Our mission is to provide outstanding care, improve quality of life and shape the future of urology through education and research.
<table>
<thead>
<tr>
<th>Message from the Chairman:</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stephen Y. Nakada, MD</td>
<td></td>
</tr>
<tr>
<td>Training Future Urologists</td>
<td>3</td>
</tr>
<tr>
<td>Message from the Clinical Vice Chairman:</td>
<td>4</td>
</tr>
<tr>
<td>David F. Jarrard, MD</td>
<td></td>
</tr>
<tr>
<td>Improving Prostate Cancer Detection</td>
<td>5</td>
</tr>
<tr>
<td>Forging the Future of Cancer Care</td>
<td>6</td>
</tr>
<tr>
<td>Robotic Expansion to Kidney Surgery</td>
<td>7</td>
</tr>
<tr>
<td>Shedding New Light on Bladder Cancer</td>
<td>8</td>
</tr>
<tr>
<td>Treating Stone Disease</td>
<td>9</td>
</tr>
<tr>
<td>Treating Male and Female Infertility</td>
<td>11</td>
</tr>
<tr>
<td>Improving Male Sexual Health</td>
<td>12</td>
</tr>
<tr>
<td>Understanding Prostate Enlargement</td>
<td>13</td>
</tr>
<tr>
<td>Creating Options for Incontinent Women</td>
<td>14</td>
</tr>
<tr>
<td>Clinical Nutrition in Urologic Care</td>
<td>16</td>
</tr>
<tr>
<td>Message from the Pediatric Division Chief:</td>
<td>17</td>
</tr>
<tr>
<td>Patrick H. McKenna, MD, FACS, FAAP</td>
<td></td>
</tr>
<tr>
<td>Outstanding Care for Pediatric Patients</td>
<td>19</td>
</tr>
<tr>
<td>Message from the Research Vice Chairman:</td>
<td>20</td>
</tr>
<tr>
<td>Wade A. Bushman, MD, PhD</td>
<td></td>
</tr>
<tr>
<td>Developing Tomorrow’s Cures Today</td>
<td>21</td>
</tr>
<tr>
<td>Improving Patient Care through Research</td>
<td>22</td>
</tr>
<tr>
<td>Strengthening Our Academic Mission</td>
<td>24–25</td>
</tr>
<tr>
<td>Gifting Opportunities</td>
<td>26</td>
</tr>
<tr>
<td>Our Faculty</td>
<td>27</td>
</tr>
<tr>
<td>Acknowledgements</td>
<td>28</td>
</tr>
</tbody>
</table>
or more than nine decades, the Urology Program at the University of Wisconsin School of Medicine and Public Health has had the tradition of providing technologically advanced urologic care for the people of Wisconsin and beyond. Today, we retain the principles of the past and have moved our efforts toward providing state-of-the-art urologic care for present and future generations.

Our dynamic program focuses on cutting-edge surgical care for adult and pediatric urologic patients while conducting innovative research and training the next generation of academic urologists.

Our Department consists of several specialties, including the Division of Pediatric Urology, Section of Urologic Oncology and Section of Endourology and Minimally Invasive Urology. We have recruited nationally recognized surgeons and leaders in many urologic specialties and the Department includes 18 full-time faculty and an additional 50 full-time staff who support our mission of Innovative Research and Outstanding Care. Our urologists perform nearly 10,000 procedures and 2,500 major operations annually in both adult and pediatric urology.

The Department is regularly ranked in U.S. News and World Report’s Top Hospitals in both adult and pediatric urology. In addition, a recent academic ranking by European Urology (2012) ranked the Department of Urology as a top 20 department in the United States. Finally, many of our doctors are ranked in U.S. News and World Report, Castle Connelly America’s Top Doctors, The Best Doctors in America and Madison Magazine’s Best Doctors in Madison.

The Department of Urology has a strong multidisciplinary approach to basic, clinical and translational research. This has led to novel treatment options in areas including urologic oncology, urolithiasis, benign prostatic hyperplasia, voiding dysfunction and infertility. Our commitment to scientific education has resulted in significant public health services grant funding, including National Institutes of Health (NIH) and Department of Defense grants in urologic oncology and benign urology. Translational research continues to be enhanced with a robust outcomes research program and quality of life program.

We have a longstanding reputation for comprehensive training of urologic residents and fellows and the teaching of medical students. Our Department’s educational mission is to cultivate future leaders in urology and to provide medical students, urological residents and fellows with advanced exposure to cutting-edge urologic techniques, research and patient care. The development of the multidisciplinary simulation facility further enhances this opportunity for all of those involved.

As you read the pages of our report, please keep in mind our broad-based approach using specialized services that aim to provide state-of-the-art urologic care one patient at a time. I invite you to investigate all the details of our clinical expertise, clinical research programs and educational and training opportunities.

Stephen Y. Nakada, MD, FACS
Chairman, Department of Urology
The David T. Uehling Professor of Urology
The Department of Urology Residency Training Program is a nationally recognized program that provides the highest caliber of patient care and graduate medical education. One of our core missions is to train the next generation of urologists and prepare them for careers in either academic or private practice. Clinical proficiency, integrity and sensitivity to patient satisfaction are paramount. Faculty, residents and support staff remain committed to achieving the highest standards of residency education and training.

**Resident physicians have the opportunity to engage in numerous research projects that impact patient safety and clinical outcomes.**

We take great pride in our legacy of outstanding residents who are motivated and driven to achieve excellence in clinical skills and scholarly activities. A strong work ethic and dedication to the program have helped us achieve notable accomplishments every year.

The foundation of our program is our diverse group of faculty that is committed to excellence in academia. Department faculty members have achieved national recognition within their fields of expertise. All facets of urology are represented, with areas of excellence in nephrolithiasis, urologic oncology, female urology, neurourology, pediatric urology, male infertility and sexual dysfunction. Faculty are on the leading edge of minimally invasive surgical techniques including laparoscopy, robotic surgery, laser lithotripsy, laser prostatectomy, microsurgery and radiofrequency ablation and cryotherapy of small renal masses.

The UW School of Medicine and Public Health has been innovative and proactive in initiating curriculum and culture changes in residency training. In addition to having a well-rounded clinical training experience, resident physicians have the opportunity to engage in numerous research projects ranging from basic and clinical studies to multidisciplinary quality improvement initiatives that impact patient safety and clinical outcomes.

Our goal is to create an environment that fosters learning and scholarly activity through a rigorous clinical and operative experience, a comprehensive didactic teaching curriculum and involvement in research and new surgical techniques. The Department actively participates in activities of the UW Graduate Medical Education Office and in the Society of Urology Chairpersons and Program Directors of the American Urological Association.

It is with great enthusiasm that we welcome our new residents each year, and it is with a great sense of accomplishment that we congratulate our recent graduates who have contributed so much to the success and progress of our program. With great commitment and dedication to resident education, the Department of Urology continues to meet the highest standards in training future urologists and achieves both innovation and excellence in the program.
The Department of Urology has significantly expanded its spectrum of excellence in patient care in the past several years. We have added practitioners and additional sub-specialization to include all modules of urology. These clinical areas encompass voiding dysfunction, benign prostatic hyperplasia, cancer, stone disease and impotence/infertility. This expansion has included the continued development of strong multidisciplinary teams that link urology with other medical disciplines to improve the care of complex patients.

Nutritional counseling is employed routinely to help prevent and manage urologic disease. Our cutting-edge clinical research continues to enhance the care that we provide to patients. New approaches to radiologic imaging have revealed better approaches for treating patients with kidney stones. Database analyses have generated new approaches to improving the care of patients with prostate, renal, bladder and other tumors. Developing new technology has led to improved outcomes with better recovery for patients in cancer, voiding dysfunction and other areas. Finally, we have placed further emphasis on better patient access to improve the overall patient experience.

In the past ten years, the volume of urology patients seen through the Department of Urology clinics has tripled as we continue to serve patients in Wisconsin and throughout the region. The Department of Urology at the UW School of Medicine and Public Health cares for patients at UW Hospital and Clinics, William S. Middleton Memorial Veteran’s Hospital, American Family Children’s Hospital and Meriter Hospital as well as at other local and regional hospitals and clinics.

The Department strives to provide our patients with the best possible treatment plan and options by offering a clinic setting that unites several specialties. Our Department also prides itself on offering highly trained expert urologists in their fields, as well as proven, innovative techniques supported by novel research and outcomes above national benchmarks. In doing so, we work to support our mission of providing outstanding care for each patient and endeavor to improve the quality of life for all those living with urologic conditions.

David F. Jarrard, MD
Vice Chairman for Clinical Affairs
John P. Livesey Professor of Urologic Oncology
There is controversy regarding the use of the prostate-specific antigen (PSA) test, a simple blood test, for the diagnosis of prostate cancer. Some medical groups such as the American Cancer Society support offering PSA testing, but others including the U.S. Preventive Services Task Force (USPSTF) have issued recommendations discouraging the use of PSA testing. Prostate cancer is the second most common cause of cancer deaths in American men, killing 38,000 men in 2012. Prior to the introduction and adoption of PSA, the majority of prostate cancer was detected because of symptoms of advanced cancer or a nodule found on a digital rectal examination. These symptomatic tumors were usually high grade, advanced and often lethal.

Part of the USPSTF decision was based on the widespread application of the PSA test to the population resulting in a high proportion of men needing to be screened and treated in order to save one life. In order to be effective and to minimize the risks of overdiagnosis and overtreatment, prostate cancer testing must be individualized based on a man’s risk factors. This is especially important for at-risk populations such as African-American men and those with a family history of the disease. The benefits of PSA testing are decreased in older patients and those with other significant health problems that limit their lifespan. Another issue with the PSA test is that it can be altered by infection and prostate enlargement making it less specific for cancer diagnosis.

This new test has the potential to improve our ability to find cancer and reduce the number of biopsies required to detect it.

With the recent controversy regarding PSA testing, the field of urology is in need of new techniques for identifying prostate cancer. Recent work in Dr. David Jarrard’s laboratory takes advantage of one underutilized aspect of prostate cancer. Many cancers, including head and neck and bladder, are associated with molecular changes not only in the tumor but in the associated ‘normal appearing’ tissues. This field defect may lead to cancer recurrence, but also helps to explain the frequent development of multifocal cancer seen in the prostate.

A recent study examining DNA methylation, an alteration that occurs on DNA, was performed in men with cancer and on prostate tissue from men without cancer. Screening 385,000 regions, we found 674 were altered in tumor-associated prostate tissues when compared to men without cancer. Of interest, the distance away from the tumor did not change the extent of the methylation change. These changes were then validated in normal appearing biopsy tissue from a separate group of patients and it was found to identify those patients with cancer elsewhere in the prostate.

This new test has the potential to improve our ability to find cancer and reduce the number of biopsies required to detect it. It will decrease the need for repeated prostate biopsies, a procedure associated with cost and some risk. Furthermore, these changes may also appear in the prostate cells that are shed in the urine. Ongoing studies suggest this may lead to the development of a new method for cancer detection. Finally, further research into this finding will likely yield additional understanding regarding how prostate cancer develops and better ways to prevent it.
Forging the Future of Cancer Care

The Department of Urology was one of the first programs to adopt robotic technology for the removal of the cancerous prostate. Currently, the Department has completed more than 1,000 of these operations. When the program was instituted in 2006, the Department undertook a number of studies to examine the effectiveness and benefits of this technology. Achieving cancer control, urinary function and sexual function are the main goals after prostate removal.

UW Health urologists published an early paper demonstrating that cancer outcomes are similar to open radical prostatectomy, an important endpoint for any new technology. They have extended these observations to examine a number of important issues in patient recovery. Robotic prostatectomy demonstrates decreased hospital stays, less blood loss and shorter time with a foley catheter versus the open procedure. Continence and erections appear similarly quite good when the groups were compared by the Department’s highly trained surgical group.

Robotic prostatectomy demonstrates decreased hospital stays, less blood loss and shorter time with a foley catheter versus the open procedure.

Advances in patient care continue with several publications documenting the advantage of the robotic procedure in dealing with variations in the arterial supply of the penis. These accessory pudendal arteries are better visualized and isolated using the robotic approach. In addition, UW Health urologists have been advocates of disseminating their experience by publishing on how to approach more difficult anatomy.

The program continues to expand with additional surgeons and robotic machines. Newer technology permits a decrease in the number of port sites used. Overall, the Department has found robotic surgery to be an excellent approach for most patients with prostate cancer because of smaller incisions, better visualization of the prostate and surrounding structures, decreased blood loss and a quicker physical recovery after surgery.

References


Surgery is the mainstay of treatment for patients with kidney cancer, often providing excellent odds for a cure. The Department of Urology is pleased to provide patients with the option of robotic kidney surgery.

The robotic surgical arms provide “wristed” movements that can help the surgeon precisely cut out the tumor and then “reconstruct” or rebuild the kidney after the tumor is removed.

While robotic technology can be used to remove the whole kidney in a radical nephrectomy, it is particularly well-suited to surgeries where only part of the kidney is removed—a partial nephrectomy—removing a cancerous tumor while leaving the healthy kidney behind. In many cases, removing the tumor can protect overall kidney function while providing the same benefits as removing the whole kidney.

Historically, partial nephrectomies were only performed through an “open” approach, using a large incision under the rib cage. Robotic kidney surgery involves smaller “keyhole” incisions that allow the patient to recover more quickly. Robotic laparoscopic partial nephrectomy is typically performed with about five small incisions, each less than ½-inch long. One of these incisions may be enlarged slightly to remove the tumor specimen.

The da Vinci robotic camera provides high-definition, three-dimensional imaging for the surgeon. The robotic surgical arms provide “wristed” movements that can help the surgeon precisely cut out the tumor and then “reconstruct” or rebuild the kidney after the tumor is removed.

The same aspects of robotic technology that make it helpful in partial nephrectomy can also make a reconstructive kidney operation easier. One such procedure, called a pyeloplasty, involves the repair of a kidney blockage called a ureteropelvic junction obstruction. This obstruction is surgically excised and the ureter is sewn back together. The robotic wristed instruments can facilitate precise placement of these sutures.

The Department of Urology is pleased to provide one of the newest kinds of kidney surgery, called robotic laparo-endoscopic single site surgery (R-LESS). Rather than using multiple small incisions, in R-LESS, the entire procedure is done through one small incision hidden inside the belly button. In select patients, this type of procedure can result in “scarless” surgery. R-LESS surgery is performed at a limited number of centers worldwide, including UW Hospital and Clinics.

Potential advantages of the R-LESS approach include improved cosmetic outcomes and perhaps a shorter recovery period.

Benefits of all types of robotic kidney surgery include shorter hospital stay, less pain and scarring, faster recovery and a quicker return to normal activities.

REFERENCES*


*Please visit uwhealth.org/urologytoday for a complete list of references.
Urologists at UW Health are utilizing new technology to improve detection and reduce local bladder cancer recurrence. Bladder cancer is one of the five most common malignancies in the United States and it is estimated that over a half-million people have a known diagnosis of bladder cancer. The hallmarks of early bladder cancer care are to reduce local bladder cancer recurrences and prevent the cancer from becoming invasive into the muscular layer of the bladder.

Incomplete detection of cancerous tumors is a key reason that bladder cancer has one of the highest recurrence rates and is the most expensive cancer to treat on a per-patient basis.

Fluorescence cystoscopy with hexaminolevulinate (Cysview®) has been shown to detect 17 percent more papillary tumors than the standard white-light cystoscopy. Cysview® is administered into the bladder one hour before bladder tumor resection in the operating room. The drug selectively accumulates in malignant cells. Under blue-light cystoscopy, bladder cancers become more visually evident and appear red against a dark blue background when using a cystoscope equipped with this technology.

The Department of Urology was the first in the state of Wisconsin to utilize this technology. It is estimated that 53 percent of patients diagnosed with superficial bladder cancer will experience a recurrence within two years of diagnosis. The Department is committed to providing innovative technologies such as Cysview® enabled cystoscopy, as part of the long-term strategy to reduce local disease recurrence in patients with superficial bladder cancer.

**Treating Muscle Invasive Disease**

The Department of Urology has been at the forefront of the treatment of muscle invasive bladder cancer for over three decades. This treatment requires a complex surgical procedure, radical cystectomy, where the bladder is removed and a new urinary system is created from the small or large intestine. Radical cystectomy is the most effective treatment option for muscle invasive disease, and survival rates are 15 to 20 percent better than alternative treatment modalities.

Radical cystectomy, similar to other complex cancer surgery and complex cardiovascular operations, has become regionalized to high-volume academic medical centers. From 2005 to 2011, UW Health urologists performed 376 radical cystectomy surgeries accounting for one out of every five radical cystectomies performed in the state of Wisconsin.

The Department offers the confidence that comes with extensive surgical experience. Patients are offered all forms of urinary diversions and the urologists are able to offer radical cystectomy to individuals with complex medical and prior surgical histories who would have been denied this operation in the past.

Patients are offered the option of minimally invasive techniques, including robotic-assisted laparoscopic radical cystectomy. The robotic surgical platform allows surgeons to treat bladder cancer with a minimally invasive surgical approach.

Dr. Tracy Downs uses Cysview®, a new diagnostic technology to help physicians better detect and treat bladder cancer. The optical imaging agent makes bladder tumors glow when viewed with a cystoscope equipped with a blue-light lens, helping urologists to better visualize tumors, and ultimately improving detection and treatment for patients with bladder cancer.
The Department of Urology is an international leader in the treatment of kidney stones and other urologic diseases. The Department began offering state-of-the-art minimally invasive treatments of kidney stones such as shockwave lithotripsy, percutaneous nephrolithotomy and ureteroscopy with laser lithotripsy in the mid 1990s. This was hallmarked by the Department acquiring Wisconsin’s first Holmium Yag stone laser in 1996, the first spark-gap shockwave lithotripter with inline fluoroscopy in 1998 and the establishment of the first Metabolic Stone Clinic in 1995.

The future holds promise for dietary and medical prevention of stone disease, as well as ongoing treatment options for stone formers which will improve their day-to-day functioning and quality of life. Department of Urology researchers are currently spearheading research in this area.

Since that time the Department has treated patients from Wisconsin, the continental United States and internationally. UW Health urologists perform more than 100 complex percutaneous stone removals and nearly 500 ureteroscopic stone therapies annually, and continue to have an active shockwave lithotripsy practice. In addition, the urologists treat upper tract transitional cell carcinoma in a non-invasive fashion using a kidney sparing approach with the endoscope and laser ablation energies.

Due to this leadership position, the Department has published its experience with percutaneous stone removal in the morbidly obese, shockwave lithotripsy, ureteroscopy and laser lithotripsy, metabolic stone clinic effects and even laparoscopy for stone disease.

Looking toward the future the Department continues to work with UW Health radiology colleagues to identify novel pre-operative techniques for selecting the best treatment modality for patients with stone disease. This includes investigations in stone density, skin-to-stone distance and stone volume using axial imaging techniques.

What has amplified UW Health’s academic and clinical expertise in endourology is the fact that the Department has offered a clinical fellowship in endourology since 2002. UW fellows are fully trained urologists who come to Madison specifically to gain expertise in endourology, stone disease and laparoscopic and minimally invasive techniques for the treatment of upper tract disease.

The future holds promise for dietary and medical prevention of stone disease, as well as ongoing treatment options for stone formers which will improve their day-to-day functioning and quality of life. Department of Urology researchers are currently spearheading research in this area.

REFERENCES


Sterrett SP, Penniston KL, Wolf JS Jr., Nakada SY. Axitrazolamide is an effective adjunct for urinary alkalization in uric acid and cystine stone formers recalcitrant to potassium citrate. Urology 2008; 72(2):278.

Best SL, Nakada SY. Flexible ureteroscopy is effective for proximal ureteral stones in both the obese and non-obese patients: A two-year, single surgeon experience. Urology 2011; 77(1):36.

TREating Male AND FEMALE INFERTILITY

This is an exciting time for male reproductive medicine and microsurgery in the Department of Urology at the UW School of Medicine and Public Health. The Department has teamed with physicians and scientists in the Department of Obstetrics and Gynecology to create Generations Fertility Care, which opened in the fall of 2010. Infertile couples now have access to state-of-the-art evaluations and treatments of both male and female fertility problems in the same clinic. By integrating the evaluation and treatment of the male with that of the female, UW Health urologists offer a unique program to treat infertility. This multidisciplinary clinic integrates services from reproductive endocrinology, urology, psychology and andrology. Combining these services has improved the coordination and delivery of care and has helped couples better understand the variety of factors that may be contributing to their reproductive problems. Additionally, approaching infertility from a couple’s perspective, not just a male or female fertility perspective, has optimized the quality, efficiency and cost-effectiveness of treatments.

Approximately 15 percent of couples are unable to conceive after one year of unprotected intercourse. Traditionally, infertility was thought to be due to female factors alone, but it is now better understood that infertility is not just a female problem. A male factor is solely responsible in about 20 percent of infertile couples and contributory in another 30 to 40 percent. If a male infertility factor is present, it is almost always defined by the finding of an abnormal semen analysis, although other male factors may play a role even when the semen analysis is normal.

In 2006, urological services at UW Health expanded to include male infertility. Fellowship-trained staff offers full medical evaluations of the male, including evaluation and treatment of endocrine dysfunction, microsurgical repair of anatomic problems (microsurgical varicocelectomy, microsurgical reconstructions of the male reproductive tract including vasovasostomy and the more complex epididymovasostomy), treatment of ejaculatory failure by electroejaculation, testicular sperm extraction and cryopreservation, treatment of ejaculatory ductal obstruction and treatment of immunologic male infertility.

An important facet of male infertility is the impact of both cancer and cancer therapies on male reproductive potential. With the advances in cancer treatments, most young men with cancer survive into their reproductive years. Thus, the goals of cancer therapies now include not only survival, but also quality of life after cancer treatment. However, most cancer treatments, including surgery, chemotherapy or radiation, can adversely affect a man’s fertility. In addition, cancer itself, especially testicular cancer, can put men at risk for infertility. As such, there has been increasing focus on the preservation of fertility in men with cancer. Currently, the best strategy for fertility preservation in men of reproductive age with cancer is sperm cryopreservation prior to cancer treatments. Since the development of the UW Health male infertility program, the number of patients who have banked sperm has tripled.

Continued efforts are being made to send this important message to the community, and researchers continue to investigate the mechanisms of cancer on fertility, as well as ways to better protect the gonads from the deleterious effects of cancer treatments.

Infertile couples now have access to state-of-the-art evaluations and treatments of both male and female infertility problems in the same office. By integrating the evaluation and treatment of the male with that of the female, UW Health urologists offer a unique program to treat infertility.

A continually growing area of male reproduction science is the understanding of the genetics of male infertility. Karyotypic abnormalities such as Klinefelter’s syndrome, balanced translocations, Y-chromosome microdeletions and abnormalities of the cystic fibrosis transmembrane conductance regulator gene (CFTR) can all impact male reproductive potential. Recently, much attention has been given to sperm DNA integrity and factors associated with sperm DNA damage. Even in men with a normal karyotype, meiotic abnormalities may result in sperm aneuploidy (wrong numbers of chromosomes in the haploid sperm). This is diagnosed with a sperm fluorescence in-situ hybridization (FISH) analysis. Stem cell research as applied to male infertility also will allow for future therapeutic modalities to treat male reproductive problems.

While the current rate of idiopathic male infertility is usually quoted to be around 25 percent, it is assumed that this number will decrease with the advent of advanced genetic analyses. The next era of genetic advances will be to identify and understand specific gene mutations that lead to infertility and develop strategies to treat these abnormalities.

A proud father and his newborn son visit Dr. Daniel Williams of Generations Fertility Care. Providers at the clinic work with couples to help them understand the many unique factors that may be contributing to reproductive issues. The clinic approaches infertility from a couple’s perspective rather than just a male or female fertility issue and in doing so optimizes the quality, efficiency and cost-effectiveness of treatment.
The Male Sexual Health Program in the Department of Urology at the UW School of Medicine and Public Health offers comprehensive treatment for a number of conditions that impair a man’s ability to have a satisfying sexual relationship with his partner. Both medical and surgical therapies are offered for problems including erectile dysfunction, Peyronie’s disease, premature ejaculation and hypogonadism.

Erectile dysfunction, also commonly referred to as impotence, is the inability to achieve or maintain an erection that is firm enough or lasts long enough for satisfactory sexual intercourse. It can be devastating to a man’s self-image, and many men don’t seek treatment out of fear, embarrassment or a concern that nothing can be done to help. Erectile dysfunction is also recognized as a condition with a close relationship to cardiovascular disease. Many of the risk factors for erectile dysfunction, including high blood pressure, diabetes, elevated cholesterol, smoking and obesity, are the same risk factors for coronary artery disease. Other conditions that may lead to erectile dysfunction include neurological diseases such as Parkinson’s disease or multiple sclerosis, use of certain medications or drugs, hormonal imbalances and a history of pelvic surgery or radiation to treat cancer.

An integrated approach allows a comprehensive assessment of each man to better understand the exact nature of his sexual dysfunction.

Erectile dysfunction following surgery for prostate cancer is an unfortunate and devastating side effect that can occur immediately after the procedure and last for months or longer. UW Health urologists offer the latest techniques in post-prostatectomy penile rehabilitation strategies to improve a man’s chances of recovering the same level of sexual functioning he had before surgery.

Post-prostatectomy penile rehabilitation involves the early use of treatments for erectile dysfunction in a structured and scheduled manner to reduce penile scarring and loss of smooth muscle that occur if a man does not have erections for extended periods of time. UW Health urologists David Paolone, MD and Daniel Williams, MD, founders and co-directors of the Male Sexual Health Program, also offer the latest surgical techniques and devices for those men who require placement of a penile prosthesis for satisfactory treatment of erectile dysfunction.

Peyronie’s disease is a connective tissue disorder that presents with penile pain with erections, curvature of the penis with erections and a palpable plaque or nodule along the penile shaft. Since this scar tissue lacks the elasticity of the normal covering of the spongy erectile tissue, filling of the penis with blood during an erection results in the penis bending toward the scar tissue. Oral medications lack effectiveness in treating Peyronie’s disease, so UW Health urologists offer other treatments including verapamil injections into the scar tissue to help soften it and reduce penile curvature as well as surgical approaches to achieve penile straightening.

The UW Health Male Sexual Health Program provides expertise and experience in caring for men with any sexual health complaint. An integrated approach allows a comprehensive assessment of each man to better understand the exact nature of his sexual dysfunction and screen for associated cardiovascular, metabolic and endocrine conditions. UW Health urologists provide specialized medical and surgical care to help each man regain a satisfying and fulfilling sexual life.
Benign prostatic hyperplasia (BPH), the non-cancerous enlargement of the prostate that occurs with age, affects more than 26 million men each year in the United States. The resulting pressure on the urethra can interfere with the normal flow of urine, causing a variety of symptoms. While oral medications are the typical starting point for treatment, surgical management is often indicated.

The key to improving patient outcomes is comprehensive and meticulous evaluation...as simple as a home voiding diary or as complex as video-urodynamic testing.

UW Health urologists perform the traditional transurethral resection of the prostate (TURP), which surgically removes a portion of the prostate tissue through the urinary tract. They also perform the newer minimally invasive alternative, Green Light Laser photoselective vaporization of the prostate. This treatment has the advantage of being done without the need for an inpatient hospital stay. In addition, Green Light Laser can be safely done on patients receiving anti-coagulation medication.

It is now understood that more than prostate enlargement can be involved in the genesis of lower urinary tract symptoms (LUTS). Past studies conducted at UW School of Medicine and Public Health and elsewhere revealed that obstruction and symptoms can occur in the absence of prostatic enlargement. More recently it has been shown that clinically silent prostatic inflammation contributes in a major way to the development of LUTS, though the mechanism for this remains unclear.

Department of Urology investigators are on the cutting edge of laboratory research aimed at understanding this complexity, with several grants funded by the National Institutes of Health (NIH). Here, research laboratories are examining how age-related changes in testosterone and estrogen levels in aging men may re-activate prostate growth, and investigating how diabetes and prostate inflammation may produce sensory changes in the bladder that lead to symptoms of frequency and urgency. In addition, Department of Urology researchers are collaborating with colleagues across campus to perform translational studies using human tissues.

What does this mean for the patient and clinician? First and foremost, it means that one cannot assume LUTS is due to prostatic enlargement. The exceptions to the rule are many and the emerging challenge is to match the right therapy to each patient. For men with LUTS without obstruction, alternative forms of medical therapy can be considered. In other cases, a relatively novel therapy involving sacral nerve stimulation may be considered for recalcitrant symptoms of frequency and urgency.

The key to improving patient outcomes is comprehensive and meticulous evaluation, involving something as simple as a home voiding diary or as complex as video-urodynamic testing. By understanding each patient as an individual in whom multiple factors may contribute to the development of LUTS, therapy can be individualized to improve patient outcomes and quality of life.
Pelvic floor disorders encompass a broad spectrum of problems which stem from weakening of the pelvic floor, the muscles and ligaments responsible for keeping pelvic organs in place. This loss of support for the bladder, uterus, vagina and rectum can interfere with the normal function of these organs and can seriously compromise a woman’s quality of life. Pelvic floor disorders include the loss of bladder and bowel control and the prolapse, or dropping down, of female pelvic organs. Many patients find these conditions embarrassing or difficult to manage.

As the population ages, the prevalence of these disorders is projected to rise. A recent study using population projections from the U.S. Census Bureau from 2010 to 2050 and prevalence data from the 2005 National Health and Nutrition Examination Survey estimated the age-specific prevalence for bothersome, symptomatic pelvic floor disorders in 2050. The number of American women with at least one pelvic floor disorder will increase from 28.1 million in 2010 to 43.8 million in 2050. The number of women with urinary incontinence is expected to increase 55 percent from 18.3 million to 28.4 million. The number of women with pelvic organ prolapse will increase 46 percent from 3.3 to 4.9 million. With this increase in prevalence, the need for multidisciplinary, evidence-based care will become even more critical.

For the first time at the UW School of Medicine and Public Health, members of the Department of Urology, Urogynecology and Colorectal Surgery are combining efforts to create a Women’s Pelvic Floor Center. The Center offers a personalized, multidisciplinary approach to help women navigate through the diagnosis and treatment of pelvic floor disorders. Specialists with a common focus in female pelvic health combine their expertise by sharing information on best practices and developing new approaches to patient care. Patients reap the benefit of this collaborative approach with more advanced treatment options. Rather than asking patients to navigate through a variety of specialty clinics, the Center brings UW Health specialists to them and provides seamless, patient-centered, compassionate care.

Urinary incontinence is the most common pelvic floor disorder and several studies have documented the negative impact of women’s quality of life with higher depression and anxiety scores routinely noted. Non-surgical treatments for incontinence, such as physical therapy and exercise with the use of biofeedback, behavioral therapy and device use such as an incontinence pessary are often successful. However, many patients have stress or urge incontinence, or a combination of the two, and their cases may be too severe for simpler therapies. One of the current strengths of the UW Health Urology Program lies in its ability to accurately diagnose the origin of the patient’s incontinence before initiating a treatment plan and then to tailor that plan to the individual patient. Using a state-of-the-art video-urodynamics suite, complex assessment of bladder storage and emptying ability can be performed. Accurate diagnosis leads to better outcomes. For stress incontinence problems, UW Health urologists offer retropubic and transobturator mid-urethral slings, as well as pubovaginal or fascial slings which can address more complicated or refractory forms of incontinence. For urge incontinence, many patients have significant improvement with behavior modification or simple medical management. For those who fail to respond, UW Health offers neuromodulating therapies with both sacral neuromodulation and the intravesical injection of Botox®. Botox® is FDA approved for use in patients with neurogenic detrusor overactivity.

The Women’s Pelvic Floor Center offers a personalized, multidisciplinary approach to help women navigate through the diagnosis and treatment of pelvic floor disorders.

UW Health urologists currently provide all aspects of pelvic organ prolapse care. Surgery for pelvic organ prolapse is performed by urologic surgeons with specialized training in the field of female and vaginal surgery. Repair is tailored to the individual patient and can be performed both transvaginally and transabdominally. The Department of Urology offers treatment via robotic surgery. Traditional open abdominal sacrocolpopexy has been shown to be a durable and successful method of repairing symptomatic prolapse while maintaining vaginal depth and length. The techniques utilized in open surgery have been adapted to robotic sacrocolpopexy. Robot-assisted sacrocolpopexy offers a minimally invasive approach with several technical advantages for the surgeon, including enhanced visualization with magnification. Because robotic sacrocolpopexy avoids the need for a large abdominal incision, women undergoing the procedure experience a less painful recovery with a faster return to normal activity than is possible with open surgery.

The Department of Urology has some of the most experienced surgeons in complex pelvic floor reconstruction for problems such as vesicovaginal fistula, damage due to prior radiation therapy and complications related to prior prolapse surgeries. The UW Health team has experience in handling the most complex vaginal mesh removal cases and vaginal repair of vesicovaginal fistulas. The vaginal approach offers minimal pain and shorter recovery compared to the open transabdominal approach that is traditionally used. With the vaginal approach, the majority of patients spend less than 24 hours in the hospital post-operatively.
Drs. Wade Bushman and Sarah McChran discuss advanced treatment options available to patients at the UW Health Women’s Pelvic Floor Center. This collaborative patient-centered approach brings specialists together to meet the individual diagnosis and treatment needs of women with pelvic floor disorders.
Hippocrates, frequently dubbed the founder of modern medicine, famously said “Let food be thy medicine and medicine be thy food.” Recognizing the value of nutrition in urologic care, UW Health urologists actively promote clinical nutrition interventions to their patients and support a vibrant nutrition research program.

Nutrition research is focused largely on nutritional approaches to prevent kidney stone recurrence, an area for which nutrition research to validate and inform best clinical practice has historically been lacking. Nutrition research in the Department of Urology is multifaceted and includes epidemiologic and observational studies, food and supplement analysis, animal research and clinical interventions.

Members of the Department were the first to publish decrements in the health-related quality of life of stone formers and recently developed an instrument to assess the quality of life of stone formers. In collaboration with animal science experts, Department researchers piloted a nutritional intervention in swine that has resulted in the formation of kidney stones, never before reported in pigs. This may evolve into a reliable animal model for the study of urolithiasis. Utilizing historical electronic medical records and population data from a regional epidemiologic database, the Department reported increased incidence of kidney stones with a narrowing of the gender gap.

Much of the Department’s nutrition research stems directly from patients’ needs and is aimed at optimizing the quality of their urologic care. After noting an increase in patients with kidney stones who had undergone a specific type of gastric bypass surgery commonly used to treat obesity, researchers collaborated with a bariatric surgeon to document the kidney stone risk factors in this population. In response to a several month wait time for appointments in the UW Health Metabolic Stone Clinic, the Department piloted shared medical appointments for patients new to the clinic, decreasing by half the wait time from patients’ initial stone event to follow-up. In a collaborative study with Department of Medicine faculty, the Department of Urology found that vitamin D repletion for vitamin D insufficiency/deficiency does not increase urinary calcium excretion, contrary to conventional thought, and thus may not increase patients’ risk for forming calcium stones.

Recognizing the value of nutrition in urologic care, UW Health urologists actively promote clinical nutrition interventions to their patients and support a vibrant nutrition research program.

In other studies, Department researchers have confirmed the effectiveness of specific nutrition therapy to reduce patients’ urinary oxalate excretion and calcium oxalate supersaturation; identified lemon and lime juice as sources of citrate, an inhibitor of calcium stones; characterized patients’ attitudes toward medical management of their stones; evaluated the accuracy of 24-hour urinary stone risk parameters, a key diagnostic tool used in medical management; and identified specific components of patients’ diets that contribute to their stone recurrence risk.

Dr. Kristina Penniston explains how drinking lemonade or lemon juice can help prevent kidney stones. Both contain a citrate that helps prevent the build-up of calcium oxalate, the substance that forms kidney stones.
The UW Health Pediatric Urology Program has a long tradition of providing outstanding care and contributing to the success of the overall urology residency training program, which has moved to the top tier in training programs and has successfully recruited some of the best and brightest specialists in urology. My goal as the first Division Chief is to have the Pediatric Urology Program achieve that same level of recognition.

The timing for pediatric urology could not be better with UW Health focusing on expanding the services at American Family Children’s Hospital. Clinically, the hospital is ranked in the top 50 centers nationally for pediatric urology. With strong departmental support, UW Health’s integration and alignment of academic and clinical missions, along with the emphasis on social responsibility and providing “the right care to the person at the right time” we have significant opportunity to grow. Our priorities include partnering with other pediatric specialists to develop team approaches to complex problems, remodeling facilities to better serve our patients, developing educational programs that rely heavily on independent learning and simulation, and bolstering the research program.

UW Health is recognized as a national leader in quality and safety so it is a natural fit for my interest in quality improvement, improving efficiency and controlling costs. Nationally, pediatric urology programs have focused on building teams of specialists to manage complex urologic problems, with most centers having one or two such programs. Our goal is to establish a larger number of disease-specific teams, develop quality monitors and improve the quality of care throughout our system. We will advance the health of children in our region by connecting improved quality to improved efficiency and cost savings. Utilizing the electronic health record as a tool to advance our program throughout the system will be crucial to the successful quality outcome projects.

Pediatric urology will continue to play a major role in the UW School of Medicine and Public Health’s education programs and spearhead new learning techniques. As leaders of the school’s new clinical simulation facility, we will contribute to new learning opportunities for the entire medical team, including clinical staff, medical students, residents, fellows and faculty.

Meanwhile, our Pediatric Urology Research Program is being reconstituted with a focus on quality outcomes, management of complicated pediatric urologic problems and review of the focused program results.

It is a privilege to lead this successful division as we enthusiastically reach for new heights, clinically and academically. Our physician faculty and advanced practice providers, with the support of a tremendous patient care and academic team, look forward to a bright future.

Patrick H. McKenna, MD, FACS, FAAP
Professor and Chief of the Division of Pediatric Urology
The pediatric urology program at American Family Children's Hospital offers comprehensive diagnostic, evaluation and treatment options in an environment both vibrant and comforting for its pediatric patients. The pediatric urology team including Drs. Bruce Slaughenhoup and Patrick McKenna and nurse practitioners Ann Byrne and Patricia Thaker, is committed to providing compassionate and unsurpassed state-of-the-art care for the youngest of patients.
pediatric urology in the Department of Urology at the UW School of Medicine and Public Health continues to evolve to meet the needs of the youngest patients. The care team is growing, facilities have been upgraded and new clinical programs have been added while improving upon the strength of existing ones. The expanded program at American Family Children’s Hospital offers state-of-the-art care in all aspects of pediatric urology, with the goal of being an extension of the many physicians in the region who take care of these patients. The Department is working to break down barriers of insurance, geographic separation and economic factors to allow all children access to specialized treatments that harness the power of UW Health’s academic endeavors to provide unsurpassed patient care.

Quality outcomes are one of the most important deciding factors for patients who select UW Health. The pediatric urologists are fortunate to be practicing in a children’s hospital that has top programs in overlapping specialties of nephrology, endocrinology, radiology, emergency medicine, maternal fetal medicine, pediatric infectious disease, neonatology and general pediatrics. UW Health also utilizes one of the best electronic health record systems in the country. The highest quality pediatric care comes from working in teams of physicians employing best practices throughout the entire system.

UW Health pediatric urologists collaborate with other UW Health subspecialists to develop and implement best practices to improve quality and efficiency in six key areas.

The first focus area includes lower urinary tract dysfunction, urinary tract infections and vesicoureteral reflux. These problems affect more than 10 million children in the United States. The Department of Urology introduced a nationally recognized noninvasive continence program that utilizes new approaches to managing these problems using noninvasive studies and computer games. This program significantly lowers urinary tract infections, decreases the need to surgically correct vesicoureteral reflux by 95 percent and is successful in curing lower urinary tract dysfunction in close to 100 percent of children, with less than 10 percent requiring medication. This continued cutting-edge research will keep UW Health at the forefront of care.

The Department’s second focus area is the renal calculi program which broadens a successful multispecialty group to involve radiology, emergency room physicians, pediatricians and other primary care physicians. UW Health will be working to streamline care, decrease intervention, decrease radiation exposure, decrease patient discomfort and provide patient education.

The third area of focus is complex pediatric urologic surgical reconstruction, which involves multiple specialties including anesthesia, plastic surgery and orthopedics. Most of these problems require long-term care and a strong relationship with the team involved.

The fourth focus area is management of genitourinary tumors. A growing team of subspecialists is working together to spare kidney and bladder function while minimizing radiation and chemotherapy. UW Health is extremely lucky to have one of the top pediatric oncology groups to help manage children with these mostly curable problems. The focus is now on decreasing complications from treatment that may occur later in life.

The fifth area of focus is to expand the current multispecialty team dealing with disorders of sexual development (DSD). This area has advanced significantly and new team approaches are essential.

Finally, a critically important team is focused on the management of antenatally identified urologic problems, which are present in approximately one percent of all pregnancies. Most of these problems can be managed with outpatient evaluation and seldom require surgery. Working with UW Health maternal fetal medicine physicians in the Department of Obstetrics and Gynecology is critical to appropriate postnatal care.

These six teams each develop specific recommendations of care that focus on decreasing invasive studies and surgical procedures, limiting medication use, decreasing pain, streamlining patient visits, measuring outcomes, improving efficiency and becoming nationally recognized as the model of pediatric urologic clinical care. All areas will utilize the power of UW Health’s top-rated electronic health record system to identify and provide recommendations to physician groups in the system as they identify children with these problems.
Who once said, “Every important question in medicine has been answered, often incorrectly?”

The challenges confronting our patients are nothing new: infection, cancer, kidney stones, congenital abnormalities and genitourinary symptoms associated with aging. These conditions have been with us for millennia. What has changed is the advent of new and effective treatments: antibiotics, robotic surgery for cancer, minimally invasive surgery for stone disease, reconstructive pediatric surgery and new medications like Viagra. The thread that ties all of these together is that they came about through research. Who does this research? Why do they do it? How does it happen?

The man who loves his job never works a day in his life. (Confucius)
People who do medical research do it because they love to ask questions, to investigate, to make a difference in the lives of people. They are physicians like Drs. Jarrard, Nakada, Abel, Downs, Best and Williams. They are basic scientists like Drs. Ricke, Penniston and Hopkins. They are the graduate students and post-doctoral fellows, study nurses and coordinators.

Do not believe anything merely on the authority of your teachers. (Buddha)
Researchers are people who challenge the status quo. They challenge existing paradigms to create opportunities for new and better treatment. The Department of Urology is home to more than 40 active clinical trials and basic science research studies.

Chance favors the prepared mind. (Pasteur)
Research progress is uneven and unpredictable. Over the long haul, however, persistence always pays off. When talented people, hard work, indefatigable spirit, critical thinking, adequate funding and resources come together, good things just seem to happen. Sometimes it’s as simple as a hallway conversation. My laboratory recently received funding from the National Institutes of Health to perform basic research studies of the vascular supply of the mouse prostate and its role in conditions of inflammation and abnormal growth. As part of our work, we were interested in comparing the vascular supply of the mouse and human prostate. One day between cases in the OR, I popped down to the Interventional Radiology section to ask if they had angiographic studies showing the vascular supply to the human prostate. One of their new faculty members began telling me his idea for a new, minimally invasive vascular treatment for men with bladder obstruction from very large prostates. This is now in the planning stage and will become a reality. That is how research happens.

Wade Bushman, MD, PhD
Vice Chairman for Research
Robert F. and Dolores K. Schnoes Professor of Urologic Research
To improve health as a population, key scientific discoveries must be translated into real-world applications. Such scientific discoveries commonly begin at “the bench” with basic research in which scientists study various diseases at the molecular level. These findings then progress to the clinical or “bedside” level. Translational research takes key discoveries from the bench, applies them to the clinic and then returns them back to the bench forming a complementary and dynamic cycle. The goal of translational research is to improve patient care. In the Department of Urology at the UW School of Medicine and Public Health, faculty and staff are committed to discovering how pathogenesis occurs and how to better treat it. Researchers utilize the latest technologies in state-of-the-art laboratories and hospitals to perform outstanding translational research.

Translational research is a must to curing and preventing disease. Clinical departments such as the Department of Urology are at the forefront of translational research.

One of the federally funded translational research projects being performed uses selective estrogen receptor modulators (SERMs). SERMs have been used previously to treat breast cancer and osteoporosis. However, the effects of SERMs in urological tissues are less clear. Dr. William Ricke, the lead investigator in the SERM project, and his colleagues are working from the bench to determine how estrogens promote cancer and other diseases in mice. Specifically, Dr. Ricke and his team are evaluating how various estrogens bind to specific estrogen receptors to cause and promote urologic diseases, and how therapeutic SERMs may be used to interfere with this process. Future clinical trials using SERMs in prevention of cancer progression are being planned.

Over the past seven years, Dr. Ricke’s laboratory has led the study of estrogens in urologic pathologies. Through translational research, his team believes they can make breakthroughs more quickly and start clinical trials to validate their preclinical findings. According to Dr. Ricke, “Translational research is a must to curing and preventing disease. Clinical departments such as the Department of Urology are at the forefront of translational research.”

The accomplishments and efforts of the urology translational research teams are a cornerstone to the Department’s research efforts. UW Health physicians have treated and cured many patients throughout the region and world and are developing tomorrow’s cures today. As such, the Department of Urology research funding continues to increase and many of our researchers have both federal and private funding. Many of the Department’s translational researchers and faculty are also world leaders in the field of urology.
Conducting research, in addition to a full surgery and clinic schedule, is challenging, and historically there has been a separation between clinical practice and research. Frequently, research findings had little impact on the day-to-day work of clinicians. Times have changed however, and the demand has shifted toward clinical research that is driven by the clinical needs of patients. In addition, clinical research must demonstrate effectiveness of clinical and surgical practices and improve the overall quality and cost-effectiveness of patient care. The involvement in clinical research of “front-line” urologists and other urology providers is critical.

The demand has shifted toward clinical research that is driven by the clinical needs of patients. In addition, clinical research must demonstrate effectiveness of clinical and surgical practices and improve the overall quality and cost-effectiveness of patient care.

At the forefront of this new paradigm are Department of Urology faculty and staff who actively collaborate with basic science and other researchers and who initiate their own clinical investigations. Some UW Health urologists conduct basic science research. Findings from these studies are crucial to understanding mechanisms of disease.

Thanks to motivated faculty, staff and trainees, there is a growing body of dynamic clinical research projects in female urology, urologic cancers, kidney stones, male infertility and sexual health and in the development and use of minimally invasive surgical tools and techniques. The number of clinical research studies in the Department is higher than ever and includes epidemiologic and population studies using UW Health patient data or larger patient databases, meta-analyses of specific research literature, systematic surveys of both providers and patients regarding surgical and clinical practices and their outcomes, retrospective audits and reviews of internal clinical and surgical practices, reports of outcomes of various surgical and medical interventions, comparisons of surgical techniques or instruments, controlled and/or randomized interventions and clinical trials involving drug or device development.

Clinical investigators in the Department partner with collaborators on the UW-Madison campus and at other institutions and receive funds from the National Institutes of Health (NIH), disease-specific research foundations, professional associations, sources within UW-Madison, UW Health and industry. Urology residents, fellows, medical school students and undergraduate students looking for research opportunities are integrally involved in much of this work.

Examples of recently reported or ongoing clinical research:

**Urinary continence and infection**
- Meta-analysis of literature on complication rates of slings used in urinary incontinence treatments
- Effect of dried cranberries on urinary tract infection recurrence in women and on gastrointestinal bacterial profile
- Evaluation of trends and knowledge in primary care treatment of overactive bladder

**Prostate cancer**
- Determination of the role of operative time length as an independent predictor of risk for venous thromboembolism in patients undergoing robot-assisted radical prostatectomy; review of hospitals’ self-reporting of risks from robot-assisted laparoscopic prostatectomies
- Effect of medical management on urinary continence and quality of life after robot-assisted prostatectomy
- Effect of vitamin D and genistein (a soy-derived isoflavone) on early stage prostate cancer
- Effect of chemotherapy alone or chemotherapy plus hormone therapy on hormone-resistant prostate cancer

**Renal and bladder cancers**
- Practice patterns of urologists in the U.S. with respect to ablation of small renal masses
- Identification of a novel critical risk factor, the neutrophil-lymphocyte ratio, that predicts upstaging for bladder cancer
- Effect of polyphenon E (a green tea-derived antioxidant) on risk for bladder cancer

**Men’s health**
- Audit of surgical outcomes for microsurgical denervation of the spermatic cord in the treatment of chronic testicular pain

**Kidney stones**
- Development of an automated technique to better estimate renal stone burden by assessing calculi volume
- Determination of normal reference ranges for urinary risk factors for kidney stones in children
- Assessment of patient attitudes toward management of kidney stones and of health-related quality of life and development of the first disease-specific instrument to assess stone patients’ quality of life
- Effect of a behavioral intervention in patients with recurrent kidney stones on clinical outcomes
The Department of Urology is a leading academic program that offers innovative research, teaching and learning opportunities. Dr. Kristina Penniston participates in a weekly Department research group meeting. Faculty and research staff, as well as medical students, residents and fellows attend the weekly meetings to report research findings, discuss ideas, resolve issues related to research and to solicit input regarding strategies and analysis of data.
Strengthening Our Academic Mission

The academic mission of the Department of Urology at the UW School of Medicine and Public Health has been enhanced considerably by four families. Seven high-impact endowments stem from their generosity. These gifts will benefit the Department’s work in perpetuity.

**UEHLING LECTURESHP**

The Uehling Visiting Professor Fund was established to honor Dr. Uehling and his contributions to pediatric urology and the urology program at UW. The income from this fund is used to sponsor a guest lecturer to headline the annual Uehling Lectures. This day-long event is an intensive update on developments in urology, including clinical and research advances. Since 2001, the Uehling Lectures have experienced growing popularity among urologists and other clinical staff from around the region.

**Uehling Visiting Professors**

Anthony Atala, MD  
Peter Carroll, MD, FACS  
Ralph Clayman, MD  
John Grayhack, MD  
Louis Kavoussi, MD  
Eric Klein, MD  
John Libertino, MD  
Edward Messing, MD  
Alan Partin, MD, PhD  
Margaret Pearle, MD, PhD  
William Steers, MD  
Darracott Vaughan Jr., MD  
Richard Williams, MD

**LIVESEY PROFESSORSHIP IN UROLOGY**

John P. Livesey is the founder of the Livesey Company, a successful family-owned real estate business that has developed commercial properties throughout Wisconsin for the past 50 years. In gratitude for his successful cancer treatment, John endowed a chair in urologic oncology with the hope of transforming prostate cancer diagnosis and treatment.

David F. Jarrard, MD, is the John P. Livesey Professor of Urologic Oncology. Dr. Jarrard is a successful physician scientist who is on the cutting edge of his field in surgical and medical treatment of urologic cancers as well as prostate cancer research. The income from this endowment allows Dr. Jarrard to pursue new advances that expand his work beyond the scope of his grant-funded projects.
SCHNOES PROFESSORSHIP IN UROLOGY
Robert (Bob) and Dolores (Jinx) Schnoes owned Ultrasonic Power Corporation for 27 years. Their company developed, manufactured and sold precision ultrasonic washing equipment to global customers in industries such as aerospace, medical, pharmaceutical and manufacturing.

Bob and Jinx were pleased with the outstanding care UW Health provided for Bob and they wanted to make a gift that would help others. In 2006, they established this endowment to provide a margin of excellence through incremental funding for innovative urologic research. Their hope was that this research would provide insights into urologic diseases and treatments, and help find new ways to identify and eliminate cancer cells.

Wade Bushman, MD, PhD, is the Robert F. and Dolores K. Schnoes Professor of Urology. The income from this endowment is critical to Dr. Bushman’s ability to study novel research questions that pave the way for new breakthroughs. Bob passed away in 2012 but his legacy lives on.

ROBERT F. SCHNOES MEMORIAL UROLOGIC CANCER RESEARCH FUND
The Schnoes family established this fund in 2012 as a way to honor Bob’s memory and to augment this important research.

SCHNOES LECTURESHIP
The Robert F. Schnoes Lecture Series Fund was established through a generous donation by Bob and Jinx Schnoes. The income from this fund supports an annual lecture by a visiting professor with expertise in an area of urologic cancer treatment or research. Thanks to this endowment, the Department is able to host nationally prominent clinicians and researchers who share the latest cancer knowledge with UW faculty, residents and medical students.

Schnoes Visiting Professors
Wade Bushman, MD, PhD
Robert Flanagan, MD
Robert Uzzo, MD, FACS
Chris Wood, MD, FACS

LESCRENIER LECTURESHIP
Charles (Les) and Margaret (Peggy) Lescrenier established this endowment in 2010 to support an annual lectureship in the Department of Urology focused on an area of urologic disease. According to Peggy, “Charles’ life was saved in 2002 by surgery to remove a cancerous kidney. Dr. Stephen Nakada was the surgeon and Charles lauded him for saving his life.” Charles Lescrenier was a radiological physicist, teacher and researcher whose academic career was marked by positions at MD Anderson Hospital in Houston, Yale University, the Royal Marsden Hospital in London, Marquette University and the University of Chicago Medical School.

Lescrenier Visiting Professors
Robert Bahnson, MD, FACS
Hunter Wessells, MD, FACS

Charles was a Fellow of the American Association of Physicists in Medicine and the American College of Radiology and an honorary member of the American College of Medical Physics. He founded Gammex in 1969 to manufacture a device he invented to align medical imaging equipment using lasers. Charles earned 16 patents over the years and started several companies with Peggy. They have served an extensive list of professional and community organizations by giving their time and as philanthropists with a focus on medical research. Charles died peacefully on May 7, 2011. Peggy still serves on the Department of Urology Advisory Board and remains active as a philanthropist and advocate.

Margaret (Peggy) Lescrenier

Robert (Bob) and Dolores (Jinx) Schnoes
here are many opportunities to support the Department of Urology. We are deep
ly grateful for the generosity shown to us by our benefactors and many
contributors.

Wisconsin Urologic Research Institute
In 2012 the Department of Urology unveiled ambitious plans to create a urologic research institute to expand the Department’s large-scale basic science and translational research, despite shrinking funding from federal health agencies. We are in the process of fundraising to establish a large endowment whose income will fund research “grants” to support medium- to large-scale projects. Questions should be directed to the UW Foundation Director of Development at the Department of Urology at (608) 262-0043 or e-mail development@urology.wisc.edu.

Endowed Professors and Chairs
These funds allow the Department of Urology to recruit and retain top-notch faculty researchers. A named faculty position is a perfect way to bestow an honor on a worthy individual, while creating an everlasting source of academic progress and honoring the memory of the donor eternally.

Endowed Lectureships
These named funds directly advance the knowledge of our entire faculty and staff in an immediate and continuing way.

Mission Specific Funds
The Department of Urology has established funds for general support of each of our mission areas. We welcome one-time and annual gifts of all sizes. These funds provide incremental opportunities for our faculty, staff and trainees and are an important part of our philanthropic efforts. Every contribution makes a difference and the aggregate effect of multiple donors is substantial.

Urology Research and Education Fund
Urology Conference and Lecture Fund
Urology Scholarships and Awards
Urology Research Fund
Urology Residency Education Fund

Urology Medical Student Education Fund
Urology Discretionary Fund
(Used for Area of Greatest Need)

Gifts should be made payable to the UW Department of Urology and may be sent directly to:
UW Department of Urology
Development Director
1685 Highland Avenue, Room 3200
Madison, WI 53705

Online Gifts
You may also support the UW School of Medicine and Public Health Department of Urology through an online credit card gift at uwhealth.org/urologytoday.

For More Information
To learn more about how you can support our programs of research, education and patient care, please contact the UW Foundation Director of Development at the Department of Urology at (608) 262-0043 or e-mail development@urology.wisc.edu.
The Wisconsin Institutes for Medical Research (WIMR) opened its first tower in September 2008. The building itself is designed to encourage scientific collaboration and combine clinical and basic research talent to address medicine’s most complex questions. WIMR’s location, adjacent to UW Hospital and Clinics and American Family Children’s Hospital, allows scientists in the Department of Urology the opportunity to easily interact with their clinical colleagues and patients.

(Left to Right) Front Row: Granville Lloyd, MD; E. Jason Abel, MD; Tracy Downs, MD; David Jarrard, MD; Daniel Williams IV, MD; Stephen Nakada, MD; Sarah McAcchran, MD; Timothy Moon, MD; Bruce Slaughenhoupt, MD; John Wegenke, MD; Second Row: Andre King, MD; Sara Best, MD; Daniella Gery, APNP; Kristina Penniston, PhD, RD; Suzette Thompson, PA-C; Theresa Holnagel, PA-C; Ann Byrne, APNP; Crystal Dover, MD; Kelvin Wong, MD; Walter Hopkins, PhD; Stephen Hall; Third Row: William Ricke, PhD; Anne Walsh, PA-C; Bunmi Kumapayi, APNP; Jenna Brink, PA-C; Barbara Lewis, RN; Inge Tamm-Daniels, MD; Ore Ogungbemi, MD; Lauren Wagner, MD; Aaron Potretzke, MD

Not Pictured: Reginald Bruskewitz, MD; Wade Bushman, MD, PhD; Andrew Graf, MD; Richard Graf, MD; Sean Hedican, MD; John McGetrick, MD; Patrick McKenna, MD; David Paclone, MD
Editors
Jane M. Miller
Anne V. Pankratz

Art Direction and Graphic Design
Lori B. Saffian

Photography
John M. Maniaci
Bob Sofaly Photography (page 24, left)
C&N Photography (page 24, right; page 25, left)
Focal Flame Photography (page 6)
Narayan Mahon Photography (page 3)

Graphic Production
Michael R. Lemberger

Contributors
Sara L. Best, MD
Wade Bushman, MD, PhD
Tracy M. Downs, MD
Stephen J. Hall
David F. Jarrard, MD
Sarah E. McAchran, MD
Patrick H. McKenna, MD, FACS, FAAP
Stephen Y. Nakada, MD, FACS
David R. Paolone, MD
Kristina L. Penniston, PhD, RD
William Ricke, PhD
Daniel H. Williams, IV, MD

Special Thanks to
Tricia A. Maier
Department of Urology
administrative and clinical staff
For more information, please visit uwhealth.org/urologytoday and connect with us at facebook.com/wiurology