Welcome to the Division of General Surgery at UCSF, where our mission is to be an innovative academic and global resource providing the highest standard of patient care, research and education. We have a long and proud tradition of excellence in clinical care, surgical education and research. Building on a foundation of outstanding achievement, we have entered the 21st century with 41 full-time, academic faculty members and 64 clinical faculty members. Our academic enterprise extends over four principal teaching hospitals and two affiliated institutions, certifying the breadth and depth of our commitment to public service, dedication to training future leaders in surgery, and the tireless pursuit of new knowledge (See CORE VALUES on page 3).

CLINICAL CARE. UCSF has a well-established and deserved reputation for preeminent patient care services, much of which is anchored in our Division’s world-class programs in surgery of the esophagus, liver, pancreas, colon and rectum, thyroid and parathyroid glands, breast, melanoma, obesity and the management and prevention of acute traumatic injuries. For well over a century, a parade of remarkable men and women has labored to enlighten and educate, and perhaps most importantly, to comfort where there was suffering. Our faculty continue to make seminal contributions to the treatment of surgical diseases. From pioneering minimally invasive surgical techniques to treat diseases of the esophagus, to revolutionary approaches to delivering comprehensive care to women with breast cancer, the tradition of innovative clinical care remains vibrant and central to our mission.

[Continued on page 3]
It is 2 p.m. at the emergency department (ED) of a major teaching hospital, and an elderly patient with abdominal pain is waiting to see a surgeon who can determine whether surgery is necessary to relieve an intestinal obstruction. At most hospitals nationally, an average of four hours elapses before the surgeon on call becomes available to see the patient and even longer before the operation finally begins.

At UCSF Medical Center, the goal is for the same patient to be seen by a “surgical hospitalist” in less than 30 minutes. UCSF is the first academic teaching hospital in the nation to employ “surgical hospitalists”: doctors who are dedicated to evaluating patients in the ED and inpatient wards needing a surgical consultation and caring for patients on the surgical ward.

The hospitalist model of care was pioneered and instituted at UCSF in the 1990s to reduce hospital stays and improve patient safety and quality of care. Medical hospitalists (a term coined by UCSF professor of medicine Robert M. Wachter) focus on caring for hospitalized patients of primary care providers during their hospital stay. This model has gained widespread acceptance, with nearly 20,000 hospitalists working nationwide.

“Over the first year of the program, the average waiting time was 20 minutes,” says Dr. Hobart Harris, Professor and Chief of the Division of General Surgery, who co-founded the surgical hospitalist program with UCSF Assistant Professors Drs. Jessica Gosnell and John Maa. “It enhances both patient satisfaction and quality of care, and addresses vexing national problems: ED overcrowding and surgeon availability.”

Overcrowding is one of many problems confronting emergency medicine, according to two recent reports—by the American College of Emergency Physicians and the Institute of Medicine—that describe an emergency care system in crisis. From 1993 to 2003, ED visits grew by 26 percent while the number of EDs and hospital beds declined, forcing hospitals to “board” patients for 48 hours or more.

Surgeon availability is another major obstacle to quality timely care in the ED. General surgeons have been in short supply for many reasons, including the rising costs of uncompensated care, liability concerns, declining reimbursement, and increasing surgeon sub-specialization. These problems are compounded by the fact that surgical care is increasingly complex due to increased disease acuity and patient volume.

With these problems in mind, UCSF reorganized its acute general surgery services into a hospitalist model in July 2005. Under the surgical hospitalist model, three full-time board-certified general surgeons provide coverage on a rotating weekly basis, dedicating all of their time to ED and inpatient consults. Surgical hospitalists lead daily rounds, care for surgical inpatients and consults, and evaluate patients in the ED. They are also more available to oversee and teach the residents, nurse practitioners, and medical students who staff the hospitalist service. “This has helped to fulfill the traditional academic hospital missions to educate medical students and residents while delivering optimal and timely patient care,” points out Dr. Gosnell.

In less than two years, the surgical hospitalist program has brought tangible benefits: 85 percent of patients have a surgical consult within 45 minutes, the majority in five to ten minutes. UCSF ED providers say that the surgical hospitalist...
surgical hospitalist

THE UCSF SURGICAL HOSPITALIST PROGRAM [continued]

program had improved timeliness of care, length of stay in the ED, and patient satisfaction. Waiting times for surgical patients have been dramatically reduced, one of the program's primary goals. The waiting time—from ED triage to skin incision—for the most common procedure, appendectomy, decreased 50 percent. An unanticipated benefit is that when on-site surgeons are dedicated to emergency care, they can better understand problems with the institutional healthcare delivery system that need to be addressed through quality improvement efforts.

The results from UCSF's surgical hospitalist program have been presented at national meetings and the response has been very favorable. The program bears greatest relevance to academic teaching hospitals across the nation, so it is not surprising that such hospitals are considering starting their own programs. Future plans for the program include studying long-term outcomes, patient satisfaction, resident autonomy and quality of care, “which are very active areas of discussion nationally,” Dr. Maa says. The Surgical Hospitalist program has also expanded with the addition of Drs Eric Nakakura, and Electron Kebebew.

John Maa MD is an Assistant Professor of Surgery at UCSF.

clinical practice

MESSAGE FROM THE CHIEF [continued from cover]

By Hobart W. Harris, MD MPH

SURGICAL EDUCATION. No jewel in the UCSF School of Medicine crown shines more brightly than our students and residents. These accomplished and immensely capable young people infuse the institution with a blend of enthusiasm and intellectual curiosity that is as electric as it is infectious. Our faculty relishes opportunities to share their excitement about surgery with eager and open-minded medical students. Similarly, we strive to train the next generation of leaders in surgery. General Surgery residents at UCSF are selected for their demonstrated academic prowess, dedication to public service and declared desire to make important and positive contributions to the future of the profession. While we fully acknowledge that the process of selecting future leaders is at best imperfect, we simultaneously celebrate our past and present achievements. Over the last twenty years, our ranks have produced 12 past or current department chairs, a past and the current Executive Director of the American College of Surgeons, the Chair of the American Board of Surgery, and a recent Surgeon General of the United States. We believe that our intellectually rigorous and clinically demanding academic setting yields a fertile environment for nurturing leadership skills and ambitions.

RESEARCH. As a public, land grant institution, no aspect of our collective mission is greater than our quest for new knowledge. From our students and trainees to our colleagues to society at large, we all share the expectation that considerable efforts will be directed at creative, academic pursuits. The seriousness with which we take this responsibility is reflected in the Division’s eight full-time scientists, dozens of research fellows, seven independently-funded research programs and a research budget in excess of 3 million dollars per year. From local chalk talks to international presentations, from peer-reviewed manuscripts to textbooks, our faculty is actively immersed in the discovery and dissemination of new information.

In this issue of UCSF’s General Surgery Newsletter, I invite you to meet our faculty, share in our enthusiasm for surgery and discover why we are so excited by the future.

Hobart W. Harris, MD MPH is the J. Englebert Dunphy Professor of Surgery at UCSF.

DIVISION OF GENERAL SURGERY: CORE VALUES

- Compassion-as educators, clinicians and investigators and members of the Division;
- Innovation-a willingness to take risks and think outside traditional boundaries;
- Professionalism-demonstrating honest, ethical behavior and a respect for patients, colleagues and all members of our community;
- Collaboration-exhibited both vertically and horizontally among, trainees, the medical center and the community;
- Intellectual Generosity-an eagerness to be effective mentors and to share ideas; and
- Lifelong Learning-recognition that the education process is central and encouraged for all members of the community, from trainees to faculty to patients.
Cancer is a genetic disease driven by mutant genes that produce proteins that function inappropriately. The mutant genes may be oncogenes that promote cell growth or tumor suppressor genes that inhibit growth. Mutant oncogenes produce proteins that drive uncontrolled cell growth and promote the malignant behavior of cancer cells. A cell containing a mutated oncogene can be likened to a runaway car in which the gas pedal is floored. Mutant tumor suppressor genes produce proteins that have lost their capacity to stop cell growth. Such cells have lost the brakes that stop cell growth, leaving the cancer cells to grow unchecked.

One gene of particular interest to the laboratory is called p53. With a name like p53, this gene may sound unassuming. However, this is far from reality, particularly insofar as cancer is concerned. p53 is considered the “guardian of the genome” because it scans the genetic material in cells for mutated genes. When p53 senses a corrupted and potentially dangerous gene, it induces the cell containing such defective genetic material to commit suicide. p53 allows an increased expression of the protein, which encodes a novel pro-survival protein. Loss or mutation of p53 in cells allows an increased expression of the protein. Drs. Warren, Pincheira and Donner believe that p53 and the protein are master regulators that have opposite effects on whole groups of genes. Whereas p53 diminishes the expression and function of survival genes, the protein appears to have the opposite effect. The laboratory is now defining the exact role of the factor in the development, growth, and spread of colon cancer.

The identification of this factor in colon cancer offers a tantalizing lead not only into how the loss of p53 allows malignancies to survive, but more importantly, identifies a possible therapeutic target. The highly interactive team of physician-scientists and laboratory researchers in the GI Research Laboratory and other collaborating groups at UCSF, is poised to wed molecular biology to experimental therapeutics with the hope and expectation that patients will benefit from this discovery.

*David Donner PhD is a Professor of Surgery*

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**THE UCSF HELEN DILLER FAMILY COMPREHENSIVE CANCER CENTER FOCUSES ON NEUROENDOCRINE TUMORS**

By Eric Nakakura MD, PhD

Neuroendocrine tumors of the gastrointestinal tract are a unique form of cancer. Also known as carcinoid tumors, they produce hormones that cause debilitating symptoms and stimulate tumor growth. Moreover, neuroendocrine tumors frequently metastasize to other parts of the body. Consequently, most patients with neuroendocrine tumors are not candidates for surgery at the time of diagnosis. Current therapies are ineffective in shrinking tumors or providing durable relief of debilitating symptoms. Thus, better therapies are desperately needed.

The UCSF Helen Diller Family Comprehensive Cancer Center has a multidisciplinary team dedicated to the treatment of patients with neuroendocrine tumors of the gastrointestinal tract. In addition to performing complex surgery of the pancreas, liver, stomach, and intestines, UCSF has numerous ongoing clinical trials for patients with advanced neuroendocrine tumors. The Cancer Center’s substantial clinical experience with managing patients with advanced gastrointestinal neuroendocrine tumors provides a powerful stimulus to find better ways to help its patients. Its long-term goal is to uncover the genetic basis for neuroendocrine tumors which will lead to improved treatment and diagnosis.

UCSF Comprehensive Cancer Center’s approach to identify the genetic causes of neuroendocrine tumors is unique. Studies using powerful animal genetic models are directly related to parallel work on human neuroendocrine tumors. Thus, the Cancer Center is attacking human cancer by using not just animal models but its unique access to tumor specimens from patients. This approach has been fruitful because UCSF has identified critical determinants of neuroendocrine tumor growth and hormone production, as well as novel diagnostic markers. UCSF believes that its bench-to-bedside studies will lead to earlier detection of neuroendocrine tumors when surgical resection is still possible, and to better treatments for patients with advanced disease when resection is not possible.

*Eric Nakakura MD, PhD is an Assistant Professor of Surgery*
PANCREATIC TUMORS: A BRIGHTER FUTURE?
By Kimberly Kirkwood, MD

Pancreatic cancer is the 12th most common form of cancer diagnosed in the United States today, but the 5th leading cause of cancer-related death. However, the future holds promise. UCSF is a leader in innovative research designed to understand the biology of cancer cells and the host environment in which they exist. Its model of surgical research partners clinical pancreas specialists with laboratory scientists. These teams have discovered the importance of new receptors in the regulation of pancreatic inflammation and pain that may also participate in cancer cell growth. These receptors could be important targets for future pancreatic cancer therapies.

Recent advances in diagnostic techniques such as multi-detector CT scans, MRI, and endoscopic ultrasound are allowing specialists to find pancreatic tumors at an earlier stage, when they can still be removed, and in some cases, even before they become cancerous. The specialized techniques used by the gastrointestinal radiologists at UCSF, combined with their high level of expertise, are critical to the evaluation of a new patient with a suspected pancreatic tumor. The information that is now obtainable from these sophisticated studies allows a more accurate prediction as to whether a tumor is malignant or benign, and whether it can be safely and completely removed.

At UCSF, patients are the most important source of knowledge and inspiration. Here, dedicated clinicians are keen observers of the course of disease in their patients with pancreatic tumors. One problem commonly faced by these patients is malnutrition. By studying the various causes of poor appetite and food intolerance, UCSF has developed a multilayered approach to preventing and treating malnutrition among patients recovering from major pancreatic surgery. Improving nutrition allows patients to regain strength and energy faster, and thereby return to life’s activities as early as possible.

Surgeons are now able to remove some benign or pre-malignant pancreatic tumors laparoscopically, through very small incisions. Using intraoperative ultrasound techniques, they can precisely localize the tumor and examine its relationship to surrounding blood vessels. Laser and electrocautery are used to coagulate small blood vessels. Patients who have their tumors removed laparoscopically typically experience minimal bleeding, less discomfort, and shorter hospital stays.

This is an exciting time to be a pancreatic surgeon. UCSF is looking forward to a new era in the treatment of pancreatic cancer and many novel therapeutic techniques to enhance the lives of its patients.

Kimberly Kirkwood MD is a Professor of Surgery

NEW FACULTY JOIN THE DIVISION OF GENERAL SURGERY

WEN SHEN, MD

We are pleased to welcome Dr. Wen Shen to the Section of Endocrine Surgery at the University of California, San Francisco. A native of San Francisco, Dr. Shen received his undergraduate degree from Harvard University and his medical degree from UCSF. He completed his surgical training at UCSF, which included 3 years of research in endocrine surgery with Drs. Clark, Duh, and Kebebew. Dr. Shen’s clinical practice will be focused on surgical disorders of the thyroid, parathyroid, and adrenal glands, and the endocrine pancreas.

EDWARD KIM, MD

Dr. Edward Kim joined the UCSF faculty in July, 2007. He specializes in surgery of the colon and rectum. Dr. Kim earned his medical degree at UCSF in 2000 and went on to complete his general surgery residency at UCSF in 2006, with an emphasis on laparoscopic surgery. In recognition of his accomplishments and talent in the field, Dr. Kim won the Department of Surgery’s Achievement Award for Outstanding Laparoscopic Surgeon in 2006. After his residency, Dr. Kim completed a one-year Colorectal Surgery Fellowship at the University of Minnesota in Minneapolis. Dr. Kim has a strong clinical and research interest in laparoscopic surgery and post-operative ileus. He sees patients at the UCSF Center for Colorectal Surgery.
The American College of Surgeons has recognized the growing interest in surgical volunteerism and recently developed “Operation Giving Back”, a comprehensive resource linking surgeons to potential volunteer programs. However, there is also a need for institutional-based educational collaboration with resource-limited communities to promote long-term benefits beyond individual volunteerism (see related article on p. 7). Using its relationship with Makerere University and Mulago Hospital in Uganda as a model, the UCSF Department of Surgery is embarking on a similar venture in Vietnam with Cho Ray Hospital and the University of Medicine and Pharmacy in Ho Chi Minh City (formerly Saigon). Cho Ray Hospital is an ideal potential partner as it is the largest metropolitan hospital in the country. The overarching foundation for the collaboration was recently established by Dr. Haile Debas, former Chair of the Department of Surgery, who, as Executive Director of UCSF Global Health Sciences, signed a Letter of Intent to Collaborate with the University of Medicine and Pharmacy in the areas of faculty development, health sciences education planning and development, and joint research.

Vietnam’s economy has slowly recovered from the war, with an estimated gross domestic product (GDP) growth of 8.4% in 2005. However, the war with the United States drastically changed the demographic of the remaining population; most residents are under the age of thirty. In addition, over the past several years, the disparity between the wealthy and the impoverished has grown and is now evident throughout the streets of Ho Chi Minh City. In contrast to several years ago, the crowded streets are now populated with imported cars and large hotels. However, a walk along old neighborhood streets quickly reminds you that not all of Vietnam is progressing at the same rate. For many, the seasonal monsoon rains mean flooded homes, only a short distance from the bustling center of town.

As both the primary surgical referral center for the 40 million residents of the southern provinces and a government-run general hospital, Cho Ray Hospital serves as a haven for the rich and the poor. Private air-conditioned rooms are available for the few wealthy patients, while the majority of patients occupy crowded wards, on beds, gurneys, or mats in the hallways. As the busiest and largest hospital in Vietnam, Cho Ray Hospital also provides the primary surgical education for the region. The training of surgeons varies from informal unpaid apprenticeships to more formal degrees through the medical university. In addition, staff surgeons are provided opportunities for higher education, obtaining either a master’s degree or a PhD in a particular subspecialty with the completion of a clinical research project or thesis.

The first step in creating the collaboration was to gauge the interest of UCSF’s potential Vietnamese colleagues in developing such a relationship. Fortunately, they seemed as eager as UCSF to establish a partnership. Tangible proof of mutual interest was obtained through two visits over a 6-month period, including a month-long pilot clinical rotation at Cho Ray Hospital. This large, busy facility offers a broad array of clinical opportunities, including a robust operating room experience. The majority of the surgeries are emergencies. The following is a representative sample of the types of cases visiting UCSF surgeons encountered:

- A twenty-three year old man with a perforated appendix. When he first came to the emergency room, he was vomiting and had an exceedingly tender belly. While removing his appendix in the operating room, he developed a serious blood infection requiring transfer to the intensive care unit postoperatively. At Cho Ray hospital, since each ward operates as its own separate unit, the surgical trainees do not learn much about the care of patients in the ICU setting.
one surgeon stated, “We have too many patients on our own surgical ward to contribute to the care of surgical patients in the ICU.” Unfortunately, due to the lack of communication between the surgeons and the intensivists, this young man was removed from the mechanical ventilator the first day after surgery and transferred to the surgical ward without notification. In the midst of a crowded hallway, the patient was found unresponsive and could not be resuscitated.

- A jaundiced 46 year-old woman came to the hospital to have a large tumor on her pancreas removed. The surgery, although difficult, was successful. Yet, ten days later, the patient became very short of breath and was thought to have a serious internal infection. After a prolonged discussion with the patient’s loved ones the decision was made to forego further medical intervention and the family decided to take the patient home.

- A thirty-five year old male military officer presented with jaundice and a mass involving his pancreas. During surgery to remove the mass it was determined that the young man’s problem was due to tuberculosis and not a cancer, as originally suspected.

- A thirty-year-old man came to the emergency department after a motor scooter accident. An ultrasound exam of his abdomen suggested internal bleeding, so he was immediately taken to the operating room. During the exploratory surgery, he was found to have ruptured his bladder. This was one of two identical cases seen that night in the hospital, prompting the supervising surgeon to reveal that, “There is a drinking game in Vietnam, where the first one to urinate after drinking loses. Therefore, we have a lot of drunk, young men with full bladders racing home on their motorbikes.”

The benefits of an educational exchange program for both surgical residents and faculty are obvious; exposure to technically challenging operations, honing of physical examination skills and a better understanding of how health care systems perform in a community with limited resources. The surgeons at Cho Ray Hospital are very proud of their institution and honestly acknowledge both its strengths and weaknesses. As one young surgeon stated, “We may not have the resources and equipment available in the United States, but we do not lack the technical skills or diligence.” In addition, they are equally enthusiastic about the prospect of visiting UCSF and gaining exposure to a formalized surgical residency program focused on surgical skills and clinical research training.

The motive for surgical volunteerism is many-fold. A survey of fellows of the American College of Surgeons discovered that the majority of respondents considered volunteerism an essential part of their personal and professional identity. The Division of General Surgery is working to develop a sustainable and mutually beneficial collaboration between UCSF and Cho Ray Hospital that involves a multi-disciplinary team of surgeons, anesthesiologists, intensivists, and nurses. The hope is that this collaboration will enable the exchange of ideas, skills and goodwill. Participants on both sides view this as the beginning of something exciting and great.

Hobart W. Harris, MD, MPH is a Professor of Surgery and Chief of the Division of General Surgery. Lan Vu MD is a senior resident in the UCSF Department of Surgery.
datebook...

January 29 - 31, 2009  San Francisco, California
ADVANCED VIDEOSOCOPIC SURGERY TRAINING COURSE

March 12 - 14, 2009  San Francisco, California
ADVANCED VIDEOSOCOPIC SURGERY TRAINING COURSE

March 19 - 21, 2009  San Francisco, California
THE POSTGRADUATE COURSE IN GENERAL SURGERY

May 6 - 9, 2009  San Francisco, California
3rd INTERNATIONAL SYMPOSIUM ON CANCER METASTASIS
AND THE LYMPHOVASCULAR SYSTEM

June 4 - 6, 2009  San Francisco, California
ADVANCED VIDEOSOCOPIC SURGERY TRAINING COURSE

did you know?

The Division of General Surgery along with our Transplant Division is one of the only programs on the West Coast to perform pancreatectomies with pancreatic islet autotransplantation. This innovative procedure helps alleviate the pain caused by chronic pancreatitis while preserving a patient’s ability to secrete insulin and reducing their risk of developing surgically-induced diabetes.

coming soon...

In the next issue of this newsletter...

- Medical school education (Dr John Maa)
- Bariatric Program (Dr Guilherme Campos)
- Pancreatic Cancer Center of Excellence (Dr Kimberly Kirkwood)