



FALL 2002

Minimally Invasive Surgery

THINKING SMALL YIELDS BIG BENEFITS

Many years ago urologists cut long incisions into the abdomen and lower chest to treat diseases of the urinary tract. Results were excellent, but the healing process was often slow. Incisions made through layers of muscle frequently took weeks to heal and left a substantial scar, even with the most skilled suturing.

Urology was the first surgical specialty to see the benefits of “thinking small,” using minimally invasive equipment to diagnose and treat diseases such as benign prostate enlargement in the 1930s. Endoscopes, threaded into organs through a body opening such as the urethra, and laparoscopes, inserted through small “port” incisions in the abdomen, are now used alone or in tandem to diagnose and treat a surprising variety of diseases.

In urology, laparoscopic and endoscopic approaches are now standard for treating diseases of the upper urinary tract—the kidneys, ureters and adrenal glands. The techniques have been adapted for use in children as well as adults. Surgeons are also exploring the use of minimally invasive procedures in the treatment of benign and malignant conditions of the lower urinary tract, including prostate cancer.

Streamlined Procedures

“The field of urologic surgery is redefining itself,” said UCSF Urology Department Chair Peter Carroll, MD. There is a healthy synergism at work, as the growth of laparoscopic capabilities has pushed surgeons to streamline open procedures. “There is an

overall push to refine surgical technique and anesthesia to reduce the morbidity of surgery. Surgeons may not have to resort to the most advanced laparoscopic techniques to substantially improve their outcomes,” according to Carroll. “Simply planning a smaller incision, using surgical loupes for magnification, or considering the post-operative use of new anti-inflammatory agents for pain relief can have great impact on the healing process and recovery, and shorten the return to work,” said Carroll.

The evolution in the surgical treatment of kidney stones is a striking demonstration of how minimally invasive techniques have transformed a common urological procedure, according to Marshall Stoller, MD, Professor of Urology and Chief of the Division of Endourology and Stone Disease. Traditionally, urinary stones were removed through open incisions. Techniques have evolved to approach them percutaneously through a small one cm incision. Miniaturization of endoscopes has now allowed us to access the kidney through the urethra and then venture up the ureter into the kidney. Lasers, pneumatic lithotripsy and other modalities allow one to break stones under direct vision.

Laparoscopic Kidney Removal

This minimalist trajectory is being copied as surgeons revamp other urological procedures. Kidney removal (nephrectomy) and adrenal gland removal (adrenalectomy) are now generally performed laparoscopically. More than 250 such procedures have been performed at UCSF. A recent study from the UCSF team showed that laparoscopic nephrectomy is safe even for inflammatory and infectious kidney

(see Minimally invasive on page 2)

UCSF UROLOGY

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Letter from the chair



Peter Carroll

As Chair of the Department of Urology at UCSF, I am pleased by the success that the department has achieved during the last year. This success is the product of an outstanding group of people dedicated to the goal of providing the best urological care, research and training. The enthusiasm shown by faculty, fellows, residents, administration and staff is both remarkable and admirable. In a time when the health care landscape continues to change rapidly, such success is not easy to achieve. UCSF is recognized as one of the best medical centers in the country and the best public medical center. This comes at a time when UCSF's research funding increased (third in the nation) and the hospital reported financial health. The Department of Urology ranks as one of the nation's very best. I am appreciative of such recognition.

Our research, clinical care and training programs continue to expand rapidly. We cannot review all of the department's notable efforts in any single newsletter. In this issue we will focus on novel efforts in minimally invasive surgery, a comprehensive renal cancer program, and new insights into the etiology and treatment of sexual dysfunction in men. Despite innovation in the fields of medicine and radiation oncology, much of human disease can be effectively treated only with surgery. Urologists, more than any other surgical discipline, have been leaders in surgical innovation. From endoscopy to percutaneous access, they have championed a revolution in surgical technique. Laparoscopy may be just one step in this revolution. Advances in biological imaging and therapy, small machine technology, and new energy sources will likely push this field even faster. We have made a major commitment to partner with scientists in academic institutions and industry to develop, validate and refine new surgical approaches.

I remain grateful to all who support our efforts here at UCSF: faculty, housestaff, staff, our advocates and very importantly, the community physicians with whom we have had the privilege of working.

Peter R. Carroll, MD, FACS
Professor and Chair
Department of Urology
Ken and Donna Derr-Chevron Chair in Prostate Cancer

(Minimally invasive from page 1)

conditions. Nephrectomy is most often performed, however, for kidney cancer. UCSF surgeons are also performing partial nephrectomy using this approach in selected patients.

UCSF urologist Chris Kane, MD, who heads urology at the San Francisco Veterans Affairs Medical Center, is a specialist in oncologic applications of minimally invasive surgery.

"It's amazing how my practice has changed in the last five years," says Kane, who joined the faculty in 2001 and has expanded availability of minimally invasive techniques. It is now rare to remove a kidney or adrenal gland with open surgery, except for very large or complex tumors, according to Kane.

Stoller and his endourology team have also worked with UCSF's kidney transplant service to offer laparoscopic nephrectomy to individuals who are serving as kidney donors. More than 125 donor kidneys have been removed in this way at UCSF.

Minimalist Approaches to the Prostate

Prostate cancer treatments are also becoming less invasive. UCSF urologists are exploring laparoscopic radical prostatectomy, a technique developed by French surgeons. The procedure requires four 1 cm puncture incisions and one 2.5 cm incision. Kane's experience with the technique is growing, as he monitors the patients rigorously to objectively measure outcomes. "We want sexual and urinary function and cancer control to be

equal to what we achieve with open surgery, and we also would like to see a quicker recovery," said Kane. "We're excited about the possibilities."

Percutaneous and transurethral techniques are being used increasingly to treat benign and malignant prostate diseases. Katsuto Shinohara, MD, is using radiofrequency energy (TUNA) to destroy enlarged, but nonmalignant prostate glands. Together with radiation oncologists Mack Roach III, MD, I-Chow Joe Hsu, MD, and Joycelyn Speight, MD, Shinohara has treated more than 500 patients with localized cancer with radioactive seed implants.

Not Just for Adults

Pediatric urology has also benefited from the growth in minimally invasive technology. While laparoscopic pro-

cedures have significantly decreased length of hospital stay in adults, that is not the main force driving its use in children. After all, children tend to rebound quickly from even quite complex open procedures. The effect on children's surgery has been of a different order. "It lets us look at very small structures with a very magnified view," says pediatric urologist Hiep Nguyen, MD.

Laparoscopic surgery is most commonly performed in children to treat intraabdominal undescended testicles. Not only is the surgery less invasive, it also reduces the 50% chance of testes atrophy with open surgery. The procedure can be performed in children as young as one day and through the teen years.

Surgeons also use the laparoscope to diagnose intersex in newborns, a condition in which the external genitalia are not clearly male or female. Traditional open procedures that are now performed laparoscopically include pyeloplasty, for the correction of blockage of the kidney and ureter, bladder augmentation, and ureteral reimplant, a procedure that corrects ureteral reflux. Minimally



Wearing surgical loupes for magnification, Peter Carroll performs an open radical prostatectomy through an incision one-half to one-third the size of standard incisions.

invasive techniques have transformed other areas of pediatric surgery. Miniaturization of instruments allows surgeons to perform on children procedures that were developed for adults, such as the removal of kidney stones.



Christopher Kane operating laparoscopically from the console of da Vinci™ Surgical System. His movements are translated with imperceptible delay to the robotic system, which executes the surgical procedure.

WORKING SMALL (da Vinci™)

The da Vinci™ robotic surgical system, developed and marketed by Intuitive Surgical, is an incredible advance in surgical technology now available at UCSF. A surgeon working in a console at the patient's side controls the "robot." An assistant works with conventional laparoscopic instruments assisting the robot where necessary. The robotic instruments transfer the surgeon's movements at the console to the robotic arms with imperceptible time delay. The laparoscopic view is three dimensional and highly magnified.

For the practiced surgeon, traditional endoscopes provide a level of de-

tail that is not available to the naked eye. With traditional laparoscopic surgery, surgeons learn to compensate for the fact that their ability to retract tissue is restricted, and that their wrist motion is limited. One of the most important developments of the da Vinci™ surgical system is that the robotic instruments have the full range of motion of human hands.

UCSF surgeons began performing advanced laparoscopic procedures, such as radical and partial nephrectomy, prostatectomy and pyeloplasty, with the robotic system on selected patients in June 2002.



RENAL CANCER PROGRAM MAKES ITS MARK



Chris Kane



Brian Rini



Fred Waldman

In 2001, physicians diagnosed approximately 31,000 new cases of renal (kidney) cancer, a disease that now accounts for about 3% of new cancers in the United States.

With the recent addition of respected clinicians Chris Kane, MD, Associate Professor of Urology, and Brian Rini, MD, Assistant Professor of Medicine, the Renal Cancer Program at UCSF deepened its commitment to advancing understanding of renal cancer and to designing innovative treatments.

Pioneering Research

Frederic Waldman, MD, PhD, Professor of Laboratory Medicine, has been one of the pioneers in using gene-based research to help physicians understand how to treat renal cancer (also called renal cell carcinoma, kidney adenocarcinoma or hypernephroma). Waldman and his UCSF colleagues invented “array-based comparative genomic hybridization,” a technique in which researchers extract DNA from various tumors and study which genes have been amplified or deleted. By associating the genetic alterations with more aggressive or less aggressive tumors, the researchers are cataloging what Waldman calls “prognostic markers” that can help physicians and patients decide on an appropriate course of treatment.

In his recent work, which he published in the journal *Cancer Research*, Waldman and his colleagues used this approach to find alterations for different sub-types of kidney cancer. “We found, for example, that conventional or clear-cell renal cancer shows loss of the short arm of chromosome 3, whereas papillary cancers do not,” says Waldman.

Advanced Treatments and Clinical Trials

The type of understanding Waldman and others bring to renal cancer, and the numerous clinical trials entrusted to the UCSF clinical research program, can lead and has led to improved treatments.

For example, localized renal cell carcinoma is usually treated surgically. At UCSF, innovative new techniques use

small incisions to remove only the cancerous portion of the kidney rather than the entire kidney. Termed partial nephrectomy, this laparoscopic procedure is used in appropriate patient populations. UCSF surgeons have a long track record of experience in removing regionally advanced cancers, including those with invasion into the inferior vena cava and atrium.

Advanced renal cell carcinomas may be treated with surgery, adjuvant therapy, biological therapy (immunotherapy), chemotherapy, angiogenesis, cell signaling inhibitors, or radiation. At UCSF, immunotherapy is the standard therapy for advanced renal cell carcinoma and involves the use of cytokines, biological proteins that regulate the immune system.

One unique form of immunotherapy attempts to use the immune cells from a sibling to fight a patient’s cancer. Rini is a leading expert on this therapy, known as allogeneic stem cell transplantation. Rini’s experience with this procedure while at the University of Chicago was recently published in the *Journal of Clinical Oncology*, entitled “Allogeneic Stem Cell Transplantation of Renal Cell Cancer after Non-myeloablative Chemotherapy: Feasibility, Engraftment and Clinical Results.” This experience represents the largest cohort of patients outside the National Institutes of Health.

Though these transplants remain investigational and potentially very toxic, UCSF is leading a national clinical trial for patients with metastatic renal cancer whose disease has progressed despite standard immunotherapy treatment.

Contrast CT showing solid enhancing right lower pole renal mass. This mass was removed with laparoscopic partial nephrectomy with vascular control. Pathology revealed papillary renal cell carcinoma with negative surgical margins.



RESTORING SEXUAL FUNCTION

Erectile dysfunction affects an estimated 20 million men in the United States, most of them over the age of 50. Vascular disease, which compromises blood flow to the penis, is the most frequent cause, but impotence may also result from nerve damage to the penis, an occasional complication of procedures such as radical prostatectomy or radiation therapy.

The advent of Viagra has offered a treatment option for men with erectile problems, but not without drawbacks. The drug must be taken every time a man wants an erection, and does nothing to treat the underlying vascular or nerve problem.

UCSF urologist Tom Lue, MD, is leading a promising program at UCSF to explore the use of growth factors to induce damaged nerves and blood vessels to regenerate. These growth factors are already in clinical use for other conditions, according to Lue. Those that encourage blood vessels to regenerate, called angiogenins, are under study in patients who have experienced heart attacks. Those that prompt nerve growth, neurotrophins, are being used experimentally in patients with degenerative nerve conditions such as Lou Gehrig's disease. UCSF is one of a very few U.S. labs working with growth factors for erectile problems.

The research team led by Lue and Ching-Shwun Lin, PhD, who co-direct the Knuppe Molecular Urology Laboratory at UCSF, has published several papers, including one in the February 2002 issue of the *Journal of Urology* on work in rats with these growth factors.

Neurotrophins direct a nerve to grow in the direction needed to re-establish nerve function. "In a sense, they serve as traffic cops, letting the nerve know which way it needs to go in order to re-innervate the penis," said Lue. His team has had good results with restoring erectile function in rats with damage to the penile nerve by injecting a neurotrophin into the penis.

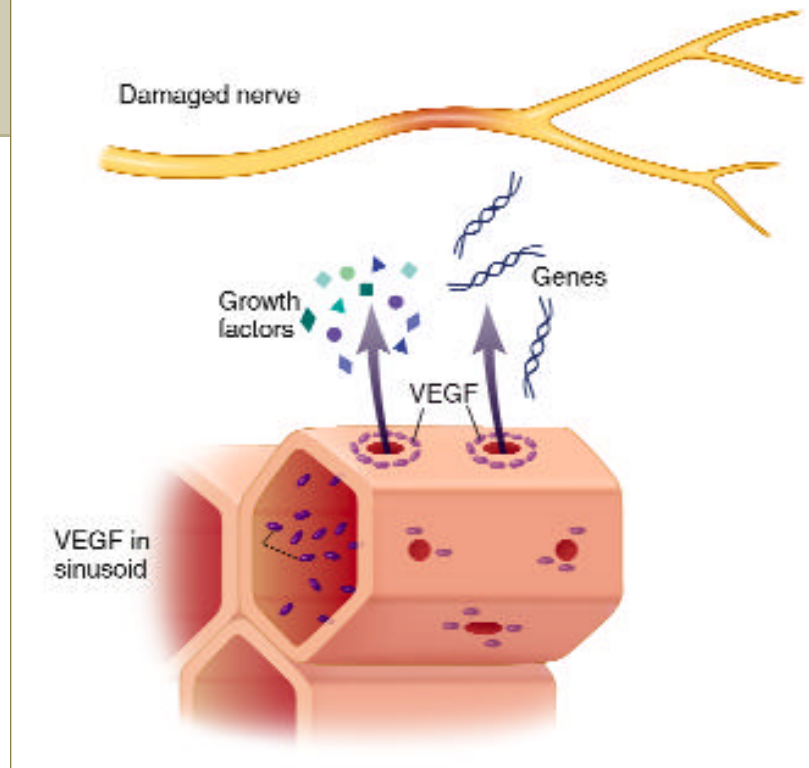
Similarly, angiogenins have been used to encourage penile blood vessel re-growth in rats with erectile dysfunction.

A particularly encouraging development occurred in the last few months, when the scientists produced a method to successfully grow nerve and artery cells in a laboratory culture. "This will allow us to experiment with different growth factors and determine which ones work best," said Lue.

The group has recently commenced a privately funded pilot project towards the long-term goal of using neural stem cells to treat neurogenic erectile dysfunction. This short-term fundamental research is designed to isolate and identify neural stem cells, critical for the successful implementation of a translational research program utilizing stem cells to restore sexual function.

Gene therapy has also been explored as a way to regenerate nerve and blood vessels in the penis, said Lue, but this approach is more problematic because of regulatory issues.

The hope is that the team will take these innovative approaches to clinical trials in the next few years.



In an experimental model of nerve injury, the urology research team discovered that giving a combination of VEGF and BDNF, both growth factors, greatly enhanced the recovery of the nerve and its function. In this illustration, VEGF is shown to open up the lining of the blood vessel and thus allow growth factors and genes to work on the damaged nerve and enhance its repair.

REACHING OUT



Gary Grossfeld and Mack Roach III take questions at My Brother's Keeper: A Take-Charge-of-Your-Life Event. The September 14, 2002 outreach event was organized to fight cancer in the African American community. Free prostate and breast cancer screening and education were provided. Presentations focused on raising the level of awareness, the need for screening, the implications of test results, options for treatment, and the effects of diet on cancer risk.

A significant flaw in our health care system is that those who need help with the prevention and treatment of illness cannot always find it. When the illness is prostate cancer, a disease diagnosed in over 17,000 Californians last year (of whom 2,800 died), the flaw can become tragic. UCSF has established a new outreach program that will coordinate efforts to address that tragedy, and to reduce the disparities evidenced by a significantly lower prostate cancer survival rate for African-American men.

Addressing Disparities

"One of the goals of this program," says Marc Shuman, MD, Director of the Prostate Cancer Research Program, "is to successfully implement strategies to reach the African-American community so we can prevent prostate cancer, increase access, and improve outcomes for those who do get the disease." To that end, the program works with people in underserved areas like San Francisco's Bayview-Hunters Point and the Western Addition. Through alliances with neighborhood groups and individuals, the outreach program offers free physical exams and educational talks about dietary prevention and the course of treatment.

In addition, the outreach program strives to increase the recruitment of African-Americans in clinical trials. "It's as though we're building a table," says Mack Roach III, MD, Professor of Radiation Oncology and Urology, "and we're adding legs to support it."

IMPACT

If education is the first leg of the table, counseling, access, and treatment are legs two through four. IMPACT (Improving Access, Counseling and Treatment for Californians with Prostate Cancer) is a state-sponsored program that provides high-quality prostate cancer treatment to low-income patients with little or no insurance.

Funded by a \$50 million grant from California's Department of Health Services, IMPACT provides prostate cancer services to men throughout the state. The grant is administered by UCLA with regional sites at UCSF, UC Davis and UC San Diego. The UCSF regional site is comprised of 14 Bay Area counties. At no cost, it offers a comprehensive array of services for prostate cancer patients, including medical treatment, nurse case management, health education, nutrition and psychological counseling. The program also tries to link patients in need with community-based organizations for basic needs, such as housing and food.

Gary Grossfeld, MD, Assistant Professor of Urology, heads the program with Peter Carroll, MD, and Nannette Perez, NP. Grossfeld, Perez and their Northern California Outreach Coordinator Sarah Joost, spend a lot of time speaking with primary care providers, specialty care providers, church groups and community-based organizations to heighten awareness of the program. IMPACT seeks to enroll both patients and quality providers. "The goal is to have a statewide network of providers by 2003 so we can link patients with providers within their communities," says Perez. For more information about the program, please call 866/549-4819.

Prostate cancer center grants

In 2001 and 2002, the Prostate Cancer Center has awarded more than \$465,000 in developmental research grants. The developmental research program is organized to attract scientists and clinical investigators to the field of prostate cancer, and to assist in the development of careers in the field of prostate cancer. The developmental research program has supported the following promising investigators.

DEVELOPMENTAL RESEARCH GRANTS

Role of Aurora2 and Fas Ligand in Prostate Cancer Risk

- Allan Balmain, PhD
Professor, Biochemistry & Biophysics/
Cancer Research Institute

Interference with Telomeres to Treat Prostate Cancer

- Elizabeth Blackburn, PhD
Professor of Microbiology &
Immunology

Inhibition of Androgen Receptor Activation

- Robert Fletcher, PhD
Professor, Biochemistry/Biophysics

The Role of PTEN Mutations in the Pathogenesis of Prostate Cancer and Resistance to Therapy

- Alexander Gottschalk, MD, PhD
Assistant Professor, Radiation
Oncology

Restoration of Erectile Function with Growth Factor Therapy

- Tom Lue, MD
Professor, Urology

Pilot Study to Evaluate Functional Screen of Protease Expression in Human Prostate Cancer Samples

- James McKerrow, MD, PhD
Professor, Pathology

Biological Effectiveness Improvement of High Dose Rate (HDR) Prostate Brachytherapy

- Jean Pouliot, PhD
Associate Professor, Radiation
Oncology

Development of Non-Steroidal Androgen Receptor Ligands

- Thomas Scanlan, PhD
Professor, Pharmaceutical Chemistry

Analysis of Androgen Receptor Interactions with UBC9

- Paul Webb, PhD
Associate Research Biochemist,
Diabetes Center

Metalloproteases as a Therapeutic Target in Prostate Cancer

- Zena Werb, PhD
Professor, Anatomy

PROSTATE CANCER FELLOWSHIPS

- Matthew Cooperberg, MD, MPH
Department of Urology
- Tracy Downs, MD
Department of Urology
- Maxwell Meng, MD
Department of Urology
- Pamela Paris, PhD
UCSF Cancer Center

JUNIOR FACULTY CAREER DEVELOPMENT

- Joycelyn Speight, MD, PhD
Department of Radiation Oncology



Marc Shuman, Margaret Tempero,
Senator Jackie Speier and Frank
McCormick

2002 JOINT BREAST-PROSTATE CANCER RESEARCH RETREAT

This year the annual UCSF Prostate Cancer Research Retreat was held in collaboration with the Breast Oncology Program. The two groups worked together to plan a very interactive three-day event held at the South San Francisco Conference Center. More than 350 people participated, including guests from UCSF and other academic institutions, cancer patient advocates and industry professionals. Donations from 16 pharmaceutical companies helped fund the event.

The research meeting began on March 11th, with an agenda focused on prostate cancer research. Marc Shuman, MD, moderated a session featuring progress reports from recipients of current prostate cancer developmental research grants.

On March 12th the prostate and breast groups joined to explore the clinical and biological aspects of hormones in breast and prostate cancer. Guest speakers included Matthew Smith, MD, PhD, of Harvard University, who spoke about the impact of bisphosphonates on prostate cancer treatment and outcomes, and Suzanne Fuqua, PhD, of Baylor College of Medicine.

The joint day concluded with a very successful adjudicated poster session. The 54 posters were well received by the diverse audience. Best Poster of the session was awarded to Amanda Toland, PhD, for "Cross-species Approaches to the Identification of STK6/Aurora2 as a Modifier of Cancer Risk in Mouse and Man." Toland conducts prostate cancer research in the Balmain laboratory.

The retreat concluded on March 13th with presentations focused on breast cancer research.

Clinical & postdoctoral fellows



Mitch Abrahams



Matthew Cooperberg



Tracy Downs



Maxwell Meng

The Department of Urology has a robust fellowship program providing specialized training in many areas of urology. Three new fellows joined the program this year, to bring the full complement to eight for the 2002-03 academic year.

H. Mitch Abrahams, MD

Abrahams earned his MD from Albany Medical College and continued there for his urology residency. He has a bachelor of science in biology from Rensselaer. Abrahams joined the department in July as a clinical fellow focusing on laparoscopy and endourology. His research interests include technical variations for laparoscopic procedures, robotic laparoscopy, stone prevention and animal models of stone disease.

Matthew Cooperberg, MD, MPH

Cooperberg received his MD and MPH degrees from Yale University. After completing his internship there, he joined UCSF as a research fellow in genitourinary oncology. His research interests include antibody development for tumor targeting, patterns of resource utilization in prostate cancer treatment, quality-of-life and decision-making preferences in prostate cancer, and the impact of for-profit markets in the health care system. He will resume his clinical training as a resident in the department next year.

Tracy Downs, MD

After earning his MD from the University of California, San Diego, Downs completed his urology residency at Harvard Medical School, Brigham & Women's Hospital. His past awards include the Harry S. Truman Presidential Scholarship and the Senator Mickey Leland Scholarship

award. Downs is a fellow in urologic oncology, and his research interests include high-risk prostate cancer populations, ethnic differences in prostate cancer, outcomes research and nutrition.

Maxwell Meng, MD

After obtaining his MD from Johns Hopkins School of Medicine, Meng completed his urology residency at the University of California, San Francisco. He has remained in San Francisco as a fellow in endourology and laparoscopy. During his fellowship Meng has published 13 peer-reviewed articles and several book chapters describing novel techniques and pathologic considerations in laparoscopic surgery. He was recently selected as a prostate cancer fellow, and assumed those responsibilities in July.

Gerald Mingin, MD

Mingin earned his MD from and completed his residency at the New Jersey Medical School. He came to UCSF in 2000 as a fellow in pediatric urology. His basic science research studies the developing urogenital tract. His clinical interests include hypospadias and reconstruction. Mingin received the clinical prize for his manuscript, "Growth and Metabolic Consequences of Bladder Augmentation in Children with Myelomeningocele and Bladder Exstrophy," presented at the October 2001 American Academy of Pediatrics meeting in San Francisco.



Gerald Mingin

Joseph Mitchell, MD

Mitchell earned his MD from Washington University School of Medicine in St. Louis. At Washington University he worked in the Department of Urology on several clinical projects, including a prostate-specific antigen database.

Mitchell chose to defer residency for a year, and will work as an NIH research fellow at the Veterans Affairs Medical Center. His projects will include the creation of a comprehensive database of laparoscopic nephrectomies performed at UCSF, and a lab project looking at the genetic differences between African-Americans and Caucasians diagnosed with prostate cancer. Mitchell anticipates beginning his urology residency next year.

Daniel Rosenstein, MD

Rosenstein completed his MD and urology residency at McGill University in Montreal, Canada. He then completed a two-year fellowship in adult and pediatric genitourinary reconstruction with Gerald Jordan, MD, at Norfolk General Hospital. While there he authored four textbook chapters in aspects of reconstructive surgery, and investigated topics including urethroplasty outcomes using buccal mucosal grafts, and penile revascularization in the trauma patient. Rosenstein has joined UCSF as a clinical instructor specializing in urologic trauma and reconstruction. His research will focus on novel approaches to urethral reconstruction and stratification of predictive factors in renal and ureteral injury.



Joseph Mitchell



Pamela Paris

Pamela Paris, PhD

After obtaining her PhD in chemistry from the University of Rochester, Paris completed a research fellowship at the Cleveland Clinic Foundation Lerner Research Institute. Her work on prostate cancer at the foundation included collaborations with John Witte, PhD, at Case Western Reserve University and William Catalona, MD, at Washington University. Paris continues her research in cancer genetics and diagnostics with a focus on finding genetic tools to improve early cancer detection and to identify aggressive forms of prostate cancer. Paris is supported by the Prostate Cancer Center's fellowship program.



Daniel Rosenstein

New faculty

Sara Knight, PhD

Assistant Adjunct Professor
Psychiatry & Urology

Knight earned her BA in psychology at the University of Maryland, followed by a master's in counseling psychology from Southern Illinois University at Carbondale. She completed a predoctoral internship in Health Psychology at Rush-Presbyterian. At St. Luke's Medial Center in Chicago Knight earned a PhD in clinical psychology, minoring in program evaluation and measurement of change. She joins UCSF from Northwestern University, where she was the recipient of the VA Health Services Research and Development, Career Development Award.

As a member of the Urology Department, Knight is conducting research on patient preference and comprehensive outcomes in prostate cancer, particularly focusing on ethnic variation. Her work is based primarily in the San Francisco Veterans Affairs Medical Center. She consults with urology faculty and residents on their research, advising them on medical decision making, quality-of-life outcomes and psychosocial issues.



Sara Knight

Clinical trials

Clinical trials allow the department to provide new therapies for urological disorders. Improvements made in clinical care at UCSF are shared with other health professionals and yield improved health care worldwide. The department and affiliated programs are conducting more than 30 investigational studies of treatments for genitourinary cancer and other conditions. Several ongoing trials are listed below. For more information, please contact Meg Randall at 415/885-7329 (mrandall@cc.ucsf.edu) or Joyce Alejo at 415/353-7348 (jalejo@urol.ucsf.edu).

- Phase III Protocol of Androgen Suppression and Radiation Therapy v. AS and RT Followed by Chemotherapy with Paclitaxel, Estramustine and Etoposide (TEE) for Localized, High-Risk Prostate Cancer (RTOG 99-02)
- A Phase II Study of Prostatic Acid Phosphatase-Pulsed Dendritic Cells (Provenge) in Combination with Bevacizumab in Patients with Serologic Progression of Prostate Cancer after Definitive Local Therapy (01554)
- A Pilot Study to Evaluate the Safety and Feasibility of Thermal Ablation with ThermoRods™ for Residual Prostate Cancer Following External Beam Radiation Therapy (00553)
- A Phase II Study of Gleevec in Patients with Non-Metastatic Androgen Dependent and Androgen Independent Prostate Cancer (CC 015520)
- Adjuvant Androgen Deprivation versus Mitoxantrone plus Prednisone plus Androgen Deprivation in Selected High-risk Prostate Cancer Patients Following Radical Prostatectomy, Phase III (CALGB 99904/SWOG 9921)
- A Phase I/II Dose Escalation and Efficiency Trial of GVAX® Prostate Cancer Vaccine in Patients with Metastatic Hormone-Refractory Prostate Cancer (015512)
- A Phase I/II Study of Estramustine, Docetaxel, and Gleevec in Men with Hormone Refractory Prostate Cancer (CC 015522)
- A Phase II Study of UCN-01 in Advanced Renal Cell Carcinoma (01543)
- Adoptive Immunotherapy by Allogeneic Stem Cell Transplantation for Metastatic Renal Cell Carcinoma: A Phase II Study (CALGB 90003)

Recent publications

Members of the department have published extensively in the past year. A few recent highlights are noted below.

Baskin LS; Erol A; Jegatheesan P; Li Y; Liu W; Cunha GR.

Urethral seam formation and hypospadias. *Cell & Tissue Research.* 2001 305(3):379-87.

Chan JM; Stampfer MJ; Ma J; Gann PH; Gaziano JM; Giovannucci EL.

Dairy products, calcium, and prostate cancer risk in the Physicians' Health Study. *American Journal of Clinical Nutrition.* 2001 74(4):549-54.

Damani MN; Masters V; Meng MV; Burgess C; Turek P; Oates RD.

Postchemotherapy ejaculatory azoospermia: fatherhood with sperm from testis tissue with intracytoplasmic sperm injection. *Journal of Clinical Oncology.* 2002 20(4):930-6.

Elliott SP; Shinohara K; Logan SL; Carroll PR.

Sextant prostate biopsies predict side and sextant site of extracapsular extension of prostate cancer. *Journal of Urology.* 2002 168(1):105-9.

Grossfeld GD; Latini DM; Lubeck DP; Broering JM; Li YP; Mehta SS; Carroll PR.

Predicting disease recurrence in intermediate and high-risk patients undergoing radical prostatectomy using percent positive biopsies: results from CaPSURE. *Urology.* 2002 59(4):560-5.

Lee MC; El-Sakka AI; Graziottin TM; Ho HC; Lin CS; Lue TF.

The effect of vascular endothelial growth factor on a rat model of traumatic arteriogenic erectile dysfunction. *Journal of Urology.* 2002 167(2 Pt 1):761-7.

Lubeck DP; Kim H; Grossfeld G; Ray P; Penson DF; Flanders SC; Carroll PR.

Health-related quality of life differences between black and white men with prostate cancer: data from the cancer of the prostate strategic urologic research endeavor. *Journal of Urology.* 2001 166(6):2281-5.

Ross RW; Small EJ.

Osteoporosis in men treated with androgen deprivation therapy for prostate cancer. *Journal of Urology.* 2002 167(5):1952-6.

Santucci RA; Mario LA; McAninch JW.

Anastomotic urethroplasty for bulbar urethral stricture: analysis of 168 patients. *Journal of Urology.* 2002 167(4):1715-9.

Sasaki M; Tanaka Y; Perinchery G; Dharia A; Kotcherguina I; Fujimoto Si S; Dahiya R.

Methylation and inactivation of estrogen, progesterone, and androgen receptors in prostate cancer. *Journal of the National Cancer Institute.* 2002 94(5):384-90.

Shekarriz B; Gholami SS; Rudnick DM; Duh QY; Stoller ML.

Radially expanding laparoscopic access for renal/adrenal surgery. *Urology.* 2001 58(5):683-7.

Honors & awards

Laurence Baskin, MD, served as program chair and organizer of an international symposium entitled "Hypospadias and Genital Development." The meeting was held April 25-26, 2002, at UCSF's Millberry Conference Center and was sponsored by the National Institutes of Health, the American Urological Association and the UCSF Department of Urology.

This spring Baskin was selected to serve a four-year term on the Pediatric Urology Section of the Journal of Urology's editorial board. He was also elected to serve a five-year term on the Executive Committee of the American Academy of Pediatrics Section on Urology.

Peter Carroll, MD, was named Associate Editor of the Journal of Urology. Carroll will replace Jean deKernion, MD, who served ably in this position for many years.

With approval from the American College of Surgeons Board of Regents, Carroll has been appointed to the Commission on Cancer as a representative of the American Urological Association.

June M. Chan, ScD, was presented with a Development Award for Research on Gender-related Cancers by the California Health Department and the American Association for Cancer Research (AACR). Chan will receive \$100,000 over the next two years to support her work in prostate cancer research. The California Health Department and the AACR co-sponsor this prestigious career development award program, honoring one prostate cancer and one ovarian cancer researcher each April at the annual AACR meeting.

Gerald R. Cunha, PhD, was selected to give the Melvin Samuels Lectureship at the 9th annual Genitourinary

Oncology Conference sponsored by the MD Anderson Cancer Center. Talks at the February 7-8, 2002, conference in Houston focused on development and application of therapies in genitourinary malignancies. Cunha spoke about his work on the role of stroma in prostatic carcinogenesis. This prestigious lectureship has previously been presented by Donald Coffey, Richard Klausner, Louis Denis, Webster Cavenee, Victor Ling, Alfred Knudson, Stanley Korsemeyer, and Judah Folkman.

Tracy Downs, MD, received the first-place 2002 R. Frank Jones National Medical Association-Urology Section Resident and Fellow Award for his presentation at the annual NMA meeting. Downs presented "The Value of Pretreatment Health Related Quality of Life in Patients being Treated for Localized Prostate Cancer (Data from CaPSURE)."

Sean Elliott, MD, was elected to the Alpha Omega Alpha Honor Medical Society. Elliot was chosen for this honor by the Class of 2002 student members of UCSF's chapter of the society. Elliott was one of three UCSF housestaff members selected from several hundred eligible candidates to join the honor society.

Christopher Kane, MD, received the Meritorious Service Medal from the Secretary of the Navy in August 2001. The medal was bestowed for Kane's leadership in research, education and patient care.

Ching-Shwun Lin, PhD, was presented with the Presidential Award for Outstanding Research at the 4th Annual Congress of the Chinese Andrology Society held in Hanzhou, China in September 2001.

Jack W. McAninch, MD, was named Champion of Hope, Man of the Year, by the Medical Advisory Board of the National Kidney Foundation of

Northern California. McAninch was honored at a gala tribute in January 2002 held at the Renaissance Stanford Court Hotel in San Francisco.

Mack Roach III, MD, was invited to serve as a member of the Board of Scientific Advisors of the National Cancer Institute (NCI). His tenure began in September 2002 and will continue through June 2007. Roach will participate in oversight and planning for the scientific mission of the NCI. The board assists and advises the director of the NCI on all aspects of the NCI's extramural program.

Frederic Waldman, MD, PhD, was appointed Chair-Elect of the Integration Panel for the Department of Defense (DOD) Prostate Cancer Research Program in October 2001. The Integration Panel sets priorities for how the DOD research budget should be allocated, and makes final decisions about which grants to fund. The DOD panel manages an annual budget of approximately \$80 million.

Katsuto Shinohara, MD, and UCSF patient Jesse Deane were featured in a Discovery Health Channel program, entitled "Medical Innovations—High Tech Medicine."

The show premiered in the U.S. on March 27, 2002. Shinohara and Deane were interviewed in a segment about the UCSF clinical trial that seeks to use magnetic rods to kill prostate cancer cells. ThermoRods™, made up of palladium and cobalt, offers a variation in radiation therapy. The rods are implanted in the prostate, then activated by placing the patient in a magnetic field. This offers a promising alternative for men who have failed local radiation therapy. Deane was one of the first patients in the United States to undergo this procedure.



Katsuto Shinohara



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