urology Chairpersons and Program Directors (SUCPD) Meeting, Friday, May 15.

Kristina Penniston, PhD, RD, is a presenter for the educational course "Nutrition Counseling for the Prevention of Urolithiasis," Saturday, May 16. This course reviews the different stone-forming mechanisms as they pertain to dietary management. Specifically, methods for prevention of different stone types by nutritional counseling will be presented.

Patrick McKenna, MD, is on the faculty of the educational course "Surgeons as Educators: A Primer for Academic Development and Teaching Excellence," Saturday, May 16. This course seeks to give insight and physical tools to improve urologists as educators.

Stephen Nakada, MD, will give the lecture "New Concepts in the Pathophysiology of Stone Disease" and will serve as a panelist on "Case Discussion on Urinary Stone Disease" during the AUA-Eurasian Urology Platform (EUP) Joint Meeting, Saturday, May 16.

Sara Best, MD, is a faculty member on the educational course "Urolithiasis: Metabolic Evaluation and Medical Treatment," Sunday, May 17. This course reviews the pathophysiology of stone disease with a focus on the metabolic and environmental risk factors that lead to stone formation.

E. Jason Abel, MD, is on the faculty of the educational course "Management of Locally Advanced and Metastatic Renal Cell Carcinoma: A Case Based Approach," Sunday, May 17. This course offers a series of didactic lectures framed by relevant clinical case scenarios presented to highlight the surgical issues associated with the management of locally advanced and metastatic renal cell carcinoma.

Patrick McKenna, MD, will participate in the Plenary I panel discussion "Simulation in Surgical Education," Sunday, May 17.

Stephen Nakada, MD, is the director of the educational course "Urolithiasis: Surgical Management, Percutaneous, Shock Wave Lithotripsy, and Ureteroscopy," Sunday, May 17. Dr. Nakada's course offers the practicing urologist a comprehensive, case-based review of the surgical management of urolithiasis. Leading experts in the field of urology will present the latest techniques and innovations in percutaneous renal surgery, ureteroscopy, and shock wave lithotripsy.

Kristina Penniston, PhD, RD, is moderator of the session "Medical Management of Kidney Stones" at the Research on Calculus Kinetics (ROCK) Society, Monday, May 18.

Podium and Poster Presentations

UW Urology faculty, staff, and residents have 24 accepted abstracts for either podium or poster presentation at the 2015 AUA annual meeting. Abstract titles and authors are listed below.

Pre-treatment CT textural analysis of large primary renal cell carcinomas; tumor heterogeneity correlates with histology and clinical outcomes. E. Jason Abel, Nick Stabo, Meghan Lubner, Alejandro Munoz del Rio, Perry Pickhardt.

A tissue specific role for ligand independent ARv7 signaling in benign prostate pathogenesis. Tyler M. Bauman, Emily A. Ricke, Wei Huang, William A. Ricke.

Tissue specific expression of androgen receptor variant 7 in prostate cancer progression: a potential role of ARv7 in carcinogenesis. Tyler M. Bauman, Emily A. Ricke, Wei Huang, William A. Ricke.

Neovascularity is a prognostic marker in renal cell carcinoma. Tyler M. Bauman, Wei Huang, E. Jason Abel.

Multicenter validation of predictive model for postsurgical recurrence in non-metastatic RCC with thrombus. Michael L. Blute, Jr., Timothy A. Masterson, Viraj A. Master, Vitaly Margulis, C. Adam Lorentz, Tyler Bauman, Kristin Zorn, Jose A. Karam, Christopher G. Wood, E. Jason Abel.

Renin-angiotensin inhibitors decrease recurrence and progression after TURBT in non-muscle invasive bladder cancer. Michael L. Blute, Jr., Timothy J. Rushmer, E. Jason Abel, Fangfang Shi, Benjamin Fuller, David F. Jarrard, Tracy M. Downs.

Neoadjuvant androgen deprivation therapy induces senescence in radical prostatectomy specimens. Michael L. Blute, Jr., Jennifer Wagner, Nathan Damaschke, Bing Yang, Martin Gleave, Landan Fazli, Wei Huang, David F. Jarrard.

Moderate chronic kidney disease (egfr <60 ml/min) predicts recurrence and progression in bladder cancer patients treated with transurethral resection. Michael L. Blute, Jr., Timothy J. Rushmer, Fangfang Shi, Benjamin Fuller, E. Jason Abel, David F. Jarrard, Tracy M. Downs.

Synthetic lethal metabolic targeting of cellular senescence in prostate cancer with metformin. Michael L. Blute, Jr., Bing Yang, Nathan Damaschke, Dudley Lamming, F. Michael Hoffman, David F. Jarrard.

Predictors of non-diagnostic renal mass biopsy findings. Michael Blute, Jr., Joel Prince, Eric Bultman, Louis Hinshaw, Anna Drewry, Sara Best, Fred T Lee, Jr, Timothy Ziemlewicz, Meghan Lubner, Fangfang Shi, Stephen Y. Nakada, E. Jason Abel.

Optimal treatment for 4-10cm renal cell carcinoma: A survey of endourologists and urologic oncologists. Michael Blute, Jr., Sara Best, Brian Lane, E. Jason Abel.

Randomized phase II trial of intravesical adenoviral mediated interferon-α gene therapy with the excipient Syn3 (rAd-IFNα/Syn3) in patients with BCG refractory or relapsing high grade (HG) non-muscle invasive bladder cancer (MNIBC). Daniel Canter, Stephen Boorjian, Kenneth Ogan, Neal Shore, Trinity Bivalacqua, Bernard Bochner, Tracy Downs, et al.

Stone dimensions, skin-to-stone distance, Hounsfield unit density, and visceral fat area are preserved even with ultra-low dose computerized tomography in stone patients. Jennifer E. Heckman, Meghan G. Lubner, Richard Bruce, Ronald M. Summers, Jiamin Liu, Perry J. Pickhardt, Stephen Y. Nakada.

Multi-quadrant biopsy technique decreases sampling error in large heterogeneous renal tumors. Jennifer Heckman , Timothy Ziemlewicz, Sara Best, Meghan Lubner, Louis Hinshaw, David Jarrard, Tracy Downs, Wei Huang, Fred T. Lee, Jr, Stephen Y. Nakada, E. Jason Abel.

Association of Body Mass Index and Reoperation Following Radical Cystectomy: Results from a Multi-Institutional Dataset. S Hemal, LS Krane, KA Richards, M Liss, AK Kader, R Davis.

Predictors of Readmission for Infectious Complications Following Radical Cystectomy - Results from a Multi Institutional National Dataset. S Hemal, LS Krane, KA Richards, M Liss, AK Kader, R Davis.

A novel technique of robotic-assisted simple cystectomy during robotic-assisted urinary diversion for benign indications. Granville L. Lloyd.

Renal histopathology after calcium oxalate stone induction: crystalluric and tubular effects of high urinary oxalate excretion in a swine model. Kristina L. Penniston, Denise J. Schwahn, Thomas D. Crenshaw, Stephen Y. Nakada.

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AUA Abstract Podium and Poster Presentations

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A new porcine model of enteric hyperoxaluria mimics effects of high oxalate absorption in humans. Kristina L. Penniston, David A. Bennett, Leema M. John, Elizabeth L. Zars, Thomas D. Crenshaw.

The perception of having renal calculi may affect disease-specific health-related quality of life in asymptomatic stone patients. Kristina L. Penniston, Brian C. Sninsky, Stephen Y. Nakada.

The Wisconsin stone quality of life questionnaire: Baseline results from a prospective, longitudinal, multi-center validation study. Kristina L. Penniston, Jodi A. Antonelli, Timothy D. Averch, Davis P. Viprakasit, Roger L. Sur, Vincent G. Bird, Stephen Y. Nakada.

Predictive value of routine urinalysis and urine microscopy for the detection of bacteriuria: Results from a Veterans Administration quality assurance initiative. Kyle A. Richards, Stacy Cesario, Sara L. Best, Susan M. Deeren, Granville L. Lloyd, Timothy D. Moon.

Urinary tract infection is associated with worse bladder cancer outcomes in the Medicare population: Implications for sex disparities. Kyle A. Richards, Sandra Ham, Joshua A. Cohn, Gary D. Steinberg.

Do patients remember dietary recommendations for stone prevention? Margaret L. Wertheim, R. Allan Jhagroo, Kristina L. Penniston. WU

Department Research

Collaborative Urologic Research at Its Best: The University of Wisconsin's George M. O'Brien Urology Cooperative Research Center

by William A. Ricke, PhD, Director of Research

The future of research has been in jeopardy with decreased levels of funding. This is especially true for our young investigators. Although there are many beliefs on how one should move forward with acquiring new funding streams, quality and impactful science is a must. In addition, it is essential that the brightest of researchers collaborate effectively to move forward with innovation in science but also to obtain new funds. In these regards, the University of Wisconsin (UW) has now received the George M. O'Brien Urology Cooperative Research Center (U54) Grant totaling more than $8.3 million. Three nationally recognized Centers of Excellence were recently announced: University of Wisconsin, Columbia University, and the Mayo Clinic. The UW center is directed by myself and Dale E. Bjorling, DVM, MS. The center brings together expertise from more than 16 different laboratories from the universities of Wisconsin, Massachusetts-Boston, California-San Diego, and Edinburgh, Scotland. The award comes on top of the already established K12 career development award (directed by the Department of Urology's Dr. Bjorling and Wade Bushman, MD, PhD) and the P20 urologic research planning center (directed by Dr. Bushman). The K12 award helps our next generation of scientists transition to research independence in academics, whereas the P20 center focuses on proteomic and metabolomic changes associated with benign urologic diseases. Collectively the three centers are highly interactive and promote outstanding science and research within the urologic field.

The O'Brien Center program was designed by National Institute of Diabetes, Digestive, and Kidney Diseases (NIDDK) to provide a coordinated platform for multidisciplinary interactions between translational researchers and physician-scientists with the overall goal of understanding the etiology and development of urologic diseases and disorders, and provide a collaborative setting to design better diagnostics, treatments, and prevention strategies for these urologic diseases. The program will also serve as a national resource for career development of junior faculty electing to pursue research in urology. Opportunity pools will become available for new and established investigators to become involved with the cutting-edge research ongoing within the center and is intended to foster more collaborative research and lead to more funded urologic research.

The UW O'Brien Center was devised to bring together leaders in urology and fibrosis fields to concentrate on urologic diseases such as BPH. The center is focused on understanding the role of prostatic fibrosis in development of lower urinary tract dysfunction (LUTD) and has three main projects:

- **Project 1** is focused on steroid hormones and their effects on fibrosis of the lower urinary tract and is led by Dr. Ricke and Dr. Wei Xu (Department of Oncology).
- **Project 2** assesses the role of hormone-regulated beta-catenin in lower urinary tract dysfunction and BPH in males and is led by Drs. Chad Vezina (Department of Comparative Biosciences) and Paul Marker, PhD (Division of Pharmaceutical Sciences, Associate Dean of Research).
- **Project 3** centers on the role of obesity and growth factor signaling in the development of benign prostatic hyperplasia and LUTD and is led by Jill Macoska, PhD (Chair of Biology, University of Massachusetts, Department of Biology).

The three projects are supported by the O'Brien Center's Administrative and Biomedical Cores, which will facilitate research, promote young investigators, and disseminate findings to the scientific community as well as the public. The center brings together expertise in fibrosis, animal imaging, lower urinary tract function testing, and bioinformatics-database development.

The future of collaborative urologic research is looking bright at UW, and the Department of Urology is leading the way in this highly innovative and productive research. WU

Quality Improvement in the Department of Urology

by Patrick H. McKenna, MD, FACS, FAAP

The UW Department of Urology (DOU) has a solid quality improvement program that involves participation by all the different sections of the department. This program was instituted several years ago with monthly Quality Improvement Committee meetings. Quality improvement (QI) has been a career interest of mine since my early years of practice, so becoming the department's QI Committee chair was a natural fit for me.

It has been a busy and productive year for the committee. A new database and filing system was established so the peer review information could be stored and retrieved more easily in the future. The department decided to funnel hospital-identified QI issues, department-identified QI issues, and patient complaints to the committee, along with more cases from the morbidity and mortality conference. We refined our peer-review system, with at least two members from the department reviewing each case prior to discussion at committee meetings. After a complete peer review, we seek to identify system issues that can be improved to decrease untold events and work to develop ways to improve the quality of care provided by our department. The committee also embarked on several efficiency and patient care improvement projects and reviewed policies and protocols that impact our patients.

One successful project initiated by a QI committee subgroup addressed surgical cases canceled due to incomplete preparation prior to surgery. We developed a preoperative checklist that is reviewed by clinical staff when scheduling patients for surgery. This resulted in a significant decrease in the number of canceled cases over the last year. It has also led to an additional resident-initiated project because many preoperative questions have arisen and it is important that a method to answer them efficiently be developed. These are now handled in an organized, escalating fashion. After six months we will re-evaluate how the resident QI project is working.

The DOU QI Committee also addresses issues like infection rates. This has led to multiple projects, including a prostate biopsy protocol and catheter-associated urinary tract infection (CAUTI) reduction initiative. Prostate biopsy is one of the most common procedures done in the outpatient urology clinic. Our QI Committee created a protocol for prostate biopsy focused on reducing the risk of associated infections while also decreasing cost and developing a standard method of contacting patients with biopsy results. In six months the infection rate will again be evaluated to see if the program had an impact. In pediatrics there had been an increased number of catheter-associated urinary tract infections (CAUTI) at our children's hospital compared to national norms. The management of catheters in pediatric patients is quite different from the management of adult patients, so we worked with colleagues outside our department to review current policies for catheter placement and developed a very specific program for pediatric catheter management. These changes resulted in a greater than 75 percent reduction in the CAUTI rate at the hospital this year.

It has been a pleasure serving as the chair of the DOU QI Committee this past year, and I am pleased with the ground we have covered during this time. I look forward to the projects and initiatives we will implement in the next year within the department to improve our quality of care and outcomes. It is clear that we have a talented staff. It will be important in the coming years to compare our results to national norms, which I believe will confirm that we have one of the top clinical programs in the country. WU

CLINICAL RESEARCH UPDATE

by Kristina Penniston, PhD, RD

Faculty and staff within the Department of Urology are busier than ever with new and ongoing clinical research initiatives. Here are some highlights:

CLINICAL PEDIATRIC RESEARCH

Urinary incontinence: In the busy Division of Pediatrics, **Patrick McKenna, MD**, is leading a clinical quality improvement initiative for children with urinary incontinence. Along with researchers **Tina Sauder, MS**, and **Thomas Bentley, MS**, analyses are underway of patient outcomes after implementation of a biofeedback program, a non-invasive approach to urinary incontinence. In a related but separate project, **Dr. McKenna** and team are working with UW-Madison Biomedical Engineering students to develop computer games that provide biofeedback on pelvic floor activity in incontinent children with pelvic floor dysfunction. A functional prototype will soon be tested in clinic. Finally, the effect of psychiatric conditions on treatment outcomes for urinary incontinence is being studied in an effort to identify barriers to successful correction of incontinence.

Collaborations: With collaborators in audiology, the clinical pediatrics research team will study the vestibular effects of gentamicin bladder irrigations in children with spina bifida. In a multi-center collaboration coordinated at University of Virginia, **Dr. McKenna** and **Ann Byrne, NP**, are gathering and pooling clinical information about hydronephrosis. Ultimately, data will be used to formulate practice guidelines for treating this condition.

CLINICAL CANCER PROJECTS

Kidney cancer: **Drs. Jason Abel**, **Tracy Downs**, and **David Jarrard** have a long track record of mentoring medical students in the Shapiro Research Program of the UW School of Medicine and Public Health. Recently, Joel Prince, a first-year medical student, presented findings of a study mentored by **Dr. Abel** that identified predictors of non-diagnostic renal biopsy bindings *(International Kidney Cancer Symposium, 2014).*

Bladder cancer: **Drs. Downs**, **Jarrard**, and **Abel** have described how the blood neutrophil:lymphocyte ratio, a common lab measure obtained in many patients, predicts outcomes in patients with bladder cancer *(Potretzke et al, Urol Oncol 2014)*. This team also collaborated with clinician researchers at the Mayo Clinic to identify how timing of perioperative blood transfusions predicts outcomes in patients treated with radical cystectomy for bladder cancer *(Abel et al, Eur Urol 2014)*.

Prostate cancer: **Drs. Jarrard**, **Abel**, and **Downs** recently reported that operative time is associated with a risk for venous thromboembolic events during robotic prostatectomy *(Abel et al, JSLS 2014)*.

CLINICAL RESEARCH RELATED TO BENIGN LOWER URINARY TRACT PROBLEMS

A program project grant totaling $8.3 million, sponsored by the National Institutes of Health, was recently awarded to basic scientists in the DOU, **Will Ricke, PhD**, and **Dale Bjorling, DVM**, with a goal of translating research/ laboratory discoveries directly to the clinic or "bedside."

Wade Bushman, MD, PhD, and colleagues are utilizing cutting-edge proteomics and metabalomics methods to identify urinary biomarkers of bothersome lower urinary tract symptoms in men. The purpose of this work is to identify biomarkers that will provide new insight into the causes of this condition and to provide more individualized, and ultimately, more successful therapy.

KIDNEY STONE PREVENTION

Several clinical research projects are underway. In collaboration with **Allan Jhagroo, MD**, a nephrologist in the UW Metabolic Stone Clinic, **Stephen Nakada, MD**, and **Kristina Penniston, PhD, RD**, have data to support the use of potassium citrate, a medication that increases urinary citrate excretion and reduces calcium stone formation, in patients who take topiramate for migraine headaches, seizures, or pain. This finding will be helpful to patients who are being treated successfully for migraines and other conditions with topiramate but who may form calcium stones as an unwanted side effect.

After initiating shared medical or "group" appointments for patients reporting to the UW Hospital Metabolic Stone Clinic for the first time *(Jhagroo et al, J Urol 2013)*, **Drs. Jhagroo** and **Penniston** have now demonstrated that patients who attended group appointments do as well, and in some cases even better, than patients who had individual appointments.

Sara Best, MD, recently published findings that will help urologists and other providers better use the laboratory and radiographic data available to them as they provide medical management to patients with kidney stones *(Best et al, J Endourol 2014)*.

Dr. Penniston and DOU researcher **Margaret Wertheim, MS, RD**, recently created and validated a food frequency questionnaire to be used in the quick assessment of patients' dietary risk factors for kidney stones *(in press, J Acad Nutr Diet 2015)*. This same team is also working on identifying and predicting how well patients recall the dietary recommendations made to them in clinic. Knowledge arising from this and future studies will be directed at improving nutrition education to enhance patient outcomes.

Finally, a team including current endourology fellow **Necole Streeper, MD**, along with **Drs. Best**, **Nakada**, and **Penniston**, has developed a patient decision-making aid that improves patient satisfaction and knowledge about surgical options for kidney stone removal. **Dr. Streeper** recently presented this instrument and findings about its use at both the 2014 meeting of the World Congress of Endourology (Tapei, Taiwan) and that of the American Urological Association. WU

NOTEABLE & NEWSWORTHY

- UW-Madison has been awarded an $8.3 million grant from the National Institutes of Health (NIH), directed by **William Ricke, PhD**, in the Department of Urology and **Dale Bjorling, DVM**, in the School of Veterinary Medicine, to enhance diagnosis and treatment of male urinary symptoms associated with hormones, aging, obesity, and benign prostate enlargement (BPH). This is one of three nationally awarded George M. O'Brien benign urology research centers and the only one focused on BPH and lower urinary tract dysfunction (LUTD). The center is supported by additional researchers, Dr. Paul Marker from the School of Pharmacy, Dr. Chad Vezina from the School of Veterinary Medicine, and Dr. Jill Macoska from the University of Massachusetts. The grant will also establish a new state-of-the-art core facility to serve as an international research hub for identifying genetic, environmental, dietary, and pharmacological factors that influence male urinary function.
- Department Chair **Stephen Nakada, MD**, is the recipient of the 2014-2015 School of Medicine and Public Health (SMPH) Faculty Equity and Diversity Award. This award recognizes the personal commitment and efforts of a UW SMPH faculty member to support a diverse and inclusive workplace and teach our learners to understand the needs of diverse individuals, families, and populations.
- **Sara Best, MD**, was elected as the Wisconsin representative on the Young Urologist Committee of the North-Central Section of the AUA.
- **Daniel Williams, IV, MD**, is the new president of the Wisconsin Urological Society. His term is for one year.
- **Patrick McKenna, MD**, is president of the North Central Section of the AUA. Dr. McKenna is also incoming president of the American Academy of Pediatrics Section on Urology.
- **David Jarrard, MD**, was elected to the board of the Society for Urologic Oncology (SUO). The purpose of the SUO is to develop educational and research initiatives, to study issues in urologic oncology, and provide physician statements that represent a state-of-the-art assessment of these issues to other organizations.
- **Stephen Nakada, MD**, is rejoining the Urology Advisory Council for the American College of Surgeons as a representative of the GU Surgeons starting in 2015.
- **David Jarrard, MD**, received an Igniter Grant from UW-Madison. The purpose of Igniter funds is to advance existing discoveries/innovations toward successful commercialization. Dr. Jarrard and Dr. Bing Yang of the Department of Urology received this grant for their research "Technology for improving prostate cancer diagnosis using normal prostate tissue," a project developing new cancer biomarkers.
- **Stephen Nakada, MD**, and **Sara Best, MD**, are co-editors on a new book, *Minimally Invasive Urology: An Essential Clinical Guide to Endourology, Laparoscopy, LESS and Robotics*, which reviews all aspects of minimally invasive clinical urology. Several UW Department of Urology faculty members contributed to the book including: E. Jason Abel, MD; Tracy Downs, MD; Granville Lloyd, MD; Necole Streeper, MD; and Daniel Williams, MD. WU

PROGRAM NEWS

by Barb Lewis, RN, MS

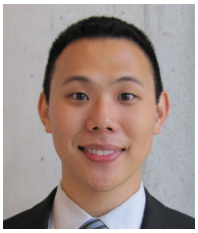
2014 – 2015 PGY-1 RESIDENTS

Daniel Shapiro, MD
MD, University of Wisconsin School of Medicine and Public Health, 2014
BS, medical microbiology and immunology, University of Wisconsin–Madison

During medical school, Dr. Shapiro conducted research with Tracy Downs, MD, investigating neutrophil-lymphocyte ratio as a prognostic factor at the time of transurethral resection of bladder tumors. Dr. Shapiro also helped establish a bladder cancer database to determine the effects of diabetes mellitus type two on BCG efficacy and tumor recurrence. Dr. Shapiro is a member of AOA and Phi Beta Kappa honor societies. His hobbies include playing the piano, attending live music performances, reading, sailing, biking, and traveling.

Brian Sninsky, MD
MD, University of Florida College of Medicine, 2013
BS, applied physiology and kinesiology, University of Florida in Gainesville

Dr. Sninsky worked in the Department of Urology for a year as an endourology researcher prior to starting his PGY-1 year. His projects included investigating the effects of laser lithotripsy on renal function, examining the efficacy of preoperative ureteral stenting on stone free rates in wheelchair bound patients, and exploring the expansion of urologic techniques for intracorporeal lithotripsy in the biliary tract. Dr. Sninsky enjoys music, playing acoustic and electric guitars, and outdoor activities.



Jonathan Wang, MD
MD, University of Washington School of Medicine, Seattle, Washington, 2014
BS, neurobiology and biochemistry, University of Washington, Seattle, Washington

As a first- and second-year medical student, Dr. Wang conducted research in the Male Fertility Lab at the University of Washington on reducing cryoinjury in sperm preservation. It was this research that exposed him to urology and sparked his interest in the specialty. During his clinical years, Dr. Wang was elected to the Gold Humanism Honor Society. His interests include cycling, cooking, and playing the violin and piano.

2015 RESIDENCY MATCH RESULTS

Margaret Knoedler – Tulane University School of Medicine
Brady Miller – University of Michigan Medical School
Natasza (Tasha) Posielski – Case Western Reserve University School of Medicine WU

A GRATEFUL PATIENT TALKS ABOUT HIS COMMITMENT TO UW AND THE DEPARTMENT OF UROLOGY

Mark Cullen, pictured here with his daughter Jeannie Cullen-Schultz, is a grateful patient donor to the Department of Urology and strong supporter of Dr. David Jarrard's prostate cancer research.

by Deborah Hobbins

One of the most rewarding aspects of my job is meeting patients and their families. The health care the outstanding physicians provide to their patients clearly involves very personal relationships. Below is a conversation I had with Mark Cullen, a grateful patient and investor in the work of the Department of Urology. It has been a pleasure getting to know Mark and more about why he and his family invest in the UW in so many ways through their generous philanthropy.

Deborah Hobbins: Mark, your family has a long and generous history of giving to the University of Wisconsin. Who was the biggest influence in your life that encouraged this generosity?

Mark Cullen: Our mom, Jane Ferris, and our dad, JP, led by example. As a young couple they enlightened my three brothers and me about the responsibility of giving back to others, whether it was through philanthropy or community service. Our mom worked with the Janesville school board for years and numerous not-for-profits in Janesville. Our dad had a very close relationship with Elroy Hirsch, which inspired his initial contributions to UW. He continues to be an extremely generous man; there is probably not a non-profit project in Janesville in which our dad has not invested. I suspect a lot has to do with him recognizing that he has been very blessed and feels it is important to share his blessings to benefit others.

The philanthropic efforts of our company have been an evolution. The University of Wisconsin was not as philanthropically focused 30 years ago as it is today. We found that supporting the university has been good for our business, whether it is supporting the School of Engineering, because we hire many of their very talented graduates, or supporting the School of Business, where their graduates perhaps stay in the state and create a stronger economy and jobs as a tangible effect to our industry.

DH: Last year you made a generous pledge to Dr. David Jarrard's research program. What compelled you to support Dr. Jarrard's work?

MC: I am very thankful for the care I received from Dr. Jarrard and his team, which was part of the genesis of why I wanted to support his research. He helped me a great deal with coming to terms with my diagnosis. Through my relationship with Dr. Jarrard I learned about his research. I too feel blessed, and I am happy to have the opportunity to invest in the important work Dr. Jarrard is doing, which ultimately helps others.

It was enlightening to have a tour of Dr. Jarrard's lab and the department's administrative office. Having a chance to speak with Dr. Jarrard one-on-one about his research, I learned that he is really at the leading edge of the prostate cancer discourse about creating a more accurate diagnostic test and new treatments for this disease.

DH: What would you say to other people who may not realize how important support from individuals is to sustaining the outstanding reputation of the UW and specifically the Department of Urology and School of Medicine and Public Health?

MC: Public support for research at the National Institutes of Health (NIH) has declined since 2009. We are not going to be able to enhance research without help from individuals. You get a whole return on your investment. I have just been so impressed with the physicians in the Department of Urology, their dedication, commitment, and passion to finding solutions. We are fortunate to have these people working right here in Madison. I encourage everyone to invest in this work. I have learned that all contributions make a significant difference.

Mark is correct — the Department of Urology is grateful for all support. Contributions of all sizes help advance the research in the department, which ultimately affects the quality of life of our current and future patients. If you would like a tour of the department, more information about the department's research, or you have a story to tell, please be in touch. WU

FUNDING OPPORTUNITIES

The financial investments you make in the Department of Urology are essential to advancing the mission of the department: To provide innovative care focused on improving the quality of life of our patients while shaping the future of urology through education and research. We consider our supporters our partners in this work, helping to ensure the highest quality urologic health care is available in Wisconsin and beyond. Contributions of any size are gratefully appreciated and extremely important. All funds are held and managed at the University of Wisconsin Foundation, a 501(c)(3) organization.

Wisconsin Urologic Research Institute (WURI) Fund, #132587556: This endowed fund supports our commitment to advancing the full range of urologic research. Our team of dedicated physicians and scientists who work within WURI are focused on research to treat and prevent urologic conditions and improve the quality of life of our patients.

Urologic Academic Fund, #112587023: This fund helps advance the educational mission of the Department of Urology including residency training, fellowships, and medical student activities to train the next generation of outstanding urologists.

Robert F. Schnoes Memorial Urologic Cancer Research Fund, #132587646: This fund will further advance the department's cutting-edge renal cancer research. This endowment fund is a wonderful legacy, whose lasting effects will be felt in perpetuity.

This is by no means a complete list of giving opportunities. If you would like more information about making a financial contribution, a planned gift or establishing a named fund for the Department of Urology, please contact **Deborah Hobbins** at **development@urology.wisc.edu** or **(608) 263-0043.** WU

How to Make a Contribution

Log onto **www.urology.wisc.edu** and click on the ***Donate*** button at the top of the page. Or, simply make a check payable to "**UW Foundation – Urology Fund #[Fund Number]"** and mail it to:

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