These are exciting times at the UW. This past fall the School of Medicine and Public Health poured 4 million pounds of concrete as part of the new Interdisciplinary Research Complex construction around UWHC. Also, progress on the American Family Children’s Hospital project has been significant. We are still basking in a very strong 2005, which was rounded out with visiting lectureships by Dr. Charles Brendler and Dr. Alan Partin. Certainly our academic program has been enriched this year and the future is bright for all those involved in the research and treatment of prostate disease.

The fall was highlighted by UW Hospital being named the top-performing academic hospital in the United States by the University HealthSystem Consortium (UHC). Other strong performers included the Mayo Clinic and Brigham and Women’s Hospital in Boston. This measure is focused on quality care and patient safety. In particular, safety, mortality, effectiveness, and equity were quantitatively assessed.

Within the Division, kudos goes out to Dr. Wade Bushman, who was named the Vice Chairman for Research in the Department of Surgery and Dr. David Jarrard, who was selected as the Vice Chairman of Urology. Of note, Dr. Sean Hedican has taken a leadership role in laparoscopic education at the AUA as well. We are certainly blessed with a “Ship of Leaders” here at UW Urology.

I am pleased to announce the AUA’s research group, the Society for Basic Research (SBUR), has chosen Madison as the host location for their annual scientific symposium. Look for this meeting at the Fluno Center here in Madison in early August 2006. Drs. Bushman and Gee, among others, are part of the program committee.

Our division will again have strong representation at the AUA. I look forward to debating Dr. Paramjit Chandhoke at this year’s AUA in Atlanta on the merits of shock wave lithotripsy. Dr. Wade Bushman will speak on a plenary panel session as well. Several UW faculty are also teaching AUA courses or moderating sessions in Atlanta this May. We hope to see all of you at the AUA Alumni Reception Sunday evening.

We look forward to seeing all of you at the Alumni reception and at our visiting lectureships this year. Please look to the website for all details and conference information. WU

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

>> NOTABLE AND NEWSWORTHY

- DR. SEAN HEDICAN, ASSOCIATE PROFESSOR, received an Olympus Prize for the Best Overall Paper at the 23rd World Congress on Endourology for his research presentation “Immune mediated survival advantage and primary tumor control of cryoablation compared to nephrectomy in a murine model of advanced renal cancer.”
- KRISTINA PENNISTON, PHD, RD, along with DR. STEPHEN NAKADA, were awarded a $25,000 UW Health grant to develop the UW Health “Kidney Stone Connection,” an interactive website which will feature educational information on the medical and surgical management of kidney stones and specific information for patients. WU
Dr. Bruce Slaughenhoupt has recently joined the Division of Urology as a new pediatric urologist here at the University of Wisconsin. This is certainly an exciting development for our busy pediatric urology service. While new to this institution, Dr. Slaughenhoupt already has considerable experience in academic urology. Following completion of his urology residency at Tufts University and his pediatric urology fellowship at Johns Hopkins University, Dr. Slaughenhoupt served on the faculty at the University of Louisville for nearly 9 years. In addition to his clinical duties he had been actively involved in medical education and served as associate director of undergraduate education. He has authored a multitude of peer-reviewed manuscripts and book chapters in his field.

Since his arrival, Dr. Slaughenhoupt continues his commitment to medical education. He has been recently appointed as Director of the Urology Medical Student Clerkship and also serves on the Surgical Education Committee here at the UW. He has been actively involved in community education as well, and has recently lectured to medical staff at a regional urology nursing seminar and to pediatricians at both the UW and several of our neighboring hospitals.

While his clinical practice encompasses all aspects of pediatric urology, Dr. Slaughenhoupt’s research focuses on the prevention and treatment of pediatric urolithiasis. Data in the literature concerning stone development and prevention in children lags significantly behind that for adults. Furthermore, the incidence of pediatric urolithiasis has been steadily increasing, felt to be partly due to a more sedentary lifestyle involving video games and television as well as poor dietary choices. According to Dr. Slaughenhoupt, “Up to this point, the current guidelines used in diagnosing and treating pediatric stone formers are based on adult studies or historic data from very small studies. If we could better understand the various metabolic abnormalities and pathophysiology leading to stone formation in children, we could make more accurate recommendations concerning changes in diet and medications which could help prevent stone development. Without well-established normal values for urinary metabolite concentrations or supersaturation indices in children, we are limited in our ability to treat children with stones in a prospective fashion.”

Recent articles have begun to address this void by calling for contemporary studies which assess true urinary metabolite concentrations and supersaturation indices in healthy children of various ages. Therefore, the short-term goals of this research are to establish relevant metabolite norms in the pediatric population and to identify if a difference in urinary supersaturations in children is protective. The broader long-term goal focuses on preventing stone development and reducing the rate of pediatric stone recurrence in the children of Wisconsin.
“Why does prostate cancer develop and what is its link with aging?” These are the important questions posed by a multi-investigator group led by the Division of Urology at the University of Wisconsin. This 5-year, $4 million grant from the National Institutes of Health brings together a group of diverse physicians and researchers to answer important questions regarding prostate cancer development. In addition, its goal is to foster interactions between the investigators in the belief that attacking this problem from multiple approaches will lead to a higher likelihood of success.

The team of investigators is led by Dr. Wade Bushman, Associate Professor of Surgery in the Division of Urology, whose laboratory efforts focus on the molecular interactions between different types of cells in the prostate that may promote the development of cancer. By understanding these interactions, particularly surrounding a key gene called Sonic hedgehog (Shh), they hope to identify ways for preventing the growth of this disease. This work has close interactions with the project being undertaken by Dr. Richard Peterson, Professor in Pharmacology, who is focused on the role of dioxin (TCDD), a widely used chemical carcinogen, and how it may function in prostate cancer development.

Another theme that is being investigated is that of the role of inflammation on prostate cancer development. Inflammation has been found to be associated with the development of prostate cancer, but it is unclear why this occurs. Dr. George Wilding, Director of the University of Wisconsin Comprehensive Cancer Center, has a laboratory effort that approaches this question by examining the role of androgens, or male hormones, on the oxidative stress associated with inflammation. Another related project examines the question of how inflammation and oxidative damage increases the risk of prostate cancer development with aging. Dr. David Jarrard, the Head of the Division's Urology Oncology group, is examining this question by focusing on epigenetic changes with oxidative damage. Epigenetic changes don't involve a change in the sequence of the DNA, such as a mutation, but rather modify DNA function through protein and other molecular interactions. They hope to be able to identify individuals at risk for prostate cancer at an earlier timepoint, so they may be watched more closely.

Other key investigators include Dr. Husan Mukhtar, Professor of Dermatology, who is approaching this problem by investigating the chemopreventative effects of green tea, a dietary agent known to prevent prostate cancer and commonly ingested by Asian cultures. This grant seeks to determine how green tea prevents prostate damage and how this may lead to a lower risk of prostate cancer development. Dr. Mukhtar is the lead investigator who recently published a highly publicized paper demonstrating the mechanism by which pomegranate juice inhibits prostate cancer growth.

Only five O'Brien center grants were awarded nationally, placing the University of Wisconsin Urology program as one of the top centers in the United States doing this type of research. It additionally provides funds to support symposia, or meetings twice yearly. These bring together the O'Brien investigators and three leading experts from around the nation to focus on specific areas of study. It is only through this unique type of “brain trust” that our understanding of prostate cancer and the development of new ways of treating it are made possible. WU
## Residency Update

**Tricia Thaker, APNP**

The University of Wisconsin Division of Urology recently completed two resident interview days. Division faculty members had the opportunity to meet with excellent candidates from around the country. Congratulations to our 2006 PGY-1 Urology Residents:

- **Peter Knoester**  
  University of Michigan
- **Nathan Moore**  
  University of Wisconsin

## Welcome to the Endourology and Laparoscopy Fellow

**Gaurav Bandi, MD**

Dr. Gaurav Bandi will be joining the Urology Division as the Endourology and Laparoscopy fellow for 2006. Dr. Bandi is currently completing a residency in Urology at Wayne State University in Detroit, Michigan. He graduated first in his class from Mahatma Gandhi Memorial Medical College in Indore, India. Dr. Bandi has published extensively and presented at many national conferences. We look forward to his arrival.

## Upcoming Wisconsin Events

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| **2006 Spring Urology Grand Rounds Visiting Professor**             | June 8, 2006  
  Margaret S. Pearle, MD  
  Dr. Margaret Pearle will give a lecture on endourology. Dr. Pearle is a Professor in the Department of Urology at the University of Texas Southwestern Medical Center. She also holds a joint appointment with the Mineral Metabolism Center and is holder of the Ralph C. Smith Distinguished Chair in Urologic Education. Dr. Pearle’s research interests include evaluation of dietary and medical therapies for kidney stone prevention, assessment of outcomes for minimally invasive surgical treatments and development and assessment of resident teaching tools. |
| **Watch for these UW Urology AUA Events**                          |         |
| UW ALUMNI RECEPTION:                                                |         |
| The UW Urology Alumni Reception will take place on Sunday, May 21, 2006 from 5:00-7:00 pm at the Hyatt Regency Atlanta downtown. For further details contact Nancy Hawkins at (608) 263-1358. |
| UW FACULTY AT THE AUA:                                               |         |
| DR. DAVID JARRARD will moderate a session on prostate cancer metastasis at the Society of Urologic Oncology meeting scheduled just prior to the AUA meeting on Saturday, May 20, 2006. |
| AUA Plenary Sessions                                                |         |
| DR. WADE BUSHMAN will serve as a panelist in the panel discussion on “Case Studies of New Insight into LUTS/BPH.” This panel discussion will take place on Wednesday, May 24, 2006. |
| DR. STEPHEN NAKADA will serve as a counterpoint debater in the plenary program session entitled “Does ESWL Have a Future in Stone Management?” scheduled on Monday, May 22, 2006. |

## AUA Office of Education Courses

**Dr. Reginald Bruskewitz** will serve as course co-director for “BPH: Office-Based Minimally Invasive Treatments,” a course designed to introduce minimally invasive surgical therapies in the treatment of LUTS secondary to BPH. It will also offer a review of the current literature. This course will take place on Tuesday, May 23, 2006.

**Dr. Sean Hedican** will assist as course co-director for “Hands-On Percutaneous Renal Surgery: Equipment and New Technology.” This course will provide hands-on station training and short demonstrations that will prepare the participant to recognize the benefits and limitations of the variety of instruments and accessories available to perform percutaneous renal surgery. This course will take place on Sunday, May 21, 2006.

**Dr. Stephen Nakada** is course director for “Decision-Making in Endourology: An Outcomes-Based Approach,” a course designed to provide an algorithm-based approach to the most commonly-encountered clinical scenarios in endourology. This course will teach the participant how to identify the indications and rationale for optimal treatment selection of various upper tract pathologies using detailed algorithms based on outcomes. This course will take place on Monday, May 22, 2006.

**AUA Lunch with the Experts**

**Dr. Stephen Nakada** has been asked to participate as a lunch session leader in the first ever “Lunch with the Experts” as an acknowledged expert in the field of endourology and laparoscopy. This new program was designed in response to requests from AUA members for small group discussion time with experts in the field of urology. Dr. Nakada’s expert lunch session takes place on Tuesday, May 23, 2006.
Medical therapy is challenging surgery as a “gold standard” for treatment of Benign Prostate Hypertrophy (BPH). As the population ages, there will be a greater demand for medical therapy. Therefore, the quest for a better “pill” continues. Since the introduction of nonselective alpha-blockers for improvement of obstructive voiding symptoms, new compounds have been engineered and investigated to target the urethra (uroselective) and decrease unwanted side effects such as postural hypotension and syncope.

The goal is to target alpha 1a adrenoreceptors in the bladder neck, prostate, prostatic capsule, and prostatic urethra thus relaxing the smooth muscle and improving urine flow measured by uroflowmetry, as well as reducing symptoms as measured by symptom score. At the same time, these drugs should not block alpha 1b receptors located in the vascular smooth muscle, which would result in side effects of hypotension.

A new uroselective drug with an in vitro selective binding ratio of alpha 1a to alpha 1b of 162:1, should relieve obstructive symptoms while minimizing vascular side effects.

Such a uroselective drug is now under investigation in the Urology Department through the Office of Clinical Trials at the University of Wisconsin. This is to evaluate the efficacy and safety in a double-blinded study with a long-term open label extension study available to patients who complete the double-blinded study. Previous data from Japan, United Kingdom, and the United States have shown early and sustained positive effects as measured by measurement standards (IPSS and AUASI) with follow-up to one year.
The Division of Urology welcomes your donations throughout the year. To send a contribution in support of our research programs or as a tribute, please make your check payable to “Division of Urology” and mail it to:
Division of Urology
G5/339 CSC
600 Highland Avenue
Madison, WI 53792-3236

Stephen Y. Nakada, MD
Professor and Chairman of Urology
Specialty: Endourology, laparoscopy
608-263-1359

Reginald Bruskewitz, MD
Professor
Specialty: Prostate disease
608-263-9534

Wade Bushman, MD, PhD
Associate Professor
Specialty: Female urology
608-263-9534

Jason R. Gee, MD
Assistant Professor
Specialty: Urologic oncology
608-262-0475

Andrew K. Graf, MD
Assistant Clinical Professor
Specialty: General urology
608-262-0475

John V. Kryger, MD
Assistant Professor
Specialty: Pediatric urology
608-263-1358

Paul O. Madsen, MD
Emeritus Professor

Timothy D. Moon, MD
Professor
Specialty: Prostate disease, laparoscopy
608-262-0475

David R. Paolone, MD
Assistant Clinical Professor
Specialty: Sexual dysfunction and general urology
608-287-2900

Bruce Slaughenhoupt, MD
Assistant Professor
Specialty: Pediatric urology
608-263-1400

David T. Uehling, MD
Emeritus Professor

John D. Wegenke, MD
Associate Clinical Professor
Specialty: General urology
608-287-2900

Sean P. Hedican, MD
Associate Professor
Specialty: Laparoscopy
608-262-0475

David F. Jarrard, MD
Associate Professor and Vice Chairman of Urology
Specialty: Urologic oncology
608-263-9534

Stephen Y. Nakada, MD
Editor

Melissa Buchanan
Editorial Assistant

Tricia Maier
Administrative Assistant