Each year, a terrible epidemic kills more than 400,000 Americans: the epidemic is tobacco addiction, and it continues to be the nation’s leading preventable cause of death. UCSF’s Center for Tobacco Control Research and Education is a world leader in fighting this scourge.

Directed by Stanton Glantz, PhD, the American Legacy Foundation Distinguished Professor of Tobacco Control, the interdisciplinary center’s 46 faculty members study everything from the biology of addiction to the tobacco industry’s political strategies. The center has also trained 30 fellows, including physicians, anthropologists, historians, economists, lawyers, and scholars from many other fields.

“We try to teach people how to do first-class, unassailable science that addresses important questions impacting public health and policy,” says Glantz.

Glantz, a tobacco control leader for more than three decades, is perhaps most famous for receiving a box containing secret documents from the Brown & Williamson tobacco company in 1994. The whistleblower’s return address was listed as “Mr. Butts,” the cigarette-shaped Doonesbury cartoon character.

Glantz and his colleagues sorted through 4,000 pages showing that tobacco executives lied to the public while knowing cigarettes were addictive and harmful. “The documents are like the human genome of evil,” says Glantz. “They show smart industry executives saying things to each other like, ‘We’re in the business of selling nicotine, an addictive drug,’ in 1963.”

Creating a Smoke-Free World

Center for Tobacco Control Research and Education

continued on page 4
The cover story in this issue highlights several examples of how our outstanding faculty participates in shaping health and health care in this country. As a practicing pulmonologist, I have seen firsthand the ravages of tobacco abuse, e.g., emphysema, lung cancer, and a myriad of other conditions. Tobacco abuse is the most preventable cause of premature death and morbidity in the developed world. Cigarette smoke is a complex mixture of more than 4,000 compounds and causes a variety of pulmonary, cardiac and systemic effects in humans. Thus, the importance of our efforts to create a smoke-free world and to help people stop smoking cannot be overstated.

Despite the difficult economic and political times, the Department of Medicine – the largest of the 28 academic departments at the UCSF School of Medicine – continues to do well. The Department is committed to advancing health by developing and supporting innovators in patient-centered care, scientific discovery, medical education and public policy. Its 38 divisions provide clinical services and conducts research at seven sites. We have more than 560 full-time and 500 volunteer clinical faculty, as well as 525 residents, fellows, and post-doctoral scholars. Many of our physicians and scientists belong to this country’s most prestigious scientific organizations, and many of our clinicians are counted among America’s best doctors.

Our patient care programs continue to be highly respected by our community, our peers and the media. For example, in its influential yearly ranking, the 2010 U.S. News and World Report ranked the overall Department third in the country among departments of internal medicine. In addition, several of our specialty programs were highly ranked, including: HIV/AIDS (#1), diabetes and endocrinology (#4), kidney disease (#8), cancer care (#8), respiratory disorders (#9), rheumatology (#10), geriatrics (#11), and digestive disorders (#15). Although U.S. News and World Report does not yet rank hospitalist programs, our program is generally acknowledged as the nation’s leader.

For more than a decade, the Department has ranked at or near the top among all departments of internal medicine in research dollars granted by the National Institutes of Health (NIH), and was ranked #1 in the latest report. Including all funding sources, our basic and clinical researchers have successfully competed for more than 900 grants, fellowships and contracts totaling more than $208 million annually.

Given the many challenges that we face, the future of academic medicine may at first appear daunting. However, I find these times interesting and exciting because of our intellectually rich environment and the tools at hand to prevent, diagnose and cure many diseases. I believe that with our dedicated, world-class faculty and staff, who are committed to excellence in patient care, education, research and public policy, the UCSF Department of Medicine will long continue its role as a leader in academic medicine. Thank you for your support as we work to make the UCSF Department of Medicine truly the best in the country.

Sincerely,
Talmadge E. King, Jr., MD
Chair, Department of Medicine
Discovering Secrets of Autoimmune Disease

In the summer of 2009, dermatologists at San Francisco General Hospital (SFGH) saw a patient with unusual purple-black patches of dying skin. They called rheumatologist Jonathan Graf, MD, to determine if the lesions might be caused by vasculitis, a rare rheumatic disease which causes blood vessel inflammation.

“Usually vasculitis affects not just the skin, but the kidney, lung and other organs,” says Graf. However, the patient’s condition appeared to be limited to just the skin — still dangerous, but puzzling. Also, blood tests revealed unexplained, sky-high levels of certain antibodies. Over the next few months, five other patients came in with similar symptoms and lab results, many of them with damaged or missing skin on their ears. Graf also heard about a few other cases in other cities. “This was a rare presentation of a rare disease,” says Graf. “It begs the question, what was the common exposure?”

A Common Link
It turns out that all of the patients used cocaine. At the same time, the federal government released an alert that some cocaine was being cut with levamisole, a drug primarily used to de-worm cattle. Levamisole had been tested in humans decades ago as a treatment for colon cancer and other diseases, but was discontinued because of its toxicity. Graf read up on the medical literature, finding that levamisole had caused clotting disorders of the skin, particularly the ear. The drug can reduce the number of white blood cells to dangerously low levels, leading to flu-like symptoms and persistent infection.

There was no test available for levamisole, since it was no longer prescribed. Graf teamed up with Kara Lynch, PhD, associate chief of clinical chemistry and toxicology at SFGH. Lynch bought some levamisole, consulted a scientist who had researched the drug in the 1970s, and developed a customized test for the substance using a technique called liquid chromatography tandem mass spectrometry.

In October 2009, she re-tested every urine drug screen at SFGH which had tested positive for cocaine, and found that 88 percent of those also tested positive for levamisole. “That was surprising,” says Lynch.

The Investigation Continues
The rate of patients presenting with these symptoms has since slowed, but Lynch and Graf are continuing to investigate more about what might be causing an autoimmune disease in cocaine-using patients. One of the biggest questions now is why doctors haven’t seen hundreds of cases, since levamisole was so prevalent among cocaine users, and why all the patients seen at SFGH have been middle-aged women.

“Common autoimmune diseases like rheumatoid arthritis and lupus tend to affect women more than men, and they tend to be women in their 30s to 50s,” says Graf. “It may be that these patients who came in had an underlying predisposition, but not the full genetic requirements, to develop an autoimmune disease. Maybe with an adjuvant like levamisole, you tip them over the top, and they develop this syndrome.”

“Drs. Graf and Lynch have done a remarkable bit of clinical scholarship,” says John Imboden, MD, chief of the Division of Rheumatology at SFGH. “Not everybody would see cases like this and put it all together. It shows what an academic environment can do when people bring in different areas of expertise to solve a puzzle like this.”

Graf, Lynch and their colleagues are now comparing patients who developed the syndrome with cocaine users who do not, learning more about patients’ inflammation levels, what antibodies and enzymes they produce, how they metabolize levamisole, and whether yet another cocaine adulterant might be involved in the cases which produce the vasculitis-like symptoms.

“This research could teach us something about what causes vasculitis, because right now we don’t know,” says Graf. “Could we prevent it, or develop better treatments? That’s how a lot of medical discovery is made — by recognizing a pattern in one place, and applying it to another situation.”
Brown & Williamson demanded that UCSF return the papers, sent private investigators to the UCSF library, and filed a lawsuit. Glantz was summoned to a meeting with UCSF’s lawyers. “I remember thinking, ‘Time to walk to the plank. They’re going to say, we hope you’ve got a good lawyer,’” remembers Glantz. “Instead, they said, ‘This is what the University of California is for, and we’ll defend you.”

UCSF prevailed in the California Supreme Court, a remarkable victory considering that the tobacco industry’s bullying had convinced 60 Minutes to cancel an exposé.

Glantz and his colleagues published five groundbreaking papers based on the documents in the Journal of the American Medical Association, later expanding the material into a book, The Cigarette Papers. They also published the source documents online.

As a result of litigation based in part on this evidence and Glantz’s analysis of it, the four largest U.S. cigarette manufacturers and 46 states signed the 1998 Tobacco Master Settlement Agreement, the biggest civil litigation settlement in U.S. history. Among other provisions, it restricted advertising and required tobacco companies to pay more than $200 billion to compensate states for the cost of treating tobacco-related diseases.

The settlement also made 62 million pages of internal tobacco industry documents publicly available. UCSF created the Legacy Tobacco Documents Library, publishing those documents online and providing primary source material for more than 600 scholarly papers. “Making this information accessible to everybody has transformed the debate, making it possible to start regulating the industry and allowing people to see how malignant they are,” says Glantz. “We try to work on areas where ideas will have impact.”

He currently leads efforts to reduce the amount of smoking portrayed in movies, and exposes tobacco industry efforts to undermine smoke-free ordinances covering restaurants, bars and hotels.

Smoking rates among California’s adults have fallen from 23 percent to 13 percent since 1988, thanks largely to tobacco education efforts. With sufficient political will, Glantz believes tobacco could be eliminated as a public health problem in California within five years. “Tobacco-induced disease is a disease of policy and politics,” says Glantz. “We try to walk to the plank. They’re going to say, we hope you’ve got a good lawyer,” remembers Glantz. “Instead, they said, ‘This is what the University of California is for, and we’ll defend you.”

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Helping Smokers Quit
As an internist, epidemiologist and founding chief of the Division of General Internal Medicine at Parnassus, Distinguished Professor of Health and Health Care Steven Schroeder, MD, saw tobacco’s devastating effects on individuals and populations.

After becoming president of the Robert Wood Johnson Foundation in 1990, Schroeder convinced its board to become the first philanthropy to address smoking. During his 12-year tenure, the foundation made $500 million in grants for research, prevention and treatment of tobacco use.

Schroeder wanted to narrow the gap between what health professionals should do to help people stop smoking, and what they actually do. He returned to UCSF, creating the Smoking Cessation Leadership Center with support from the Robert Wood Johnson Foundation and the American Legacy Foundation, whose board he chaired.

Initially, Schroeder met resistance from national clinician groups. “They said, ‘Our people are too busy. We don’t have time for this!” recalls Schroeder. So he coined the phrase, “Take 30 seconds and save a life,” and developed the “Ask, Advise, Refer” campaign. Participating clinicians ask patients if they smoke; advise them to quit, doubling their chances of trying; and refer them to the national quitline, 1-800-QUIT-NOW, to develop a customized cessation plan.

The center also cultivates champions from various health professions. For example, it worked with Mayo Clinic anesthesiologist David Warner, MD, to convene a meeting of anesthesiology leaders. The center presented data on quitline success rates, and anesthesiologists then piloted “Ask, Advise, Refer” with pre-operative patients at 14 hospitals. The practice has become official.
policy of the American Society of Anesthesiology. The center has similarly partnered with more than 50 organizations.

The center also took on controversial issues. “People with chronic mental illness die 25 years earlier than the rest of the population; much of that is from smoking,” says Schroeder. “Forty-four percent of all cigarettes are consumed by people with mental illness. And yet it had been a hands-off issue.” Some mental health advocates opposed depriving people of their only pleasure. But studies show that about 70 percent of smokers with mental illness want to quit, similar to the general population. In 2006, the center convened a pivotal summit of mental health agencies, clinical organizations and advocacy groups. They also met with the Substance Abuse and Mental Health Services Administration, convincing the federal agency to prioritize smoking cessation in their grant programs.

Join the Smoke-Free Commune
As a UCSF medical student in 1994, Pamela Ling, MD, MPH, led a very public life as a cast member of the MTV reality show, “The Real World.” Her roommates included a 22-year-old HIV-positive man, one of the first young people with AIDS to appear on television. Sixteen years later, viewers still recognize Ling, and say the show transformed their idea of who could get HIV. “I’ve remained interested in how media and social experiences that happen outside the doctor’s office affect health-related choices,” says Ling, who now directs the Center for Tobacco Control Research and Education’s fellowship program.

Ling studies smoking among young adults in bars and nightclubs, a very high-risk group. For example, 56 percent of young nightclub attendees in San Diego smoke, compared to 18 percent of young adults statewide. “Young adults are a top priority for the tobacco industry, which recognizes that most smokers in this age group either quit or progress to addiction,” says Ling. “Rather than just cede this territory to tobacco companies, we should be competing with them.”

By analyzing tobacco documents, Ling found that the industry tailors marketing campaigns to specific subgroups of smokers. By reverse-engineering this approach, Ling

“Young adults are a top priority for the tobacco industry.... Rather than just cede this territory to tobacco companies, we should be competing with them.”

– Pamela Ling, MD, MPH

13 Percent of Californians who smoke – down from 23% in 1988
44 Percent of all cigarettes consumed are by people with mental illness
56 Percent of young San Diego nightclub attendees who smoke – compared to 18% statewide
50,000 Number of Americans killed each year by second-hand smoke

TOBACCO CENTER LINKS:
- tobacco.ucsf.edu
- legacy.library.ucsf.edu
- smokefreemovies.ucsf.edu
- tobaccoscam.ucsf.edu
- jointhecommune.com
- famri.org/core/
- smokingcessationleadership.ucsf.edu
hopes to decrease smoking among high-risk populations. Ling partnered with Rescue Social Change Group, which uses marketing strategies to effect social change among youth. They identified young adult subgroups in San Diego’s bar scene, including hipsters, urban youth and college partiers, as a high-priority population in tobacco control.

Ling is piloting an intervention for hipsters, who disregard traditional health messages. “Saying ‘Smoking is bad for you’ isn’t relevant to them,” says Ling. “But they do care about self-expression and social justice.” Ling and Rescue designed a “social brand” called Commune, which sponsors popular smoke-free events featuring local artists and alternative bands. Artist-commissioned T-shirts, often with anti-Big Tobacco messages, are sold at events and on Commune’s website. They also started a weekly smoking cessation group for social leaders like DJs and bartenders, chronicling members’ progress in a blog.

So far, smoking rates have dropped by 10 percent – promising but not yet statistically significant – and Ling will continue to measure this over time. She will also test three other smoke-free “brands” targeted to other subgroups, comparing them with control groups in the coming years.

“The tobacco industry teaches young people, ‘When I go out, I smoke,’” says Ling. “We’re trying to break these associations so you have an experience where you’re flirting or seeing a band you love, and you’re not smoking.”

Investigating a ‘New’ Drug
For more than 30 years, Neal Benowitz, MD, chief of the Division of Clinical Pharmacology, has studied the pharmacology of nicotine – the addictive chemical in cigarettes – translating discoveries into clinical and policy interventions.

Working with Peyton Jacob, PhD, a research chemist at San Francisco General Hospital and his longtime collaborator, the two have developed methods to measure very low levels of nicotine in patients. “Working together, we’re able to do science that no one else can do,” says Benowitz.

Their early research demonstrated that people who reduce the number of cigarettes they smoke do not lower their exposure to nicotine or other toxins, because they take longer, more frequent puffs in a phenomenon called compensation. “People just smoked each cigarette twice as hard,” says Benowitz.

He also studies how sex, race, age and genetics affect how people metabolize nicotine, and leads the Flight Attendant Medical Research Institute’s Bland Lane Center of Excellence on Second Hand Smoke. The center investigates how secondhand smoke – which kills 50,000 Americans annually – impacts pulmonary and cardiovascular disease, economics and public policy. They also study “thirdhand smoke,” long-lasting tobacco compounds like those deposited into hotel room carpets.

Benowitz also helps shape national tobacco policy. Last year, Congress passed the Family Smoking Prevention and Tobacco Control Act, allowing the Food and Drug Administration (FDA) to regulate the content of tobacco products. Benowitz serves on the FDA’s Tobacco Products Scientific Advisory Committee, which is currently developing recommendations on whether menthol should be banned from cigarettes, and will research the public health impact of smokeless tobacco use. “Eventually we’ll be asked whether certain toxicants in tobacco smoke, or even nicotine, should be regulated down,” says Benowitz.

For the past decade, Benowitz has investigated the question of possibly regulating nicotine, giving smokers experimental cigarettes which contain progressively less nicotine. “We found basically no change in cigarette consumption, even though nicotine intake levels dropped by more than two-thirds,” says Benowitz. “If done gradually, smokers can be weaned from nicotine so they don’t need to compensate by puffing harder or smoking more cigarettes.”

Though few smokers would choose reduced nicotine cigarettes, Benowitz believes that mandating them would make cigarettes less addictive and make it easier to quit. “By modifying the product itself, you would intervene with millions of people at once,” he says. “Plus, the United States will be the model for international regulation, so we could impact the 10 million lives that are lost each year worldwide from tobacco.”

“I think the combination of regulation, health promotion, smoking cessation, maintaining Stan Glantz’s invaluable work around clean indoor air, and specialized interventions like Steve Schroeder’s efforts with smoking and mental illness, will have a profound impact in reducing tobacco-caused death and disability,” says Benowitz.

“If done gradually, smokers can be weaned from nicotine so they don’t need to compensate by puffing harder or smoking more cigarettes.”
– Neal Benowitz, MD
Dr. Carol Mangione
Long-Lasting Connections

For me, UCSF was all about the people,” says Carol Mangione, MD, MSPH. “The faculty members cared a lot about us, and were extraordinary clinicians and teachers.”

Mangione completed medical school and residency at UCSF, and is now professor of medicine and health services at UCLA, where she holds the Barbara A. Levey, MD and Gerald S. Levey, MD Endowed Chair.

One of her mentors was Eliseo Pérez-Stable, MD, now chief of the Division of General Internal Medicine at Parnassus. He accompanied Mangione on housecalls to a patient with potential elder abuse issues, examining the patient and talking privately with her son. “I felt pretty overwhelmed, but Dr. Pérez-Stable showed me how to let people tell their stories individually, then develop a plan that works for both patient and caregiver,” says Mangione.

As a chief resident at UCSF, Mangione also served as a role model for trainees. “I started thinking about how to create the best training experience for people coming up the ranks, which has been an important career theme,” she says.

Promoting Health of Minority Elders

Mangione earned her master’s in public health at Harvard, where she also served as a fellow under the mentorship of former UCSF Department of Medicine Chair Lee Goldman, MD, and completed additional postdoctoral training at Harvard funded by the Agency for Health Care Policy and Research and the National Institute on Aging (NIA). She joined the UCLA faculty in 1994.

Her interest in seniors began in childhood. “I grew up across the street from my grandparents, and was very involved in their lives as they grew older,” she says. As a medical resident, she realized the need for evidence-based care for older patients. “There were very few researchers applying strong research methods to the problems older adults have, even though they are huge users of health care,” says Mangione.

Back at UCSF, Pérez-Stable had co-founded the Center for Aging in Diverse Communities, and encouraged Mangione to establish a similar center at UCLA. “That long-term mentoring is so important for mid-level faculty,” she says.

Mangione successfully submitted a proposal to the NIA, and the UCLA/Drew Center for Health Improvement for Minority Elders (CHIME) joined a handful of centers nationwide focusing on improving minority elders’ health and mentoring minority researchers. “So many conditions disproportionately affect older adults from minority groups, and it’s important to mitigate these disparities,” says Mangione, CHIME’s director. “I’m also passionate about making academic medicine a more welcoming place for diverse faculty.”

She also co-directs the UCLA Robert Wood Johnson Clinical Scholars Program, which trains physicians in areas outside the biological sciences to improve health care systems. Throughout her work, Mangione mentors and partners with many UCSF alumni and faculty. “I left UCSF, but UCSF never left me!” she says.

Mangione is married to Phil Ethington, a history professor. Outside of work, she visits her parents, now in their 80s, and cheers on her two daughters at basketball games and swim meets.

Ralph Hewett Fellowship Established

continued from back page

Fahy says the Ralph Hewett Fellowship supports the development of “disease biologists” who combine expertise in cellular and molecular biology with deep understanding of how a disease affects patients. The fellowship provides time for laboratory-based scientists to develop clinical knowledge of a disease, and for clinician scientists to develop skills in research, including bench research. “By training disease biologists, we’re better placed to suggest new ways of treating diseases,” he says.

The Division of Pulmonary and Critical Care Medicine has one of the largest and most prestigious training programs in the country. The program officially lasts three years, but most scholars train for five to seven years. “In three years, you can go into private practice, but it would be impossible to compete independently in an academic career,” says Stephen Lazarus, MD, who directs the training program.

While a grant from the National Institutes of Health supports the initial training years, funding like the Ralph Hewett Fellowship is vital to helping these outstanding scholars become independent investigators. “The Podells and Hewetts have been very generous in creating this fellowship, which is earmarked for trainees who need another year or two of support to get them to the next level,” says Lazarus. The fellowship can also be used to support international fellows, who are often ineligible for federal grants.

Podell is impressed with what the fellowship has made possible so far. “Sheena is doing some amazing research that could concretely benefit the next generation,” says Podell. “This is something for the future, and we hope to keep this fellowship an ongoing commitment.”

For information on how you can support the Department of Medicine, please contact Regan Botsford, Senior Director, Medical Development, at 415/502-1573 or rbotsford@support.ucsf.edu
In genetics, we really take care of whole families,” says Robert Nussbaum, MD, chief of the Division of Medical Genetics and a member of the UCSF Institute for Human Genetics. Since his recruitment from the National Human Genome Research Institute in 2006 to establish the division, Nussbaum has increased genetics services for patients, raised awareness among providers and trainees about how genetics can improve patient care, and fostered information-sharing among UCSF genetic counselors specializing in different areas, such as metabolic disorders and cancer.

Genetics is advancing at an astonishing rate, thanks to more affordable technology. “When the human genome was sequenced less than 10 years ago, it cost $3 billion,” says Nussbaum. “One can now sequence a full human genome for around $13,000.”

Yet geneticists are not only focused on genes. “Genes are the dice that fate has thrown for you,” Nussbaum says. “But that doesn’t mean that the result is foretold. In many ways, we have more control over environmental and social factors.” For example, taking a detailed family history is critical for understanding the whole patient, and whether relatives might be at increased risk for certain diseases.

As an internist as well as a geneticist, Nussbaum works to integrate genetics throughout UCSF’s clinical services. “We serve as general internists for people with complicated hereditary disorders,” he says. The division collaborates with Beth Crawford, CGC, director of clinical services for the Cancer Risk Program at the UCSF Helen Diller Family Comprehensive Cancer Center. In addition to providing counseling, testing, surveillance and care for breast, ovarian and colon cancer, the program has recently expanded to help patients with many other familial cancers syndromes, such as cancers of the head, neck and endocrine system.

“These are rare syndromes that weren’t being diagnosed previously,” says Crawford. Often, these cancers affect multiple organs. The genetic counseling team can determine whether a patient with one type of cancer is also at risk for developing other related cancers; identify other family members at risk; and develop a prevention plan. For example, if children who inherit a gene mutation for a rare form of thyroid cancer have their thyroid removed at an early age, they can prevent development of cancer. “It can be life-saving for many families,” says Crawford.

**Genetic Sleuths**

In partnership with the Division of Cardiology and the Heart and Vascular Center, the division also launched the Program in Cardiovascular Genetics. “Almost all of these conditions predispose to some form of sudden cardiac death,” says Colleen Brown, a certified genetic counselor with the program. “The opportunities for early diagnosis and prevention are huge in these families.”

Mike and Abby are one such family. Seven years ago, Mike was diagnosed with hypertrophic cardiomyopathy (HCM), caused by one of a handful of genetic mutations. The first symptom is often collapse or sudden death. Mike had a strong family history of HCM; a number of relatives died in their 30s and 40s from the condition.

“We lived in total fear every day,” says Abby. They restricted their three young sons from running, playing strenuous sports, and even eating chocolate, since caffeinated foods could trigger an abnormal heart rhythm. On top of regular checkups and echocardiograms and EKGs twice a year, the family went to urgent care almost every month, any time a child felt dizzy or short of breath. “When you have a family history of HCM, no one takes that lightly,” says Abby.

Mike and Abby were referred to the Program in Cardiovascular Genetics, and an extensive family history was used to piece together a picture of the disease’s likely trail through the family tree. A genetic test for HCM had recently been developed, and Mike decided to take it. The results indicated a previously undiscovered genetic variant. After further research, they were told that testing other family members with HCM could help clarify whether the variant was benign, or related to the cause of Mike’s HCM.

After discussions with some of Mike’s relatives who had HCM, five family members volunteered to have additional genetic testing. All had the same genetic variation, enabling UCSF geneticists to confirm this as the cause of their HCM.

Mike and Abby also decided to test their children; each had a 50 percent chance of inheriting the genetic defect. When the results came in, all three sons were negative. “It was amazing!” Abby recalls. “We were floating on air for a month straight. Our parenting is completely different, now that we know.” Their oldest son now excels at basketball and baseball, and they can let all their children run freely and eat chocolate.

UCSF’s detective work and the willingness of their extended family to at left, Mike and Abby’s three oldest sons surround their newborn brother. The older boys all tested negative for a gene which can cause sudden cardiac death, and their baby brother will be tested soon. “Our parenting is completely different, now that we know,” says Abby.
The Future – Understanding Effects of Multiple Variants

Until now, much of genetics has focused on rare inherited diseases caused by a single genetic variant with large impact, such as HCM. Moving forward, Nussbaum says the field will increasingly focus on more subtle variations that have a large aggregate impact on the general population. For example, men whose mothers or sisters develop heart disease before age 60 are at greatly increased risk for heart disease themselves. “That’s not the result of a single variant somewhere, but rather the accumulated effects of multiple variants which are present in the family,” says Nussbaum.

As full genome sequencing becomes more affordable, researchers at UCSF and other institutions can encourage more patients to contribute genetic samples to large, anonymous databases. By analyzing patterns that develop, investigators can tease out which combinations of variants are associated with particular health outcomes.

This could have significant impacts on fields like pharmacogenetics, in which medication regimens are tailored to a patient’s DNA. “We’re moving to an era where we could predict what drug and starting dose might be best for an individual patient,” says Nussbaum.

He hopes to expand the division’s activities by obtaining funding to expand the testing and counseling capabilities of the division – which will help UCSF continue providing the best care to patients. “Even if families have a rare hereditary disorder, we know what it’s about, and can help them deal with it,” says Nussbaum. “They won’t have to be the ones teaching their doctors.”

Margaret Chesney, PhD, has been appointed as director of the UCSF Osher Center for Integrative Medicine.

Integrative medicine combines modern medicine with other established healing practices, such as yoga and meditation, to treat illness and enhance health. “A principle of integrative medicine is that our practitioners work as partners with patients and other care providers,” says Chesney. “We seek to strategically integrate care to enhance treatment and promote health…. The Osher Center is an exceptional program, with depth in its research, clinical and education programs.”

Building on the center’s outstanding foundation – it recently received a second Center of Excellence Award from the National Institutes of Health (NIH) – Chesney looks forward to opening an integrative pediatric pain clinic; continuing the collaboration with Professor Elizabeth Blackburn, a Nobel laureate, on investigating effects of meditation on telomeres; and exploring ways to bring integrative care to UCSF hospitalized patients, among other projects.

Chesney served on the UCSF faculty for many years before becoming deputy director of the NIH’s National Center for Complementary and Alternative Medicine, also serving as acting director when the center’s director became ill. An active scientist, she has authored over 350 scientific papers, and has been president of the Academy of Behavioral Medicine Research and the American Psychosomatic Society. She was elected to the Institute of Medicine in 2001, and received an honorary doctorate from Whitman College, her alma mater, in 2008.

C. Seth Landefeld, MD, has been appointed as the Department’s inaugural associate chair for strategic planning and implementation.

Landefeld, a Rhodes Scholar, earned his medical degree from Yale and completed his residency at UCSF, where he also served as a chief resident. He completed a fellowship in general internal medicine at Harvard and served on the faculty at Case Western Reserve. Landefeld was recruited back to UCSF to found the Division of Geriatrics in 1997, leading it to national prominence, and continues to serve as its chief.

Landefeld is charged with stewarding the implementation of the Department’s seven Strategic Priorities. Building on a strategic planning process begun in 2008, Landefeld and Maye Chrisman, associate chair for finance and administration, have worked with faculty and staff “champions” to develop a timeline for priority milestones and build implementation teams. An immediate goal is creating a knowledge base of what currently exists – such as a master list of scholarship in health policy activities, and a comprehensive organizational chart of clinical operations – to allow the Department to work together to accomplish bigger initiatives.

“People are incredibly committed to our core mission,” says Landefeld. “Working with Talmadge, I hope to intercalate strategic planning into the Department’s DNA. One goal is to help people better understand what colleagues are doing across the Department so they can collaborate on mutually beneficial projects. Working together, we can do things beyond our individual laboratories and clinics to build knowledge and systems and to influence local and national policy.”
Congratulations to the faculty in the Department of Medicine for their achievements and contributions during 2009–10*. They include the following awards and honors:

**Teaching and Mentoring Awards**

- Michael Crawford, MD
  Distinguished Teacher Award, American College of Cardiology
- Helen Kao, MD
  Betty and James E. Birren Emerging Leadership Award, California Council on Gerontology and Geriatrics, 2010
- Mary Whooley, MD
  Outstanding Mentor of the Year Award, San Francisco Bay Area Clinical Research Symposium, 2009
- David Claman, MD
  Outstanding Clinician Award, California Thoracic Society, 2010
- Molly Cooke, MD
  Career Award in Medical Education, Society of General Internal Medicine, 2010
- Bradley Sharpe, MD
  Top Hospitalist, American College of Physicians, 2009

**External Awards, Honorary Degrees**

- Donald E. Ganem, MD
  Elected to the National Academy of Sciences
- Deborah Grady, MD, MPH
  Elected to the Institute of Medicine
- Kirsten Bibbins-Domingo, PhD, MD
  Elected to the American Society for Clinical Investigation
- Adams Dudley, MD, MBA
  Elected to the American Society for Clinical Investigation
- Mehrdad Matloubian, MD, PhD
  Elected to the American Society for Clinical Investigation
- Ida Sim, MD, PhD
  Elected to the American Society for Clinical Investigation
- Maxine Papadakis, MD
  John P. Hubbard Award, National Board of Medical Examiners
- Neil Powe, MD
  Master, American College of Physicians
- Talmadge E. King, Jr., MD
  Master, American College of Physicians
- Nathan Bass, MD, PhD
  Fellowship, American College of Physicians
- Bradley Sharpe, MD
  Fellow, American College of Physicians, 2009
- Nelson Schiller, MD, FACC
  Fellowship, Royal College of Physicians, London, 2010
- Calvin Chou, MD, PhD, FAACH
  Fellow, American Academy on Communication in Healthcare
- Adrienne Green, MD
  Senior Fellow in Hospital Medicine, Society of Hospital Medicine
- Dean Sheppard, MD
  Amherston Lecturer, American Thoracic Society, 2010
- Robert Wachter, MD
  10th most influential physician-executive in the United States, Modern Healthcare Magazine, 2010
- Steven Schroeder, MD
  Honorary Professor of Medicine, Ben Gurion University, Israel
- Stanton Glantz, PhD
  Luther Terry Distinguished Career in Tobacco Control Award, American Cancer Society
- Edward Goetzl, MD
  Most Important Research Achievement Award, Eicosanoid Foundation
- Elise Riley, PhD, MPH
  Public Health Practice Award, American Public Health Association, Epidemiology Section, 2009
- Carl Grunfeld, MD, PhD
  Robert H. Williams-Rachmil Levine Award, Western Metabolism Club
- Yerem Yeghiazarians, MD
  Young Leadership Award, Interventional Cardiology, CRT, 2010
- Margaret Tempero, MD
  Claude Jacquiliere Award, Pitié-Salpêtrière Hospital, Paris, France
- Margaret Fang, MD, MPH
  Excellence in Research Award, Society of Hospital Medicine
- Lilly Bourguignon, PhD
  Senior Research Career Scientist Award, Department of Veterans Affairs
- Daniel Bikle, MD, PhD
  Career Award in Vitamin D Research, International Vitamin D Workshop

**Study Sections, Advisory Committees, etc.**

- Robert Baron, MD, MS
  Vice Chair, Accreditation Review Committee, Accreditation Council, CME
- Neal Benowitz, MD
  FDA Tobacco Products Science Advisory Committee
- David Daikh, MD, PhD
  American Board of Internal Medicine Subspecialty Board in Rheumatology
- Talmadge E. King, Jr., MD
  Member, Board of Directors, National Committee for Quality Assurance (NCQA)
  Secretary-Treasurer, American Board of Internal Medicine
  Member, National Heart, Lung, and Blood Advisory Council
- Barry Massie, MD
  President, Heart Failure Society of America, 2010
- Douglas F. Nixon, MD, PhD
  NIH AIDS Vaccine Research Subcommittee
- Elise Riley, PhD, MPH
  White House Office National AIDS Policy, HIV and Housing Meeting Organizer
- Steven Schroeder, MD
  Inaugural William H. Sorrell Lecturer on Tobacco Policy and Enforcement, National Association of Attorney Generals, 2009
- Margaret Tempero, MD
  Member, European Commission’s 7th Framework Programme for Research, Consensus Group
  Member, Canadian Institutes of Health Research (CIHR), Expert Review Committee
- Yerem Yeghiazarians, MD
  Chair, American Heart Association, Fellow-in-Training and Early Career Committee

*updated to May 27, 2010
**UCSF Awards**

Calvin Chou, MD, PhD, FAACH  
Alpha Omega Alpha Honor Society,  
UCSF Class of 2010  
Graduation Teaching Award,  
UCSF Class of 2010

Maria Dall’Era, MD  
Exceptional Physician Award,  
UCSF Medical Center, 2010

Miranda Dunlop, MD  
Robert H. Crede Award,  
Excellence in Clinical Care-Faculty, 2009

Nora Goldschlager, MD  
Distinction in Teaching Award,  
Academic Senate, 2010

Ralph Gonzales, MD, MSPH  
Distinction in Mentoring Award, Professor,  
Academic Senate, 2010

Thierry Jahan, MD  
Exceptional Physician Award,  
UCSF Medical Center, 2010

Sharad Jain, MD  
John F. Murray MD Award,  
SFGH Medical Services, 2010

Cindy Lai, MD  
PISCES School Teaching Award,  
third-year students

Bradley Lewis, MD  
Subspecialist Consultant of the Year Award,  
SFGH Medical Services, 2010

B.J. Miller, MD  
Osler Award, School of Medicine

Michael Rabow, MD  
Essential Core Teaching Award,  
Outstanding Lecture, UCSF Class of 2012

Niraj Sehgal, MD, MPH  
Academy of Medical Educators

Bradley Sharpe, MD  
Excellence in Teaching Award,  
UCSF Academy of Medical Educators, 2009

Louise Walter, MD  
Distinction in Mentoring Award,  
Associate Professor, Academic Senate, 2010

Leslie Zimmerman, MD  
Gold Headed Cane Society, Class of 2010

**Endowed Chairs**

Mark Anderson, MD, PhD  
Robert B. Friend and Michelle M. Friend  
Endowed Chair in Diabetes Research

Thierry Jahan, MD  
Bonnie J. and Anthony Addario  
Endowed Chair in Thoracic Oncology

Flavio Vincenti, MD  
Endowed Chair in Kidney Transplantation

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**Dr. Maxine Papadakis Receives Hubbard Award**

Maxine Papadakis, MD, associate dean for student affairs at the School of Medicine, was selected as the recipient of the 2010 John P. Hubbard Award by the National Board of Medical Examiners. The award is given to individuals who have made outstanding contributions to the pursuit of excellence in the field of evaluation in medicine.

Papadakis has led extensive research demonstrating that physicians who are disciplined by state licensing boards are more likely to have demonstrated unprofessional behavior in medical school, such as irresponsibility, diminished capacity for self-improvement, or impaired relationships with faculty, students, nurses or patients. She also conducted a study of all internal medicine diplomates who were in U.S. residency programs from 1990 to 2000 and confirmed the importance of professionalism in trainees as a predictor of subsequent disciplinary actions by state licensing boards.

“Her work is viewed by many as a breakthrough in assessment technology and theory, achieving hard evaluation methods and rigorous decisions for a soft competency,” says Lynn M. Cleary, MD, chair of the 2010 Hubbard Award Committee. “The impact of her work on medical school policies regarding professionalism has been enormous.”

“Consensus lists of the professional attributes of the ideal physicians tend to be long, internally inconsistent and full of idealizations and wishful thinking,” says UCSF School of Medicine Vice Dean for Education David M. Irby, PhD. “What we have needed is an empirically derived set of professional attributes of the physician that are critical to the practice of medicine… Dr. Papadakis’s work has … reveal[ed] the few essential elements of professionalism.”

Papadakis first became interested in this area when she served as medicine clerkship director at UCSF. “During that time, I would run across an occasional student who was having challenges in demonstration of the professional behavior that we want,” says Papadakis. In speaking with other clerkship directors, she often found that unprofessional behavior occurred more than once; yet there was no process in place to address such patterns. “These were missed opportunities to bring these observations to the students’ attention and do our best to help remediate them,” she says.

Papadakis supported efforts at UCSF to make professionalism a core competence, along with areas like patient care and medical knowledge, which are taught, evaluated and required for graduation. “Just like some of us might have trouble hearing heart sounds and need particular help, or have trouble working through a differential diagnosis, we now put professionalism in that same area,” says Papadakis.

She strongly believes that the next step is to identify and develop best practices for remediating unprofessional behavior. “All this work is for naught unless we can help our trainees get better,” says Papadakis. “We need outcome data to guide us, just as we have outcome data for important health issues. None of us is perfect, and our goal in identifying unprofessional behaviors is not to dismiss students – that is a last resort – but to guide them.”
Ralph Hewett Fellowship Established

Two fathers with pulmonary disease have inspired two daughters to seek a cure

Ralph Hewett, an entrepreneur who ran a maritime supply business on the San Francisco waterfront, passed away a week before his 95th birthday from complications of chronic obstructive pulmonary disease (COPD). “His doctors at UCSF were terrific to him during the course of his illness, and we wanted to do something to memorialize him,” says his daughter, Cathy Podell. She and her brother, Michael Hewett, decided to establish the Ralph Hewett Research Fellowship in Airway Disease in his memory.

Sheena Kerr, PhD, the inaugural Ralph Hewett Fellow, decided a few years ago that she wanted to use her laboratory research training to develop better treatments for airway diseases like asthma, COPD and chronic bronchitis. In addition to her scientific curiosity, Kerr was personally motivated because her father has COPD. His disease makes it difficult to walk long distances and has caused lung infections requiring hospitalization. “I had never worked in lung biology before, but after reading about his condition, it was something I was interested in,” says Kerr.

For the past year, Kerr has worked with John Fahy, MD, a professor in the Division of Pulmonary, Critical Care, Allergy and Sleep Medicine, discovering what causes people with airway disease to produce extremely thick mucus. “When we look at people who have passed away from asthma, their airways are almost completely blocked with mucus,” says Kerr. “Anything we can do to take thick mucus and make it thinner is very good.”

Mucus is made up of long, centipede-like protein strands called mucins; each “foot” is covered with sugars. Kerr and Fahy have learned that lectins, another type of protein, like to bind to these sugars. Lectins act like a zipper, connecting mucin strands together to create thick, sticky mucus. They found that lectins were far more prevalent in mucus from patients with severe asthma compared with healthy volunteers. They also found that bacteria and fungi which cause infections also produce lectins.

Now they are trying to design a sugar which could mimic the “native” sugars that lectins normally bind to, prevent-ing the lectins from binding to mucin sugars and “zipping” them together. This strategy could lead to development of a drug which prevents thick mucus from forming. The Hewett Fellowship made these initial discoveries possible, and Kerr and Fahy have written grants to continue their research.

“To develop new treatments for intractable problems like mucus plugging, we need to work in a multi-disciplinary way to understand how abnormal mucus forms, then develop logical interventions,” says Fahy.

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