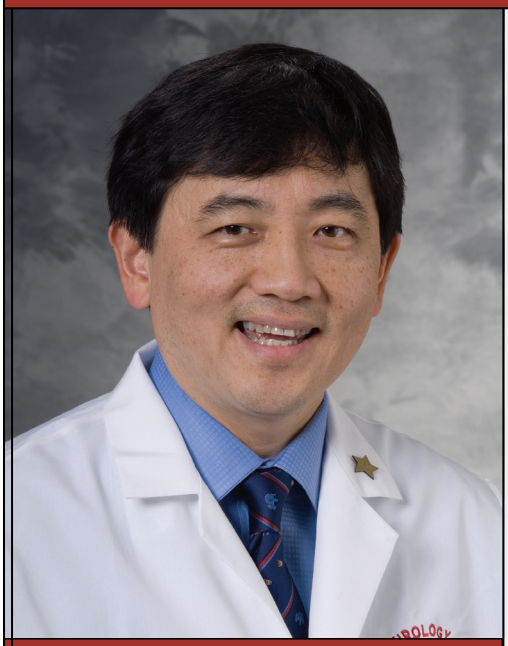
WISCONSIN Urology

THE NEWSLETTER FOR ALUMNI AND FRIENDS OF THE UW UROLOGY PROGRAM

SUMMER 2007 VOLUME 3 • ISSUE 2



>> A MESSAGE FROM THE CHAIR

I hope the summer is treating you well. In Madison, we are looking forward to the opening of the new American Family Children's Hospital, as well as the completion of the first tower of the Interdisciplinary Research Complex (IRC). The expansion just never seems to cease.

Our robotic program continues to flourish, and by the time this issue of Wisconsin Urology hits press, we would have completed our 200th procedure at the UW. At this stage, several of the faculty have undertaken robotic surgery, and I am impressed with our preliminary results.

This past June marked the first class of residents to fully come through our program during my tenure as chairman. Drs. John Papadopoulos and Bradley Waterman were indeed outstanding, and I wish them the very best in the next phase of their careers. Dr. Aaron Johnson also completed his training in June, and he and his family will remain in Wisconsin, in Fond du Lac. We are very proud of all of them.

This year also marks the official start of Dr. John Kryger's tenure as the director of the UW residency program. In an era of competencies and duty hours, I know John will do a great job both keeping us on track and continuing our tradition of excellence. Most fittingly, Dr. Kryger won the Resident Teaching Award this year, along with our colleague, Dr. Andrew Graf. Kudos also goes to Dr. Papadopoulos for winning the Sisk Award, and Dr. Josiah Nelson for winning the Resident Teaching Award.

We are delighted to welcome our new residents, Drs. Kara Babaian, Crystal Dover and Andre King. Please read more about them in the Residency section of this newsletter. Indeed, the residents remain the "engine" of our program, and I am so delighted that we can continue to attract such great individuals to Madison.

I am also most proud of our faculty and staff, as we were ranked in the *US News and World Report* for excellence in Urology once again. Urology was one of only five specialties ranked at UWHC, and although only one of many surveys, the US News ranking reflects quality, technical capability, clinical volume measures, and faculty esteem.

We hope to see all of you at the Uehling lectures this fall, as we are all most excited to welcome Dr. Louis R. Kavoussi to Madison, the new Chairman at Long Island Jewish. The focus will be oncology and minimally invasive surgery, and Dr. Sean Hedican is working hard to develop an outstanding program. Please join us in October! WU

STEPHEN Y. NAKADA, MD
CHAIRMAN AND THE UEHLING PROFESSOR OF UROLOGY

PHOTO BY JEFF-MILLER/UNIVERSITY COMMUNICATIONS

>> NEW INITIATIVES IN WISCONSIN

LAPAROSCOPIC AND ROBOTIC RECONSTRUCTIVE UROLOGICAL SURGERY AT UW

DAN WILLIAMS, MD
ASSISTANT PROFESSOR

Smaller incisions mean less pain, and less pain means shorter hospital stays and faster recovery, says Dr. Sean Hedican, Associate Professor of Urology, who is at the forefront of laparoscopic and robotic techniques for reconstructive urological surgery at UW.

SEAN HEDICAN, MD
ASSOCIATE PROFESSOR

Traditional repairs of ureteropelvic junction (UPJ) obstructions, ureteral strictures, and renal anomalies require large open incisions that cut through a number of muscle layers. As expected, patients experience a significant amount of postoperative pain not only during their hospital stays, but for weeks and even months afterwards.

"Following laparoscopic pyeloplasty, patients typically go home on the second postoperative day. High school and university students have returned to classes within one week of surgery, and one of my patients even returned to competitive soccer in three weeks," stated Dr. Hedican.

Are outcomes with minimally invasive reconstructions equivalent to traditional open surgery? You bet they are. These techniques offer increased success rates over endopyelotomy and are equivalent to what is reported for open pyeloplasty, said Dr. Hedican. "Our clinical and radiographic patency rates are 95 to 98% for pyeloplasties and uretero-ureterostomies."

The use of the operating robot has been increasing in urological surgery, and it has found its way into reconstructive urology as well. Dr. Hedican cites the improved angles for suturing and tailoring of the collecting system. "I perform my dissections and exposures using pure laparoscopic techniques. When I am ready to perform the reconstructive portions of the procedures, I bring in the robot. It significantly improves suturing angles and facilitates tailoring and reanastmoses of the ureter and renal pelvis. Laparoscopic and robotic techniques are also helpful in addressing crossing vessels that often contribute to obstruction. These tools allow for ease in performing dismembered transposed reconstructions as well as Heineke-Mikulicz repairs. It all depends on what the anatomy requires to ensure the best chance at long-term patency "

The operating da Vinci® robot was first used clinically at UW in March of 2006. Typical applications of the robot in urological surgery include laparoscopic pyeloplasty, robotic-assisted laparoscopic radical prostatectomies, and laparoscopic ureteral reconstructions. Other laparoscopic procedures in reconstructive urology include pyelolithotomy at the same time as a pyeloplasty when large kidney stones are present within the dilated renal collecting system, and laparoscopic nephropexy when hypermobility of a kidney causes symptomatic detrimental perfusional and drainage changes documented on provocative imaging studies.

Since 2001, when Dr. Hedican performed the first laparoscopic pyeloplasty in the state of Wisconsin, he has been performing approximately 25 laparoscopic reconstructions per year. Patient ages have ranged from youngest at age 13 to men and women in their 60s. In the last 12 months, about 15 of these reconstructions were performed with the assistance of the operating robot. Roughly half of Dr. Hedican's surgeries have been performed on patients who have failed previous treatments including endopyelotomies and even extreme cases that failed attempts at open repair. Additionally, Dr. Hedican has operated on over 10 anomalous kidneys including horseshoe, duplicated, and malrotated kidneys.

These kinds of numbers are helping UW maintain its role as a leader in minimally invasive urology. Dr. Hedican stated, "We have had referrals from all over Wisconsin, as well as northern Illinois, Iowa, and the upper Michigan peninsula."

Dr. Hedican still performs a number of complex open reconstructions. "Not every patient with a UPJ obstruction or ureteral stricture is a candidate for laparoscopic or robot-assisted reconstructions although we have continued to expand the indications for which we are willing to approach a complex reconstruction laparoscopically. This includes patients who have failed prior open repairs, have had significant prior ipsilateral surgery, morbidly obese patients, and those with small renal pelvises."

Dr. Hedican is also an integral part of the laparoscopic and robotic prostatectomy program together with Dr. David Jarrard. The two of them combined are now approaching their 200th robotic-assisted laparoscopic radical prostatectomy at the University of Wisconsin. Dr. Hedican's work is an extension of Dr. Stephen Nakada's continuing efforts to make the University of Wisconsin a premier center for minimally invasive urological surgery. WU

THE CHANGING FACE OF RESIDENCY EDUCATION

DAVID JARRARD, MD
ASSOCIATE PROFESSOR

JOHN KRYGER, MD
ASSOCIATE PROFESSOR

Residency education is changing rapidly both nationally and at the University of Wisconsin. The new face in charge of the UW Urology Residency Program is Dr. John Kryger. He officially assumed the position of Program Director in June 2007 after serving as the Associate Program Director since 2003. Dr Kryger has been on the UW faculty since 1999 and is currently Co-Director of Pediatric Urology.

Dr. Kryger has deep roots in Wisconsin, having been an undergraduate student at the University of Wisconsin graduating with an Honors Degree in Biochemistry in 1988. He then went on to attend medical school and complete his urology residency, both at the UW. Following urology residency in 1997, Dr. Kryger completed a two-year fellowship in Pediatric Urology at the Children's Hospital of Michigan. He grew up in the small town of Pulaski, Wisconsin located near Green Bay.

The term residency comes from a time when the physician-in-training actually lived in the hospital. A surgery residency is one of the most demanding challenges a person faces in their life. However, the endless hours, stress and fatigue take their toll both personally and professionally. Thus, change was needed in how residents are trained.

One of the greatest changes occurred in 2003 with the mandate from the Accreditation Council for Graduate Medical Education (ACGME) that enforced new resident duty hour restrictions. In addition, requirements were generated to evaluate residents in six areas of competency. These competencies include patient care, medical knowledge, practice based learning, communication skills, professionalism, and systems based practice. Programs are required to demonstrate teaching in a core curriculum that includes medical ethics, stress management and recognizing signs and consequences of fatigue. The new standards were implemented to contribute to safer patient care and promote resident learning and well-being.

Dr. Kryger has pointed out that great challenges come with these changes. "Certainly a great burden of the work falls on the faculty and Program Director to create strategies to address duty hour restrictions, more advanced curriculum changes, and extensive evaluation and feedback for both residents and faculty." The UW residency program is facilitated by a highly trained staff assisting Kryger including Program Coordinators Tricia Thaker, P.N.P. and Nancy Hawkins. Kryger also credits former Program Director, Dr. Stephen Nakada, with incorporating many of these changes and generating the structure allowing the program to evolve.

The future holds great promise for the UW Urology Program. "I envision us among the best training programs in the country. We must continue to meet the demands of improving residency education, training faculty to become better educators, and changing attitudes and expectations," Dr. Kryger says. "Our team is dedicated to ensuring that we meet the future challenges of residency education and advocating for our residents to make the program better each year." With these efforts, UW will continue to produce outstanding urologists to serve their communities and advance the field through research and teaching. WU

UW UROLOGY 2007 FACULTY AND RESIDENTS

>> PROGRAM NEWS

WELCOME TO 2007 UROLOGY RESIDENTS

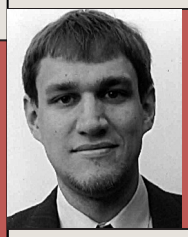
TRICIA THAKER, APNP

KARA BABAIAN, MD PGY 2

Dr. Babaian recently completed her intern year in General Surgery at UCLA. Dr Babaian received her medical degree from the University of Texas at Houston in May 2006. She completed her undergraduate training at the University of Wisconsin Madison and Trinity College in Dublin, Ireland. Dr. Babaian has received many honors, both academically and clinically. She has been a member of the Golden Key National Honor Society, Alpha Epsilon Delta, and National Society of Collegiate Scholars. She received honors in clinical rotations throughout medical school. Dr. Babaian has extensive experience in both basic and applied research. Her interests include competitive soccer, art, travel, and sailing.

CRYSTAL DOVER, MD PGY 1

Dr. Dover received her medical degree from the University of Virginia in May 2007. She graduated summa cum laude with a BS in Biochemistry Cellular and Molecular Biology from the University of Tennessee in May 2003. Dr. Dover was awarded top graduate in Natural Sciences at the University of Tennessee. She has been involved in a variety of volunteer efforts and was President of the Urology Club at the University of Virginia Medical School. Dr. Dover recently participated in a research project examining apoptotic and antiapoptotic factors present in renal tissue from newborn sheep with surgically induced urinary obstruction in utero. Her hobbies include running, swimming, and skiing.



ANDRE KING, MD PGY 1

Dr. King received his medical degree from George Washington University School of Medicine in May 2007. He completed undergraduate training at Goucher College in Baltimore, Maryland, Goshen College in Goshen Indiana, City College of San Francisco, and Boston University. Dr. King has an outstanding academic record and was elected to Alpha Omega Alpha in October 2006. He was awarded the Gold Humanism Society Award in 2006 for exemplifying humanism and professionalism within the field of medicine. Some of his hobbies include playing banjo in a bluegrass band, international travel, and racquetball. WU

>> NOTABLE AND NEWSWORTHY

- DR. WADE BUSHMAN received a Prostate Cancer Foundation Research Award in February 2007. The proposed studies involving Drs. Travis Jerde, Xu Dong Shi, and Jerry Gipp will investigate the role IL-1, IL-6, and COX-2-generated prostanoids in stimulating proliferation of epithelial progenitor cells in the developing prostate and in chronic inflammation. This is a competitive award selected from applications by scientists in the field and is intended to promote novel research in prostate cancer.
- DRS. ANDREW GRAF and JOHN KRYGER were both awarded the John Wear Teaching Award for excellence in resident teaching.
- DR. DAVID JARRARD was elected as member-at-large of the Society of Urologic Research and now sits on the executive board.
- DR. JARRARD was also a visiting professor at Roswell Park Cancer Center and gave talks at The Ohio State University and Medical College of Wisconsin.
- DR. TRAVIS J. JERDE, a post-doctoral researcher in Dr. Bushman's Lab, received a post-doctoral fellowship from the Department of Defense in Prostate Cancer Research in Fall 2006. Dr. Jerde's project investigates the role of inflammatory mediators and phosphoinositide signaling in prostatic inflammation, prostate development, and cancer.
- DR. JOHN KRYGER gave the State-of-the-Art Lecture entitled, "Management of Congenital Adrenal Hyperplasia" at the Society for Pediatric Urology Annual Meeting in Anaheim, CA in May 2007.
- DR. KRYGER was also promoted to Associate Professor of Surgery in June 2007.
- DR. XU DONG (DANIEL) SHI, a post-doctoral researcher in Dr. Bushman's Lab, received a post-doctoral fellowship from the American Urological Association Foundation in Fall 2006. Dr. Shi's project entitled "Characterization of Prostate Stem Cells Cultured as Prostaspheres" involves the development of a novel anchorage-independent epithelial cell culture system termed "prostaspheres" to study the role of prostatic epithelial stem cells in prostate development and prostate cancer.
- DR. SHI, also an AUA Research Scholar (2005-2007), was invited to present his work on prostate stem cell research at the Keystone Symposia. At the 2007 AUA meeting, Dr. Shi received "The Best Posters Award" in prostate cancer research session. In addition, Dr. Shi was invited to talk at the AUA Scholars Breakfast and received "The AUA Scholar Graduate Award". WU

>> CLINICAL TRIALS IN WISCONSIN

A REVIEW OF PROTOCOL POLICIES AND PROCEDURES

KATHLEEN SMITH-ZAREMBA, MPH

I joined the Division of Urology in April of this year after working for the past 15 years as a research program manager with Dr. Philip Farrell and the WI Cystic Fibrosis Neonatal Screening Project. I am pleased to be able to contribute my experience and efforts to the clinical research program in Urology.

My principal responsibility is to manage the more than 35 clinical research protocols in the Division of Urology underway and in preparation, with others in planning stages. Many of our faculty members are co-investigators with ongoing studies such as those conducted through the Departments of Medicine and Human Oncology. Managing our clinical research requires that I maintain close communication with the UW Institutional Review Board, or the IRB, whose members function to oversee the protection of human subjects in research. The IRB was established as the result of the U.S. federal policy called the federal Common Rule from the Department of Health and Human Services (DHHS) under title 45, part 46 of the Code of Federal Regulations (45 CFR 46).

The federal Common Rule defines research as "a systematic investigation, including research development, testing and evaluation, designed to develop or contribute to generalizable knowledge" (45 CFR 46.102(d)). A research participant, or human subject, is defined as "a living individual about whom an investigator (whether professional or student) conducting research obtains (1) data through intervention or interaction with the individual, or (2) identifiable private information" (45 CFR 46.102(f)).

The University requires that all individuals conducting research with human subjects complete the online human subjects training course for IRB policies and guidelines. This includes principal investigators who design and direct research, and all research personnel who enroll research subjects, conduct research procedures or analyze resulting data. This also includes investigators who plan to author manuscripts or present the data for publication. The tutorial online course and other information can be found at the IRB Web site http://www.medicine.wisc.edu/irb.

The various research protocols ongoing in the Division of Urology include studies that are either prospective, in which the subjects are identified and then followed forward in time, or retrospective, a study that looks backward in time using data from established medical records or interviews with patients who are already known to have a disease. Many prospective studies require additional funding sources to support the research. Past and present research has been supported by sources such as pharmaceutical and instrument industries, the National Cancer Institute, the UW Medical Foundation, the UW Hospital and the Department of Surgery.

I look forward to working in the Urology Research Program and the many clinical studies that are now in progress or are planned. Please contact me if you are planning to initiate new clinical research trials, medical chart reviews or if you have questions regarding the IRB guidelines and policies. WU

>> UPCOMING WISCONSIN EVENTS

TRICIA MAIER

• 2007 Uehling Lectures

The University of Wisconsin, Division of Urology will be holding its annual David T. Uehling Lectures on October 12, 2007 at The Fluno Center in Madison, Wisconsin. This year the topic of the 2007 Uehling Lecture series, one-day event, will be *Concepts and Controversies in the Management of Urologic Cancer*. Lecture topics will encompass renal, testis, and prostate cancers including the evolution and future applications of robotics in treating prostate cancer.

Our keynote speaker is Louis R. Kavoussi, MD, Chairman of Urology at The Arthur Smith Institute for Urology, a member of the North Shore-Long Island Jewish Health System and Professor in Urology at New York University School of Medicine. Dr. Kavoussi is a world-renowned laparoscopic surgeon in minimally invasive approaches to urologic diseases including the treatment of renal disease, kidney stones and testicular cancer.

• 2007 Winter Urology Grand Rounds Visiting Professor

January 31, 2007
PETER LANGENSTROER, MD

Dr. Peter Langenstroer will give a lecture on the subject of urologic oncology. Dr. Langenstroer is an Associate Professor in the Department of Urology at the Medical College of Wisconsin in Milwaukee.

• 2007 Spring Urology Grand Rounds Visiting Professor

April 17, 2007
GERALD H. JORDAN, MD

Dr. Gerald Jordan will give a lecture on the subject of reconstructive urology. Dr. Jordan is a Professor in the Department of Urology at Eastern Virginia Medical School and Director of the Devine Center for Genitourinary Reconstruction at Sentara Norfolk General Hospital in Norfolk, Virginia. WU

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>> GIVING OPPORTUNITIES

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