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“First, Do No Harm”

Improving Patient Safety

Until 10 years ago, we were taught in the health professions to believe that errors were manifestations of bad, careless people,” says Robert Wachter, MD, chief of the Division of Hospital Medicine. “We now know that most errors are made by competent, well-trained, caring people trying to be careful, and the errors simply demonstrate they are human.”

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continued on page 4
Recent Promotion and Retirements

Maye Chrisman

Maye Chrisman has been named the Department of Medicine's associate chair for Finance and Administration, a role previously held by Martha Hooven. Chrisman has been the interim associate chair since January 2008.

As associate chair, Chrisman will be the leading administrative officer for the department and will supervise a capable and effective administrative team who are experts in financial, research, clinical and personnel administration.

Chrisman joined the Department as Chief Financial Officer in 2003. She is a graduate of Harvard College (magna cum laude) and has an MBA from the Wharton School of Business at the University of Pennsylvania.

Milton Hollenberg, MD

Milton Hollenberg, MD, came to UCSF as the first cardiovascular resident. After doing post-doctoral research at Harvard and teaching at Cornell, he was recruited back to UCSF. Much of Hollenberg's research focused on the autonomic nervous system and cardiovascular reflexes. He also developed a novel evaluation score for myocardial ischemia, or angina, which was detailed in the New England Journal of Medicine. More recently he has collaborated with investigators at UC Berkeley on a longitudinal study of aging focusing on the decline of aerobic capacity in healthy aging adults. Until July, when he retired after 40 years at the Veterans Administration Medical Center (VAMC), his active clinical work included running the stress testing laboratory, rounding on the Cardiology Consult Service and Coronary Care Unit, and working in the Cardiology Clinics. After serving as Chief of Cardiology at the VAMC from 1968 to 1977, he stepped down to allow him to spend more time with his young daughter, after his wife passed away. He greatly enjoyed scuba diving, which he did in many of the best diving spots, and is a connoisseur of all forms of classical music.

“He is a true ‘gentleman and scholar,’” says Barry M. Massie, MD, chief of the Division of Cardiology at the VAMC. “He shared his many years of wisdom with several generations of faculty and trainees. He worked hard, but also knew how to relax.” Hollenberg will continue his academic interests as professor emeritus.

Morris Schambelan, MD

Morris Schambelan, MD, arrived at UCSF 46 years ago as an intern. He served as the chief of the Division of Endocrinology at San Francisco General Hospital (SFGH) for 22 years, program director of the General Clinical Research Center at SFGH for 14 years, and professor in the Department of Medicine since 1983. Since 2004, he has served as associate chair for Clinical and Translational Research in the department.

In 2006, he assumed the role of Program Director for the combined Clinical Research Centers of the newly funded Clinical and Translational Science Institute (CTSI) at UCSF, and rapidly expanded the services to nine sites across the Bay Area. As a translational researcher, he has conducted more than 50 research studies in humans, and has received continuous funding from the NIH for more than 30 years. Much of his recent research has focused on hormonal and metabolic disruptions in patients with HIV, and the effects of antiretroviral therapy on body composition and metabolism.

“He has had a long and distinguished research career, and has also been a mentor to countless clinical researchers and fellows,” says Elizabeth Murphy, MD, DPhil, chief of the Division of Endocrinology at SFGH. “It’s an inspiration to have a colleague with such a dedication to patient care, teaching and research.” As professor emeritus, Schambelan will continue his own research program as well as his role in the Department in promoting clinical and translational research.
UCSF is well-known for its excellent patient care and cutting-edge research. However, we are also a premier institution for medical education. There is no better place for future physicians to develop the skills needed to make them leaders in medicine.

As stated by a recent alumna: “One of the most amazing things about being a student at UCSF was that clinical care and teaching were seamless. The most valuable stuff I’ve learned is seeing people I really admire have the courage to reconsider a diagnosis when new information became available. Watching how they went through the problem-solving process taught me how to take excellent care of patients. You’re surrounded by these powerhouses, who all share an incredible aptitude and enthusiasm for teaching.”

UCSF offers a phenomenal breadth of experience to its medical students and residents. Almost no other institution in the country offers students the opportunity to learn at three world-class teaching hospitals: UCSF Medical Center, one of the top 10 U.S. hospitals; San Francisco General Hospital (SFGH), one of the country’s best public hospitals; and the Veterans Affairs Medical Center (VAMC), one of the best veterans’ hospitals nationally.

One resident put it this way: “Several times, after a call, I realized I admitted patients with diseases that med school professors said, ‘Oh, you’ll probably never actually see this.’” Says another, “Being at the General is exciting and rewarding: pretty much anything you can think of – and some things you’d never imagine – can happen.”

Faculty teach in lecture halls as well as at patient bedsides, and they find great satisfaction in explaining complex topics to residents. One alumna remembers walking away from a lecture on electrolyte balance, a difficult talk for even experienced physicians, and hearing people say, “I’ve never understood this before, and now I finally do!”

Some of the Department’s latest innovations in education provide creative, in-depth approaches to teaching, including:

**Model SFGH:** Medical students with a passion for treating urban underserved patients spend six consecutive months at SFGH, gaining tools to care for patients facing some of the most difficult health challenges.

**VALOR (VA Longitudinal Rotations):** Medical students spend eight consecutive months at the VAMC, working with the same patients through rotations in surgery, neurology, psychiatry and medicine. Students learn effective communication and a relationship-centered approach to patient care.

**PISCES (Parnassus Integrated Student Clinical Experiences):** This one-year integrated clerkship educates 16 medical students in practicing patient-centered care. Instead of rotating through separate specialties, students follow a cohort of patients through all their primary and specialty care, gaining skills in caring for the whole patient. Students spend the entire core clerkship year at Parnassus, Mount Zion, and Lakeshore, and have longitudinal faculty preceptors in each of the core disciplines.

**Areas of Distinction:** Similar to college minors, this program gives residents the opportunity to learn about areas outside their primary specialty, such as global health, medical education, leadership and clinical research. The program draws upon the rich diversity of expertise among the Department of Medicine’s more than 500 faculty members. The personalized pathways connect residents with mentors in different fields and help them become future leaders in whatever career paths they choose.

**Educational Innovation Project (EIP):** Our residency program is one of only 21 programs selected by the Accreditation Council for Graduate Medical Education to participate in the EIP. As a result, we will have the opportunity to pilot novel educational strategies which can then be broadly incorporated into graduate medical education reform.

The impact of outstanding teaching is profound. Yet it is sometimes less appreciated than patenting a new discovery or publishing a medical journal article. Your generous support will help us continue to foster the kind of educational excellence that makes UCSF consistently rank among the top medical schools in the country.

Sincerely,

Talmadge E. King, Jr., MD
Chair, Department of Medicine
Continued from front page

Previously, this process was haphazard. Residents would spend lots of time hunting down key information—vital signs, lab reports and medication lists. Arpana Vidyarthi, MD, who arrived at UCSF as a hospital medicine fellow in 2002, says, “I distinctly remember seeing residents throw down a stack of index cards, two inches thick, with information for 50 patients hand-scribbled on them, and say to the next person, ‘There’s nothing to do.’ Given how sick many of our patients are, this would cause me anxiety as I recognized the potential for harm during the cross-coverage.”

In 2003, the Accreditation Council for Graduate Medical Education limited residents to an 80-hour workweek and maximum 30-hour shifts. Vidyarthi, who is now director of patient safety and quality programs for the Dean’s Office of Graduate Medical Education, says, “The reductions in work hours were designed to reduce errors caused by fatigue.” However, this has resulted in more frequent handoffs among residents, which also increases the risk of communication errors.

“The number of medications, the severity of people’s illnesses, and the expectations we have for patients to self-manage their conditions have increased. The potential for patient safety issues to arise in the outpatient setting has worsened.”
—Dean Schillinger, MD, director of the UCSF Center for Vulnerable Populations

With the assistance of UCSF Medical Center, Vidyarthi and Jonathan Carter, MD (then a UCSF surgery resident) developed a computer-based system dubbed SynopSIS. It provides a snapshot of the most important information residents need to know during handoffs, including the patient’s physical location and list of medications, why the patient was admitted, and anticipated problems.

Drawing on his or her understanding of each patient’s case, the outgoing resident prepares a list of “if-then” statements: if the patient develops a fever, then test for infection and start certain antibiotics; if the patient becomes short of breath, then get an X-ray; if the patient is dying, call his daughter in Philadelphia at this phone number. Before SynopSIS, these vital pieces of information too often got lost in the handoff process.

Vidyarthi trains residents in best practices for these face-to-face meetings between outgoing and incoming residents. She recommends that they find a quiet place where they can review SynopSIS information. She also reminds them that tone of voice and facial expressions provide valuable information. Before the meeting ends, the incoming resident repeats back his or her understanding of the departing resident’s recommendations.

“At the beginning of your internship, it takes a little longer, as you learn how to sign out effectively,” Vidyarthi says. “By mid-year, using SynopSIS and verbally signing out is so ingrained in the culture that nobody thinks twice about it – it’s like driving.”

1 Picture = 1,000 Words

The opportunities to improve patient safety continue after discharge. “What goes on after the hospital, and in between visits?” asks Dean Schillinger, MD, director of the UCSF Center for Vulnerable Populations at San Francisco General Hospital (SFGH). (Please see related article on page 6.)

“Ninety-nine percent of the care is going on at their homes,” Schillinger says. “The number of medications, the severity of people’s illnesses, and the expectations we have for patients to self-manage their conditions have increased. The potential for patient safety issues to arise in the outpatient setting has worsened.”

For example, Schillinger and Edward Machtinger, MD, found that nearly 50% of patients on blood thinners were unaware that they were taking their medication improperly. “These are very high-risk populations taking high-risk medications,” says Schillinger. “I call it the ‘Goldilocks medicine’: you have to take it just right. You can’t take too much, or you may bleed and die; you can’t take too little, or you may have a stroke and die.” Often, patients need to take different amounts of the drug on different days, further increasing the likelihood of incorrect dosage.

Schillinger and Machtinger developed a visual medication schedule (VMS), a computer-generated weekly calendar showing the type and amount of medication to be taken each day, with written instructions in the patient’s native language (see image above). They also had patients “teach back” the dosage instructions to their doctors, so doctors could confirm that patients understood correctly. Their study showed that patients who received the VMS plus the “teach back” opportunity reached the target safe level for their anticoagulant almost twice as fast as patients who did not use this method. This tool was especially effective among Spanish-speaking patients.

“Do the Right Thing” by Default

Much of the Department of Medicine’s safety and quality research is focused on how to get a life-saving treatment to its ultimate destination: the patient.

“How do you get physicians to adopt it?” asks Andrew Auerbach, MD, MPH, associate clinical professor of medicine and director of research for the Division of Hospital Medicine. “How do you get systems to deliver it regularly? Moreover, how do you measure that implementation process? In business, there are whole areas of management theory around how to manage change in complex systems. But in health care, that’s a very underdeveloped field.”

Auerbach recently redesigned UCSF’s physician order forms to, in his words, “make it easier to do the right thing, and harder to do the not-right thing.” For example, deep vein thrombosis, or clotting of the blood in a vein such as the leg, can occur shortly after surgery. It can be fatal if a clot travels to the lungs and obstructs blood flow, causing what is called pulmonary embolism.

Fortunately, this is completely preventable — if a patient receives the appropriate blood thinner. Until recently, however, only half of UCSF surgery
patients received blood thinners. This was partly because there was no systematic way for surgeons to prescribe them. Three years ago, Auerbach developed an easy-to-use order form and trained surgeons on the importance of prescribing blood thinners.

“There are three legs to a quality improvement stool,” says Auerbach. “Education – explain why this is the right thing to do; change the system; and then audit and feedback – we pull charts at random, and if patients did not get the right drug, we send a report to the physicians involved.” Today, 95% of eligible UCSF surgery patients receive the proper blood thinners.

Auerbach is also developing the Hospital Medicine Reporting Network. This Network shares patient quality and safety data to provide benchmarking information. This allows hospitals to see where they need to improve and what they can learn from other institutions.

“It’s entirely possible that there’s some innovation out there that would be easily disseminated to others,” says Auerbach. “I think of that as the ‘gene discovery’ of quality. We have the ability now with large databases to start sifting around for those gems.”

A Little Fear is Healthy

“If there was a way to have gotten this job done without scaring people, that would have been better,” says Wachter. “Systems are so recalcitrant to change that unless people did have some anxiety about the current state of affairs, we wouldn’t have changed a thing.

“I got a call from a reporter from a state in the Midwest that had just begun requiring hospitals to report serious errors,” says Wachter. “One hospital had 15 reports, and another hospital had zero. I said, ‘You wouldn’t catch me dead going to the hospital with zero – because they either have a culture in which nobody talks about these things, or they’re lying.’ The state of medicine is such that you can’t have a hospital that does not periodically harm or kill somebody through errors.

“What I want to see is that hospitals are open and honest, using each error as an opportunity to make themselves better,” says Wachter. “I’m very proud of our organization, because I think that’s what we’re doing. This is where I get my health care, and I know what’s in the sausage factory.”

Dr. Robert Wachter

Healing Patients and Health Care Systems

Growing up Jewish in the New York suburbs, the firstborn son of a socially climbing family, I think you begin thinking about medicine in utero,” says Robert Wachter, MD, with a chuckle. “The tension for me was that I was a politics junkie, and found myself much more drawn to reading about politics and history than I was chemistry or biology.”

Wachter, an international leader in the patient safety field, grew up on Long Island, the oldest of three children. His father ran a women’s clothing company started by his grandfather, an immigrant from Poland. In high school, Wachter volunteered at a local hospital and found mentors among the physicians. Although he wanted to become a doctor, at the University of Pennsylvania, he joined the debate team and majored in political science.

“I enjoyed trying to understand how things were organized – how complex enterprises moved and changed – how people were motivated to do their work better, which is what you study in political science,” says Wachter. “I always thought I would have these dual lives: one as a physician, and then I would come home and read the New York Times. It never dawned on me that I would have a career where I could combine those two interests.”

He went to medical school at Penn, where he found a mentor in John Eisenberg, one of the nation’s first MD/MBAs. “He was a great doctor and teacher, but his research involved thinking about the health care system: how we pay, how it’s organized, and how the work force is constructed,” says Wachter. When Wachter came to UCSF for his internship and residency, he met Steven Schroeder, MD, then the founding chief of the Division of General Internal Medicine, who went on to lead the Robert Wood Johnson Foundation. “There seemed to be a niche for people who had these dual parts of their brain,” says Wachter. “That was an epiphany for me.”
Founding a New Specialty
In 1995, Lee Goldman, MD, then the chair of the Department of Medicine, appointed Wachter to run the inpatient medical service. “Lee always was looking to improve systems, and charged me with finding ways to make our medical service better,” Wachter says.

Thus emerged the “hospitalist,” a term that Wachter and Goldman coined in a 1996 New England Journal of Medicine article. Like orchestra conductors, these hospital-based specialists oversee all the elements of a hospitalized patient’s care – lab reports, medication lists, reports from surgeons, specialists, and others – and weave together the big picture, making connections between disparate pieces of information and ensuring that the whole patient receives the best care possible.

In 2007, Wachter was named chief of the Division of Hospital Medicine. The growth of the hospital medicine field has been astonishing: the Society for Hospital Medicine now has 7,000 members, and the American Hospital Association estimates that there are more than 20,000 practicing hospitalists in the United States – making this one of the fastest growing specialties in the history of American medicine.

“As a new field, we were branded in part as being about saving money,” says Wachter. “But it seemed to me that the model should also improve the quality of care.” He was president of the Society of Hospital Medicine when the 1999 Institute of Medicine report was released, stating that up to 98,000 patients a year are killed annually by medical errors. “A light bulb went off, and I said, ‘We need to be at the forefront of making this better.’”

Putting It All Together
“One of my mantras is that all hospitalists have two sick patients,” says Wachter. “One of them is the person in the bed, and one of them is the building that we’re working in. Both are in intensive care, and both need a lot of help and expertise. It’s our job to fix both.

“There were already people focusing on silos within patient safety: information technology, diagnostic errors, and medication safety,” says Wachter. “Part of this is my political science background, and part of this is my generalist mindset: I like to be the person who sees the big picture and explains things in ways that are accessible.”

He has spent much of his career doing just that. In addition to publishing six books and 200 articles, Wachter edits the federal government’s two leading patient safety websites (webmm.ahrq.gov and psnet.ahrq.gov). He also has his own lively and accessible blog (www.wachtersworld.org).

“I have the world’s best job,” he says. “I get to be a physician, teacher, mentor, writer, speaker and administrator – and to do it in a great organization with wonderful people who have terrific values. Every day I feel like I’ve won the lottery. I don’t ever tell anybody this, but if I could figure out how to live, I’d probably do it for free.”
make it difficult to achieve the best health and healthcare possible for our patients. Our ultimate goal at the CVP is to figure out the best strategies for preventing disease in the communities we serve, and ways to manage chronic illness so people don’t end up in the hospital as often.”

Bringing Tailored Innovations to Patients
Established in 2006 by Talmadge E. King, Jr., MD, then the chief of medical services at SFGH, the CVP’s mission is to improve the prevention and treatment of chronic diseases among at-risk populations through innovative research. To better reach underserved patients, the CVP is developing partnerships with ethnic media, English as a Second Language programs, the California Health Care Safety Net Institute, and the California Diabetes Program of the California Department of Public Health.

Several strengths will help make the CVP a leader: SFGH has a longstanding partnership with UCSF, and all doctors are also UCSF faculty who not only provide care, but teach residents and conduct innovative research. The CVP will have a multidisciplinary approach, and patient-centered interventions. In addition to bringing in experts across medical specialties, the CVP also collaborates with experts in communications, technology, economics, statistics, anthropology and other fields to develop effective, holistic solutions to complex health problems.

The CVP currently has 15 projects underway, with more in development. One of the CVP’s primary objectives is to transform public health through innovative health communications strategies. For example, CVP Director Dean Schillinger, MD, is a health literacy and diabetes expert who is pioneering communication tools to effectively prevent and manage chronic illness (please see story on page 1). One of his projects includes a partnership with the San Francisco Health Plan to enroll diabetes patients in an automated telephone self-management program. Based on a successful CVP pilot program, 500 diabetes patients now receive weekly telephone calls in English, Spanish or Cantonese.

The interactive program collects information (“In the last seven days, how many days did you check your blood sugar by pricking your finger?”) It also offers suggestions for improving health (telling a story about a busy patient who found time to exercise by getting off the bus a few blocks early and walking the rest of the way).

Schillinger also hopes to work with UCSF Global Health Sciences to create a center of excellence around chronic disease prevention and treatment. “Non-communicable diseases are both a California and a global problem – they are now the number one cause of death worldwide,” says Schillinger.

Although many vulnerable populations struggle with multiple challenges, they can often receive effective care through appropriate, low-cost interventions. Many of these successful interventions have been published in a recent book edited by Schillinger and his colleagues at SFGH, Medical Management of Vulnerable and Underserved Patients: Principles, Practice, Population, the first textbook of its kind.

“Chronic diseases are often very preventable through individual, community and policy changes that promote diet, exercise, early identification and treatment.”
— Kirsten Bibbins-Domingo, MD, PhD, co-director of the Center for Vulnerable Populations, pictured below (at left) with a patient
Living Longer and Better
UCSF Division of Geriatrics

"As the population ages and becomes more frail, housecalls will become an increasingly necessary part of the delivery system of health care."
— UCSF Housecalls Program Director Rebecca Conant, MD, pictured below (at right) with a patient, Sammie

students and primary care interns on mentored housecall visits. "As the population ages and becomes more frail, housecalls will become an increasingly necessary part of the delivery system of health care," says Conant.

Technology is assisting this re-emergence: Conant brings a laptop to access patients’ electronic medical records, and she hopes to obtain funding for portable blood testing devices, so she can get test results during the visit and adjust medications if needed.

Housecall physicians also work to ensure care coordination during transitions – when patients are admitted or discharged from the hospital. "We try to be the glue in our broken system that holds these people together," says Conant. "It’s the kind of care that everyone wants."

Because the housecall program is so labor-intensive, the program relies on philanthropy for about half of its annual budget. Beyond billable expenses, it costs about $2,500 a year per elder to provide care to a homebound elder. "When you think that some families pay $6,000 a month for attendant care, it’s a very good investment," says Conant.

Enhanced Care for Hospitalized Elders

When elderly patients are hospitalized they commonly encounter challenges other patients may not face. Before coming to UCSF, Geriatrics Division Chief C. Seth Landefeld, MD, pioneered a concept called the Acute Care for Elders (ACE) Unit. It is specially designed to promote functionality of hospitalized older patients. "Hospitals cost more than the Fairmont Hotel, but they look more like San Quentin," says Landefeld with a laugh. "They also have a lot in common with casinos, which are essentially delirium machines to make you lose your judgment."

Under the leadership of Edgar Pierluissi, MD, San Francisco General Hospital (SFGH) opened California’s first ACE Unit in 2007. "It’s an environment that’s suitable to an older person, and more homelike," says Pierluissi. With a grant from the SFGH Foundation, the hospital renovated a wing to accommodate 10 older patients at a time.
Matte flooring replaced shiny white linoleum, which was slippery and produced glare for patients with cataracts. Stark white walls were repainted with green to indicate patient rooms, and peach to indicate nursing areas. “This delineates clearly home base – it’s a wayfinding technique,” says Pierluissi.

One of the biggest risks for hospitalized elders is bed rest. “Within 10 days, hospitalized elders can lose 15% of their strength, which puts them at high risk for significant mobility limitation,” says Pierluissi. “Our approach is, you come to the hospital, we try to keep you moving as much as we possibly can.” To support this, certified nursing assistants spend much of their time escorting patients on walks around the ward. Also, instead of receiving meals in bed, patients are encouraged to walk to a sunny room with a view of Twin Peaks to eat.

The interdisciplinary team receives training on how to prevent pressure ulcers, identify and treat depression in hospitalized elders, and provide better care as a team. They also avoid medications that can cause delirium, and try non-pharmacological approaches instead. “If someone is having trouble sleeping, the next day we’ll try to exercise them more, get them sunlight during the day, turn off the TV at night and give their roommate headphones to give them a chance to sleep,” says Pierluissi.

Patients appreciate the care they receive. “One ACE unit patient knew someone who works at the hospital,” says Pierluissi. “They said, ‘I must have been in some VIP unit, because everything was so great – the nurses were spectacular, and it looked nice on the unit, and they got me up for breakfast.’”

The ACE Unit recently won an honorable mention in patient safety from the National Association of Public Hospitals.

Future Care for the “Silver Tsunami”

Housecalls and ACE are just two of the novel programs of the Division of Geriatrics. In addition to providing innovative care for seniors, the division is also leading the way in research on aging. “We know less about how to take care of people in their 90s than we know how to take care of preterm babies,” says Landefeld, the division’s chief. “Why do some people thrive, and others start wasting away?”

Landefeld was recruited 11 years ago to found the Division of Geriatrics, and was one of two geriatrics faculty members. Today the division has 26 faculty members who work at UCSF Medical Center, as well as SFGH and the Veterans Affairs Medical Center (VAMC), where all physicians are UCSF faculty members. The division also runs a community-based geriatrics practice in San Francisco’s Lakeside District.

“Throughout every branch of medicine except for pediatrics and OB, we’re all caring for a lot more older folks, because the population of people 80 years old and older is the fastest-growing segment of the United States population,” says Landefeld. This phenomenon, dubbed the “Silver Tsunami” by one demographer, has profound implications for almost every aspect of health care, as an increasing number of patients live with multiple chronic diseases, especially dementia. Geriatrics faculty collaborate with colleagues in neurology, ophthalmology, internal medicine and many other fields to help all physicians at UCSF provide effective care to older patients.

Most clinical trials have very few patients over 80, and usually exclude patients who have conditions besides the one the trial is studying. “Our group’s work (at UCSF) recognizes that in real life, the elderly always come with more than one problem,” says Kenneth Covinsky, MD, MPH, a VAMC staff physician and co-director of the division’s research. “A lot of our research focuses on questions like, ‘What is the best treatment for heart disease for someone who has six other diagnoses?’

“We’ve also done a lot of work showing that functioning in the older person is a much more important predictor of how someone is going to do, rather than which diseases they have,” says Covinsky. “A non-geriatrician might start a patient interview by saying, ‘Do you have hypertension?’ A geriatrician would ask, ‘Do you have trouble walking? Can you get dressed without assistance?’”

Some recent research projects include Louise Walter, MD’s investigation of ways to optimize screening and treatment decisions for chronic disease such as cancer, and Michael Steinman, MD’s research into how to make the best prescribing decisions for older persons taking multiple prescriptions. Thanks to research into the healthcare needs of incarcerated older adults led by Brie Williams, MD, it was found that older prisoners assigned to top bunks were often injured through falls; as a result, the California Department of Corrections changed its bunk assignment policy.

“The opportunity to make a difference in the lives of elders is just extraordinary – especially when you combine biologically focused things that we can do in medicine with recognizing people’s social and psychological context,” says Landefeld. “You can have an extraordinary impact; both with helping people live better, and live longer.”

Edgar Pierluissi, MD, in the Acute Care for Elders (ACE) Unit at SFGH

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Kenneth Rainin had a gift for taking a good idea and making it great. For example, pipettes have been basic laboratory instruments for centuries – but Rainin, an inventor and entrepreneur, designed the Rainin pipette, which allows for easy transfer of precise amounts of fluids from one place to another.

Rainin, who passed away in May 2007, also had ulcerative colitis. It is one of the most common forms of Inflammatory Bowel Disease (IBD), which causes diarrhea, abdominal pain and fatigue. Current treatments can help patients go into remission for months or even years, but there is no cure. The care he received at UCSF inspired Rainin to make several significant gifts towards IBD research during his lifetime, and upon his passing, a $15 million gift to help find a cure for IBD.

“My father would see a problem, gather the best people around him, and inspire them to come up with creative solutions,” says Rainin’s daughter, Jennifer. “He knew that UCSF would use this money to advance basic and clinical research in IBD.”

Normally, the gastrointestinal tract has an amazing ability to live harmoniously with an array of helpful bacteria that aid in digestion and immunity, while eliminating potentially harmful microorganisms. “In IBD patients, something goes wrong,” says Montgomery Bissell, MD, chief of the Division of Gastroenterology. “It has to do in part with genetic factors that seem to regulate the immune response to intestinal organisms.” Research suggests that the immune systems of patients with IBD mistakenly launch an attack on harmless bacteria, causing chronic inflammation.

UCSF gastroenterologist James Ostroff, MD, was Rainin’s doctor for many years. “Because he was a scientist, he had a particularly good grasp of how important the fundamentals of lab-based and translational research were,” says Ostroff. “He approached me about six years ago, and said that he wanted to make a very important contribution to UCSF. The thing we needed most was… a world-class immunologist.”

That person was Averil Ma, MD, an expert in digestive science and immunology. He was recruited in 2004 and has assembled an all-star research lab of physicians and scientists. Ma’s group is focused on A20, a cellular protein that applies a “brake pedal” to inflammation. He has also identified other proteins that may work in tandem with A20 to function as an anti-inflammatory “machine.”

Like piecing together a puzzle, discovering more about this group of proteins may help develop specific treatment for individual patients. “If one can put more of a molecular, cellular definition on the type of IBD that an individual has, one can hopefully design treatment for different subsets of patients,” says Ma. “We are very grateful and excited about the Rainin bequest, which is really instrumental to accelerating the pace of our research.”

In addition to supporting Ma’s research, Rainin’s gift will allow the Department of Medicine to hire an additional senior investigator, build the clinical research infrastructure that is necessary for bringing new treatments to patients, and hopefully discover a cure for IBD.

“My father loved finding better ways of doing things, and facilitating improvements in systems and organizations,” says Jennifer Rainin. “I think he saw that UCSF was poised to take off and become a leader in addressing these problems, so he wanted to give them the funding they need to do so.”

For more information on IBD research, please contact Kevin McAteer at 415/476-3627, or KMcAteer@support.ucsf.edu.
Practicing Great Medicine in the Central Valley

There’s this impression that Fresno is this little sleepy farm town out there in the Central Valley,” says Michael Peterson, MD, chief of medicine at UCSF Fresno. Yet the statistics tell another story: Community Regional Medical Center, which UCSF Fresno operates in collaboration with nonprofit hospital network Community Medical Center, has the second busiest emergency room in California, after Los Angeles County. According to the U.S. Census, 48% of Fresno County’s residents are Hispanic, 9% are Asian – including large Hmong, Indian and Pakistani communities – and 5% are African American.

The program dates back to 1975, when the California State Legislature and the Veterans Administration partnered with UCSF to create a permanent clinical branch of UCSF in the San Joaquin Valley. Today, the UCSF Fresno Department of Medicine has 51 residents and 80 faculty members, and provides primary and specialty care through 120,000 annual patient visits.

“A lot of the [medical] residents come from backgrounds where they aren’t particularly socio-economically advantaged,” says Peterson. “They like to give back to a community that helped them get their start. We hope that most of our graduates practice clinical medicine in [this] region.”

Cultivating Regional Expertise

This is especially important in Fresno County, where there are only 148 physicians per 100,000 people. By contrast, San Francisco has 409 physicians per 100,000 people, according to a 2001 UCSF report. So instead of having to drive three hours to San Francisco or Los Angeles, residents of the Central Valley can access primary and specialty care in their community.

“One of our goals was to be able to provide as many specialty services as we can,” says Peterson. He has also developed fellowships in cardiology, pulmonology and infectious diseases, which will help cultivate future expertise in the region.

In 2005, UCSF Fresno moved into a new state-of-the-art facility with a digital medical research library, high-tech auditorium, and teleconferencing rooms. This year’s first-year residents include 13 internal medicine residents, as well as 12 residents who plan to pursue specialties such as radiology, anesthesia and emergency medicine. The small numbers create a close-knit community where students, residents and fellows receive one-on-one teaching and observation.

That has been the experience of Cyrus Buhari, MD, who did his residency at UCSF Fresno, served as chief resident, and is now a cardiology fellow there. Although he grew up in Stockton, he had never been to Fresno before his residency interview. “I can’t tell you how good a fit this program was for me,” Buhari says. “It was one of the best decisions of my life. This program has done a lot to recruit people who can be at the forefront of this vision for this to be a major academic center in central California, and to deliver state-of-the-art care to people.”

Jeanette Rylander, MD, a recent chief resident, agrees. “There’s such a wide variety of patients, cultures and pathology here,” she says. “Often, we’re the first place they come, which gives us the chance to diagnose patients from the ground up.” For example, Rylander has treated many patients with coccidioidomycosis, also known as “Valley fever.” This fungal disease especially affects people who work on the land, causing flu-like symptoms, skin rashes and joint pain. She has also learned about different cultural health practices, such as the Hmong tradition of “coining,” or rubbing a coin over the skin of a sick person to draw out the illness.

Looking Towards the Future

UCSF Fresno trains about 50 third- and fourth-year medical students annually from UCSF and other institutions through six- to eight-week clerkships. There are also efforts to attract more medical students, especially those who might be interested in working with Mexican or Southeast Asian immigrants.

Steven Stoltz, MD, associate clinical professor of medicine, was recently selected to participate in the prestigious Harvard Macy Institute’s Program for Educators in the Health Professions. As part of his program, he will survey faculty, community-based physicians, hospital administrators, and clerkship directors at UC Davis, UCSF and Stanford about medical education needs and opportunities in the Central Valley.

One proposal could be creating an integrated longitudinal clerkship, where students learn about a number of specialties throughout a full year rather than focusing on distinct eight-week blocks. There is also a proposal for a new medical school at UC Merced, 60 miles north of Fresno, and Stoltz’s work will recommend ways that UCSF Fresno could serve as a clinical training site for future medical students.

“There are a lot of people who come here and say, ‘I had no idea of the scope and size of things here,’” Peterson says. “We’re the best kept secret in California, and we’d just as soon not be.”
CSF’s Division of Rheumatology is one of the top two centers in the country for research, teaching and caring for patients with arthritis. The new Kenneth H. Fye Endowed Chair in Rheumatology will help ensure that UCSF continues its leadership role in the field.

Fye, an emeritus professor of clinical medicine, has been on the rheumatology faculty for 30 years. He has received numerous awards for his excellence as a researcher, educator and clinician, including recognition as one of the inaugural members of the Department of Medicine’s Council of Master Clinicians.

About 20 friends and patients of Fye contributed to the endowed chair, which will provide the faculty members who hold it a base of secure funding. This means they can spend less time writing grants, and more time researching, teaching and caring for patients.

“Over the years, the bonds between me and my patients have grown. I used to look forward to seeing pictures of their grandchildren as much as I did about hearing their response to the latest biologic agent.”

—Ken Fye, MD

Healing with Mind and Heart

At a recent ceremony celebrating the establishment of the endowed chair, Robert Bernheim described Fye’s depth of medical knowledge and compassion. Eight years ago, Bernheim was diagnosed with rapid deterioration of his kidneys. Doctors could not find the cause, and ruled out dialysis or transplant as options.

“Dr. Fye entered my life, analyzed the information, did his own diagnosis, and determined that I had a very uncommon form of lupus,” Bernheim says. Fye recommended an experimental drug and chemotherapy.

In addition to the medical treatment, Fye regularly called Bernheim to ask how he was doing, and even called...