Stem cell research has captured the imagination of scientists in a variety of fields. The ability of these undifferentiated cells to transform themselves into any other type of cell found in the body suggests that they may someday yield lifesaving treatments for a range of diseases. Studying these cells is also offering startling insights into basic biological processes.

Members of the Department of Urology are among the many UCSF investigators in some 60 laboratories pursuing stem cell research. The recently launched UCSF Institute for Regeneration Medicine, under the direction of Arnold Kriegstein, MD, PhD, provides a framework for collaboration among the researchers working in this field.

Urology faculty member Renee Reijo Pera, PhD, and cell biologist Susan Fisher, PhD, co-direct a major component of the institute’s program, the Human Embryonic Stem Cell Center.

Scientists are investigating how both embryonic and adult stem cells can be harnessed to better understand and treat disorders such as infertility, cancer and impotence.

What are stem cells?

Embryonic stem cells, a term coined by UCSF researcher Gail Martin in 1981, are cells that form in the first week of development, when the human embryo is still a hollow sphere (blastocyst). These cells are not yet differentiated into one of the approximately 200 cell types that exist in the body. Instead, at this stage of development, they are master cells from which all others will “stem.” Over the next weeks of development, they begin to slowly differentiate into muscle, nerve, bone and other cell types.

Another form of stem cell, called adult stem cells, emerges later in the fetus’s development when the individual tissues of the body begin to grow. These adult stem cells can replenish the many types of cells in the tissue in which they reside, but they cannot become “pluripotent,” that is, able to grow into cell types found in other tissues. Only embryonic stem cells that have not begun the differentiation process can do this.

Scientists are investigating how both embryonic and adult stem cells can be harnessed to better understand and treat disorders such as infertility, cancer and impotence.

Understanding the development of sperm and egg cells

Renee Reijo Pera’s research is focused on coaxing embryonic stem cells into becoming sperm and egg cells. Several groups of researchers have reported that sperm- and egg-like cells sometimes arise spontaneously in colonies.

CONTINUED ON PAGE 6
The diagnosis and treatment of urologic diseases are evolving at a rapid pace. The last decade has seen the development of new medical therapies, of laparoscopic and robotic procedures for conditions that require surgery, and of new imaging techniques and biomarkers for detecting urologic disease in its earliest stages.

UCSF has played a key role in many of these scientific advances. We will continue to do so, thanks to generous public and private financial support that has allowed us to expand several research programs. Stem cell research, despite the controversy surrounding it, promises a better future for millions. UCSF investigators, including many from our department, will play major roles in the development of appropriate, innovative uses for this technology.

Another research resource, our population sciences group, has been reorganized as the Genitourinary Cancer Epidemiology and Population Science (G-CEPS) program. This expanded program, under the direction of June Chan, ScD, and Badrinath Konety, MD, MBA, will allow us to more efficiently oversee our clinical research studies.

I’d like to welcome several new faculty members to the department. These highly sought-after scientists and clinicians have decided to make UCSF their home, and their recruitment has allowed us to expand our clinical and research programs significantly. (See related story on page 10.)

It was with great pleasure that we broke ground on the new Helen Diller Family Cancer Research Building in April 2006. This building will house new urological research laboratories, which will complement existing ones at other UCSF sites. I am profoundly grateful to the Diller family for their generosity and continued support. Our research efforts not only lead to important scientific discoveries, but also allow us to provide investigative training to medical students, residents and fellows, many of whom come to UCSF from other countries. The department’s far-reaching influence in this regard is highlighted in one of our featured stories.

The department’s superb efforts in clinical care, research and education would not be possible without the efforts of many. I am grateful for the enthusiasm, innovation and commitment of all of those who make up our diverse department.

Sincerely,

Peter R. Carroll, MD
Professor and Chair of Urology
Ken and Donna Derr-Chevron Distinguished Professor
The UCSF Department of Urology enjoys a national reputation for spearheading many clinical studies on genitourinary cancer. To streamline the research process, the department recently consolidated its clinical research program under the administrative direction of faculty member June Chan, ScD.

Genitourinary Cancer Epidemiology and Population Science (G-CEPS), as the new program is called, encompasses all departmental studies involving patients or large populations. As program director, Chan will oversee the implementation and execution of new and existing research projects. Current research efforts are focused on urologic malignancies, but the program will expand in the future to include benign urologic diseases. Badrinath Konety, MD, MBA, serves as the G-CEPS co-director, bringing clinical expertise and additional scientific leadership to the program. As part of this administrative restructuring, Jeanette Broering, RN, MS, MPH, has been named director of data procurement and quality assurance. Eric Elkin, MPH, is the senior statistical analyst for the program, overseeing the analysis of study data and the dissemination of findings in publications and conference presentations. Current areas of research include the following.

### Urologic Oncology Database
This database tracks the clinical progress of all patients treated at UCSF for genitourinary cancer. It currently contains information on more than 2,500 patients. Included in this database is a tissue bank consisting of blood, urine and tissue samples obtained from patients at the time of surgery and at subsequent follow-up visits. Overall, the database is a vital tool for a range of research projects on such topics as cancer biomarkers, the role of nutrition in cancer epidemiology and quality-of-life issues following treatment.

### Cancer Risk and Prevention Program
This program was developed to evaluate familial patterns in the occurrence of genitourinary cancers and to advance our understanding of hereditary factors associated with these malignancies. Kari Danziger, MS, CGC, collects and analyzes family histories of all new patients seen in the UCSF Comprehensive Cancer Center urologic oncology practice. Patients are referred for genetic counseling and testing when appropriate. In collaboration with Maxwell Meng, MD, patients and family members requiring additional clinical counseling or treatment are offered a multidisciplinary and rational approach to cancer risk assessment and screening, and the opportunity to participate in novel research studies.

An initial review of data collected through this program from more than 1,100 men with prostate cancer revealed some interesting patterns. The average age at which men were diagnosed with prostate cancer was 62 years, but men were as young as 36 and as old as 94 when they were found to have the disease. A family history of prostate cancer was present in 34 percent of the men.

### CaPSURE
UCSF serves as the coordinating center for the Cancer of the Prostate Strategic Urologic Research Endeavor (CaPSURE), an ongoing multisite observational study marking its 10th anniversary this year. CaPSURE, which is funded by TAP Pharmaceutical Products Inc., has provided a wealth of information for research analysis. More than 115 presentations based on CaPSURE data have been reported at scientific meetings, and 70 articles have been published in professional journals. (See related story on page 6.)

### Clinical trials and observational studies
The G-CEPS program oversees more than 30 ongoing studies. Some are observational in nature, such as a study monitoring the effect of active
Generous gifts from individual and corporate donors have enabled the department to establish new endowed chairs and distinguished professorships. These endowments support Urology faculty working in a variety of fields ranging from prostate cancer to the neurophysiology of the genitourinary tract, to urological medical education. 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.

Chevron and its former chairman and CEO Ken Derr, along with his wife Donna, have partnered to establish the Ken and Donna Derr-Chevron Distinguished Professorship. Their generous donations build upon a previous chair endowed by Chevron in the Derrs’ honor in 2000. The new professorship is held by Urology Chair Peter Carroll, MD, a leader in the field of prostate cancer research and treatment. “This contribution reflects a shared commitment with UCSF to prevent and cure prostate cancer and improve the quality of life for men undergoing treatment,” said Ken Derr. Discovering the fundamental biological processes underlying prostate cancer and translating those discoveries into new ideas for prevention, diagnosis and treatment are the primary emphases of the UCSF program, according to Carroll. “These contributions allow us to continue our search for answers and allow those affected by prostate cancer to live longer, fuller lives,” said Carroll.

In a similar philanthropic partnership, Safeway Inc. has joined together with its chairman, President and CEO Steve Burd and his wife Chris to fund a distinguished professorship in prostate cancer research. Safeway is among the largest corporate supporters of prostate cancer research, annually dedicating the month of June to intensive fundraising efforts that combine employee events with customer fundraising. “UCSF is in Safeway’s corporate backyard, and it is the best center in the country for research and innovative treatment for prostate cancer,” said Steve Burd. “We appreciate the opportunity to assist in this institution’s important mission.” The gift will make it possible to recruit a prominent prostate cancer scientist to focus on developing better detection methods and
treatment options for the disease, which in turn will increase survival rates for patients. “This is an important gift that will mean a great deal to the University’s research efforts,” said Carroll. “We appreciate the generosity of Mr. and Mrs. Burd and the employees and customers of Safeway.”

Last year, Tom Lue, MD, was named to the Emil Tanagho Endowed Chair in Clinical Urology. The chair was established with a gift from the Adolph Kutzmann estate, supplemented by the generosity of private donors, including N. John Anton, Ibrahim Hefni, Siavosh Honari, Eugene Friend and Ynez Carlomagno. The chair is named for Emil Tanagho, MD, who led the department from 1976 to 1996 and continues his academic career as professor emeritus. Lue, who trained under Tanagho, joined the faculty in 1982 after completing a clinical and research fellowship focused on the neurophysiology of the genitourinary tract. An internationally recognized academic leader in male sexual function and neurourology, Lue has special expertise in the treatment of erectile dysfunction and Peyronie’s disease. He heads the Knuppe Molecular Urology Laboratory, which is currently conducting studies on cavernous nerve regeneration and female urinary incontinence. The endowed chair will enable Lue and his research team to expand into other areas of investigation, such as prostatic enlargement, voiding dysfunction and pharmacologic neuroprotection.

Robert Bleloch, MD, PhD, was recently appointed to the Peter R. Carroll, MD, Endowed Chair. The chair was made possible by generous donations from Arthur Rock and Toni Rembe, Ernest Ruehl, Irving Loube, Roselyne Swig, Mr. and Mrs. Robert Saks, Dr. and Mrs. Alan Searcy, Mr. and Mrs. Richard Doscher, and Dr. and Mrs. Lyman Lorensen. Its purpose is to support research into the causes, treatment and cure of prostate cancer. Bleloch joined the Department of Urology in December 2005 after completing his postdoctoral training at the Whitehead Institute for Biomedical Research in Massachusetts. He is a stellar physician-scientist whose work focuses on identifying the factors that determine and limit the developmental potential of stem cells, and the role of these factors in cancer. He is poised to add a new dimension to Urology’s cancer research program and the UCSF program in stem cell research. (See related stories on page 1 and page 10.)

The department is pleased to announce that Paul Turek, MD, has been appointed to the new Endowed Chair in Urologic Medical Education. Jointly funded by the department and the Haile T. Debas Academy of Medical Educators, this chair recognizes Turek’s strong commitment to medical student teaching in urology. Teaching has been a focus of Turek’s academic career. Since joining the UCSF faculty in 1994, he has completely revamped the medical student curriculum and structure in urology. Under his leadership, the third-year clerkship has become case-based and includes an advanced clinical skills session. He has also led innovations in second-year teaching, directs the longitudinal clinical experience program in urology and serves as a valued mentor to students who are contemplating urology as a career choice. He has received awards recognizing his excellence in teaching and curricular development, including the Outstanding Leadership Award for Clinical Preceptors from the UCSF class of 2000 and acceptance into the Haile T. Debas Academy of Medical Educators. The endowment will support his activities related to medical student teaching.
Consolidating Genitourinary Cancer Research

CONTINUED FROM PAGE 3

surveillance on the long-term health of prostate cancer patients. Others are interventional studies that analyze variables, such as drug therapies and other treatments, and nutritional and lifestyle interventions. Many of these studies are conducted in collaboration with other medical centers and research groups, the National Cancer Institute (NCI) and private industry.

One study, the NCI-funded Molecular Effects of Nutrition Supplements (MENS) trial, is being conducted in men who are opting for active surveillance of their prostate cancer. Participants are randomly assigned to take capsules containing either placebo, fish oil or tomato extract. Tissue samples will be compared to see whether there are differences over time among the three groups.

For more information on this study, which is still enrolling participants, please call Sarah Dumican, MS, RD, at 415/885-3673.

CaPSURE and Prostate Cancer

Approximately 232,000 men were diagnosed with prostate cancer in the United States in 2005. The disease is the number one cause of cancer death in men, but how best to treat it remains a complex decision. The Cancer of the Prostate Strategic Urologic Research Endeavor (CaPSURE), established a decade ago, has provided a valuable tool for clarifying how the disease progresses and how it impacts the quality of men’s lives. Unlike other prostate cancer databases, which typically enroll only patients treated at tertiary care centers, the 12,000 men enrolled in CaPSURE are primarily drawn from community-based practices around the country. As a result, CaPSURE data are considered more representative of the typical US prostate cancer patient.

CaPSURE tracks a number of clinical and quality-of-life variables over time. Baseline health and demographic information is collected by the patient’s urologist, as are the results of subsequent prostate-specific antigen (PSA) tests used to monitor tumor recurrence. Men also complete a mail survey every six months that asks about their quality of life and health care utilization patterns. CaPSURE is unique in that the impact of diagnosis and treatment on the quality of men’s lives is assessed. Often this is not considered in research efforts and properly conveyed to patients when they have to make decisions about treatment.

CaPSURE has revealed that prostate cancer is increasingly diagnosed at earlier stages, when it poses less risk to a man’s health, yet patients are less likely to settle for active surveillance (“watchful waiting”) of their tumor than they were a decade ago. Rates of treatment – especially a form of radiation therapy called brachytherapy, as well as hormonal therapy – have risen markedly. CaPSURE researchers are looking at new and refined risk assessment tools that will help guide patients toward the most appropriate treatment. CaPSURE is supported by funding from TAP Pharmaceutical Products Inc. (Lake Forest, IL). For more information, please visit www.capsure.net.

Stem Cells

CONTINUED FROM PAGE 1

Paul Turek, MD, collaborates with UCSF stem cell scientists to develop treatments for testicular cancer, sperm development and loss of fertility.

of mouse embryonic stem cells. So do other types of cells, including muscle cells, neurons, cartilage and blood.

Reijo Pera’s team is interested in learning about the genes that control germ cell (sperm and egg) formation. They recently reported that “germ cell particles” – clusters of proteins and RNA – seem to form prior to differentiation in the embryonic stem cell cultures. Now they are working to discover what makes these particles develop. This could have profound implications for infertility treatment, perhaps allowing scientists to transfer nuclear material from the prospective parent into an egg cell without having to harvest that cell from a woman donor.

Growing stem cells more efficiently

Working closely with Reijo Pera is Susan Fisher, PhD, co-director of the Human Embryonic Stem Cell Center. Fisher heads a laboratory within the UCSF Department of Cell and Tissue Biology that has for many years...
studied human placental development. She and her colleagues are now applying their accumulated knowledge to the cells that serve as “feeders” for human embryonic stem cell cultures.

Fisher’s group has made feeder cells from human placental cells, and has shown that they work as well as the mouse embryo cells that have traditionally been used in stem cell cultures. Current work is focused on eliminating the need for feeder cells, and instead substituting specific proteins.

Fisher and her colleagues are also trying to characterize the fundamental properties of human embryonic stem cells. Microscopic analysis has shown, for example, that these cells show polarity – a top-bottom orientation – that was thought to be associated only with cells that were proceeding along the path to differentiation.

Exploring nerve regeneration for erectile dysfunction

Despite new surgical techniques, erectile dysfunction is a common side effect of pelvic surgery or radiation, usually for cancer treatment. This results from inadvertent injury to the cavernosal nerves near the prostate, as surgeons work to remove all of the cancer, or as radiation is directed to the prostate. Recovery of erectile function depends on the regeneration of nerve cells from the remaining tissue, a capacity that is unfortunately limited.

Tom Lue, MD, and his research team are exploring whether injection of embryonic stem cells that have begun to differentiate into neural cells can stimulate cavernosal nerve growth. Working in a mouse model, they have found that such injections do, in fact, improve erectile function. Subsequent examination of the nerve tissue showed that nerve regeneration was greater in the group undergoing embryonic stem cell injection. Eventually, it may be possible to use a similar technique to restore erectile function in men who have suffered nerve damage in the course of prostate cancer surgery or radiation.

Studying the role of embryonic stem cells in testis cancer

Testicular cancer is the most common cancer afflicting young men, but how the disease develops has been poorly understood. UCSF urologist Paul Turek, MD, and Reijo Pera have discovered that the activity of several embryonic stem cell genes is elevated in testicular cancer. Their finding provides some of the first molecular evidence of a link between embryonic stem cells and malignancies. Scientists theorize that the genes might eventually provide new markers for diagnosis or targets for therapy.

Testicular cancers called seminomas arise in sperm-producing germ cells, which are located in the testes. The researchers showed that the genetic misregulation leading to seminomas begins very early in the formation of sperm-producing germ cells.

In related work, Turek and Reijo Pera are trying to develop a normal human sperm cell line in laboratory culture. They will then genetically manipulate the cells by inserting stem cell genes in an attempt to cause the normal cells to become cancerous. The researchers are also exploring ways to induce early human germ cells to produce sperm – a feat that would have implications for understanding sperm development and loss of fertility.

Transforming adult cells into embryonic stem cells

New Urology faculty member Robert Blelloch, MD, PhD, is among a handful of researchers investigating ways to make adult cells revert to an embryonic state. Blelloch uses a technique called somatic cell nuclear transfer (SCNT). In Blelloch’s laboratory, instead of injecting sperm into the unfertilized egg – as is done when performing conventional in vitro fertilization – he injects the nucleus of an adult cell into an egg, induces fertilization, and then grows the embryo in culture. Once the embryo has developed into a blastocyst, it can be used to derive embryonic stem cells.

These cells have the genetic makeup of the original differentiated adult cell, but can be induced to develop into any adult cell type. Scientists theorize that such cells could be transplanted back into the adult from which the cell nucleus was taken without the fear of rejection.

Blelloch and his colleagues have been working in mice to show how SCNT can be used to study cancer. Nuclei from different types of cancer cells are inserted into eggs, where they develop into embryonic stem cells. The stem cells are then redifferentiated into adult cells, which scientists monitor for malignant changes. This technique will allow researchers to study the earliest stages of the development of cancer.
Over the years, hundreds of young men and women have come from around the world to UCSF to train in urology. They return home with more than just an appreciation for the campus’s view of the Golden Gate. With the clinical and research skills they have honed at UCSF, many now serve as academic leaders in countries such as Japan, Austria, Germany and Australia. Often UCSF faculty continue to mentor these physician-scientists from afar, providing technical advice and research support.

Leo Ribeiro-Filho, MD, PhD, credits his two-year fellowship at UCSF with jump-starting his medical career in his native Brazil. Thanks to the encouragement and support of UCSF faculty, he returned to his homeland with a prestigious five-year National Institutes of Health (NIH) grant to investigate potential biomarkers for bladder cancer. He is conducting the research at the University of Sao Paulo, where he is an assistant professor and vice director of the urology research laboratory.

Ribeiro-Filho attributes the success of his grant application to UCSF Professor Rajvir Dahiya, PhD. “He served as my PhD research mentor and was incredibly patient with me, making suggestions to strengthen the proposal,” said Ribeiro-Filho, who at 34 was among the youngest investigators to receive a grant of this size and duration from the NIH. The award came through a federal program...
designed to support researchers working in areas of the world that have traditionally been underrepresented in science funding.

Without the grant, said Ribeiro-Filho, he would have been a volunteer rather than a paid faculty member at the University of Sao Paulo, which encompasses the most prestigious medical center in Brazil. Indeed, its hospital is the biggest in Latin America, according to Ribeiro-Filho, with 3,300 beds. The grant has allowed him to establish a laboratory, hire two PhD-level investigators, and purchase equipment and machinery necessary to perform his research. Ribeiro-Filho maintains a private practice in addition to his clinical practice at the university, where he teaches fourth-year medical students, residents and postdoctoral fellows.

Ribeiro-Filho continues to collaborate closely with UCSF colleagues. Urology faculty Peter Carroll, MD, and Paul Turek, MD, have traveled to Sao Paulo as guest lecturers, and Dahiya continues to serve as a mentor on Ribeiro-Filho’s grant project, traveling to Sao Paulo for a week each year to review his laboratory’s progress.

Ribeiro-Filho also appreciates the other international fellows he met during his time at UCSF. “I now have contacts and potential research collaborators in Japan and Europe,” he said.

Looking for biomarkers for bladder cancer

Leo Ribeiro-Filho’s research is focused on bladder cancer, a disease for which smoking is the primary risk factor. According to the American Cancer Society, approximately 63,000 new cases of bladder cancer were diagnosed in the United States in 2005, and 13,100 people died of the disease. Bladder cancer ranks as the fourth most commonly diagnosed cancer in men. The disease occurs less frequently in women.

Seventy percent of bladder cancers are noninvasive, superficial tumors that can be successfully treated with surgery. But because scientists have not yet identified biomarkers for which cancers are likely to progress, patients must be followed rigorously to make sure the cancer does not recur and become invasive. Patients must undergo cystoscopy on a regular basis, and many do not keep those appointments over the years.

“There’s no test, like the PSA for prostate cancer, that lets you easily monitor who is at high risk for recurrence of bladder cancer,” said Ribeiro-Filho. His five-year NIH grant is supporting the search for such a biomarker.

His laboratory is examining whether the inactivation of cell adhesion genes may play an important role in the initiation and progression of bladder cancer. Many types of cancer cells have been shown to lose their ability to adhere normally to other tissue, allowing the cells to travel into the bloodstream and metastasize. Preliminary data indicate that at least one adhesion gene, e-cadherin, is inactivated in bladder cancer, probably through a process called methylation. Ribeiro-Filho’s research is exploring how the genes inactivate and whether they can be used to diagnose or monitor bladder cancer. He is also studying whether administering a demethylating agent can restore normal cell adhesion function.

With the clinical and research skills they have honed at UCSF, many now serve as academic leaders in countries such as Japan, Austria, Germany and Australia.
New Faculty

Robert Blelloch, MD, PhD,
Assistant Professor
Urology; Obstetrics, Gynecology and
Reproductive Sciences; Pathology
Peter R. Carroll, MD, Endowed Chair

Robert Blelloch, MD, PhD, joined the faculty in December 2005 from a postdoctoral fellow position at the Whitehead Institute for Biomedical Research. After Blelloch completed his undergraduate education, he earned a master’s degree in teaching at Duke University, later entering the University of Wisconsin, Madison Medical Scientist Training Program (MSTP). At Wisconsin, Blelloch earned his PhD in cell and molecular biology in 1999 and his MD in 2001. After serving his residency in pathology at the Harvard Medical School-affiliated Brigham and Women’s Hospital, he completed a fellowship in Harvard’s joint program of transfusion medicine at the Brigham and Women’s Hospital and the Whitehead Institute.

Blelloch received two National Institutes of Health (NIH)-funded grants and private foundation monies while at Madison. As an MSTP student, he published several papers, including a cover story in Nature. Blelloch graduated at the top of his medical school class. As a postdoctoral fellow, he showed how somatic cell nuclear transfer could be used to study the genetics and biology of cancer. Blelloch is funded by the NIH and the Lance Armstrong Foundation to identify the factors that determine and limit the developmental potential of stem cells, and the role of these factors in cancer. His work is expanding our understanding of the genetic and biological basis of cancer, and may lead to new cancer treatments. Blelloch will be an asset to the Urologic Oncology Program and the expanding program in stem cell research at UCSF. (See story on page 1.)

Fergus Coakley, MD, UCSF faculty in the Department of Radiology since 1997, joined the Department of Urology with a joint appointment in July 2004. Coakley received his MD from the National University of Ireland, and subsequently trained in both internal medicine and radiology in Ireland and England and at Memorial Sloan-Kettering Cancer Center in New York. Coakley serves as the chief of Abdominal Imaging at UCSF; his research interests include oncologic applications of computed tomography (CT) imaging and magnetic resonance imaging (MRI) of the abdomen. He has a particular interest in the continued development and refinement of endorectal prostate MRI and prostate magnetic resonance spectroscopic imaging (MRSI), since this modality has the potential to allow accurate evaluation of prostate cancer stage, volume and aggressiveness by a single noninvasive procedure. He is currently the national co-principal investigator for the ongoing American College of Radiology Imaging Network study of MRI and MRSI of prostate cancer. Coakley’s appointment in Urology will help to foster and promote ongoing collaborations.
Christopher Haqq, MD, PhD, studied medicine and genetics concurrently at Harvard Medical School, and he received his MD and PhD degrees in 1996. He then joined UCSF for internship and residency in internal medicine and a fellowship in medical oncology. Haqq joined the Department of Medicine in 2001, and his June 2005 appointment in the Department of Urology formalizes his ongoing involvement with the Prostate Cancer Center. Haqq collaborates with Peter Carroll, MD, and June Chan, ScD, on a prostate cancer clinical research study, the Molecular Effects of Nutrition Supplements (MENS) study. MENS is a placebo-controlled, blinded intervention study of lycopene, fish oil and placebo olive oil in men with favorable-risk prostate cancer. He is specifically interested in the use of expression array technology to uncover new pathways responding to nutrient and dietary influences in prostate cancer. In addition to his appointment at UCSF, Haqq works at Amgen in Thousand Oaks, California, where he is involved in early development of new targeted biologic therapies.

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Donna Deng, MD, received her MD from the University of California, Davis in 1998. She served her urology residency at the University of California, San Francisco. In 2001, she was one of three house staff elected to the Alpha Omega Alpha Honor Medical Society. Following her residency, Deng spent a year at the University of California, Los Angeles as a pelvic reconstruction and female urology fellow; she returned to UCSF as faculty in September 2005, bringing this expertise with her. Her clinical interests include urinary incontinence, voiding dysfunction, neurourology, and pelvic reconstruction for prolapse and fistula repair. Deng’s research is examining the molecular basis of, and hormonal effects on, incontinence. Together with Tom Lue, MD, an investigator on the UCSF Specialized Center of Research (SCOR) in Lower Urinary Tract Function in Women grant, Deng seeks to improve the prevention and treatment of incontinence and voiding dysfunction.

Colin Collins, PhD, who has been UCSF faculty and a member of the UCSF Comprehensive Cancer Center since 1998, joined the Urology faculty in April 2005. Collins studied genetic engineering at San Francisco State University and earned his PhD in medical genetics from the University of British Columbia in Vancouver, Canada. Completion of his PhD was followed by a postdoctoral research fellowship in tumor genetics at the University of California and a faculty position at Lawrence Berkeley National Laboratory. The primary focus of his research is oncogenomics, the application of genomics to basic cancer biology and clinical oncology. His research ranges from development of diagnostic and prognostic assays for prostate cancer to whole tumor genome analysis and the functional characterization of cancer-related genes. Collins has been a project leader on the UCSF prostate cancer SPORE grant since its inception in 2000. He has funding through the Innovative Molecular Analysis Technologies of the National Cancer Institute, Susan G. Komen Foundation, and an NIH RO1 that extends his SPORE research and a Bay Area Breast SPORE Developmental Project.
Joycelyn Speight, MD, PhD, studied medicine and developmental neurobiology concurrently at the State University of New York, and received her MD and PhD degrees in 1993. She interned in internal medicine at Winthrop University Hospital in Long Island, New York, and completed her residency in radiation oncology at the University of Southern California. Speight joined UCSF in 1999 as a clinical fellow in urologic oncology and brachytherapy, and in 2000 was promoted to a faculty position in the Department of Radiation Oncology. Speight’s March 2005 joint appointment in the Department of Urology formalizes her ongoing involvement with the Prostate Cancer Center. Speight’s prostate cancer clinical research includes image-guided radiotherapy, adaptive radiotherapy and functional imaging. She is specifically interested in the short- and long-term effects of prostate cancer treatments on health-related quality of life. She is involved in CaPSURE research. (See story on page 6.) As a core member of the genitourinary and radiation oncology committees of Cancer and Leukemia Group B, Speight represents UCSF and participates in the development of prostate cancer trials.

Badrinath Konety, MD, MBA, studied medicine at the MS Ramaiah Medical College of Bangalore University, India, where he received his medical degree. Konety was a research fellow with the UCSF Department of Urology at the Veterans Affairs Medical Center prior to completing his residency at the University of Pittsburgh in 1998. He was an American Foundation for Urologic Disease Research Scholar and a Ferdinand Valentine Fellow at the University of Pittsburgh’s Department of Urology and Cancer Institute, concurrently studying business and receiving an MBA from the University of Pittsburgh Katz School of Business. Konety completed his medical education as chief clinical fellow at Memorial Sloan-Kettering Cancer Center. Konety joined UCSF in August 2005 from the University of Iowa, and is seeing patients in the urologic oncology clinic at the Comprehensive Cancer Center. He holds a joint appointment in the Department of Epidemiology & Biostatistics. Konety’s research is focused on patients with urologic cancers, particularly bladder cancer, prostate cancer, and the risks and benefits of treatment in the elderly. He has been involved in developing new markers of bladder cancer and in gene therapy for prostate cancer.
In 2005 the department welcomed new residents David Aaronson, MD, Michael Eisenberg, MD, and Ephrem Olweny, MD, who will graduate in 2010. Aaronson earned his MD, with distinction in research, from the Mount Sinai School of Medicine of New York University. His honors include membership in the Alpha Omega Alpha Honor Medical Society, the Community Service Award for outstanding second-year medical students and the Arthur H. Aufses Senior Prize in Surgery.

Eisenberg earned his MD from the Yale University School of Medicine. While at Yale, he received a prestigious Howard Hughes Medical Institute Research Training Program Fellowship.

Olweny earned his MD from Washington University School of Medicine in Saint Louis. He was one of 30 national awardees of the Paul & Daisy Soros Fellowship for New Americans.

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Michael Eisenberg, MD, Ephrem Olweny, MD, and David Aaronson, MD

Class of 2010

In 2005 the department welcomed new residents Thomas Chi, MD, Adam Reese, MD, and Gregory Tasian, MD, MSc, who will graduate in 2011.

Chi earned his MD from the University of California, San Francisco, where he was elected president of the Associated Students of the School of Medicine. He received honors in clinical clerkships with six UCSF departments, including Urology. Chi participated in urology research directed by faculty members Stoller, Turek, McAninch, Carroll and Chan.

Reese earned his MD from the Columbia University College of Physicians and Surgeons in New York. He received the Madson Graduate Scholarship, the Alfred P. Steiner Award and the Associated Medical Schools of New York State Medical Student Research Award.

Tasian earned his MD at Baylor College of Medicine in Houston, taking a leave of absence before his final year to receive an MSc in neuroscience from Oxford University. He was elected to the Alpha Omega Alpha Honor Medical Society and was named the 2004 DeBakey Scholar, the highest academic award given annually to one student by Baylor College of Medicine.

Class of 2011

Gregory Tasian, MD, MSc, Adam Reese, MD, and Thomas Chi, MD

Urology Residents in Surgery
Clinical trials of new therapies for urological disorders are a department priority. The department and affiliated programs are conducting more than 30 investigational studies. Several ongoing trials are listed below. For more information, please visit our clinical trials website at http://urology.ucsf.edu/clinicaltrials.html, or contact Vanessa Shaw Poolman at 415/885-7329 (vshaw@medicine.ucsf.edu) or Imelda Tenggara at 415/353-7348 (itenggara@urology.ucsf.edu).

- A Phase I/II Study of Granulocyte Macrophage-Colony Stimulating Factor (GM-CSF) as Neoadjuvant Therapy in Patients with Localized Prostate Cancer (CC 04558)
- A Pilot Study of MRI and Spectroscopy Imaging Changes with 6 Months of Dutasteride in Patients with Symptomatic Benign Prostatic Hypertrophy and Low-Risk Prostate Cancer on Watchful Waiting or Requiring Neoadjuvant Androgen Suppression Prior to Prostate Brachytherapy (05551)
- A Randomized, Double-Blind, Placebo-Controlled Phase III Study of Early Versus Standard Zoledronic Acid to Prevent Skeleton-Related Events in Men with Prostate Cancer Metastatic to Bone (CALGB 90202)
- Profiling Post-Operative Risk in Elderly Patients Undergoing Surgical Intervention for Bladder and Other Urologic Cancer (05524)

Recent Publications


Members of the department have published extensively in the past year. Selected highlights are noted below.


Department members have been recognized locally, nationally and internationally. A few highlights are listed below. A more complete listing of awards can be found in the news section of our website, http://urology.ucsf.edu.

The Department of Urology congratulates Frank Hinman, Jr., MD, on celebrating his 90th birthday in 2005. Hinman continues to keep regular office hours, enhancing the department’s academic mission as he shares his wealth of knowledge and experience with urology students, residents and faculty.

Badrinath Konety, MD, MBA, won the American Urological Association’s 2006 Geriatrics Prize Essay Contest. He will present his essay, “Screening and Management of Prostate Cancer in Elderly Men: The Iowa Prostate Cancer Consensus,” and receive a $1,500 cash award in May 2006 at the annual AUA meeting in Atlanta, Georgia.

Jack McAninch, MD, was awarded the Spence Medal at the April 2005 American Association of Genitourinary Surgeons (AAGUS) meeting in Laguna Niguel, California. The Spence Medal is awarded for outstanding achievements in urology. McAninch is the seventh recipient of the award, which was created in 1994 and is awarded only when the awards committee feels there is a suitable recipient.

In September 2005, Maxwell Meng, MD, received the Excellence in Direct Teaching Award from the Haile T. Debas Academy of Medical Educators.

Emil Tanagho, MD, was granted honorary membership in the European Association of Urology (EAU) at the March 2005 General Assembly meeting in Istanbul, Turkey. Tanagho joins a select group of honorary members who have excelled in their field of expertise and have played a crucial role in the development of the EAU.


Faculty

Peter Carroll, MD
Professor and Chair, Urology
Ken and Donna Derr-Chevron Distinguished Professor
Specialty: Urologic Oncology

Tom Lue, MD
Professor and Vice Chair, Urology
Emil Tanagho Endowed Chair in Clinical Urology
Specialty: Erectile Dysfunction and Neurourology

Jack McAninch, MD
Professor and Vice Chair, Urology
Specialty: Urologic Trauma and Urogenital Reconstructive Surgery

Marshall Stoller, MD
Professor and Vice Chair, Urology
Specialty: Endourology, Laparoscopy and Stone Disease

Laurence Baskin, MD
Professor, Urology; Pediatrics
Specialty: Pediatric Urology

Robert Blollow, MD, PhD
Assistant Professor, Urology; Obstetrics, Gynecology and Reproductive Sciences; Pathology
Peter R. Carroll, MD, Endowed Chair

Jeanette Brown, MD
Professor, Obstetrics, Gynecology and Reproductive Sciences; Epidemiology & Biostatistics; Urology

June Chan, ScD
Assistant Professor, Epidemiology & Biostatistics; Urology

Fergus Coakley, MD
Associate Professor, Radiology; Urology

Colin Collins, PhD
Associate Professor, Urology; Cancer Research Institute; Laboratory Medicine

Rajvir Dahia, PhD
Professor, Urology

Donna Deng, MD
Assistant Professor, Urology
Specialty: Female Pelvic Reconstructive Urology, Urinary Incontinence and Neurourolgy

Christopher Haqq, MD, PhD
Assistant Professor, Urology

Frank Hinman, Jr., MD
Clinical Professor, Urology

Christopher Kane, MD
Associate Professor, Urology
Specialty: Laparoscopy and Urologic Oncology

Sara Knight, PhD
Assistant Professor, Psychiatry; Urology

Badrinath Konety, MD, MBA
Associate Professor, Urology; Epidemiology & Biostatistics
Specialty: Urologic Oncology

Ching-Shwun Lin, PhD
Associate Professor, Urology

Maxwell Meng, MD
Assistant Professor, Urology
Specialty: Laparoscopy and Urologic Oncology

Renee Reijo Pera, PhD
Associate Professor, Obstetrics, Gynecology and Reproductive Sciences; Physiology; Urology

Mack Roach III, MD
Professor, Radiation Oncology; Urology
Specialty: Radiation Oncology

Katsuto Shinohara, MD
Professor, Urology
Specialty: Urologic Oncology and Urologic Ultrasonography

Marc Shuman, MD
Professor, Medicine; Urology
Specialty: Medical Oncology

Eric Small, MD
Professor, Medicine; Urology
Specialty: Urologic Oncology

Joyce Speight, PhD, MD
Assistant Professor, Radiation Oncology; Urology
Specialty: Radiation Oncology

Emil Tanagho, MD
Professor Emeritus, Urology
Specialty: Neurourology, Reconstructive Urology, Urinary Incontinence and Urodynamics

Paul Turek, MD
Associate Professor, Urology; Obstetrics, Gynecology and Reproductive Sciences
Endowed Chair in Urologic Medical Education
Specialty: Male Infertility and Reproduction

Frederic Waldman, MD, PhD
Professor, Laboratory Medicine; Urology

John Witte, PhD
Professor, Epidemiology & Biostatistics; Urology