UCSF UROLOGY

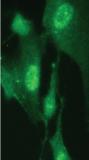
UNIVERSITY OF CALIFORNIA. SAN FRANCISCO

SCHOOL OF MEDICINE

2010

Peter Carroll, MD, MPH, talks with June Chan, ScD, and John and Donna Shoemaker about active surveillance for prostate cancer.





Fluorescent staining image showing RNA activation.

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Active Surveillance of Prostate Cancer

Deciding how aggressively to treat localized prostate cancer poses a challenging question for patients and physicians alike. With the exception of skin cancer, prostate cancer is the leading cancer in men,

gressive treatment and the possible side effects that often go with it.

The UCSF Department of Urology has played a leading role in the scientific study of whether active

UCSF has been a leader in prospective studies of diet/lifestyle in men who have chosen active surveillance of their prostate cancer.

with approximately 192,000 cases diagnosed in the United States in 2009. It is also the second-leading cause of cancer death in men, taking an estimated 27,000 lives in 2009. However, when the disease is localized–confined to the prostate gland–as most prostate cancers are, the five-year survival rate nears 100 percent and remains high over long periods of time. Most men with prostate cancer die of other causes. This situation challenges doctors to consider ways to safely avoid ag-

surveillance with selective treatment when needed is a useful option for men with low-risk prostate cancer.

Peter Carroll, MD, MPH, and UCSF colleagues continue to conduct a long-running study of low-risk men who have chosen this treatment option. The study, begun in the early 1990s with relatively small numbers of men, now includes more than 600 individuals. A paper published in 2008 in *Cancer* reported on a subgroup of 321 men, averaging 63

years of age, who were followed for a median of three and a half years. Men received regular office visits with digital rectal examination of the prostate and prostate-specific antigen (PSA) measurements every three to six months, and transrectal ultrasonography (TRUS) every six to 12 months. Starting in 2003, repeat prostate biopsies were recommended every one to two years for all patients.

Seventy-eight patients (24% of the study group, or about 1 in 4 men) underwent therapy for their prostate cancer. This included some, but not all, of the 120 men (37%) who met one of the two criteria for disease progression: an increase in the Gleason score on repeat biopsy (an indication of a more aggressive cancer) or a rapidly rising PSA. Some men who had no evidence of disease progression also chose treatment because of anxiety about

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Letter from the Chair

Peter Carroll, MD, MPH

The worldwide economic crisis has affected all of us. It is important that we, as a leading department of urology, focus our efforts to preserve our core missions in such a crisis – to innovate and educate in the field of urology and to take excellent care of our patients. Adherence to our mission will allow us to continue to have a very positive impact on people suffering from urologic conditions, now and in the future, here and elsewhere.

Fundamental to our mission is the development of new knowledge. Five years ago, we developed a strategic plan to become #1 among urology departments in funding from the National Institutes of Health. This ranking is a measure of our ability to undertake research with the highest potential to change people's lives. We started at #16 more than a decade ago. The most recent rankings show that we have achieved the #4 position. We attained this position even though the ranking excluded several major department grants submitted through NCIRE, the research administrator for the San Francisco Veterans Affairs Medical Center.

Our research puts us in a position to give our patients the most informed choices for prevention, diagnosis, and treatment of various urologic diseases. For instance, many years of research into prostate cancer stage migration and refined risk assessment have allowed us to be a leader in using active surveillance for many patients with early-stage prostate cancer, reducing the side effects and costs of unnecessary treatment. Our #5 national ranking for urologic care in *US News and World Report* is an indication of our success in translating research into patient care of the highest quality.

This newsletter describes just a few examples of the department's commitment to innovation based on high-quality research and the education of the future leaders in our field. Although I cannot note all the department's research achievements of the last few years, I would like to highlight the impact of the new Helen Diller Family Cancer Research Building at the UCSF Mission Bay campus. The building houses our cancer research program. Our program could not have attracted the best young researchers in our field without such space. The building is the product of the wonderful generosity of the Diller family. I would like to thank the Dillers for their generosity, leadership, and friendship.

I would also like to welcome new faculty in a variety of disciplines. Such recruitments will allow building, strengthening, and expanding programs. Our young faculty will help us meet the challenges of an expanding clinical practice and research agenda. We continue to attract the best surgeons in training, as reflected recently by an outstanding group of residents entering our program.

I recently completed an MPH at the University of California, Berkeley while maintaining my clinical and administrative efforts. I brought the term multitasking to a new level! The insight I gained, I believe, was critical and will facilitate our productivity as a leader in the field, both nationally and internationally. It has prepared me for new challenges in the future.

Lastly, I fully recognize that our achievements as a department are the product of a group of people who share a common passion, energy, and enthusiasm for what we do. I am grateful to the trainees, staff, faculty surgeons, and scientists who allow us to be the best we can be.



Sincerely,

Par A Cuntl

Peter R. Carroll, MD, MPH
Professor and Chair of Urology

Ken and Donna Derr-Chevron Distinguished Professor

UCSF Describes Novel Role for RNA

RNA has traditionally played a supporting role in the drama of cell biology. For decades, scientific interest focused on the star player, DNA, that encodes the genetic blueprint for life. RNA was thought to be a simple go-between, helping to produce the proteins encoded in DNA. But in recent years, RNA's significance has grown as scientists have found it plays a complex and powerful role in regulating gene expression.

UCSF urology investigator Long-Cheng Li, MD, has been at the forefront of one aspect of this RNA activation (RNAa) is particularly exciting because it suggests there might be a way to turn on tumor suppressor genes that are often inactivated in prostate cancer. If those genes could be switched back on, they could theoretically provide a powerful tool for inhibiting or even reversing tumor growth.

Li performed his initial research as a research scientist in the cancer research laboratory of UCSF urology professor Rajvir Dahiya, PhD. Li made his discovery serendipitously, as he was trying to use synthetic small RNA molecules to block tran-

reduced by 47 percent. RNAa could also have applications in other areas such as stem cell research.

Schematic of RNA interface

Scientists continue to debate whether Li's findings are really indicative of a new type of RNA or whether they may be a form of RNAi that is interfering in some unrecognized way with gene expression. However, RNAi typically silences genes within hours for a period of about a week. RNAa seems to take several days to boost gene activity, but the effect lasts for up to two weeks.

Li and UCSF colleague Robert Place, PhD, a molecular biologist in the department, are continuing their research, seeking to describe a mechanism for how RNAa might work.

"When we have a better understanding of exactly how RNAa functions, we will have the potential to find more target genes and new areas of application," said Li.

UCSF urology investigator Long-Cheng Li, MD, has been at the forefront of one aspect of this field – ways in which RNA could silence genes.

field-the potential of short double strands of RNA to activate genes. Most research had focused on RNA interference (RNAi)-ways in which RNA could silence genes. Indeed, a Nobel Prize was awarded in 2006 to the two researchers whose work laid the foundation for the theory of RNAi. Many researchers were skeptical of Li's and other researchers' findings, published in 2006 in the Proceedings of the National Academy of Sciences, that suggested RNA could act in exactly the opposite way-activating rather than interfering with a gene.

scription of a tumor suppressor gene in human prostate cancer cells. Instead, levels of the protein the gene was supposed to suppress shot up. Li subsequently observed the same effect when he experimented with RNAa in other tumor suppressor genes.

Last year, Li won an NIH grant and an American Association for Cancer Research grant to test RNAa as a treatment for prostate cancer and bladder cancer, respectively. His preliminary results for prostate cancer, were striking; tumor growth was



In September 2009, UCSF Urology's Long-Cheng Li, MD, in collaboration with Hao Li, PhD, of the Department of Biochemistry and Biophysics, won a prestigious NIH Director's Transformative R01 award to study the molecular mechanism of RNAa. The Transformative R01 program is a new one; it supports research projects that have the potential to either establish new paradigms or destroy old ones. RNAa is a newly discovered biological phenomenon that has enormous potential to improve public health by opening new avenues for studying gene function and treating diseases such as cancer. Because RNAa is largely unstudied, the rules for target selection are still quite obscure. Li's project will use a combination of genomic, bioinformatic, and molecular biology approaches to study the molecular mechanism of RNAa.

Training a New Generation of Surgeon-Scientists



Thomas Walsh, MD, MS

As a 2007-2008 scholar in the MRHR program, Thomas Walsh, MD, MS, honed his skill at conducting epidemiological research. His UCSF studies revealed that infertile men may have a risk of developing testicular cancer that is almost three times as high as the general population. This research, widely reported in the lay press, also helped him to secure an appointment as assistant professor of urology at the University of Washington School of Medicine, where he continues to conduct research focused on the epidemiology of male infertility. At UW Medicine, Walsh directs Male Reproductive and Sexual Medicine and serves as clinical director of the Male Fertility Laboratory. "My time spent as a UCSF MRHR Scholar provided a significant foundation for my academic career," said Walsh recently. "This includes the establishment of lifelong mentors, the development of a research niche, the accumulation of preliminary research data, and the honing of my subspecialty clinical skills."

Training a new generation of talented, university-based urological researchers is part of the department's mission, and the campus is one of a select group of academic institutions receiving NIH support in this effort. Two NIH-funded career development programs, the K12 Urologic Research (KURe) program and Men's Reproductive Health Research (MRHR) program, provide mentored support for young faculty at UCSF. The goals of both programs are to facilitate the training of outstanding scholars who will go on to secure independent research funding and tenure-track academic positions.

The UCSF KURe, one of two such programs in the United States, supports junior faculty from diverse disciplines who are interested in pursuing careers in the study of benign urological diseases such as erectile dysfunction, incontinence, prostate blockage, kidney stones, urinary tract infections, pediatrics and congenital anomalies. Applicants must have completed either a doctoral-level medical degree (MD) and clinical training or a PhD. Scholars who are urologic surgeonscientists work part-time in the faculty practice; all scholars receive support that allows them to spend at least half of their time on research. Scholars are matched with a team of experienced mentors from diverse disciplines. A three-or five-year plan is established for each scholar, with continuation dependent on satisfactory annual progress reviews.

Training to Improve Global Health

The global burden of urologic disease is large and members of the department are increasingly interested in addressing this burden. As a participant in the UCSF Global Health Sciences Clinical Scholars Program, urology resident Sean Doyle, MD, traveled last spring to South Africa, where he used his skills to help combat HIV/AIDS. Doyle spent three months helping to start an adult male circumcision clinic in Orange Farm, a township 20 miles south of Johannesburg, where one-third of the population is infected with HIV. Doyle trained the clinic's staff in the surgical procedure and in pre- and post-operative care.

Several randomized trials have shown that circumcision provides the same protection from HIV that a vaccine would–about 60 percent. "It's one of the more effective prophylactic measures to prevent HIV transmission," said Doyle.

The South African government was for many years hesitant to adopt strategies that are known to prevent and treat HIV, but the current government has revised this policy. The new clinic, funded by the French government, provides free cir-

KURe trainees Hillary Copp, MD, MS, and Shweta Choudhry, PhD, discuss research with Laurence Baskin, MD

The MRHR program provides mentoring and research career development for up to three scholars annually through 2011. Applicants must have earned their MD and completed clinical training. The program is focused on recruiting physicians trained in urology, obstetrics and gynecology, or medical endocrinology, but other strong MD candidates are considered. Scholars receive at least two years of financial support,

Scholars who are urologic surgeonscientists work part-time in the faculty practice; all scholars receive support that allows them to spend at least half of their time on research.

which may be extended based on the availability of NIH funds. Scholar appointments are 12 months with yearly renewals contingent on satisfactory progress. Scholars choose a basic, clinical, or translational research track.

For more information on these programs, please visit the Faculty Development section at urology.ucsf.edu U



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cumcision for all men in the township who want the procedure. It is offered as part of a multimodal outreach program for HIV prevention and treatment.

Circumcision is culturally acceptable in South Africa, according to Doyle, and is often performed as part of male initiation rites. However, mortality and morbidity from the procedure can be high when performed in these settings.

Established in 2006, the Clinical Scholars Program allows UCSF graduate health care professionals to formally incorporate global health into their professional careers. The program is the first in the nation to include residents from different disciplines, as well as graduates from the School of Nursing and other health professional schools.





Active Surveillance







June Chan, ScD

Laura Dunn, MD

Nannette Perez, MSN, ANP

living with cancer. Treatments included radical prostatectomy, radiation therapy, hormonal therapy, or some combination of these three. The median time to treatment was three years, although the range was wide-from one to 17 years. In this study, a rise in Gleason grade on repeat biopsy was the most important factor for recommending additional treatment. None of the men followed with active surveillance died of prostate cancer during the study period. The study concluded that active surveillance is a reasonable option for well-selected, low-risk patients.

UCSF urology faculty member June Chan, ScD, and colleagues at Harvard recently published an additional report on a group of 3,331 men with prostate cancer in the Journal of Clinical Oncology. Ten percent of these men initially deferred treatment for 12 months or more, and of this group, half remained untreated throughout an average of 7.7 years of follow-up. The study found no difference in prostate cancer mortality between deferred treatment and active treatment patients, although longer follow-up will be important to confirm this result.

Effects of Diet and Lifestyle in Active Surveillance Patients

A relatively new area of research is exploring whether changes in diet or lifestyle may influence prostate cancer growth. Chan has been following the epidemiological evidence for the role of diet in prostate cancer for several years and has written journal articles summarizing ongoing research in this area.

According to Chan, epidemiological evidence has suggested that eating cruciferous vegetables (broccoli, cabbage, etc.), tomatoes and tomato products (which contain lycopene), soy products, and fish rich in omega-3 fatty acids may reduce the risk of prostate cancer development or progression. However, the findings have not been consistent, possibly due to genetic variations in how these nutrients are processed in the body. Substantiating these claims in large clinical trials can be difficult. Despite positive results from earlier studies, results from a large, randomized, placebo-controlled study, the Selenium and Vitamin E Cancer Prevention Trial (SELECT), showed these supplements had no effect on preventing prostate cancer. Other evidence suggests that eating meat, certain fats, and animal products or taking large amounts of multivitamin supplements (more than one daily or in conjunction with high-dose single supplements) may raise a man's risk of prostate cancer.

UCSF has been a leader in prospective studies of diet/lifestyle in men who have chosen active surveillance of their prostate cancer. An initial study at UCSF, the Prostate Cancer Lifestyle Trial (PCLT), showed that the 44 men randomized to the intervention arm of the trial (a low-fat, plant-based vegan diet supplemented with soy, plus exercise, stress management, and psychosocial support), showed blood changes that indicated a potentially favorable effect on the body's ability to fight prostate cancer, compared to 49 men randomized to usual care/diet.

Based on that initial trial, UCSF has conducted two additional studies that looked at prostate gene expression changes in men following lifestyle intervention protocols. The Genomic Effects in Men by Interventions of Nutrition and Lifestyle (GEMINAL) study examined genetic changes in prostate tumors in men participating in a threemonth lifestyle/dietary modification similar to that used in the UCSF PCLT trial. According to GEMINAL study co-principal investigator Dean Ornish, MD, the expression of a number of genes that may have important roles in tumor growth appears to be affected. The study also found a significant increase in the activity of the enzyme telomerase, which appears to protect the ends of chromosomes. Another UCSF study led by Chan and Carroll, the Molecular Effects of Nutrition Supplements Study (MENS), is looking at the effects of tomato extract and fish oil on gene expression in prostate tissue. Data from that study are still being analyzed. In the meantime, getting regular exercise and eating a general, healthy diet-one that includes a wide variety of plantbased foods, such as vegetables, whole grains, and legumes and that focuses on nutrition from foods rather than supplements-are reasonable steps to consider for prostate cancer prevention.

CSF continues to offer active surveillance to men with low-risk prostate cancer.

Over 600 men have chosen this form of management for their disease at the UCSF

Prostate Cancer Center. Surveillance involves a PSA every three to four months, prostate ultrasound every six to nine months, and prostate biopsies every one to two years. Men on active surveillance at UCSF are also eligible to participate in two studies:

- The Prostate Active Surveillance Study (PASS), sponsored by the National Cancer Institute and the Canary Foundation, seeks to identify new ways of predicting which prostate cancers are more or less likely to progress, based on analysis of blood, urine, and prostate biopsy samples donated by participating men.
- Some men who choose active surveillance end up undergoing treatment because of the anxiety associated with living with cancer.
 A study under the direction of psychiatrist Laura Dunn, MD, is looking at ways to manage anxiety in men who have chosen active surveillance.

For information about active surveillance for prostate cancer, contact the Physician Referral Service of UCSF Medical Center at: 888/689-UCSF or 888/689-8273.

Email: referral.center@ucsfmedctr.org

For further information about PASS, contact Hazel Diaz at 415/353-7790 or Imelda Tenggara at 415/353-7348.

Comparative Effectiveness Research

Comparative effectiveness research is a rapidly growing area of health services research that aims to compare treatment alternatives for a given condition to identify which option will lead to the best outcomes. Prostate cancer was recently identified by the Institute of Medicine as one of the top 25 health conditions that should be a national priority for comparative effectiveness research funding, due to the high prevalence of the disease and the persistent uncertainty regarding ideal disease management. Matt Cooperberg, MD, MPH, and Leslie Wilson, PhD, are leading the development of decision models based on CaPSURE data for use by the UCSF Department of Urology's active comparative effectiveness re-



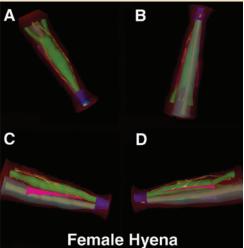


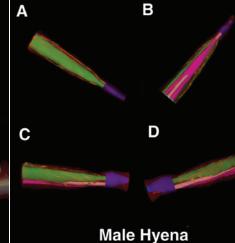
Leslie Wilson, PhD

Search program. In collaboration with Harvard University, the program has successfully competed for external funding from the NIH to compare the outcomes for two different matched groups of patients: those choosing surgery or radiation therapy, and those selecting open or robot-assisted radical prostatectomy. Results from this exciting new research will be published in a series of papers over the next two years, and will help provide better information to patients to help them choose among treatment options.

Three-dimensional reconstructions of female and male hyena genitalia that illustrate the relationship between the nerves, and the corporal bodies, and the urethra.







Science Article Highlights Hyena Research

An article in an issue of *Science* highlighted research that UCSF Pediatric Urology Chief Laurence Baskin, MD, has conducted with a spotted hyena colony maintained at UC Berkeley. With funding for the colony threatened, Baskin is one of many scientists advocating the value of this research resource—the only one of its kind in the world.

Spotted hyenas are of interest in urology because the females have a highly unusual reproductive anatomy—an elongated clitoris that resembles a male's penis, through which they urinate, mate, and give birth. These masculinized genitalia and their relationship to the female hyena's dominant status in hyena society have prompted many scientific investigations by a range of researchers.

In the Science article, Baskin said that a finding from one of the colony's studies has implications for understanding hypospadias, a common birth defect affecting 1 in 125 boys. In this condition, the urethra opens on the underside of the penis instead of at the tip. Hyena researchers found that a similar condition occurred in male hyenas whose mothers were given drugs that block estrogen synthesis. This suggests that there may be a previously unrecognized estrogen-sensitive phase of male sexual development.

Baskin has also collaborated with the UC Berkeley team to map nerves in female hyena genitalia. That work has helped him refine the surgical repair he performs in girls born with a rare condition called congenital adrenal hyperplasia. Because an enzyme defect causes them to be exposed to unusually high androgen levels, these girls are born with masculinized genitals. By understanding the nerve structure in the female hyena's genitalia, Baskin has been able to better preserve sexual function in these girls.

Laurence Baskin, MD



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New Faculty

Shweta Choudhry, PhD,

earned a master's degree in biotechnology from the University of Pune and a doctorate from the Institute of Genomics and Integrative Biology. After completing her studies in India Choudhry joined UCSF as a postdoctoral researcher in the Department of Medicine, where she conducted human genetics research. In 2006 Choudhry was

promoted to a faculty position in the Department of Medicine. In 2009 she joined the Department of Urology as a faculty member and participant in the multidisciplinary K12 Urologic Research (KURe) Career Development Program (see story on page 4).

Since joining UCSF, Choudhry has received several awards to support her research. She is a member of the American Society of Human Genetics. As a member of the Urology faculty Choudhry conducts population genetics research and maps disease susceptibility loci to identify genetic risk factors for benign urologic disorders, including recurrent urinary tract infections, hypospadias, and urinary stone disease.



Shweta Choudhry, PhD Assistant Professor Urology



Matthew Cooperberg, MD, MPH Assistant Professor Urology

Matthew Cooperberg, MD, MPH, earned his MD and MPH degrees from Yale University in 2000. He completed his general surgery and urology training at the University of California, San Francisco, and subsequently continued at UCSF to complete a fellowship in urologic oncology under the guidance of Peter Carroll, MD, MPH.

In 2009, Cooperberg was recruited to join the faculty. His clinical interests include the diagnosis and management of genitourinary malignancy, and using minimally invasive techniques to treat benign and malignant diseases. He performs robotic, laparoscopic, endoscopic, and percutaneous surgeries at UCSF and the San Francisco VA

Medical Center, and is interested in incorporating promising new technologies into his practice. He has written more than 60 peer-reviewed scientific articles and nine chapters, and presented national and international invited lectures on both malignant and benign urologic disease, with a particular focus on prostate cancer.

Hillary Copp, MD, MS, attended medical school at Penn State University's College of Medicine and completed her residency at the University of Virginia in Charlottesville. This was followed by a fellowship in pediatric urology at Stanford University, where she concurrently earned a master's degree in epidemiology. In 2009 Copp joined the faculty in the Department of Urology at UCSF

as a participant in the multidisciplinary K12 Urologic Research (KURe) Career Development Program (see story on page 4).

Copp has received many awards. As a resident she received the Merck Achievement of Academic Excellence award, and as a fellow she received a Urologic Diseases in America grant. Copp's research is in the areas of health outcomes and the utility of antibiotic prophylaxis in prevention of urinary tract infection in children with hydronephrosis. Copp is a member of the American Urological Association (AUA) and the American Academy of Pediatric Urology. She serves as a member of the Pediatric Vesicoureteral Reflux Clinical Guidelines Panel for the AUA, and as a reviewer for the *Journal of Urology*.



Hillary Copp, MD, MS Assistant Professor Urology



Laura Dunn, MD Associate Professor Psychiatry and Urology

Laura Dunn, MD, earned her medical degree at UCSF and completed her postgraduate training in psychiatry at UC San Diego (UCSD). She then completed a specialty training fellowship in geriatric psychiatry. She was a member of the psychiatry faculty at UCSD before coming to UCSF in September 2007. Dunn, who holds joint appointments at UCSF in Psychiatry and Urology, serves as direc-

tor of Psycho-oncology in the Department of Psychiatry.

Dunn's research interests incude longitudinal studies of psychological symptoms such as depression and anxiety in cancer patients and survivors. She is examining predictors of these symptoms in cancer patients. Dunn also conducts empirical studies of ethical issues in clinical research and has pub-

lished extensively in this area. She sees cancer patients in a weekly psycho-oncology clinic at the UCSF Helen Diller Family Comprehensive Cancer Center.

John Kurhanewicz, PhD,

who has been a UCSF faculty member in Radiology and Pharmaceutical Chemistry since 1993, added a joint appointment to the Department of Urology in September 2007. Kurhanewicz is internationally recognized for his research in magnetic resonance imaging (MRI) and spectroscopic imaging (MRSI) of patients with prostate cancer and has been involved in the translation

of this technology into clinical applications. He is director of the UCSF prostate imaging program and the biomedical NMR lab for metabolic profiling of human disease.

Kurhanewicz is a member of the California Institute for Quantitative Biosciences, the UCSF Helen Diller Family Comprehensive Cancer Center, and the UCSF-UC Berkeley Bioengineering Graduate Group. He has served as scientific reviewer for more than 20 different journals and has been a major contributor, with his courses in molecular and advanced imaging in oncology, to meetings of the International Society of Magnetic Resonance in Medicine and the Radiologic Society of North America.



John Kurhanewicz, PhD Professor, Radiology and Biomedical Imaging, Pharmaceutical Chemistry and Urology



Guiting Lin, MD, PhD Assistant Professor Urology

Guiting Lin, MD, PhD, received his medical degree at the Weifang Medical College in Shandong, China. Lin trained in surgery at the Harbin Medical University in Harbin, China, and specialized in urologic surgery at Peking University, China's premier medical school, located in Beijing, where he earned a PhD. In 2001, Lin joined the Department of Urology as a

postdoctoral research fellow. His UCSF research has received recognition, including the 2002 Outstanding Young Researcher award given by the International Society for Sexual and Impotence Research. Lin, who joined the faculty in July 2007, conducts research in the Knuppe Molecular Urology Laboratory. His current research focuses on the application of

adipose-derived stem cells for stress incontinence and erectile dysfunction. He has authored or co-authored more than 100 publications.



Pamela Paris, PhD Associate Professor Urology

Pamela Paris, PhD, was awarded the Sherman Clarke and the Merck fellowships while earning a PhD in biophysical chemistry at the University of Rochester. Paris completed a postdoctoral fellowship at the Cleveland Clinic in prostate cancer genetics. She joined UCSF in 2001 as an assistant researcher in the UCSF Helen Diller Family Comprehensive Cancer Center, and received support from a Prostate Cancer Career Development Award from 2001 to 2003. In 2006 she joined the Department of Urology as an associate researcher and was promoted to associate professor in 2009.

The overarching goal of Paris's translational cancer genomics research is to identify drug targets with associated prognostic biomarkers. As a co-leader of a UCSF prostate SPORE program project, she identified a set of DNA biomarkers that may help identify patients at the time of surgical intervention who are at high risk of recurrence and metastasis. Her current research is aimed at validating these

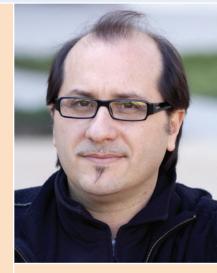
biomarkers, with the goal of bringing this tool into the clinic to assist urologists with adjuvant treatment decisions. She received a UCSF REAC Career Development award to identify genes involved in prostate cancer, and a California Urology Foundation award to use circulating tumor cells to study castration-resistant prostate cancer. In the past year Paris has had papers featured on UroToday.com, Nature.com and the cover of Clinical Cancer Research.

Davide Ruggero, PhD, joined UCSF in July 2007 from the Fox Chase Cancer Center in Philadelphia, where he held a faculty position in human genetics. Ruggero's education was completed at the University of Rome in Italy, where he earned a PhD in molecular and cellular biology in 1998; he was a postdoctoral fellow in molecular oncology and cancer genetics at Memorial Sloan-Kettering Cancer Center.

Ruggero has received note-worthy funding to support his cancer research, including an Enichem Society fellowship and an American-Italian Cancer Foundation fellowship. He received Memorial Sloan-Kettering Cancer Center's Outstanding Research Fellow Award, the V-Scholar Foundation's Award for Cancer Research, and in March 2010 the Leukemia and Lymphoma Society's Scholar Award for his innovative work

on deregulations in protein synthesis during lymphomagenesis. (See page 15 for other honors.)

Ruggero's research seeks to understand the molecular mechanisms that impair mRNA translation, cell growth, and overall protein synthesis rates leading to human disease and cancer. His research results will be applied to the design of a new generation of cancer therapeutic agents.



Davide Ruggero, PhD Assistant Professor Urology



Ira Sharlip, MD Clinical Professor and Senior Physician Diplomate, Urology

Ira Sharlip, MD, has held a variety of appointments in the Department of Urology. Since January 2009 he has served as clinical professor and senior physician diplomate, seeing patients in the Center for Reproductive Health. He is a nationally and internationally recognized authority on reproductive urology and sexual medicine. A leading authority on

the microsurgical treatment of male infertility, Sharlip is one of the world's most experienced surgeons in performing vasectomy reversal. He is past president of the International Society for Sexual Medicine. Currently he chairs the Vasectomy Guideline Committee of the American Urological Association. Sharlip also chairs the AUA's Male Circumcision Task Force, which

is working with the World Health Organization to develop a pool of volunteer surgeons to provide male circumcision services in sub-Saharan Africa.



Jeff Simko, MD, PhD Associate Professor Pathology and Urology

Jeff Simko, MD, PhD, a member of the UCSF Pathology
Department faculty since completing his fellowship in 2002, had his 2003 joint appointment with Urology formalized in July 2007. He is a member of the Prostate Cancer Center where his efforts are focused on genitourinary pathology. Simko's research includes radiologic-pathologic correlation studies and imaging technology development, biomarker discovery, clinical-pathologic correlation

studies, tumor model construction, and biospecimen science and quality control. He is codirector of the NCI Radiation Therapy Oncology Group Biospecimen Resource housed at UCSF.

Simko earned his PhD at the University of North Carolina (UNC) at Chapel Hill and studied medicine at the UNC School of Medicine, where he was awarded three fellowships: the Howard Hughes Trust Fund Fellowship, the UNC School of Medicine
Foreign Fellowship, and the
Medical Alumni Association
Research Fellowship. After
earning his MD in 1996, Simko
completed his residency in pathology at UCSF, followed by a
fellowship in molecular genetic
pathology at Harvard Medical
School's Brigham and Women's
Hospital. Simko later returned to
UCSF for additional fellowship
training in surgical pathology.

James Smith, MD, MS, graduated from The University of California's Joint Medical Program, a partnership between Berkeley's School of Public Health and San Francisco's School of Medicine earning a master's degree in health and medical science in 2000 and a medical degree in 2002. Smith completed his general surgery and urology training at the University of Utah in Salt Lake

City, returning to UCSF as an Andrology Fellow for advanced clinical and epidemiologic training in male reproductive health, erectile dysfunction and Peyronie's disease.

Smith, who joined the faculty in July 2009, specializes in the use of microsurgical vasovasostomy, vasoepididymostomy, sperm retrieval and varicocelectomy. He provides consultations, com-

plete diagnostic evaluations, and treatment for men with erectile dysfunction and Peyronie's disease. Smith is an active member of the American Urological Association, the American Society for Reproductive Medicine, and the Sexual Medicine Society of North America.



James Smith, MD, MS Assistant Professor, Urology, and Obstetrics, Gynecology and Reproductive Sciences



Leslee L. Subak, MD
Professor, Obstetrics, Gynecology
and Reproductive Sciences,
Epidemiology and Biostatistics,
and Urology

Leslee Subak, MD, who joined the Urology faculty in 2007, holds appointments in three UCSF School of Medicine departments. After earning her MD at Stanford University, she completed residency in obstetrics, gynecology and reproductive sciences at UCSF, subsequently completing concurrent fellowships at UCSF in epidemiology and biostatistics and in urogynecology. She has served on the UCSF faculty since 1997.

Subak directs the UCSF
Women's Health Clinical
Research Center Fellowship
and co-directs the Women's
Reproductive Health Research
Career Development Program.
She is principal investigator of
several federally funded research
projects evaluating the treatment of urinary incontinence in
women, with particular emphasis
on the effects of weight reduction on improving symptoms in
obese women, and the econom-

ics and cost-effectiveness of interventions for incontinence. She leads a National Institute of Diabetes and Digestive and Kidney Diseases-funded planning grant for a multisite, randomized trial to investigate the effect of weight loss on erectile dysfunction among overweight and obese men with erectile dysfunction.



Stephen Van Den Eeden, PhD Professor Urology

Stephen Van Den Eeden,

PhD, earned a master's degree from the University of Illinois in Chicago, and a PhD in epidemiology from the University of Washington. Since 1990 he has been at the Division of Research at Kaiser Permanente Northern California and currently holds the title of senior epidemiologist. He is a collaborator with Urology faculty on urinary incontinence, erectile dysfunction, and prostate cancer etiology, and his July 2009 appointment to the Urology

faculty formalizes and strengthens this relationship.

Van Den Eeden's research interests include finding risk factors for prostate cancer and benign genitourinary conditions such as urinary incontinence, enlarged prostate, and erectile dysfunction. His research has been focused on large cohorts of women and men, including a prospective cohort of over 84,000 men. His active studies with UCSF Urology faculty include a genetic

study of prostate cancer and risk factors for erectile dysfunction among African-American men, uncommon urinary tract disorders in newborns, and urinary problems in middle-aged to older women. He is a recent recipient of an American Recovery and Reinvestment Act challenge grant to study outcomes related to the use of androgen deprivation therapy in prostate cancer.



Class of 2015

Uwais Zaid, MD, Anobel Odisho, MD, and Lindsay Hampson, MD

Urology Residents in Surgery

In 2009 the department welcomed new residents Anobel Odisho, MD, Lindsay Hampson, MD, and Uwais Zaid, MD, who will graduate in 2015.

Odisho earned his MD at the University of California, San Francisco School of Medicine, where he also earned a graduate-level Certificate in Biomedical Research. As a medical student he participated in research projects directed by a variety of UCSF faculty, including members of the Department of Urology, and received best poster awards from the American Urological Association and the UCSF Prostate Cancer Program for his urologic oncology and populations science research.

Hampson earned her MD from the University of Michigan Medical School. As a medical student she was awarded the Dean's Merit Scholarship, a four-year, full-tuition scholarship, for outstanding potential for leadership in medicine. Hampson has an interest in bioethics and conflict-of-interest research; prior to medical school she completed a two-year research fellowship in the Department of Clinical Bioethics at the National Institutes of Health, publishing articles in JAMA and the New England Journal of Medicine as a result of her research.

Zaid earned his MD from the University of California, Los Angeles David Geffen School of Medicine. As a medical student he participated in a variety of research projects, including a laboratory study that examined the role of hepatitis B virus X protein in infection and virulence, that was funded by a Howard Hughes Medical Institute-National Institutes of Health Research

Contributions Support Distinguished Faculty

Cenerous gifts from individual and corporate donors have enabled the department to establish new endowed chairs and distinguished professorships. Distinguished professorships are funded with gifts totaling at least \$2.5 million; endowed chairs require a minimum investment of \$500,000. Using the interest from these endowments, the holder of the chair or professorship has exceptional capacity to create a program of excellence.







Katsuto Shinohara, MD

June Chan, ScD, was named the inaugural Steven and Christine Burd-Safeway Distinguished Professor. The endowment was created in recognition of gifts from Safeway Inc. and Safeway's CEO, Steven Burd, and his wife, Christine, to support the holder's research, teaching, and service activities related to the causes, prevention, and treatment of prostate cancer. According to Peter Carroll, MD, MPH, Chan's combined interests in nutrition and prostate cancer make her "perfectly matched to this chair."

Katsuto Shinohara, MD, is the inaugural Helen Diller Family Endowed Chair in Clinical Urology. The chair is funded by a grant from the Helen Diller Family Foundation of the Jewish Community Endowment Fund and will support Shinohara's teaching, research, and service activities in the area of clinical urology. Shinohara is a leader in the field of transrectal ultrasonography and an exemplary clinician, researcher, and teacher.

Publications

Members of the department have published extensively.

For more information, please visit their bios at urology.ucsf.edu/faculty.html

Clinical Trials

The department and affiliated programs are conducting many investigational studies.

For more information, please visit our clinical trials website at urology.ucsf.edu/clinicaltrials.html

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Adult Benign Disease 415/353-2200
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Honors & Awards

Laurence Baskin, MD, gave the annual John Duckett Lecture at the European Society of Pediatric Urology's Annual Congress in 2007. The lectureship honors John W. Duckett, Baskin's mentor and the father of modern hypospadias surgery.

Peter Carroll, MD, MPH, finished a 2006-2008 term as the president of the American Board of Urology.

Carroll was selected to receive the Eugene Fuller Triennial Prostate Award at the upcoming 2010 American Urological Association annual meeting. The award, endowed by a trust fund established by the family of the late Dr. Eugene Fuller, is given once every three years to an individual who has made outstanding contributions to the study of the prostate gland and its associated diseases.

Tom Lue, MD, received the 2008 Mark Brothers of South Bend, Indiana Lectureship Award from Indiana University. This award is given annually to a nationally or internationally renowned medical scientist of Asian descent. Also in 2009, the State University of New York Health Science Center at Brooklyn (SUNY) presented Lue with an honorary doctor of science degree at Carnegie Hall. This honor recognizes his pioneering research in erectile dysfunction, Peyronie's disease, priapism, and stress urinary incontinence.

Jack McAninch, MD, was awarded the prestigious St. Paul's Medal at the 2008 annual meeting of the British Association of Urological Surgeons. At the 2009 annual meeting of the American Urological Association, McAninch was honored with the Ramon Guiteras Award, the highest award given by the AUA. The award is given annually to an individual who is deemed to have made outstanding contributions to the art and science of urology.

Max Meng, MD, won the 2008 American Urological Association's Ambrose/Reed Socioeconomic Prize Essay.

Sima Porten, MD, MPH, was selected from among all residents in their general surgical training at San Francisco General Hospital to receive the Julius R. Krevans Award for Clinical Excellence. This annual award recognizes outstanding house officers for their dedication to patients and families, compassion, patient advocacy, exemplary communication skills, and terrific attitude.

Davide Ruggero, PhD, was named recipient of the 2008 AACR Gertrude B. Elion Cancer Research Award for his project, "Role of IRES-Dependent Translation in Cancer." The award, open to junior faculty investigators, honors the late Nobel laureate Gertrude B. Elion, whose work at Glaxo Wellcome (now GlaxoSmithKline) revolutionized cancer therapeutics.

Emil Tanagho, MD, was awarded the American Association of Genitourinary Surgeons' Keyes Medal on the 80th anniversary of the award's creation, in 1926. Given for outstanding contributions in the advancement of urology, the medal is awarded sparingly: To date, there are fewer than 30 recipients in the award's history.

William Hait, MD, PhD, of the AACR, Davide Ruggero, PhD, Peter Ho, MD, PhD, of GlaxoSmithKline



On January 9, 2010, at a special celebration, Tanagho was presented with the Outstanding Achievement Award from the Egyptian American Society. More than 120 people, including Ambassador Dr. Hesham El-Nakib, the Consul General of Egypt, attended the celebration.

Fred Waldman, MD, PhD, was one of a team of scientists to receive the American Association of Cancer Research Team Science Award at the opening ceremony of the 2008 Annual AACR Meeting. The interinstitutional team of clinicians, physicists, biochemists, statisticians, computer scientists, and engineers was honored for the conception, technical implementation, dissemination, and pioneering applications of comparative genomic hybridization (CGH) and array CGH.

Jared Whitson, MD, will study "Double Stranded-RNA Mediated Gene Activation and Regulation of Kidney Cancer" as a 2009 AUA Foundation Research Scholar under the mentorship of Rajvir Dahiya, PhD.



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University of California San Francisco



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