

Urology Faculty

**Clinical Faculty**

James E. Montie, MD  
Professor (Head)  
Specialty: Urologic Oncology

William D. Belville, MD  
Associate Professor  
Specialty: General Urology

David A. Bloom, MD  
Professor  
Specialty: Pediatric Urology

Joseph C. Cerny, MD  
Clinical Professor  
Specialty: General Urology

Gary J. Faerber, MD  
Associate Professor  
Specialty: Endourology,  
Female Urology

Harry P. Koo, MD  
Assistant Professor  
Specialty: Pediatric Urology

Edward J. McGuire, MD  
Professor  
Specialty:  
Female Urology, Neurourology

Dana A. Ohi, MD  
Associate Professor  
Specialty: Infertility,  
Sexual Dysfunction

John M. Park, MD  
Assistant Professor  
Specialty: Pediatric Urology

Martin G. Sanda, MD  
Associate Professor  
Specialty: Urologic Oncology

David C. Smith, MD  
Associate Professor  
Specialty: Medical Oncology

John T. Wei, MD  
Assistant Professor  
Specialty: General Urology

J. Stuart Wolf, MD  
Assistant Professor  
Specialty: Endourology,  
Urologic Laparoscopy

**Research Faculty**

Kathleen A. Cooney, MD  
Assistant Professor

Mark L. Day, PhD  
Assistant Professor

Jill A. Macoska, PhD  
Assistant Professor

Kenneth T. Pienta, MD  
Professor

Mark A. Rubin, MD  
Assistant Professor

**For comprehensive information** about the University of Michigan Section of Urology faculty, activities and facilities, visit our website at : <http://www.urology.med.umich.edu/index.html>

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Section of Urology**

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Silver Cystoscope is published by the Section of Urology at the University of Michigan to update donors, friends, alumni, Michigan urologists, and academic urology colleagues around the country on current events in Ann Arbor. It is named after the Silver Cystoscope Award presented annually by the chief residents to faculty members for excellence and outstanding contributions in teaching



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Silver Cystoscope

SECTION OF UROLOGY • UNIVERSITY OF MICHIGAN HEALTH SYSTEM

Laparoscopic Donor Nephrectomy

Laparoscopy had its beginnings in the early 1900's in Europe, when a hollow metal tube with simple optics was placed into the abdominal cavity for inspection of organs. By the middle of this century, techniques for inflation of the abdomen with carbon dioxide gas and placement of the telescope had become standardized. Until the late 1980's, laparoscopy remained primarily a diagnostic tool, although gynecologists were performing some minor procedures, such as tubal ligation. Removal of a gall bladder using laparoscopy, first reported in France in 1987, introduced the current era of interventional surgical laparoscopy. Equipment manufacturers responded to the demand with advanced optics and new instrumentation that have allowed surgeons over the last decade to perform virtually every abdominal operation using laparoscopic techniques. Laparoscopic removal of the kidney (nephrectomy) was first reported by Dr. Ralph Clayman in 1990. The first series of laparoscopic donor nephrectomies (the removal of a kidney for transplantation into a recipient with renal failure) was reported by surgeons at Johns Hopkins University in 1995.

Over the past three and a half years, over 125 laparoscopic nephrectomies have been performed at the University of Michigan. Although we perform laparoscopic nephrectomy for kidney cancer, urothelial cancer, renovascular hypertension, obstruction, and chronic infection of the kidney, currently the most common reason for laparoscopic removal of a kidney at the University of Michigan is for renal transplantation. In this procedure, laparoscopic instruments combined with "hand assistance" are used to remove a healthy kidney from a volunteer donor for transplantation into a recipient with renal failure.

For live donor kidney transplantation, a volunteer donor undergoes extensive testing to insure his/her health and suitability of the kidney. If accepted by the transplant team, the recipient and donor go to the operating room on the same day. One surgical team removes the kidney from the donor, while the other team transplants this kidney into the recipient. The surgeon removing the kidney is faced with the dual responsibility of performing a safe operation on the donor, while providing a good kidney for the recipient. With the introduction of the laparoscopic approach to donor nephrectomy, a third charge has been added - that being the minimization of the pain and suffering that the kidney donor must endure. Some have suggested that the availability of a minimally invasive technique (laparoscopy) for the removal of the donor kidney might encourage more people to consider kidney donation.

The advantage of laparoscopy over open surgery is reduced pain and shortened recovery time for the patient. The incisions for laparoscopy are much smaller and in different locations than those required for open surgery. There is less scarring on the abdomen and less pain from these different incisions. Because of this, the patient is able to get up and move around much sooner, and is able to return more quickly to normal activity. The "price" of these benefits to the patient is a more difficult operation for the surgical team. Laparoscopic surgery is technically more challenging than open surgery, and special training is required. Additional high technology instruments are necessary, and the operations generally take longer to perform.

If the laparoscopic approach to removal of the kidney has been selected, the patient takes a bowel preparation the day before the operation to make laparoscopic surgery safer. Laparoscopic removal of the kidney is performed under general anesthesia, so after the anesthesiologists administer medications to induce unconsciousness, a breathing tube is placed into the patient's mouth.

## Chariman's Note

This is the first newsletter from the Section of Urology, written to update Michigan urologists, University of Michigan (UM) alumni, and academic urology colleagues around the country on current events in Ann Arbor. Two topics that seem prominent to me are growth and change.

In the last few years, our research activity and patient volume have increased significantly. Currently the Section is composed of eighteen clinical and/or research faculty members, two fellows, and eighteen residents, thereby making the UM one of the largest full-time academic groups in the country. Our goal is to ensure an increase in quality as we increase our productivity.

Change is everywhere, and we are embracing it. During the 1998-99 academic year, the UM residency program added a year of basic science research at the PGY-4 level to complement its one year of general surgery and four years of clinical urology. The positive aspects of this change have been affirmed by a continuing rise in the academic caliber of the residents. We are fortunate to have bright residents who are also good people.

Urology research is changing dramatically with new technology. DNA microarrays, for example, allow thousands of genes to be examined on small tissue samples. The National Cancer Institute decided to produce the microarray gene chips for all prostate cancer SPORes (Specialized Program Of Research Excellence) here at the UM under Dr. Jill Macoska.

There are changes in clinical medicine as well. Laparoscopic procedures are becoming an increasingly integral part of urologic surgery here. In this issue, Dr. Stuart Wolf highlights the latest advancement in hand-assisted nephrectomies.

Finally, there is change all around us as business and government affect the delivery of medicine. Although the results have been particularly severe against academic health centers, the UM Health System has fared remarkably well; but we know that success - and sometimes even survival - remain a challenge in the future.

The growth in the Section at the UM has been rapid, but we remain focused, working within the boundaries set by the values important to each of us and by the mission of the UM regarding teaching, research, and patient care. The tasks we face as the scientific and administrative aspects of medicine change are sobering yet exciting. My personal opportunity for a leadership role in the urology group is a privilege that has provided unquestionable rewards. I have the blessing to be surrounded by colleagues and residents whom I respect and admire in many ways, and thus, growth and change do not seem so daunting.



James E. Montie  
Head, Section of Urology  
Valassis Professor of Urologic Oncology

**Please mark your calendar** for the bi-annual Reed M. Nesbit Society (Michigan Urology Alumni Association) Meeting hosted by the Section of Urology. The meeting this year will be held Friday and Saturday, September 8th and 9th, 2000. Friday's activities will include presentations from Nesbit Society members and current U of M Urology faculty, a luncheon, and dinner. Saturday's highlight will be a tailgate party prior to the UM vs. Rice football game. For more information, contact Dr. Gary Faerber at 734-936-5801.

## Publications

*The Section of Urology has been very productive in terms of research and publications during the last academic year. Some of the noteworthy ones are:*

**Beduschi, R., Beduschi, M.C., Wojno, K.J., Jung, M., Williams, A.L. and Wolf, J.S., Jr.:** Antifibrinolytic additives to fibrin glue for laparoscopic wound closure in the urinary tract. *J. Endourology*, 13:283 - 287, 1999.

**Goh, M. and Wolf, J.S., Jr.:** Almost totally tubeless percutaneous nephrostolithotomy: further evolution of the technique. *J. Endourology*, 13:177-180. 1999.

**R, Beduschi MC, Wojno KJ, Jung M, Williams AL, Wolf JS.t. J Endourol, 13:283 Moyad MA, Pienta KJ, Montie JE.** Use of PC-SPES, a commercially available supplement for prostate cancer, in a patient with hormone-naïve disease. *Urology*, 54(2):319, 1999.

**Montie JE, Pienta KJ.** A unifying model to explain the increased incidence and higher mortality of prostate cancer in black men. *Urology*, 53(6):1073, 1999.

**Sanda MG, Smith DC, Charles LG, Hwang C, Pienta KJ, Schlom J, Milenic D, Panicali Montie JE.** Recombinant vaccinia-PSA (PROSTVAC) can induce a prostate-specific immune response in androgen-modulated human prostate cancer. *Urology*, 53(2):260, 1999.

**Koo HP, Bunchman TE, Flynn JT, Punch JD, Schwartz AC, Bloom DA.** Renal transplantation in children with severe lower urinary tract dysfunction. *J Urol*, 161(1):240, 1999.

**Wei JT, Gross M, Jaffe CA, Gravlín K, Lahaie M, Faerber GJ, Cooney KA.** Androgen deprivation therapy for prostate cancer results in significant loss of bone density. *Urology*, 54(4):607, 1999.

**Cooney KA, Tsou HC, Petty EM, Miesfeldt S, Ping XL, Gruener AC, Peacocke M.** Absence of PTEN germ-line mutations in men with a potential inherited predisposition to prostate cancer. *Clin Can Res*, 5(6):1387, 1999.

**Day ML, Zhao X, Vallorosi CJ, Putzi M, Powell CT, Lin C, Day KC.** E-cadherin mediates aggregation-dependent survival of prostate and mammary epithelial cells through the retinoblastoma cell cycle control pathway. *J Biol Chem*, 274(14):9656, 1999.

**Panvichian R, Orth K, Pilat MJ, Day ML, Day KC, Yee C, Kamradt JM, Pienta KJ.** Signaling network of paclitaxel-induced apoptosis in the LNCaP prostate cancer cell line. *Urology*, 54(4):746, 1999.

## Honors & Awards

**Drs. Martin Sanda and Mark Day** received the 1999 Society for Basic Urologic Research (SBUR) Young Investigator Award.

**Dr. Robert Marcovich** received a First place in Basic Science Category at the Residents' Day Competition of the Michigan Urologic Society. His presentation was entitled "Enhanced attachment and proliferation of cultured human uroepithelial and urinary tract smooth muscle cells on surface-modified extracellular matrix coatings in vitro." Dr. Stuart Wolf mentored his project.

**Dr. John Park's** presentation, "Ketorolac suppresses the post-operative bladder spasm after intravesical ureteral reimplantation," was recognized as a finalist in the Clinical Research Essay Competition at the American Academy of Pediatrics Annual Meeting in Washington, DC.

New Faculty Profile

Joseph C. Cerny, MD  
Clinical Professor

Dr. Cerny returned to the University of Michigan as a Clinical Professor of Surgery in Urology after serving as the Chairman of the Department of Urology at the Henry Ford Hospital in Detroit, Michigan. He is a graduate of the University of Michigan Urology Residency Program and remained as a faculty in Ann Arbor prior to his tenure at the Henry Ford Hospital. He will be the Director of Urology at the Ann Arbor Veterans Administration (VA) Medical Center, playing an important role as a mentor to residents and enhancing the overall quality of care. In addition, Dr. Cerny will also provide outpatient urologic care at the University Hospital.



Joseph C. Cerny, MD

Edward J. McGuire, MD  
Professor

Dr. McGuire returned to Ann Arbor as a Professor of Surgery in Urology. As the Section Head, he was instrumental in leading the University of Michigan Urology Program to national prominence between 1983 and 1993. He then served as the Director of the Division of Urology at the University of Texas Health Science Center at Houston, Texas. Dr. McGuire brings back to Ann Arbor his world-renowned expertise in female urology, neurourology and urinary tract reconstruction while continuing to serve as the Associate Editor of the Journal of Urology and the Journal of Pelvic Surgery.



Edward J. McGuire, MD

John M. Park, MD  
Assistant Professor

Dr. Park completed his residency in urology at the University of Michigan and remained as an American Foundation for Urological Diseases (AFUD) research fellow until 1997. He then completed a fellowship in pediatric urology at the Children's Hospital in Boston and has rejoined the University of Michigan Section of Urology as an Assistant Professor. In addition to clinical urology, Dr. Park will also direct the pediatric urology research laboratory. He has been recently awarded a ROI grant by the NIH to study the role of inducible cyclo-oxygenase gene, COX-2, in bladder outlet-obstruction.



John M. Park, MD

John T. Wei, MD  
Assistant Professor

Dr. Wei completed his urologic training at the New York Hospital – Cornell Medical Center. After spending 2 years as a Robert Wood Johnson Clinical Scholar at the University of Michigan, he was promoted to Assistant Professor and will have clinical appointments at the Ann Arbor Veterans Administration (VA) Medical Center and the University of Michigan. He is the site Principal Investigator for the PIVOT trial at the Ann Arbor VA Medical Center whose aim is to determine if localized prostate cancer is best treated with surgery or observation. He is also the lead investigator for the Michigan Cancer Consortium's current initiative on prostate cancer.



John T. Wei, MD

New Residents

Herkanwal S. Khaira, MD

Dr. Khaira received his MD degree from the University of Southern California School of Medicine and earned the Bachelor of Arts degree in history from the University of California, Berkley. He graduated from the University of Southern California School of Medicine with Highest Distinction and was awarded membership in Alpha Omega Alpha medical honor society.



Herkanwal S. Khaira, MD

David C. Miller, MD

Dr. Miller received his MD degree from the Washington University School of Medicine and earned the Bachelor of Science degree in Biology from the University of Michigan where he graduated with Highest Distinction. He has been the recipient of numerous honors and awards during his undergraduate career including Richard S. Brookings Medical School Prize in recognition of outstanding performance in the medical school curriculum. He graduated as a member of Alpha Omega Alpha medical society.



David C. Miller, MD

Ronald S. Suh, MD

Dr. Suh received his MD degree from the Indiana University School of Medicine and earned the Bachelor of Science degree in Chemistry from the Indiana University. He was an active member of student leadership where he served as the Treasurer in the Indiana University School of Medicine Student Council and as the Student Representative for the Academic Standards Committee. He was also named as a Fort Wayne Center Outstanding Sophomore Medical Student Award for his academic achievement. He graduated as a member of Alpha Omega Alpha medical society.



Ronald S. Suh, MD

Retiring Faculty

William D. Belville, MD  
Associate Professor

Dr. Belville came to Ann Arbor in 1990 after his eleven-year tenure as the Chief of Urology at Madigan Army Medical Center, Tacoma, WA. During his time in Ann Arbor as Associate Professor, he was a tremendously valued faculty member in every aspect. He will be especially remembered for his untiring dedication to student and resident teaching. He also made significant contributions to the field of urology including urologic management of spinal cord injury patients, female incontinence, benign prostatic hyperplasia and prostate cancer. He was a recipient of the Silver Cystoscope Award for excellence in resident teaching. Dr. and Mrs. Belville will move back to their beloved home in Pacific Northwest, where he will continue to mentor students and residents.



William D. Belville, MD

John Konnak, MD  
Professor

After more than 30 years of distinguished career, Dr. Konnak retired from the Section of Urology this past summer. His tie with the University of Michigan began during the days of Dr. Reed Nesbit when Michigan urology was establishing its national preeminence. He completed the residency training in Ann Arbor and joined the faculty thereafter, being promoted to Professor in 1982. During his career, he trained numerous residents who are now scattered throughout the country in various academic and private practices. He was a recipient of Silver Cystoscope Award and Outstanding Achievement Award for his contribution to resident education and growth of the Section. His contributions to the field of urology are many including urologic oncology and renal transplantation. Despite his retirement, he will continue to perform donor nephrectomies to complement Dr. Stuart Wolf's contemporary laparoscopic approach.



John Konnak, MD

## The Search for Prostate Cancer Genes Continues . . .

Investigators at the University of Michigan initiated the Prostate Cancer Genetics Project (PCGP) in 1995 with the goal of defining genes involved in prostate cancer susceptibility. Led by Drs. Kathleen A. Cooney and James E. Montie, these researchers demonstrated that the gene locus HPC1 contributes to prostate cancer susceptibility particularly in families who fulfill one or more of the following clinical criteria: 1) men with prostate cancer in three consecutive genera-

tions, 2) three men with prostate cancer in a nuclear family (e.g. father and two sons), and 3) two men with prostate cancer diagnosed before age 55 years. The U-M PCGP researchers have been asked to contribute their data to the International Consortium for Prostate Cancer Genetics sponsored by the National Cancer Institute, and a combined analysis of over 700 prostate cancer families from throughout the world focusing on HPC1 has just been completed. The U-M PCGP team has also analyzed prostate cancer families for linkage to the newly recognized prostate cancer susceptibility gene on the X chromosome, HPCX, as well as other potential loci on chromosome 1.

The U-M PCGP investigators are continuing to recruit families in which 2 or more living members have been affected with prostate

cancer and also individuals who were diagnosed at age 55 years or younger, regardless of family history. Participants are not required to travel to Ann Arbor, and the cost of enrollment is covered by the research study.

Participants will be asked to provide medical and family history information, to contact other affected family members and to donate a small blood sample. For more information, please contact Kristin Brierley, U-M Prostate Cancer Genetics Project, via telephone at (734) 936-2031 or (800) 723-9170, or via email at kbrier@umich.edu.

## New Grant Funding

### *The Role of Stretch-Induced COX-2 in Bladder Contractility*

Sponsor: NIH-NIDDK  
Principal Investigator: John M. Park, M.D.  
Project Period: 09/99 – 8/04  
Total Budget: \$1,134,500

### *Urology Research Training Grant*

Sponsor: NIH  
Project Director: Kenneth J. Pienta, M.D.  
Project Period: 07/99 – 06/04  
Total Budget: \$ 841,000

### *Combined Prostate SPORE's DNA Microarray Research Project (Supplemental Award)*

Sponsor: NIH-NCI  
Project Director: Jill A. Macoska, Ph.D.  
Project Period: Annual renewal starting 09/99  
Total Budget: \$ 400,000 (for the 1st year)

### *Combined Prostate SPORE's Tissue Microarray Research Project (Supplemental Award)*

Sponsor: NIH-NCI  
Site Project Director: Mark A. Rubin, M.D.  
Project Period: Annual Renewal starting 09/99

### *The Contributions of 8p Loss and 8q Gain to the Malignant Phenotype in Human Prostate Tumors*

Sponsor: Department of Defense  
Principal Investigator: Jill A. Macoska, Ph.D.  
Project Period: 09/99 - 8/01  
Total Budget: \$81,271

### *A Phase III At Home Use Study Evaluating the Efficacy and Safety of Escalating Doses of Uprima in the Treatment of Patients with Erectile Dysfunction*

Sponsor: Tap Holdings  
Principal Investigator: Dana A. Ohl, M.D.  
Project Period: 08/99 – 07/00  
Total Budget: \$18,440

### *The Effects of Localized Prostate Cancer Intervention and Progression on Health Related Quality of Life*

Sponsor: University of Michigan Department of Surgery  
Principal Investigator: Martin G. Sanda, M.D.  
Project Period: 9/99-8/00  
Total Budget: \$23,802

### *Laparoscopic Donor Nephrectomy (Cont. from page 1)*

The operative area is cleansed with a sterilizing solution and the surgical team sterilizes their hands and dons sterile gowns and gloves. The patient's abdomen is inflated with carbon dioxide gas placed through a small tube into the abdomen, and then the additional tubes that are needed to hold the telescopes and instruments are inserted through incisions measuring from one-quarter inch to one-half inch in length. Anywhere from two to five incisions are necessary. Although in many cases removal of the kidney is per-



**Figure 1:** Surgeons left hand being introduced through hand-assistance sleeve that maintains pneumoperitoneum. Two laparoscopic ports are visible in the background. Laparoscopic procedures not requiring hand-assistance are performed only with instruments placed through three to five such ports.

formed with just these small incisions, in the case of live donor nephrectomy or removal of the kidney for certain cancers, the kidney must be removed intact. In these cases, a three-inch incision is made around the belly button and a special device is inserted that allows the gas to be maintained within the patient's abdomen while the surgeons can still work with laparoscopic instruments and the video monitor (Figure 1). This technique, called "hand-assisted laparoscopy," allows the surgeon to use the incision that must be made for removal of the kidney to his/her advantage throughout the entire operation rather than just at its conclusion. Having a hand in the abdomen in addition to the laparoscopic instrumentation allows the procedure to be performed more safely and more quickly (Figure 2).

Following the kidney removal, the patient is brought back to consciousness and observed in the recovery room for a few hours. A catheter is generally left in the bladder overnight to monitor the urine output, and a catheter also remains in an arm vein for administration of fluids and medications. The bladder catheter is removed the following morning, and the fluid bag is disconnected from the catheter in the arm vein once the patient is able to take in fluids by mouth. The post-operative pain from laparoscopy can be managed well with oral medications, but patients must stay in the hospital until they are able to tolerate food and oral medications without getting nauseated. The length of stay in the hospital following laparoscopic nephrectomy is determined primarily by how soon the

patient can eat without getting nauseated. For laparoscopic donor nephrectomy, usually performed in young, healthy individuals, this usually occurs on the first post-operative day and the patients are usually discharged on that day or the next day. For older patients or those having more complicated operations to remove large cancers, the hospital stay following the operation is usually two to three days. After discharge from the hospital, the patients are instructed to slowly resume their activity as limited by post-operative discomfort. If hand-assistance has been used, such that there is a three-inch incision at the belly button, patients are also asked to avoid any heavy lifting for four weeks. Additionally, a car should not be driven while oral narcotic medications are being taken. Most patients return to normal, non-strenuous activity seven to 14 days following the operation.

At the University of Michigan, we compared our first ten hand-assisted laparoscopic live donor nephrectomies with 40 open surgical nephrectomies performed over the same time period. Our results showed that the laparoscopic procedure took longer to perform, but that the patient benefited by requiring less pain medication post-operatively, having a shorter hospital stay, and by achieving more rapid return to activity at home. The transplanted kidneys that had been removed laparoscopically functioned just as well as those that had been removed by open surgery. On the basis of these encouraging results, we initiated a prospectively randomized comparison of the two procedures. This means that patients were offered either the laparoscopic or the open surgical approach, and that the

patients agreed that the choice of operation would be determined at random. By comparing two groups of patients who had their procedures chosen in this way, we can compare the results of the procedures much more accurately. This technique of a randomized prospective comparison is the gold standard for the assessment of any surgical or medical intervention. This study is still in progress at the University of Michigan.



**Figure 2:** Donor kidney about to be removed for transplantation being held by intra-abdominal hand placed through hand-assistance sleeve. In addition to the incision for the hand (and organ removal), two laparoscopic ports are used.