Speeding New Treatments From “Bench to Bedside”

UCSF Researchers Advance in Broad Array of Diseases

Whatever disease you or a loved one might ever experience, there is a very good chance that laboratory scientists in the UCSF Department of Medicine are making progress in understanding its causes and developing more effective treatments. In many cases, their work is also leading to improved diagnostic techniques, preventive measures, and cures.

This breadth and depth of basic science investigation is unprecedented and unrivaled in academic medicine. “Our scope of study encompasses 80 or 90 percent of adult diseases,” says Dr. Dean Sheppard, UCSF Department of Medicine Associate Chair for Biomedical Research. “And a lot of what we do has relevance to the diseases of children because there is considerable overlap.”

From the Chairman

On Becoming #1

There are few things more gratifying in life than being recognized for your accomplishments. That’s why it gives me great pleasure to report that the UCSF Department of Medicine topped the list of recipients of grants from the National Institutes of Health for academic year 2001.

The Department’s annual grant support, totaling over $136 million, represents a nearly two-fold increase in the past 5 years, an increase well in excess of the growth of the NIH budget. These grants represent the talents of our faculty, who are advancing science on a broad array of diseases and finding ways to treat them more effectively.

Increased NIH funding comes at a critical time. In today’s environment of drastically reduced funding for patient care—and with the State of California providing only about 3.5 percent of our Department’s annual budget—we must rely as never before on other avenues of support to maintain our leadership in research, patient care, and teaching.

One of the most important of these sources is philanthropy. In these challenging times for academic medicine, the generosity of our donors plays a pivotal role. Since 1995, 10 Distinguished Professorships and Endowed Chairs have been created. Distinguished Professorships are critical for attracting and retaining the “superstars” who help make the Department great. The newest of these are in Pulmonary Medicine—a Distinguished Professorship established by Nina Ireland to honor Dr. Jeffrey Golden, and an Endowed Chair created by Nan Tucker McEvoy to honor Dr. Michael Stulberg.

In a year of many accomplishments for the Department of Medicine, there are several others worthy of special mention.

First, the Department now has 39 faculty who have received Research Career Awards from the NIH. These awards recognize outstanding promise and accomplishments by both young and established investigators.

Second, the Department has once again received the highest teaching ratings of all departments at UCSF from our medical students. Compared with departments of medicine nationwide, our ratings from students are literally “off the charts,” further testimony to the many outstanding teachers in the Department.

Third, 28 of the Department’s physicians were named this year by San Francisco Magazine as “Top Docs.” Congratulations to all.

Dr. Lee Goldman
Chairman, UCSF Department of Medicine
MEDICAL EDUCATION & TRAINING

Developing Countries Get Help from New Program

Bay Area residents have long benefited from having UCSF—one of the nation's leading health care providers—in their own backyard. But now, a new Department of Medicine initiative will bring UCSF's renowned excellence to underserved communities around the globe.

The International Health Program builds upon the University's already established worldwide presence and commitment to global health. Each year, the program will send a group of select UCSF medical residents to a developing country where they will participate in a two-month educational exchange.

"This is a teaching endeavor where our residents will not only learn and be educated globally, but also offer their teaching expertise and knowledge to the developing country," says Dr. Tracy Minichiello, who helped establish the program two years ago while a fellow at UCSF.

UCSF residents will teach classes for the host country's medical residents, who will then visit UCSF for two months. UCSF residents will also spend time in the host country's hospitals and specialty clinics, as well as its community outreach programs.

The International Health Program officially launches in July 2003, when six residents will be sent to The Makerere University in Kampala, Uganda. Other potential program sites include Beijing, China and Hanoi, Vietnam.

Last spring, one of the program's founders, Dr. Amy Dechet, a chief medical resident at UCSF's San Francisco General Hospital, visited Uganda where she explored their hospitals and investigated the country's greatest health care needs. "With the global nature of our society and the health crises affecting people around the world—including malaria, tuberculosis and HIV—it is crucial that residents get exposure early in their careers to international health issues, and we anticipate that this elective will serve that purpose," Dechet says.

Not only does the program directly benefit current UCSF residents by expanding their clinical breadth and cross-cultural confidence and sensitivity, but it also helps to attract first-rate people.

"To stay very competitive in the academic world," says Minichiello, "we need to offer many diverse opportunities to the top-notch residents whom we hope to recruit."

The exchange between residents will also likely open the doors for greater cross-continental research collaboration on a faculty level, expanding the university's role as a global leader in basic and clinical research. Already, the Department is involved in various international research projects, most notably the AIDS Research Initiative (ARI), the largest AIDS research entity in the world outside of the National Institutes of Health.

"One of UCSF's greatest missions is to be a powerful force in health care, both on an international and national level, and this program is an additional step in that direction," says Minichiello. "There is a tremendous amount of goodwill and leadership associated with this program."

Ways of Giving

Many people who have been cared for by a UCSF Department of Medicine physician choose to express their gratitude by supporting our life-enhancing work. Thousands of other individuals also make tax-deductible gifts to help sustain medical advances at UCSF.

You can support the UCSF Department of Medicine with gifts of cash, appreciated securities, real estate, life insurance, or other valuable assets. You may enjoy important financial benefits during your lifetime by establishing a life income trust, naming the Department of Medicine (or one of its divisions) as the ultimate beneficiary. Also, bequests are a critical source of funds to help meet the department's future needs.

For further information about giving, please contact Ms. Janice Eisele, Director of Development, at (415) 502-6436.
PHILANTHROPY MILESTONES

Distinguished Professorships and Endowed Chairs are the two most prestigious and lasting gifts from grateful patients to doctors.

Nina Ireland Distinguished Professorship is a Major New Asset for Pulmonary Medicine

Through an act of generosity that will benefit many lives for generations, Nina Ireland has created a Distinguished Professorship at UCSF to honor Dr. Jeffrey Golden, who helped her stabilize a serious health problem in recent years.

UCSF’s Chief of Bronchoscopy, Dr. Golden is widely recognized as one of the country’s best pulmonary doctors, particularly in the areas of interstitial lung disease, including sarcoidosis, idiopathic pulmonary fibrosis, and pulmonary processes associated with rheumatologic diseases like scleroderma.

While primarily a clinician, Dr. Golden has made a number of major contributions through research. In 1983, he initiated the first study to improve treatment and prevention of Pneumocystis pneumonia, one of the most common and lethal complications of AIDS early in the epidemic.

With UCSF colleagues, he also simplified the diagnosis of this AIDS-related pneumonia.

Dr. Golden established UCSF’s renowned lung transplant service in 1991, making it San Francisco’s first. He is currently doing novel work in lung transplantation in collaboration with UCSF basic scientists.

He is also developing a new field, interventional bronchoscopy, that involves diagnostic and therapeutic techniques unheard of a few years ago.

Dr. Golden is also principal investigator for a number of studies related to patient care. For example, he is investigating the role of gamma interferon in the treatment of idiopathic pulmonary fibrosis, one of the most deadly forms of lung cancer. “Although the research is quite early,” he says, “initial results provide a glimmer of hope that for the first time we’ll have something positive to use therapeutically for this heretofore untreatable disease.”

In addition, Dr. Golden is now directing a clinical trial using Cellexcept—approved by the FDA as a chemotherapy—to reverse the early inflammatory stages of fibrotic lung diseases associated with scleroderma.

Nan Tucker McEvoy Creates an Endowed Chair in Pulmonary Medicine

One of the highest priorities for Nan Tucker McEvoy, who with her family owned the San Francisco Chronicle until a few years ago, is to make San Francisco an even greater city. And one of the ways she has chosen to do this is by creating an Endowed Chair in Pulmonary Medicine at UCSF in honor of Dr. Michael Stulbarg, her pulmonary physician. The Endowed Chair established by McEvoy will help enable UCSF to sustain its preeminence in pulmonary medicine, patient care and teaching.

Dr. Stulbarg is widely recognized as one of the leading physicians in pulmonary medicine. He is particularly well-known for treating adult cystic fibrosis and sleep apnea, a condition in which people stop breathing repeatedly during their sleep. In addition, he has a reputation among colleagues as the “go-to” doctor for chronic cough of unknown origin.

A clinical professor of medicine, Dr. Stulbarg has been one of the strongest forces in teaching pulmonary medicine at UCSF for more than two decades. He has helped make it one of the top programs of its kind in the world and has been honored several times by UCSF for his leadership.

Over the years, Dr. Stulbarg has also remained consistently involved in important research activities. With a colleague in the UCSF School of Nursing, he helped establish that exercise is a very powerful treatment for shortness of breath.

In addition to Ms. McEvoy, who contributed $500,000 to the fund for the Endowed Chair, a number of Dr. Stulbarg’s other patients have also made gifts, bringing the total to in excess of $650,000. It is hoped that the fund will grow to $2.5 million, enabling its status to change from Endowed Chair to Distinguished Professorship. For information, please contact Ms. Janice Eisele, Director of Development, at (415) 502-6436.

Dr. Michael Stulbarg and Nan Tucker McEvoy

An Investment In The Future Of Quality Medicine

Creating a Distinguished Professorship or Endowed Chair is perhaps the single most important step a donor can take to help assure the future leadership and quality of the UCSF Department of Medicine.

Endowment of these historic honors—a 500-year-old academic tradition that began with the creation of the Lady Margaret chairs in divinity at Oxford and Cambridge—brings prestige not only to the Department of Medicine but also to the faculty members upon whom they are bestowed. Equally important, they provide the financial support to attract the best and brightest of medicine’s future generation.

Distinguished Professorships and Endowed Chairs are frequently named in honor of the donor, a person of the donor’s choosing, or an esteemed member of the faculty. A Distinguished Professorship is funded by a gift totaling a minimum of $2.5 million, and an Endowed Chair by a gift of at least $500,000.
From Early California Days, a Proud History

The UCSF Department of Medicine’s long record of major achievements

The California Gold Rush transformed San Francisco from a sleepy outpost into a city whose population had both the talents and resources to run a medical school.

Yet when in 1864 the Toland Medical College—named for its founder, Dr. Hugh H. Toland—accepted its first eight students into its handsome new building in North Beach, no one could have imagined it would one day rival Harvard as one of the world’s preeminent institutions in medical research and education. Its founding predates that of its other contemporary rival, the Johns Hopkins University School of Medicine, by 29 years.

The most critical early step in the UCSF Department of Medicine’s long history took place just nine years after Toland Medical College opened. In 1873 the college affiliated with the new University of California, which was settling into Berkeley after its initial years in Oakland. With the UC affiliation, the name of the college became the Medical Department of the University of California. This vital link with what was to become one of the world’s great research universities enabled UCSF to become a respected center for medical research and education over the subsequent decades.

As medicine became increasingly specialized over time, the Department of Medicine—with its focus on adult, non-surgical medical care—evolved into the largest unit within the UCSF School of Medicine. In the 1960s, the department ascended into the elite handful of leading national institutions of its kind, encouraged by three strong external forces:

- UC’s burst of power: The University of California system was growing by leaps and bounds. President Clark Kerr was opening new campuses and raising expectations for all UC campuses to achieve high national rankings.
- Huge growth at the NIH. In this era radiant with the promise of science to cure many ills, the federal government’s funding for medical research grew exponentially.

Dr. Hugh H. Toland made a grueling four-month trip West via wagon train from South Carolina in search of gold and a healthier climate for his ailing wife. He gave up mining and instead became rich as San Francisco’s foremost physician.

Dr. Toland used his wealth to establish the Toland Medical College in 1864. Nine years later, the college merged with the new University of California. The original building—located in San Francisco’s North Beach neighborhood, at Stockton and Steiner Streets—was destroyed in the 1906 earthquake and fire.

Growing academic prestige and higher enrollments came with the UC affiliation. In the late 1890s, the Department of Medicine, which had become part of the “Affiliated Colleges” of the University of California, moved to a new campus on a 13-acre site overlooking Golden Gate Park.

photos: Courtesy of Special Collections/University Archives, The Library and Center for Knowledge Management, University of California, San Francisco
Dr. Maurice Sokolow Remembered

Dr. Maurice Sokolow, who died of cancer on September 26 at the UCSF Medical Center at the age of 91, was an international expert in hypertension. He received his medical degree from UCSF in 1936 and had been a force at the university virtually ever since.

"Dr. Sokolow was a pioneer in the field of hypertension, including the effects of stress on blood pressure, and he was a beloved member of the UCSF community," says Dr. Lee Goldman, chairman of the Department of Medicine.

A man of many accomplishments, Dr. Sokolow was a lover of literature and enjoyed quoting Cicero. He was also a passionate fly fisherman, a fine photographer, an invertebrate traveler, and a lover of fine wines. He authored more than 160 medical publications, including Clinical Cardiology, a leading textbook that was translated into seven languages. The book, co-written with Doctors Melvin D. Cheitlin and Malcolm McIlroy, is now in its sixth edition.

Remembered by his longtime friend and colleague, Dr. Hilliard Katz, a professor emeritus at UCSF, as "a very kind, warm-hearted person," Dr. Sokolow spent virtually his entire medical career at UCSF. He followed his residency at the New England Medical Center in Boston with a fellowship in cardiology at the Michael Reese Hospital in Chicago. He served in the navy in World War II, stationed on a hospital ship in Fiji. It was here that he learned about photography, volunteering to become the hospital photographer despite not having any previous experience.

In the 1950s, after joining the UCSF clinical faculty, Dr. Sokolow headed the hypertension section at San Francisco General Hospital. It was here that he designed a portable device for measuring blood pressure, which enabled him to discover that it varies during the day. He also learned that a patient's blood pressure can go up while being examined by a doctor, a phenomenon that became known as "white coat hypertension." Dr. Sokolow was Chief of Cardiology at Moffitt-Long Hospital for about 20 years.

"He was a highly creative clinical researcher who evolved from humble beginnings to become one of the world's great cardiologists," says Dr. Jay Nadel, Professor of Pulmonary Medicine at UCSF.
"Bench to Bedside"
continued from page 1

The term "basic science" can be misleading. While "basic" implies beginnings, basic science should not be thought of as preparatory to the "real" science that takes place later. Basic biological science is called basic because it focuses on origins and fundamentals, more specifically, on the molecular and cellular processes that govern life.

Not surprisingly then, basic biological science is considered the science behind medicine. Many of its discoveries—fromhow cells communicate to how hormones work—underlie the tools, techniques, drugs, and other treatments that sustain human health and prevent disease.

Although basic science has been a core element of medical research for more than a century, new tools are dramatically altering the pace of translation from the laboratory to the doctor's office. "Over the last 10 years," Dr. Sheppard says, "there has been an explosion of new methods for simultaneously and effectively analyzing all of the genes or proteins in a cell or an organism. So we can move much more quickly in identifying the molecular basis of a disease."

"Another critical advance has been the enormous improvement in techniques to isolate and differentiate stem cells that can be used to repair or grow organs," he says. This prospect of using stem cell transplants to replace diseased tissues is considered by many to be the next important biotech development. "We have so many more powerful tools today than a decade ago. So the pace of new discovery undoubtedly is going to be very rapid."

Why UCSF is a Leader

Dr. Sheppard points to four key underlying explanations for UCSF's leadership:

- Birthplace of a revolution. The discoveries that spawned the biotechnology revolution were largely made at UCSF. Today, UCSF scientists are leaders in applying recombinant technologies—where DNA molecules from two or more sources are combined and then inserted into host organisms where they reproduce in new genetic combinations. The use of recombinant technologies (also known as genetic engineering) at UCSF has led to the introduction of hundreds of drugs now on the market, including treatments for AIDS, asthma, arthritis, diabetes, and heart disease.

- A unique culture of collaboration. UCSF stands out as an institution that genuinely promotes interdisciplinary collaboration, which accelerates progress in research. According to Dr. Sheppard, "Many other institutions have historically been organized around fields, which are large competitive groups structured around individual stars. Our model is that each individual faculty member has a relatively modest-size lab and we then build success by helping each other. The physical layout of our laboratories is based on that philosophy. For example, my focus is pulmonary medicine, and I'll be sharing a new space at Mission Bay with the head of the genetics program in the Biochemistry Department, researchers in the Department of Biopharmaceutical Sciences, and others in the Department of Neurology. This cultural advantage really makes a big difference."

- Special contributions by physician-scientists. Many of the world-renowned UCSF physicians who care for patients spend a substantial portion of their time in research laboratories. These physician-scientists are able to make special contributions because they have dual skills: deep clinical knowledge about a disease, combined with top-tier investigative expertise.

- Resource leadership. The Department of Medicine is the top recipient of research dollars from the National Institutes of Health—$136 million for the last fiscal year. These funds support a very broad array of basic science and reflect the caliber of the department's faculty.

Looking ahead

When asked to give an example of how basic science will change the practice of medicine, Dr. Sheppard does not hesitate: "One of our big hopes is that we'll increasingly be able to use genetic information to individualize therapy. If we have four possible ways to treat heart disease, for example, we'll be able to determine in advance who is going to respond to which treatment rather than treating everyone the same. This new knowledge will help avoid unnecessary delay and side effects, while simultaneously maximizing benefits. We'll see more and more of this over the next couple of decades."

Dr. Arthur Weiss, Chief of Rheumatology at Moffitt-Long Hospital, heads a major basic science investigation that is helping to revolutionize the treatment of arthritis and many other autoimmune diseases.

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Top Five Recipients Of NIH Funding for Fiscal 2001

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<td>UC-SAN FRANCISCO</td>
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<td>JOHNS HOPKINS</td>
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<td>UNIVERSITY OF ALABAMA AT BIRMINGHAM</td>
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<td>UC-SAN DIEGO</td>
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UCSF Department Of Medicine: Leader in NIH Funding

NIH funding growth for top 3 Departments of Medicine
Dr. Ephraim P. Engleman recently received the highest national honor in the field of rheumatology. The American College of Rheumatology awarded him its Presidential Gold Medal in recognition of his many important contributions to the modern practice of rheumatology and investigation of its diseases. Dr. Engleman is Clinical Professor of Medicine and Director of the Rosalind Russell Medical Research Center for Arthritis.

Dr. Jay Levy, Professor of Medicine and Director of the Laboratory for Tumor and AIDS Virus Research, was the 45th recipient of the Annual Faculty Research Lecture Award from the UCSF Academic Senate. Dr. Levy is best known for his independent co-discovery and isolation of the AIDS virus. His recent work has contributed to an understanding of anti-HIV immune responses.

UCSF Department of Medicine Faculty Awards & Honors

Teaching Awards

Student Teaching

Class of 2002
Ann Bolger
Clinical Teaching Award from the Class of 2002
Lawrence Tierney
Clinical Teaching Award from the Class of 2002

Class of 2004
Steven Pantilat & Jonathan Terdiman
Excellence in Small Group Instruction
Kenneth McQuaid
Major contribution to teaching

Class of 2005
Alan Gelt Outstanding Lecture Series

Other Major Teaching Awards

Thomas Baudendistel
Floyd Rector Award, 2002
Glenn Chertow
"Honorable Mention" Award for the University's Academic Senate Distinction in Teaching, 2002
Calvin Chou
First Annual PRIME Teaching Award, 2001
Sharad Jain
Kaiser Award for Excellence in Teaching for Clinical Faculty, 2002

Members of the New Academy of Medical Educators at UCSF

Founding members:
Richard Haber
Karen Hauer
Harry Hollander
Elihu Hughes

New members:
Rachel Chin
Calvin Chou
Alicia Fernandez
Sharad Jain
Maxine Papadakis
Lawrence Tierney
Maria Wamsley
Leslie Zimmerman

Appointments

Stanton Glantz
Dr. William Cahan Distinguished Professor Award from the Flight Attendant Medical Research Institute
Richard Locksley
Selected as an Ellison Medical Foundation Senior Scholar in the Global Infectious Diseases
Diane Havir
Chief, Positive Health Program, San Francisco General Hospital

Awards & Honorary Degrees

Steven Cummings
First recipient of the UCSF Academic Senate Distinguished Clinical Research Lecture Award, 2001
Michael Eisner
David V. Bates Award for Promising Investigation in the Field of Environmental and Occupational Health from the American Thoracic Society, 2001
Cecile Lehman Mayer Research Award from the Chest Foundation and American College of Chest Physicians
Millie Hughes-Fulford
Named one of the "Top Women for the New Millennium" by Zonta International, 2001
Alka Kanaya
Society of General Internal Medicine 25th Annual Meeting Hamoskoby Junior Faculty Award
Michael Mathay
Scientific Achievement Award from the American Thoracic Society
William Parmley
Special Recognition Award from the Lennir Society, Council on Clinical Cardiology, American Heart Society
Floyd Rector
Robert Berliner Award from the American Physiological Society
A.N. Richards
Award from the International Society of Nephrology at the International Congress of Nephrology, 2001
Kaveh Shojainia
National Association of Inpatient Physicians, Young Investigator Award, 2002
Paul Volberding
Laureate Award from the American College of Physicians, Northern California Chapter
John Ziegler
Paul P. Carbone Memorial Award from the International Network for Cancer Treatment Research

San Francisco Magazine's "Top Docs" Ranking

Infectious Diseases
Robert Baron
Molly Cooke
Harry Hollander
Richard Jacobs
Bernard Lo
Stephen McPhee
AIDS
Paul Volberding
John Stansell
Pulmonary Disease
Homer Boushy
Philip Hopewell
Laurence Huang
Talmadge King
Michael Mathay
Cardiology
Karun Chatterjee
William Parmley
Melvin Scheinman
Endocrinology/Metabolism
Frank Greenspan
Gastenterology
Montgomery Bissell
John Cello
James Ostruff
Geriatric Medicine
C. Seth Landefeld
Medical Oncology
Donald Abrams
Nephrology
William Amend
Michael Humphreys
Rheumatology
Kenneth Fye
Kenneth Sack
Arthur Weiss
David Wolosy

Honorary Societies, New Members

Association of American Physicians, 2002
Israel Charo
Mark Goldsmith
Robert Farace
Teresa Wright
Institute of Medicine, 2002
Margaret Chesney
Robert Mahley
Eliseo Perez-Stable
American Academy of Arts and Sciences, 2002
Shaun Coughlin
Order of the British Empire
Teresa Wright
New Type of Dialysis Improves the Lives of Kidney Patients

Young mother of three says her health has improved "dramatically"

UCSF dialysis patient Monica Galarasa, a 28-year-old mother of three, is one of 300,000 people nationwide who suffers from chronic kidney failure. Thanks to UCSF's leadership in an innovative treatment approach, her quality of life has been greatly improved, and she is able to be more actively involved with her children.

It all began four years ago, when Monica received a diagnosis of lupus, a chronic inflammatory and autoimmune disease that is most common in women. It can seriously affect various parts of the body, especially the kidneys, skin, joints and blood. Initially, Monica was treated at another Bay Area health center, where a doctor put her on kidney dialysis. Dialysis is used when a person's kidneys no longer perform their vital function of removing certain waste products, such as urea and creatinine, from the blood. The dialysis machine acts as an artificial kidney, circulating and cleansing the blood outside the body and then returning it. It can also remove up to 12 pounds of tissue-damaging fluid that builds up between treatments because kidney patients can urinate very little or not at all.

Unfortunately, Monica did not respond well to her treatment. "My doctor never even took the time to see me," she says. "If I had stayed there and not come to UCSF, I would probably be dead."

Desperate to improve her life and health, Monica decided to switch to nocturnal dialysis centers. She chose UCSF because of its outstanding reputation as one of the top kidney dialysis centers in the country.

However, the dialysis process continued to make her feel weak and sick. Then, Dr. Glenn Chertow, the medical director of the UCSF Dialysis Center, suggested she try something different—nocturnal dialysis, in which a patient receives his or her treatment over seven hours during the night at the Mt. Zion campus.

UCSF is one of the few centers in the country offering this innovative service. It is a slower and gentler process than conventional dialysis, which removes the built-up fluid in an intensive three-hour process that is very stressful to the body. Nocturnal dialysis also does a more thorough job of cleansing the bloodstream of waste products.

Monica insists this new treatment approach has changed her life. "I became a completely different person after I started nocturnal dialysis," she says. "Now I have more energy, and my health has improved dramatically."

According to Dr. Chertow, several preliminary studies have shown that nocturnal dialysis may reduce the mortality rate and improve the overall health and well-being of dialysis patients. "Even as the results of additional research are forthcoming, we wanted to offer this option to patients at UCSF," Dr. Chertow says.

Nocturnal dialysis is just one of the innovative services that distinguishes UCSF's Dialysis Center from other institutions. "Unfortunately, kidney disease is widely understudied," adds Dr. Chertow. "We aim to practice evidence-based nephrology that's on the cutting-edge. We regularly merge new information from our own research, and the research of other doctors, into our clinical practices."