



IMPROVING HEALTH IN THE SAN JOAQUIN VALLEY UCSF FRESNO ANNUAL REPORT 2018-2019



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Engage.
enrich.



Question.
discover.



Care.
heal.

Teach.
inspire.



Message from the Associate Dean

We know the San Joaquin Valley has a serious shortage of practicing physicians. We know Valley community members live with more chronic health conditions than residents in other parts of the state. We know about the health disparities that exist in the Valley. Now is the time to move the dialogue forward to concentrate on multifaceted solutions aimed at improving community health.

UCSF Fresno continues to focus on addressing the need for physicians in the Valley through physician recruitment and physician training. In 2018 alone, UCSF Fresno faculty physicians and resident physicians provided direct care for over half a million patient visits. Approximately 100 physician and dental residents graduate from the UCSF Fresno training programs each year, and roughly half remain in the region to provide care for our communities. As our region's diverse population continues to grow and age and existing physicians retire, the race to keep pace with physician supply and diversity must be a priority for our region and the state.

UCSF Fresno has deep roots in the San Joaquin Valley. We were established in 1975 as a regional graduate medical education campus of UC San Francisco. Today, we are the largest academic physician-training program in the region. We have trained approximately 3,000 physicians since 1975. Roughly 50 percent of our graduates stay in the Central Valley to provide care and 85 percent remain in California to practice.

For the 10th consecutive year, the UCSF School of Medicine ranked in the top five nationally in the U.S. News & World Report survey of best graduate and professional schools. UCSF is also recognized as the only medical school in the country to be ranked in the top five for both research and primary care. As a branch campus, UCSF Fresno is included in this tremendous distinction.

We are very excited, this year, to take the next step for our region. In July 2018, the national accrediting body for MD-granting medical schools approved UCSF Fresno as a branch campus of the UCSF School of Medicine. The designation made UCSF the degree-granting institution for the San Joaquin Valley Program in Medical Education (SVJ PRIME), a program specifically for training regional students who are committed to providing high quality and culturally competent care that addresses the Valley's unique health needs.

Importantly, the designation paved the way for SVJ PRIME medical students to spend the majority of their training at UCSF Fresno and other Valley locations. This achievement marked a major step forward for aspiring doctors in the region. Local students may now go from high school to college to medical school and to residency training without leaving the Valley.

While the branch campus is a step forward, it must be accompanied by growth in residency training in the Valley to ultimately increase physicians for the region. Without that, local medical school graduates must go elsewhere to obtain the graduate clinical training required to practice independently, and we are at risk they will not return to our region. Strong residency training programs are crucial, and expanded financial support is needed to grow training programs in the region.

While the number of physicians in the region is important, it is equally imperative that we focus on the well-being of our health professionals. They will then have the energy and capacity to deliver the high-quality, culturally competent care our community members deserve. For that reason, health care provider wellness is a priority at UCSF Fresno.

Finally, addressing community health requires redesigned health care systems. We need to develop care provided by teams of health professionals. We need to expand use of technology to enhance and extend health care, and we must move health care beyond hospital and clinic walls to prevent chronic health conditions before they start. As you will note in this annual report, UCSF Fresno is engaged in many initiatives within this arena.

As always, we continue to be dedicated to improving health in the Valley through teaching, patient care, research and community partnerships. We are your UCSF Fresno.

Sincerely,

Michael W. Peterson, MD, FCCP, MACP
UCSF Professor of Medicine
UCSF Associate Dean, UCSF Fresno

Updates from the Assistant Deans



Kenny Banh, MD, FACEP

Assistant Dean for Undergraduate Medical Education (UME)

As Assistant Dean for UME, I oversee the training of medical student and other allied health programs at UCSF Fresno (e.g. physician assistant, nurse practitioner and oral and maxillofacial surgery). The goal at UCSF Fresno is to train students to care for our underserved patient populations while addressing health care disparities in the San Joaquin Valley. Under my leadership, UME has grown from less than 100 students rotating here on an annual basis to almost 400. In the past academic year, UCSF Fresno was accredited as a branch campus of the UCSF School of Medicine. The designation made UCSF the degree-granting institution for SJV PRIME and paved the way for students to spend the majority of their medical school training at UCSF Fresno. We have grown clinical opportunities for students and increased our offerings in student services, community outreach as well as research. We encourage trainees to consider careers in the Valley and are working with regional partners to expand training opportunities as well as increase medical and educational outreach throughout the region.



Simon Paul, MD

Assistant Dean for Academic Affairs

As Assistant Dean for Academic Affairs, I lead development of academic activities for all UCSF faculty at UCSF Fresno. It takes world-class faculty to train the next generation of outstanding physicians. Academic Affairs involves searching for and recruiting faculty and reviewing the academic progress of clinical faculty. In addition, Academic Affairs supports faculty development and mentoring. We are continuing orientations for new faculty to help them understand and navigate the roles, responsibilities and resources at UCSF and UCSF Fresno. In addition, we are revamping the process for faculty advancement. The goal of Academic Affairs is to maintain the outstanding professional work, teaching, research and creative activities of faculty at UCSF Fresno. Currently, we have 285 core faculty physicians and another 373 non-core or volunteer faculty.



Lori Weichenthal, MD, FACEP, RYT

Assistant Dean for Graduate Medical Education (GME)

As Assistant Dean for GME, I oversee the accreditation and growth of nine specialty and 18 sub-specialty graduate medical education programs at UCSF Fresno. The goal of GME at UCSF Fresno is to train competent, caring physicians who are interested in serving an underserved patient population while addressing health care disparities. At UCSF Fresno, we have a holistic approach to training future physicians that includes a strong emphasis on physician wellness and diversity and inclusion. As a result of the GME program at UCSF Fresno, roughly half of our trainees stay and establish practices in the Valley, helping to address the shortage of physicians that exists in this region. This year, under my leadership, UCSF Fresno built on its commitment to wellness by joining with Community Regional Medical Center and the University Centers of Excellence/Central California Faculty Medical Group to establish a collaborative effort known as LIVE which stands for Life, Inspiration, Vitality and Engagement. This new, multidisciplinary initiative aims to empower all members of our community to achieve a more balanced approach to their wellness by providing guidance, tools and support. LIVE strives to enrich the learning and working environment at UCSF Fresno and beyond.

Fast Facts

UCSF Fresno was established in 1975 and housed at the VA Central California Health Care System.

In 2005, UCSF Fresno opened in downtown Fresno, consolidating all UCSF Fresno residency programs and administrative staff under one roof for the first time.

In 2018, the Liaison Committee on Medical Education approved UCSF Fresno as a branch campus of the UCSF School of Medicine to lead the San Joaquin Valley Program in Medical Education (SVJ PRIME), a training program to prepare medical students to address the unique health needs of the region's diverse and underserved populations.

300+

Physicians trained each year

9

Residency specialties

18

Fellowship sub-specialties

3

Physician assistant residencies

650+

UCSF core and volunteer faculty in Fresno

11-15

Years average time to train a physician (after high school)

\$200k

Median education debt for medical school graduates in 2018

roughly 50%

Of UCSF Fresno trained physicians stay in the Central Valley to practice

300+

Research studies, clinical trials and public service projects

60%

of SVJ PRIME students come from backgrounds underrepresented in medicine

550k+

Patient visits annually at clinical partner sites

Partners and Affiliates

As a regional graduate medical education program and undergraduate branch campus of the UCSF School of Medicine, UCSF Fresno carries out its training and patient care through a network of affiliated partners. Medical residents, fellows and medical students have the opportunity to work and train in a variety of training sites with an impressive list of specialists at major hospitals, health agencies and programs, clinics and physicians' offices and wilderness medicine settings. With the only Level 1 Trauma Center between Sacramento and Los Angeles, a regional burn center, acute care hospitals and numerous non-hospital programs, Fresno is the center of health care in the San Joaquin Valley.



UCSF Fresno's Major Clinical Partners

Community Regional Medical Center
Clovis Community Medical Center
Fresno Heart & Surgical Hospital
Community Behavioral Health Center
Community Cancer Institute
Family HealthCare Network Deran Koligian
Ambulatory Care Center
Family HealthCare Network – Disease
Management Center
Family HealthCare Network-Surgical Services
Center
VA Central California Health Care System

UCSF and UCSF Fresno

UCSF Benioff Children's Hospital
UCSF Medical Center
UCSF Medical Center at Mount Zion
UCSF Fresno Alzheimer & Memory Center

University Centers of Excellence

University Cardiovascular Center
University Dermatology Associates
University Diabetes & Endocrine Specialists
University Gastroenterology & Hepatology
Associates
University Gynecologic Oncology Specialist
University Medicine Associates
University Neurology Associates
University Neurosciences Institute
University Neurosciences Institute – Merced
University Neurosciences Institute – Visalia
University Obstetrics & Gynecology Center
University Oncology Associates
University Orthopaedic Associates
(Clovis Location)
University Pediatric Specialists
University Pediatric Subspecialties
University Perinatal Associates
University Psychiatry Associates
University Pulmonary Associates
University Sleep and Pulmonary Associates
University Specialty Surgery Associates

University Surgical Associates
University Urogynecology Associates
University Women's Specialty Center

Other Affiliated Health Care Institutions and Training Sites

Advanced Laparoscopic Surgical Associates
County of Fresno Department of Behavioral
Health
County of Fresno Department of Public Health
Eye-Q Vision Care, Fresno
Family First Health Center, Fresno
Family Planning Associates, Fresno
Fresno Surgical Hospital
Hinds Hospice
Kaiser Permanente Fresno Medical Center
Kaweah Delta Health Care District (Visalia)
Saint Agnes Medical Center
Sequoia Surgical Pavilion, Visalia
Sierra Pacific Orthopedics
Valley Children's Hospital
Valley Surgical Specialists
Valley Vascular Surgery Associates
Women's Specialty and Fertility Clinic

Rural Training Sites

In addition to traditional rotations in hospitals, UCSF Fresno also provides residents with substantial experience in rural and/or underserved communities through ambulatory rotations – care of patients in community clinics.

Adventist Medical Center – Reedley
Adventist Health Community Care – Reedley
Children's Health
Adventist Health Community Care – Reedley
Cypress
Eye-Q Vision Care, Selma
Golden Valley Health Centers, Merced
United Health Centers
Parlier Health Center



Training Programs

UCSF Fresno received 6,751 applications from residents and fellows and conducted 1,292 interviews for 109 positions.

Residency Programs

Emergency Medicine
Family and Community Medicine
Internal Medicine
Obstetrics/Gynecology
Oral and Maxillofacial Surgery
Orthopaedic Surgery
Pediatrics
Psychiatry
Surgery

Physician Assistant Residency Programs

Acute Care/Trauma Surgery
Emergency Medicine
Orthopaedic Surgery

Fellowship Programs

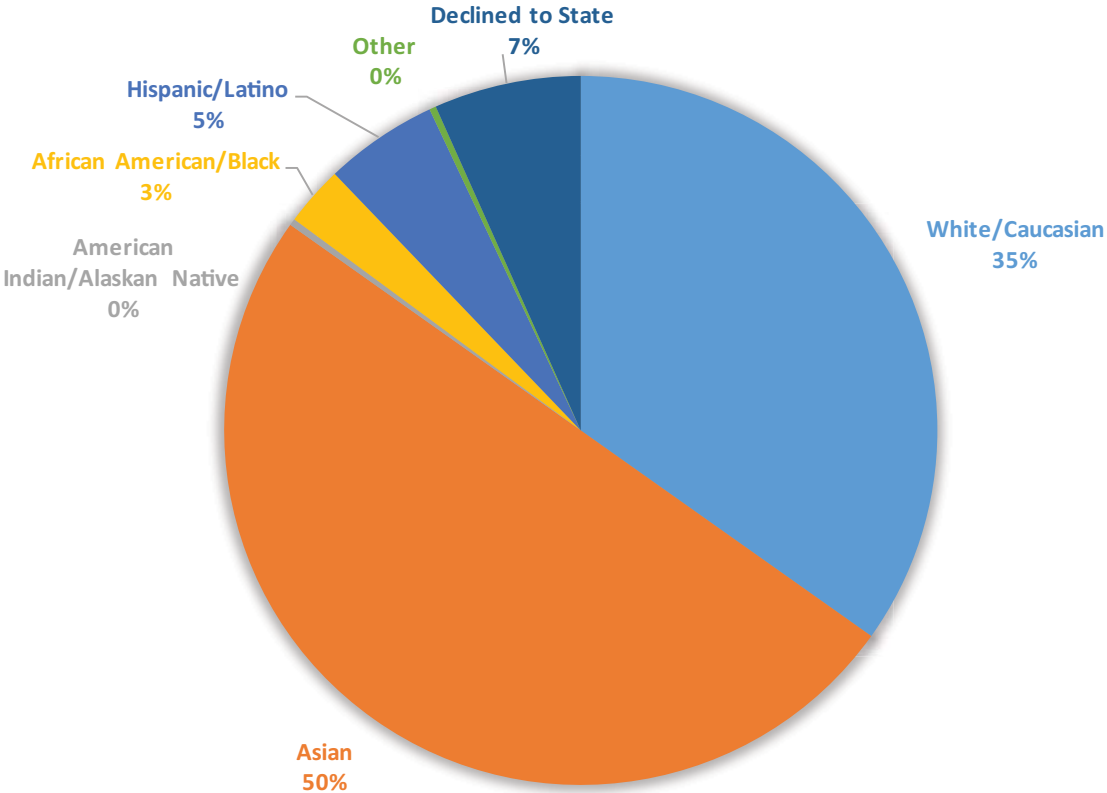
Acute Care Surgery
Cardiovascular Disease
Community Pediatrics
Emergency Medicine Education
Emergency Ultrasound
Gastroenterology
Head and Neck Oncology and
Microvascular Reconstruction
Hematology/Oncology
HIV
Hospice and Palliative Medicine
Hospital Medicine
Infectious Disease
Interventional Cardiology
Maternal Child Health
Pulmonary Disease/Critical Care
Sleep Medicine
Surgical Critical Care
Wilderness Medicine





2018-2019 Academic Year

RESIDENT AND FELLOW DIVERSITY



UCSF Fresno Promotes Wellness

Nationally, more than three-quarters (78%) of physicians reported feeling burned out, according to The Physicians Foundation's 2018 Survey of America's Physicians. Physician burnout is defined as long-term job stress that doesn't go away and results in feeling overwhelmed and worn out. The physician suicide rate is even more alarming. About one physician a day dies by suicide – more than twice that of the general public.

The San Joaquin Valley can't afford to lose physicians due to burnout. There are 133 active physicians (excluding medical residents) per 100,000 population compared with the state rate of 222 active physicians per 100,000 population, according to a Healthforce Center at UCSF report.

A number of factors contribute to physician burnout, including more time spent on non-clinical paperwork, loss of clinical autonomy and less time available to spend with new patients. Physician burnout impacts not only health care providers and their families but also the patients they care for.

"Happy doctors are vital to improved patient outcomes," said Michael W. Peterson, MD, associate dean at UCSF Fresno. "Physician wellness is a priority at UCSF Fresno and it's important to our community. In fact, it's such a critical issue that we are extending resources to other local physicians and health care providers so they have access to the information and means to prevent burnout, too."





To help lower stress levels and encourage a more balanced life among physicians and local health professionals, UCSF Fresno hosted national expert Dike Drummond, MD, CEO of TheHappyMd.com in March 2019. Dr. Drummond presented “The Burnout Proof” Live Workshop for physicians and other health care professionals.

Dr. Drummond, a Mayo Clinic-trained family doctor and executive coach, has worked with nearly 170 organizations to train more than 30,000 physicians. All local health professionals as well as UCSF faculty, fellows, residents, medical students and staff members at UCSF Fresno, and their spouses and significant others were invited to attend. The daylong event underscored UCSF Fresno’s commitment to wellness.

In addition, UCSF Fresno expanded its wellness committee - Life, Inspiration, Vitality and Engagement (LIVE) - a multidisciplinary wellness committee that aims to provide UCSF Fresno community members with the guidance, tools and support to achieve a more balanced life.

The LIVE Wellness Committee was initiated by Lori Weichenthal, MD, assistant dean for graduate medical education. “Physicians and other providers need to “practice what they preach” and develop healthy practices that support their well-being and resilience,” said Dr. Weichenthal. “They also need to feel that they are working in health care systems and a society as a whole that recognizes and supports their work.”

LIVE is made up of representatives from UCSF Fresno, Community Regional Medical Center and our faculty physician group, Central California Faculty Medical Group. The group focuses on wellness initiatives for health providers and staff.



UCSF Fresno Resident and Fellow Highlights

More than 100 medical residents and fellows, along with three oral and maxillofacial surgery dental residents and five physician assistants completed training at UCSF Fresno in June 2019. Many remained in the Central Valley to care for patients, teach future physicians or continue their medical education.



Michele Maison-Fomotar, MD, originally from Cameroon, Africa, completed a three-year residency training program in internal medicine. She is continuing her education at UCSF Fresno as a fellow in the two-year infectious diseases program. Dr. Maison-Fomotar earned her medical degree in Cameroon and worked for two years in a catchment hospital in a small city at the border of the Central African Republic. There, she worked with refugees and other underserved patients in the area. Her patients often presented with complex infection-related illnesses, especially HIV-related. This prompted her to earn a master's degree in tropical medicine and international health in London. After that, she came to California to be with her husband Marcel, who was completing a PhD at the time. She decided on UCSF Fresno for residency training because of Fresno's unique and diverse population, which often faces challenges including limited health care access and complex medical problems like the mix of people she cared for in Cameroon. The transition from working in an area with limited diagnostics and treatment options to an environment where much more is available was uniquely challenging and enlightening. The best part of residency, she said, was the amazing people at UCSF Fresno – her co-residents, faculty and staff -who really support learning in a friendly, collegial atmosphere. The unparalleled diversity and complexity of patient presentations, especially in infectious diseases, prompted her to stay for the ID fellowship. Afterward, she hopes to remain in the Central Valley, which has become her home. In her spare time, she enjoys cooking African food, cartoons, dancing and discovering new places with her family and friends.



Rafael Martinez, MD, completed a three-year residency program in family and community medicine. Dr. Martinez immigrated to the U.S. from Mexico with his family when he was five years old. He grew up in Visalia and went to Redwood High School. From an early age, he knew he wanted to pursue a career in health care, but it wasn't until he worked as a health educator for Family HealthCare Network that he was inspired to become a physician. The opportunity to care for patients across the life spectrum, including pregnant patients, newborns, adults and entire families, motivated him to pursue family medicine. UCSF Fresno was his top choice for residency. He conducted rotations at UCSF Fresno as a medical student and his family is in the area. He now practices at United Health Centers in Parlier where he trained as a resident and wanted to continue caring for patients there. A first-generation college graduate, Dr. Martinez said the path to becoming a physician is filled with many challenges, but he is fortunate to have the support of his family and is humbled every day to care for people whose voices aren't heard often and who don't have representation. In his spare time, he enjoys reading about cars, traveling and spending time with his wife and 13-month old son.



Juan Rios, MD, completed a three-year residency program in family and community medicine. Dr. Rios was born and raised in Reedley and graduated from Reedley High School. As the son of a 17-year-old mom and growing up in a rural farming community, it was challenging to evolve beyond the low expectations preconceived by his upbringing, he said. But, he was drawn to the sciences as a young student. While taking Advanced Placement courses in high school, he noted the relationship between science and medicine and the idea of working in medicine and applying science to real-life situations appealed to him. After witnessing the declining health of loved ones due to limited access to health care, dedicating himself to becoming a physician was an easy decision. Family medicine was especially attractive because it allows for the unique opportunity to care for a wide variety of patients on any given day. There was never any doubt that UCSF Fresno is where he wanted to train, close to home. In fact, a significant portion of his residency training took place in his hometown. The first in his family to seek education beyond high school, Rios found it intimidating trying to navigate college and medical school with very little guidance. But, he persisted. Dr. Rios now works at United Health Centers in Selma, California. In his spare time, he enjoys spending time with his wife and kids. He also enjoys regular exercise, watching baseball (Giants) and football (Cowboys) games, and his newest hobby, barbecuing.



H Kiran Reddy, MD, completed a three-year fellowship in cardiovascular disease and is continuing his medical education at UCSF Fresno as a fellow in the one-year interventional cardiology program. Raised in Hanford, Dr. Reddy's history with UCSF Fresno dates back to the late 1990s when he participated in UCSF Fresno's Summer Biomedical Internship Program as a student at Hanford West High School. Later, he conducted clinical rotations at UCSF Fresno as a fourth-year medical student and returned to complete residency training in internal medicine. When he completes the interventional cardiology fellowship, Dr. Reddy will have spent seven years training at UCSF Fresno. He intends to stay in the Valley to care for patients and work closely with his father, Hanford cardiologist, Raj Reddy, MD. His goal is to increase access to cardiac health care and make a difference in Hanford and throughout the Valley. When not working, he enjoys spending time with his two children and wife Pooja Reddy, MD, who also completed internal medicine residency training at UCSF Fresno. Dr. Pooja Reddy is a current faculty member who works with internal medicine residents at the VA Central California Health Care System in Fresno.

We Are Your UCSF Fresno

UCSF Fresno is the largest academic medicine campus in the San Joaquin Valley. We play a major role in training and retaining physicians in the region and across California. Thanks to the expertise of UCSF faculty physicians at the Fresno branch campus, travel outside of the region for exceptional care is no longer necessary. Complex medical cases can be expertly and effectively handled right here, close to home. Faculty and residents at UCSF Fresno and alumni also care for the overwhelming majority of underserved populations in and around the Fresno area. We collaborate with many partners to academically prepare students from diverse backgrounds for careers in health and medicine. And our faculty, residents, fellows, medical students and staff give back to the community in numerous ways.

UCSF's School of Medicine ranked in the top five nationally in the U.S. News & World Report survey of best graduate and professional schools for the 10th consecutive year. UCSF Fresno is included in this distinction as a branch campus.

The San Joaquin Valley's ratio of mental health professionals to population is among the lowest in the state. Clinical care for mental health patients is expanding under a partnership between UCSF Fresno's Department of Psychiatry and Fresno County.

In 2019, nearly 40% of UCSF Fresno family and community medicine residents, almost 50% of pediatrics residents and 44% of internal medicine residents remained in the Valley.

Faculty physicians and residents at UCSF Fresno provide medical care in the Valley's only Level 1 Trauma Center and Burn Unit and staff the emergency department and intensive care units at Community Regional Medical Center (CRMC).

Faculty and residents at UCSF Fresno clinical training sites provide care during 550k+ patient visits a year, including patients with private and government-funded insurance.

City of Fresno Council Member Nelson Esparza recognizes SJV PRIME students.

UCSF Fresno offers three physician assistant (PA) residency programs to provide advanced training in acute care/trauma, emergency medicine, and orthopaedic surgery. PAs are vital, cost-effective and help address the shortage of health professionals in the region.

Recruiting practicing physicians to a community can be very expensive: From the moment a physician is identified until the contract is signed, there may be up to \$250,000 invested in a single candidate. In contrast, the average annual resident salary is \$59,300. UCSF Fresno's residents and fellows provide high-quality, cost-effective health care.

UCSF Fresno pediatric specialists care for children with complex medical conditions at CRMC's Pediatric Special Care centers of cardiology, cystic fibrosis/pulmonary disease, endocrinology, gastroenterology, neuromuscular disease, high-risk infant follow up, craniofacial/cleft lip and palate.

UCSF Fresno physicians are major safety-net health care providers. About 85% of the patients they care for at Community Regional Medical Center are covered by government insurance.

A person can bleed to death in three to five minutes, but many bleeding deaths can be prevented if quick and proper first aid is rendered while waiting for professional medical help. UCSF Fresno's Surgery Department and Community Regional Medical Center are preventing bleeding deaths by providing community-wide Stop the Bleed Training.

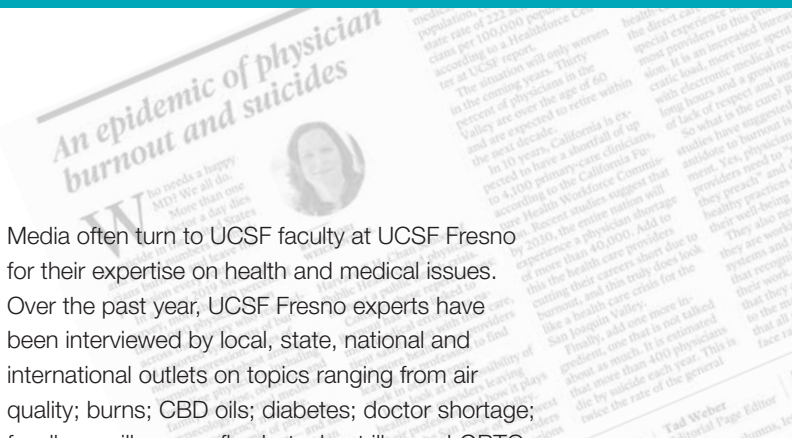
UCSF Fresno is building a pipeline of diverse health care professionals. Each year: The California Statewide Area Health Education Center, headquartered at UCSF Fresno, oversees 13 regional centers that provide focused services for over 6,000 health profession students. The UCSF Fresno Latino Center's Doctors Academy, prepares over 300 middle and high school students from underrepresented and educationally disadvantaged backgrounds for health careers. The UCSF Fresno Summer Biomedical Internship Program pairs faculty with about a dozen students to work on research projects, fostering interest in biomedical sciences.

UCSF Fresno in the News

Media often turn to UCSF faculty at UCSF Fresno for their expertise on health and medical issues. Over the past year, UCSF Fresno experts have been interviewed by local, state, national and international outlets on topics ranging from air quality; burns; CBD oils; diabetes; doctor shortage; foodborne illnesses; flu shots; heat illness; LGBTQ health care; Lou Gehrig's disease; Match Day at UCSF Fresno; measles; medical student training; opioids; pancreatic cancer; skin conditions; snakebite safety; stroke; vaccinations; Valley fever; and violence in the workplace among many other topics.

UCSF Fresno toxicologist Patil Armenian, MD, participated in a press conference along with law enforcement and the Fresno County Department of Public Health to warn the public about the dangers of fentanyl. The drug, which is 50 times more potent than heroin, resulted in the death of one person and hospitalization of two others in Fresno in early 2019.

Faculty wrote commentaries, weighing in on important public health matters including, physician burnout and wellness, and firearm safety and gun violence. In addition, two students shared their pathways to medical school in *The Fresno Bee* and *Merced Sun-Star*.



UCSF Fresno Offers New Testing and Education for Better Diabetes Management

Annette Simmons of Clovis had diabetes fatigue. She had pricked her fingers so many times to check her blood glucose that calluses had formed on her fingertips.

“You’re just tired,” Simmons said. “You’re tired of checking your blood and you need to because if you plan on living a long life you need to keep your blood sugar within certain ranges.” So when UCSF Fresno’s Varsha Babu, MD, suggested Simmons try a continuous glucose monitor that would allow her to control her diabetes without painful fingersticks, Simmons quickly agreed.

“This does not hurt,” Simmons said as she demonstrated how she now can check her blood glucose by swiping her cellphone over a sensor about the size of a coat button placed on her upper left arm.

Babu, an endocrinologist, said a fingerstick can be more painful than an insulin shot because the gauge that pricks the finger is thicker than an insulin needle. “So my patients are willing to do the shots but they are not willing to test their blood sugar,” she said.

Checking blood glucose levels is essential to good diabetes management. Multiple studies show the more testing, the better control. And for the past year, Babu and fellow UCSF Fresno endocrinologists have been placing continuous glucose monitors on patients with Type 1 and Type 2 diabetes, with good results. Both Type 1 and Type 2 diabetes affect the way the body regulates blood glucose, but patients with Type 1 diabetes do not produce insulin, a hormone that takes glucose and uses it for energy. Patients



with Type 2 diabetes either do not make enough insulin or they have insulin resistance and require higher levels of insulin to bring down blood sugars to normal ranges.

The monitors eliminate painful finger pricks and the social stigma of checking blood glucose in restaurants or other public places, Babu said.

Through University Medical Associates and University Diabetes and Endocrine Specialists there are diabetes education clinics for patients with the new monitors and those with insulin pumps (a medical device that administers insulin through a catheter under the skin). “We have dietitians available and highly trained medical assistants,” Babu said. “We really are trying to promote more care for our Valley.”

Diabetes patients in the San Joaquin Valley can benefit more than most from new technology and education. The counties of Fresno, Madera, Merced, Tulare, Kings, Stanislaus and San Joaquin also have diabetes death rates higher than the state average and among the highest in the state.

Patients say the monitors are life changers. Simmons, a high school teacher, has Type 2 diabetes that she controls with oral medications, diet and exercise. It was not practical to prick a finger in a classroom, but the new monitor lets her easily check blood glucose throughout the day. The monitor came with a reader that she carries in her purse but she programmed her cellphone to scan for readings.

Sharing technological advances, such as continuous glucose monitors, with patients is part of improving the health of the community, Babu said. “I would like to say that very soon we should have some cure for diabetes – but until that time, this is the best we have so far and it’s proven to be useful.”

Thyroid Surgery with No Tell-Tale Scar

Rita Locke of Coalinga had taken thyroid medication for eight years but this past winter a nodule had grown so large that at night she had to change sleeping positions to swallow.

She needed thyroid surgery and she expected an operation would leave a tell-tale scar in the middle of her neck, a lasting reminder she reluctantly was prepared to accept.

But Locke was pleasantly surprised when UCSF Fresno endocrine surgeon Farah Karipineni, MD, MPH, said she was a good candidate for a scarless thyroid surgery. The technique – known as transoral endoscopic thyroidectomy vestibular approach (TOETVA) – has good outcomes – and with the added cosmetic benefit of no scar.

Dr. Karipineni is the first surgeon in the central San Joaquin Valley to perform TOETVA. The procedure involves making small incisions inside the lip instead of at the neck to reach the

thyroid gland, a small butterfly-shaped gland that produces hormones to regulate body metabolism.

Dr. Karipineni began performing scarless thyroid surgeries in Fresno last year. Before that, patients in the San Joaquin Valley had to travel to UC San Francisco or go to the East Coast and Florida for the procedure.

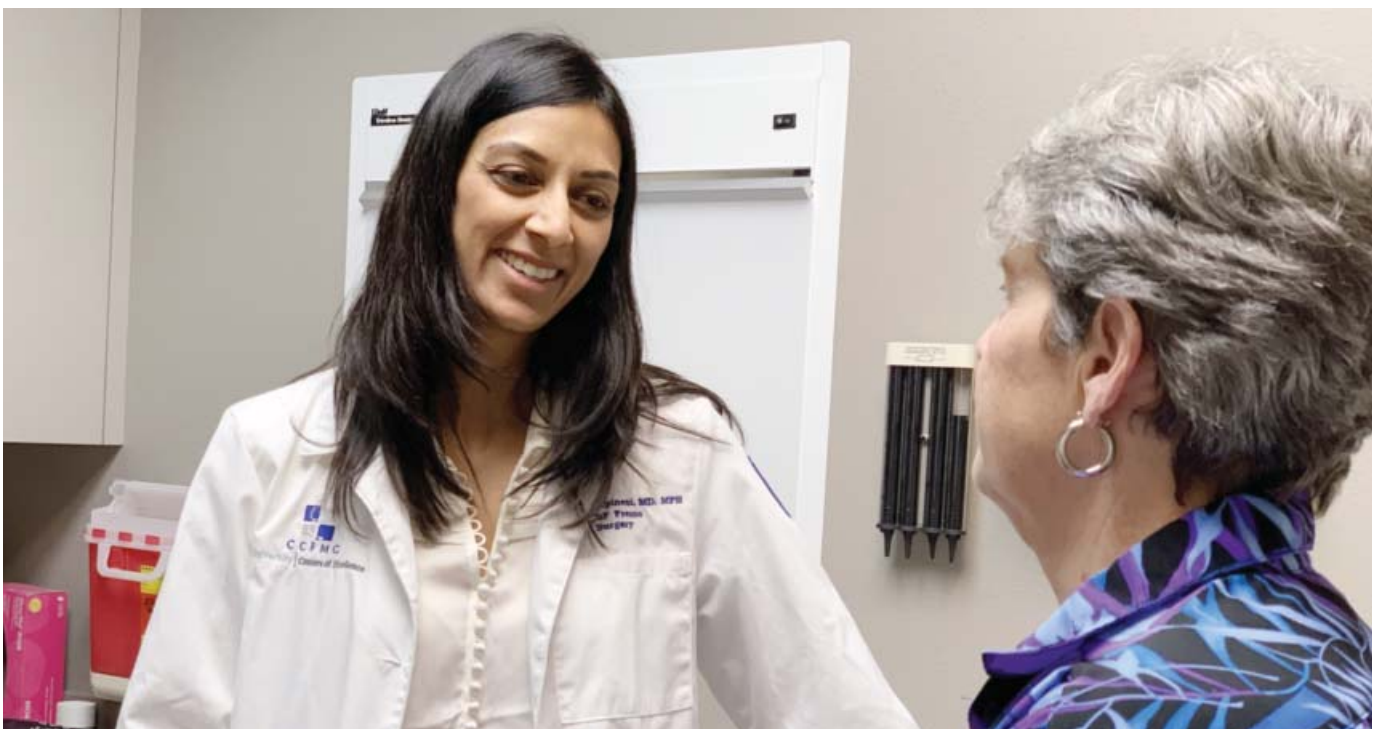
Locke, 63, had a swift recovery after her surgery on Dec. 13. She spent a night in the hospital (but only as a precaution because of the travel distance to her home in Coalinga). The day after surgery she was eating normal food. “No complications,” she said. “The worst I needed is some Tylenol ... when I chewed too much and something kind of irritated the spot.”

While Locke had little pain, the scarless surgery is not pain-free, Dr. Karipineni said. “It’s impossible to do surgery that has no consequences,” she said.

And TOETVA is not for every patient. The surgery is best suited for patients who are not obese and who have small nodules, less than six centimeters. It’s also best if there is no inflammation of the thyroid and no scar tissue from a previous surgery in the area, Dr. Karipineni said.

UCSF Fresno’s Christina Maser, MD, FACS, an endocrine surgeon who brought minimally invasive parathyroid surgery to Fresno and helped recruit Dr. Karipineni, also is now performing scarless thyroid surgeries. She sees benefits for patients. “Even if a patient feels that they’re going to be OK with a scar sometimes there’s a little more psychological consequence than anyone anticipates, including the patients themselves,” she said.

Locke said she just wanted the best outcome from thyroid surgery, and is pleased with the removal of the nodule. But not having a scar on her neck has been a bonus.



UCSF Fresno Surgeon and Team Lead Changes in LGBTQ-Friendly Medical Charting

UCSF Fresno trauma surgeon Andrea Long, MD, is working to improve health care for Lesbian, Gay, Bisexual, Transgender, and Queer (LGBTQ) patients one electronic medical chart at a time.

With encouragement from her boss UCSF Fresno Chief of Surgery, Jim Davis, MD, Dr. Long is the medical leader of a Community Medical Centers LGBTQ Steering Committee tasked with educating medical providers and support staff about LGBTQ-friendly upgrades to the electronic medical records system.



“We started this project out of the recognition that there was a need, not only to improve our documentation, but to improve the overall understanding and care of our LGBTQ patients,” Dr. Long said.

Long said all members of the committee, from representatives from human resources, informatics, administration, clinical nurse managers/supervisors, educators and more contributed to the effort and deserve credit for the success of the project.

Rochelle Tarascou, MSN, MBA, RN, who is manager of clinical learning at Community Regional Medical Center, was the project leader for the multi-disciplinary LGBTQ Steering Committee. “Our primary concern was to make sure patients get the best care possible,” she said.

In research for the training, Tarascou said the team learned that LGBTQ people nationwide have reported experiencing discrimination, denial of care and fear of harassment in health care settings.

The Community LGBTQ-friendly training includes how and where sexual orientation and gender identity data is recorded on the electronic medical record. It also includes how to record chosen name and correct pronouns in the patient chart, and how to have respectful conversations while asking about sexual orientation and gender identity. The training provides information on terms, such as non-binary (people whose identity isn’t exclusively male or female); pangender (people who feel they identify with all genders); transgender (umbrella term for people whose gender identity differs from what is typically associated with the

sex assigned at birth) and cisgender (a person whose gender identity aligns with the sex assigned at birth).

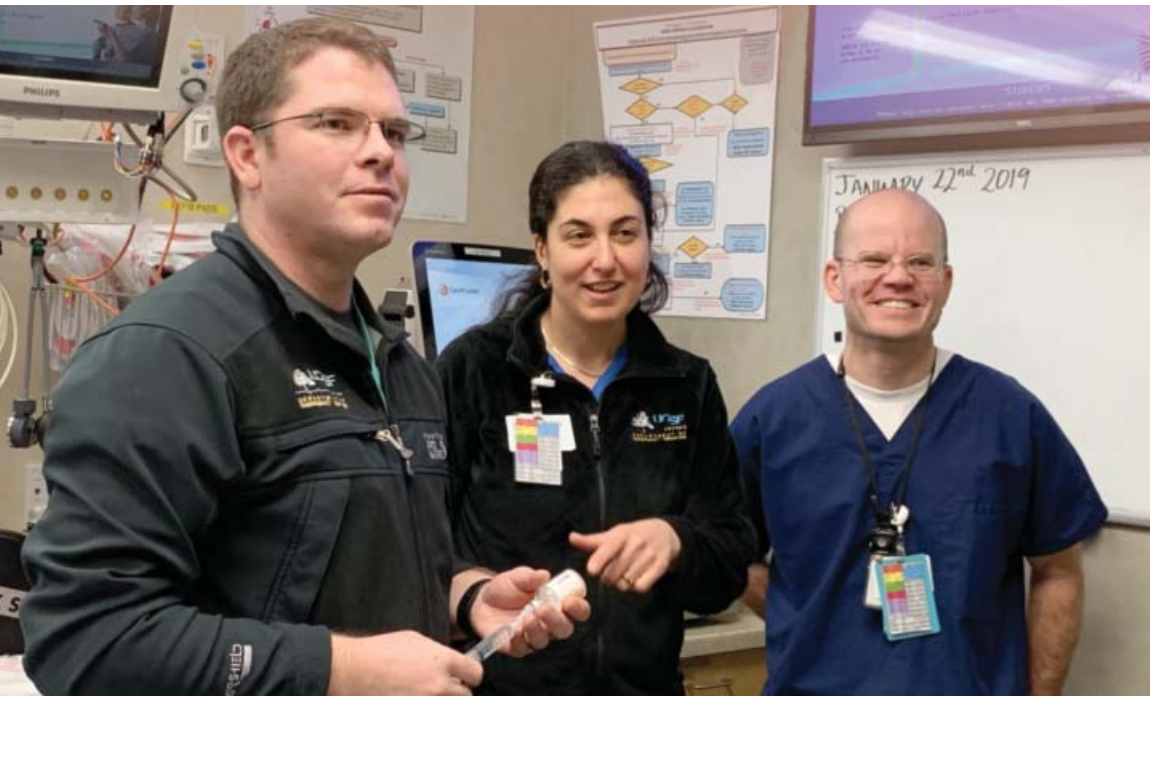
The electronic medical record also allows for documentation of organs still present when appropriate for patient care. This is important information for both current medical treatment and preventative screening. A transgender woman may still have her prostate after gender confirmation surgery, and she might still need a prostate screening, for example, Dr. Long said.

“You can’t really establish a relationship with a patient – and a patient is going to have a hard time feeling safe in our care – if you don’t know how to ask the right questions,” Dr. Long said. “And using a person’s name that they provide, using their gender identity rather than focusing on their sex assigned at birth, addressing them by the right pronoun – all of those go a lot into establishing a relationship with a patient.”

UCSF faculty in Fresno are welcoming the training, Dr. Long said. “They are asking for this education because they know their students, their residents, are coming unprepared from medical schools and they feel this is important for all of us to know as providers.”

Dr. Long expects questions regarding sexual orientation and gender identity will soon become a routine part of any physician/patient discussion. “If you ask all the patients, at all times, it becomes much easier to have the conversation,” she said. “Patients expect it. And patients who have no idea what ‘sex assigned at birth’ or what ‘gender identity’ means, will get used to hearing those questions as well,” she said.

Together, UCSF Fresno and Community Medical Centers are improving health through patient care and medical education.



UCSF Fresno Toxicologists Provide Higher Level of Care

Emergency responders were told the three young men had snorted cocaine, but Nicklaus Brandehoff, MD, a UCSF Fresno toxicologist, had doubts. The patients' repeated pinpoint pupils and depressed breathing despite treatment made him suspect a synthetic opioid, like fentanyl.

The next day, toxicologist Patil Armenian, MD, research director and associate professor of clinical emergency medicine at UCSF Fresno, ordered blood and urine tests sent overnight for rapid screening to a University of California, San Francisco affiliated hospital. The test results confirmed her suspicion: The men had snorted fentanyl, a powerful synthetic opioid that is 50 times more powerful than heroin.

Being able to identify the ill effects of an illicit street drug is part of the job for the toxicology team of Drs. Armenian, Brandehoff and Michael Darracq, MD, who see inpatients at CRMC. The toxicology team is a division of the UCSF Fresno Department of Emergency Medicine and the physicians are board certified in emergency medicine and toxicology.

The inpatient toxicology team is among a handful in California. Most hospitals rely on calls to poison control

centers when they have a poisoning, overdose or snakebite but the UCSF Fresno/CRMC bedside toxicology service provides a higher level of care. And toxicology teams have proven benefits for patients and hospitals, Dr. Darracq said. Data show that care by inpatient hospital toxicologists results in shorter patient stays and less testing, he said.

The toxicologists treat patients from babies to centenarians. Many of the poisonings they see are of young children, especially toddlers. The children accidentally swallow a household chemical or medications that are in the home. CRMC has a pediatric intensive care unit, and along with the inpatient toxicology team "we really are the highest level of care for a poisoned pediatric patient," Dr. Armenian said.

Poisonings of adults often are from exposures to a chemical in the workplace or the home, Dr. Armenian said. And overdoses (both intentional and accidental) are all too common.

Scholarly Activity

1400+

Health professionals and others attended UCSF Fresno conferences

61

Quality Improvement projects

31

Grants awarded to faculty at UCSF Fresno

10

CME and community conferences hosted

69

Publications by faculty at UCSF Fresno

301

Research studies, clinical trials and public service projects

Faculty Awards and Honors

As a branch campus of the consistently top-ranked UCSF School of Medicine, UCSF Fresno is focused on improving health in the San Joaquin Valley through excellence in teaching and patient care, innovative clinical research and community partnerships. UCSF faculty contribute greatly to the institution's distinction. Several UCSF faculty physicians at Fresno were honored this past year for their dedication to innovation and excellence in medical education and outstanding patient care.

Faculty Honored for Excellence in Teaching and Patient Care



UCSF Fresno's **Shahrzad Akhtar, MD**, with the Department of Internal Medicine; **Arlin Venturina, MD**, with the Department of Family and Community Medicine; and **Anneli von Reinhart, MD**, with the Department of Emergency Medicine, were selected for the 2019 UCSF Excellence in Teaching Awards. The Excellence in Teaching Awards are peer-nominated and intended to highlight outstanding frontline teachers of UCSF learners - students, residents and fellows.



Liana Milanés, MD, was selected for the UCSF Family Medicine Educational Alliance's Award for Excellence in Educational Collaboration. This is an award selected among faculty at all UCSF-affiliated Family Medicine training campuses and residency programs.



Eric Lindvall, DO, was inducted into the American Orthopaedic Association, a leadership organization designed to guide the future of musculoskeletal care. Currently, less than 8% of orthopaedic surgeons have been selected into the organization. Dr. Lindvall is Chief of the UCSF Fresno Department of Orthopaedic Surgery.



Carlos Sueldo, MD, was recognized with the Star Award from the American Society for Reproductive Medicine (ASRM). The award is given each year to honor and thank members who have dedicated time and service to shape ASRM into a leading society for reproductive medicine. Dr. Sueldo is Chief of the UCSF Fresno Department of Obstetrics and Gynecology.

UCSF Fresno Surgeon Honored with First Community Medical Centers Care Hero Award

John Bilello, MD, faculty member in the UCSF Fresno Department of Surgery, was honored with the first Community Medical Centers Care Hero Award. Dr. Bilello, chief of pediatric trauma at Community Regional Medical Center (CRMC) was on duty on May 2, 2013, when Aaren Rodrigues and her son Payton Berube were taken to the Level 1 Trauma Center at CRMC. Payton had a torn aorta and needed immediate trauma surgery. Bilello and the trauma team performed a five-hour surgery to save Payton. Eventually, Payton went home, but he was depressed because he couldn't play baseball. Baseball was Payton's passion. Dr. Bilello worked to get him cleared to play if he was in the center outfield and wore protective gear.





For the 12th year in a row, UCSF was the top public recipient of funding from the National Institutes of Health (NIH) in 2018 and ranked second overall among institutions nationwide for the eighth year in a row. As a branch campus of UCSF, UCSF Fresno is very much focused on research. Medical research conducted at UCSF Fresno brings cutting-edge treatments to Fresno and the San Joaquin Valley.



The UCSF Fresno Clinical Research Center (CRC) is a dedicated research facility at UCSF Fresno. The CRC employs 20 research staff members who oversee the operation of more than 60 clinical trials currently taking place at UCSF Fresno. Studies are led by UCSF faculty at UCSF Fresno. Funding is provided by the NIH, U.S. Department of Defense, California Office of Health Hazard Assessment, Central California Faculty Medical Group, the Larry L. Hillblom Foundation, the David and Marilyn Britz family and many other individual donors as well as more than two dozen pharmaceutical and medical device companies.

In addition, UCSF Fresno researchers are conducting local population-based studies, including an NIH-funded study investigating the effects of air pollution on immune cell function in pregnant women and newborns and in the subsequent development of allergies in children, and a separate, Cal EPA-sponsored study on the impacts of environmental chemical exposures during pregnancy (including air, water and food) on prenatal development.

Active clinical trials include:

- Acute Lymphoblastic Leukemia
- Acute Myeloid Leukemia
- Acute Respiratory Distress Syndrome
- Asthma
- Atopic Dermatitis
- B-Cell Lymphoma
- Brain Aneurysm
- Breast Cancer
- Chronic Obstructive Pulmonary Disease
- Cirrhosis Coronary Artery Disease
- Colorectal Cancer
- Community Acquired Pneumonia
- Cystic Fibrosis
- Type 2 Diabetes
- Gastroesophageal Junction Cancer
- Generalized Anxiety Disorder
- Glioma
- Heart Failure
- Hospital Acquired Pneumonia
- Influenza A
- Interstitial Lung Disease (ILD)
- Intracerebral Hemorrhage
- Ischemic Stroke
- Multiple Myeloma
- Non-Alcoholic Steatohepatitis (fatty liver disease)
- Non-Small Cell Lung Cancer
- Pancreatic Adenocarcinoma
- Prostate Cancer
- Pulmonary Hypertension
- Renal Cell Carcinoma
- Sepsis
- Traumatic Spinal Cord Injury
- Urothelial Carcinoma
- Valley fever

Palliative Medicine Reduces Hospital Charges and Stays

A UCSF Fresno retrospective-case control study at Community Regional Medical Center (CRMC) found palliative care consults initiated within 24 hours of hospital admission significantly reduced the length of stay and reduced total hospital charges in patients with a variety of life-limiting illnesses.

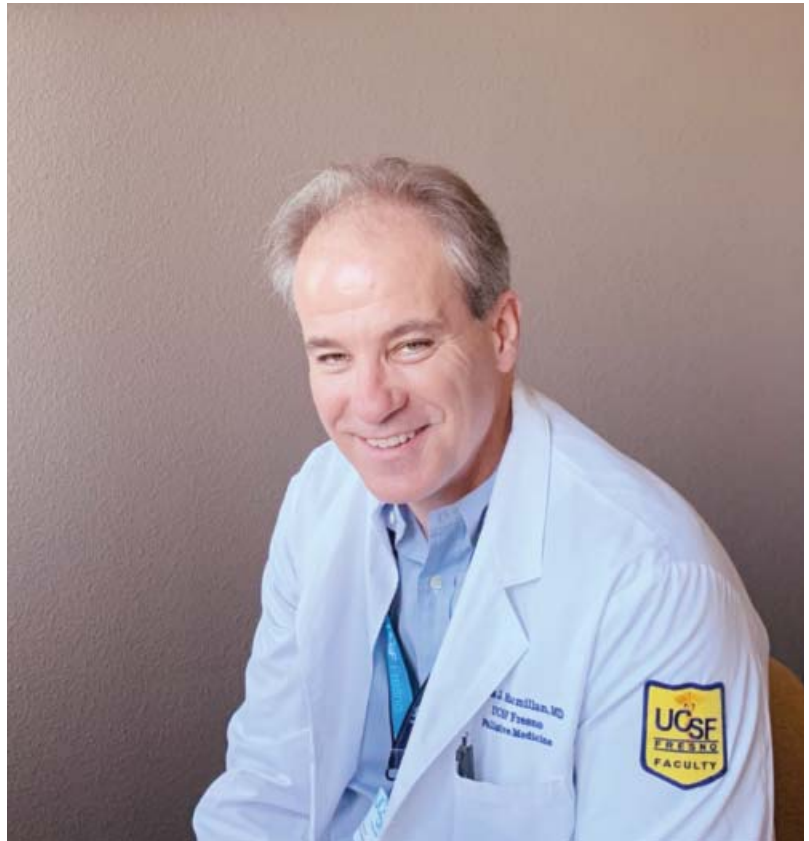
The retrospective case-control study, conducted between April 2014 and June 2016, looked at 295 patients and compared those who received early palliative care consults with a matched control group who had been referred for consults at 24 hours or longer. The researchers found the median length of hospital stay of the patients who had early consults was 4.2 days as compared to 9.7 for the control group.

The study also found cost savings for hospitals associated with early palliative care consults. Total hospital charges in patients with early consults was \$38,600 (\$22,700-\$66,900) compared to \$95,300 (\$55,200-\$192,700) in the control patients.

The study, presented at the 2017 Center to Advance Palliative Care National Seminar Poster Session, was published this year in the online *Journal of Palliative Medicine*.

Lead researcher Patrick J. Macmillan, MD, chief of Hospice and Palliative Care at UCSF Fresno and UCSF associate clinical professor of medicine, said the study captured length of stay and total hospital charges, but actual savings could be more. “Some of the costs are hard to quantify,” he said. “Possibly we saved a bunch of unnecessary tests, unnecessary consultations, a trip to the Intensive Care Unit, a lengthy stay in the ICU?”

The UCSF Fresno study adds to research about the benefits of palliative medicine in hospital patients, Dr. Macmillan said. Past studies have looked at palliative care for patients with advanced cancer. “In our study these were



hospitalized patients with a variety of illnesses, anywhere from dementia to heart failure and organ diseases,” he said.

Palliative care consults can be from 30 minutes to two hours, involving discussions of pain management, care goals, patient end-of-life wishes and hospice, Dr. Macmillan said. “That’s the value in what we do. We understand that what we do takes time. And these type of difficult discussions often take time for patients and families to process – sometimes to grieve and sometimes to sort out family dynamics.”

The UCSF Fresno study showed early palliative consult is high-value and cost effective, but Dr. Macmillan said CRMC and UCSF Fresno, working together, recognize that more is at stake. “Our motivation, what we really care about, is the patient satisfaction and the family satisfaction,” he said. “Hopefully we’re saving trauma to the families and we’re saving agony and suffering to the patient.”

UCSF Fresno Oncologist Leads Cancer Immunotherapy Trials

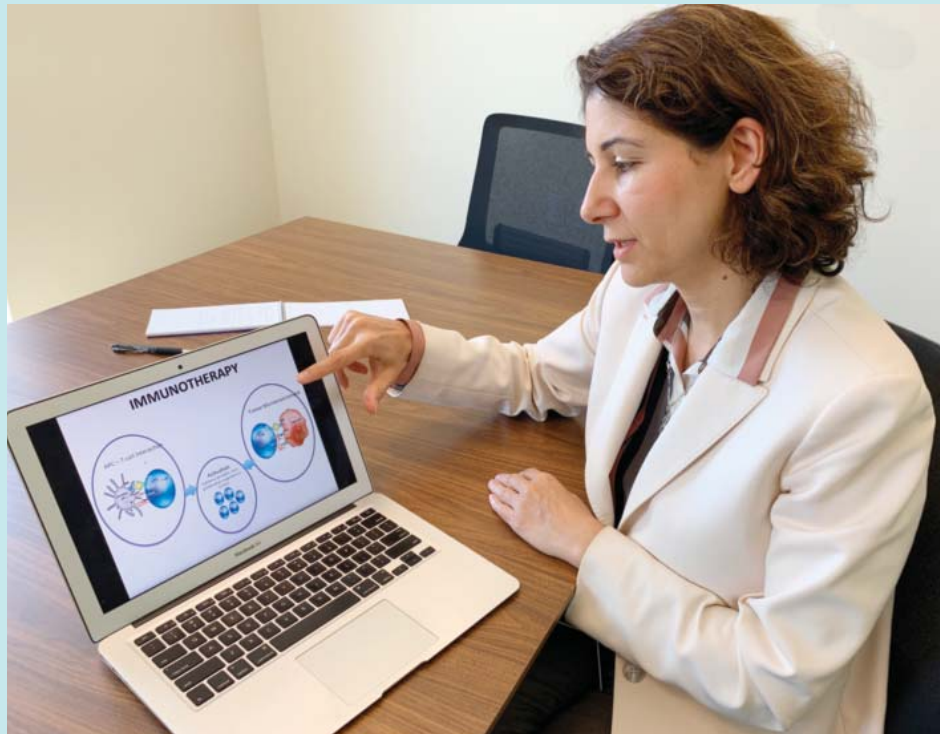
Immunotherapy is changing the standard of cancer treatment, and a UCSF Fresno hematologist/oncologist is in the midst of studying how the body's immune system can help fight blood cancers in adult patients.

Haifaa Abdulhaq, MD, a UCSF associate professor at UCSF Fresno, has five immunotherapy trials for acute lymphoblastic leukemia, diffuse large B cell lymphoma, acute myeloid leukemia, and relapsed multiple myeloma. Leukemia, lymphoma and myeloma are the three most common types of blood cancer.

"Immunotherapy can produce better responses without much toxicity and through these trials we can provide this option for adult patients," Dr. Abdulhaq said.

Acute Lymphoblastic Leukemia (ALL) is an aggressive blood cancer with inferior outcomes in adults compared to children. Abdulhaq said the biology of the disease may be different in children but she believes outcomes for adults could be improved by copying the treatment protocols used for children and including immunotherapy in first line treatment. The overall survival rate for adults with ALL after five years of diagnosis is about 45 percent compared to a 90 percent survival rate for children, she said.

Blood cancers occur when the normal development of blood cells is overcome by the growth of abnormal blood cells. The UCSF Fresno trials involve harnessing the immune system to work



in tandem with chemotherapy drugs to stop the proliferation of cancer cells.

Dr. Abdulhaq, an expert in malignant hematology who works at the Community Cancer Institute in Clovis, has opened two trials that use immunotherapy in the frontline treatment of newly diagnosed acute lymphoblastic leukemia. ALL originates from lymphocytes – blood cells that defend the body from viral infections.

Another trial uses a multi-targeted protein kinase inhibitor, and will open soon for patients newly diagnosed with acute myeloid leukemia (AML). In AML, abnormal myeloid cells develop in the bone marrow. Dr. Abdulhaq participated in research 10 years ago that showed the drug is effective in patients with a gene mutation in leukemia cells called FLT3. The UCSF Fresno trial will study if the drug can help patients without the FLT3 gene mutation.

"We're going to make progress in treating acute leukemia through these clinical trials, these newer immunotherapies to improve the response to treatment and with better tolerability in patients," Dr. Abdulhaq said.

For relapsed multiple myeloma patients, a trial has been approved that utilizes a checkpoint-inhibitor immunotherapy drug in conjunction with an anti-cancer drug that targets a marker on myeloma cells.

And Dr. Abdulhaq has a trial for relapsed diffuse large B-cell lymphoma, a subtype of non-Hodgkin lymphoma. The trial utilizes an antibody that targets a specific marker on lymphoma cells.

Through these trials, UCSF Fresno is making new cancer research available to the area.

UCSF Fresno Research Brings Advanced, Cost-Saving Hip Surgery to the Valley



Robert Kollmorgen, DO, a UCSF Fresno orthopaedic surgeon, knew there had to be a safer and better alternative for arthroscopic surgery than placing a large post between a patient's legs that places undue pressure on the groin.

In traditional hip arthroscopy, the surgeon places the post to pull the hip joint out of the socket so a small incision can be made to insert a tiny camera, called an arthroscope. The camera allows the surgeon to view structures of the hip joint on a video monitor.

But the traditional method may cause nerve injury to the groin in up to 4% of patients. Dr. Kollmorgen, who specializes in hip preservation and who has performed hip arthroscopy for 10 years, felt the odds of a patient having numbness (albeit usually temporary) post-surgery was too high. And for more than a year, he has performed hip arthroscopy using a post-free technique that he developed and researched in partnership with three other hip preservation programs across the country.

Dr. Kollmorgen now uses a pink pad positioning device that eliminates the need for a post to achieve hip distraction. Dr. Kollmorgen, who operates at Clovis Community Medical Center, is the only hip preservationist using the technique in the central San Joaquin Valley.

Three other surgeons across the United States also used the pink pad technique as part of the research. A total of 300 patients had the new post-free distraction for hip arthroscopy performed by the four surgeons without complication. Dr. Kollmorgen presented findings at an international meeting in Melbourne, Australia in October. The study has appeared in "The Journal of Arthroscopic and Related Surgery."

Dr. Kollmorgen said the new technique has been used in more than 1,000 hip arthroscopy surgeries. It could revolutionize hip arthroscopy which is the fastest growing arthroscopic surgery in the United States, he said. "There's just some remarkable things we're seeing since we've changed the way we're doing hip arthroscopy. And I think it's only going to get better as we keep refining our technique."

The pink pad positioning device can save hospitals money by allowing surgeons to use an existing arthroscopic surgery table instead of a postless table that can cost as much as \$80,000. And the benefits to patients are many.

"We've devised a technique to make it safer to patients. We're decreasing complications; we're making it so patients can recover quicker, have a better surgical experience." Dr. Kollmorgen said. "Patients have reported less after-surgery pain. Our narcotic use after this operation is 10 pills on average."

Maria Carr of Tulare said she had a pain of eight on a scale of 10 in both hips last year before Dr. Kollmorgen performed revision hip arthroscopy surgery on her left hip on Oct. 29 and on the right on Dec. 31. After each surgery, Carr said she took only one pain pill on her first day at home post-surgery.

She almost had hip surgery by a surgeon in Los Angeles who had performed arthroscopic surgery on her hips 10 years ago. He wanted to do hip replacements, but Carr, 52, was reluctant. She heard about Dr. Kollmorgen from a physical therapist, sought his opinion and is glad she did. "Dr. Kollmorgen is amazing," she said.

Patients need not go out of the Fresno area for the latest techniques in hip arthroscopy, Dr. Kollmorgen said. "We need people to know we're here. Somehow we need to get the word out that we're doing great things here. Research is here."

Innovations in Technology and Training

UCSF Fresno Information Technology Services (ITS) is applying technology to advance health care, education, and research.

We've aligned with key partners from UCSF Computational Health Sciences at main campus.

And we are using de-identified data and multidisciplinary informatics to develop research tools to make meaningful data more accessible. Our research data analytic dashboard project is now in the final testing and validation phase. When complete, the project will put agile data analytic tools into the hands of researchers, physicians, and trainees, allowing them to work more collaboratively to reduce data delivery time and improve health outcomes.

Medical simulation continues to be an integral component of medical education at UCSF Fresno. This past year, the UCSF Fresno Clinical Skills Lab offered 492 training sessions with 4,752 learners receiving instruction. Simulation equipment and simulated patient care scenarios allow students and health care professionals the opportunity to enhance their procedural and critical thinking skills in a realistic and safe environment without risk to patients.

Additionally, we're using audio visual technologies to extend training beyond our walls to connect with academic colleagues, broaden availability of medical school curriculum in Fresno and share our medical knowledge with physicians and health professionals internationally to improve global health.

A committee on education technology was established to align technology with UCSF Fresno strategic plans, cultivate innovative ideas and improve operational efficiency.

By leveraging partnerships and resources and identifying new technologies, ITS is laying the foundation for growth of the UCSF branch campus in Fresno.





UCSF Fresno is growing its campus life services to meet the needs of the branch campus.

Clinical, research and administrative collaborations with the main campus in San Francisco are strengthening across multiple departments.

To enhance safety, security hours were expanded on campus to better serve learners and remain consistent with the Clery Act, which requires U.S. colleges and universities to disclose information about crime on and around their campuses.

In addition, we bolstered emergency notifications and collaborated with UCSF and Fresno police departments to provide campuswide training for violent intruder situations.

Campus digital displays were installed to communicate alerts, timely information and promote upcoming events.

Basic life support classes are now offered to staff members through the UCSF Fresno Clinical Skills Lab.

To reduce our carbon footprint in the community, solar panels were installed, helping to meet the University of California's goals for sustainability across all campuses.

Our aim, just like at main campus, is to make life better for those who work, learn, teach, discover and visit UCSF Fresno.



Continuing Medical Education

As the largest medical education institution in the San Joaquin Valley, UCSF Fresno hosts many continuing medical education conferences and events each year to elevate clinician knowledge and share best practices with the goal of enhancing health care and patient outcomes in the region. New educational events were offered this year and more are in development.

For more information about Continuing Medical Education at UCSF Fresno,

<https://www.fresno.ucsf.edu/continuing-medical-education/>
or cme@fresno.ucsf.edu



February 2019

Endocrine and Diabetes Symposium

Information from the California Department of Public Health's 2018 County Health Status Profiles shows four counties in the San Joaquin Valley have some of the highest death rates for diabetes in California. The UCSF Fresno Divisions of Adult Endocrinology, Pediatric Endocrinology, Endocrine Surgery and Neurosurgery offered a free educational conference for physicians, primary care providers and advanced health care practitioners. The purpose of the conference was to help inform and enhance the quality of medical care in the region for adults and children with endocrine diseases such as diabetes, obesity, thyroid diseases and testosterone issues.

March 2019

Multidisciplinary Updates in Internal Medicine: Geriatrics Symposium and Topics and Advances in Internal Medicine

The UCSF Fresno Department of Internal Medicine presented its annual Multidisciplinary Updates in Internal Medicine. This year's conference featured a geriatrics symposium. More than 20 experts presented the latest information on geriatric and internal medicine and shared best practices for testing, treatment and prevention of health conditions such as dementia, Parkinson's disease, cancer immunotherapy and many others during the two-day conference. The event is a unique continuing medical education opportunity for health care professionals in the region to inform and enhance the quality of medical care in the San Joaquin Valley. The focus on geriatrics was particularly timely given Gov. Gavin Newsom's call for a "Master Plan on Aging" in his State of the State address. California's senior population will increase by four million in the coming decade and will double in 25 years.

April 2019

Air Pollution and Climate Change Symposium

Air pollution in the San Joaquin Valley is some of the worst in the nation. The region fails to meet federal health standards for both ozone and particulate matter. The UCSF Fresno Department of Internal Medicine presented the Fourth Annual Air Pollution and Climate Change Symposium. One goal of this conference was to provide clinical updates to health care providers to improve patient health. Another aim of the conference was to inform the community about air pollution in the region and contributing factors. Leading experts discussed the effect of air pollution on health; causes of increased wildfires in California; the role of agriculture in nitrogen oxide production; and impediments to air quality improvement among other topics.



May 2019

May 2019

May 2019

High Sierra Wilderness and Travel Medicine Conference

Wilderness and travel medicine are relatively new fields that are growing in response to more people heading outdoors and taking part in adventure activities. The need and knowledge to provide care with limited resources are critically important. The UCSF Fresno Department of Emergency Medicine held its annual High Sierra Wilderness and Travel Medicine Conference at the Pines Resort at Bass Lake. The conference is designed for those who may encounter life-threatening situations in austere and remote environments with limited resources such as emergency physicians, nurses, physician assistants, rangers, emergency medical services providers, members of the search and rescue community, and outdoor enthusiasts. Lectures and hands-on workshops included trip planning, environmental exposure, survival and rescue, patient assessment and trauma care. UCSF's branch campus in Fresno is one of about 15 medical schools to offer wilderness medicine fellowship programs across the U.S.

Cardiology in the Valley

The UCSF Fresno Department of Internal Medicine presented the 14th Annual Cardiology in the Valley Symposium. Coronary heart disease is the number one cause of death in California and the San Joaquin Valley has some of the highest rates of heart disease in the state. New and emerging developments in cardiology diagnosis and management were presented. Cardiologists, hospitalists, family and internal medicine physicians, physician assistants, nurse practitioners and other health professionals with an interest in cardiology attended. UCSF Fresno encompasses expertise in nearly all areas of cardiology and provides high level cardiac patient care in the Valley. In addition, UCSF Fresno is fostering future leaders in cardiac care for the region by providing advanced training for physicians in cardiovascular disease and interventional cardiology.

Autism Symposium for Primary Care Providers

Nationally, about 1 in 59 children has been identified with autism spectrum disorder, a developmental disorder that affects communication and behavior. Physician faculty in the Department of Pediatrics at UCSF Fresno collaborated with parents of children with autism spectrum disorder and other partners to host the 2019 Autism Symposium for Primary Care Providers at Community Regional Medical Center in May. The all-day meeting attracted more than 65 physicians, parents and educators. The San Joaquin Valley Neurodevelopmental Disorders Collaborative made it possible to bring physicians, parents, educators and other health providers together to improve education about autism, and disseminate information about autism resources to families and health providers in the San Joaquin Valley.

Doctors
Academy:
Growing
Our Own



Happy 20th anniversary to the UCSF Fresno Doctors Academy. The challenging academic preparation program has grown significantly since its beginning at Sunnyside High School. The mission of the DA is to develop future physicians and other health care professionals to deliver culturally sensitive health services to the San Joaquin Valley's diverse population.

A Fresno Unified School District Junior Doctors Academy (JDA) was established in 2000. The JDA currently serves Kings Canyon, Sequoia and Terronez middle schools. In 2007, the Doctors Academy expanded to Caruthers and Selma high schools. The JDA was extended to seventh- and eighth- grade students at Caruthers Elementary School in 2014.

Altogether, 865 students have graduated from the DA and more than 3,000 have received services. This year, as in the past, 100% of DA graduates continue their education at post-secondary institutions.

“The dedication and commitment from our school sites and community partners allow us to offer students and their families a wide range of services and opportunities for academic excellence and clinical mentorship experiences,” said Katherine A. Flores, MD, director of the UCSF Fresno Latino Center for Medical Education and Research. “It is because of the collaboration and support from these strong partnerships that Doctors Academy students attain their academic goals and are successful applicants to colleges and universities, most with continued aspirations to enter the health professions.”

The UCSF Fresno Doctors Academy is a successful and important part of the pipeline that is needed to train and retain more health professionals for the region.

UCSF Fresno and UC Merced Team Up to Solve Medical Challenges

Faculty physicians at UCSF Fresno have collaborated with engineering students at University of California, Merced to design devices that someday could lead to advances in tuberculosis (TB) skin testing and to improvements in mobility for patients who need assistance in standing and walking.

Michael W. Peterson, MD, associate dean at UCSF Fresno, and Mark Stecker, MD, PhD, chief of neurology at UCSF Fresno, worked with the Capstone Innovation Design Clinic (IDC) at UC Merced. Capstone projects challenge UC Merced graduating seniors to team with practicing engineers and other professionals to design products or devices that have the potential to benefit communities, organizations and industries in the San Joaquin Valley.

Dr. Peterson, who has a clinical and research focus in pulmonary and critical care, led a project involving the use of smartphone technology to read skin tests for TB. Annually, the UC Merced engineering seniors compete in an Innovate to Grow competition. Two years ago, a UC Merced Capstone team, working with Dr. Stecker and UCSF Fresno's Department of Neurology, won the top prize for a device that measured sensation in feet, Dr. Stecker said. "We've done a number of projects since then," he said. "It's a great relationship. We get to work with great students; and we're a good source of medical projects for them." UC Merced and UCSF Fresno are growing and the Capstone projects are a great way for the two institutions to collaborate, Dr. Stecker said.

"We look forward to this continued partnership with UCSF Fresno which provides education opportunities for our students to work on real-world problems, and also helps to advance studies and technologies in neurology and other medical disciplines," said Stefano Foresti, UC Merced director of innovation.



UCSF Fresno Offers Mini Lessons in Health and Medicine



UCSF Fresno offers a series of lectures, called "Mini Med School," to share health information with the community. Faculty provide information on the latest trends in health and medicine in an easy-to-understand way, and the public is invited to ask questions of the experts. Now, in its eighth year, Mini Med continues to be an anticipated fall event. Last year, more than 150 students and members of the public attended the lecture series. The most popular activity was the hands-on skills session that is offered as the final session each year, called "Teaching Tomorrow's Doctors, Today." "Mini Med School is a great way to inspire young minds and engage older adults about all the wonderful clinical care and education that we deliver here at UCSF Fresno," said Rais Vohra, MD, UCSF professor of emergency medicine and pharmacy at UCSF Fresno and course director of the Mini Med School.

Faculty Volunteer Time and Expertise to Save Lives Outdoors

Every year members of the Fresno County Sheriff's Office Search and Rescue team conduct dozens of Search and Rescue missions in the High Sierra.

The Search and Rescue (SAR) team is staffed by Sheriff's deputies and volunteers. For nearly a decade, UCSF Fresno physicians have taken part in search and rescues as volunteer members of the team.

Susanne J. Spano, MD, associate professor of clinical emergency medicine and director of the Wilderness Medicine Fellowship at UCSF Fresno, joined the SAR Mountaineer Unit nine years ago. Five years ago, Roger Mortimer, MD, clinical professor and associate chief of the Department of Family and Community Medicine, became a member of the team. A year and a half ago Andrea Long, MD, assistant professor of clinical surgery, came aboard; and new team members are Arun Ganti, MD, assistant clinical professor in the Department of Emergency Medicine, and William Chiang, a UCSF Fresno Wilderness Medicine fellow.

On the SAR team, the physicians can be called day or night to join searches and rescues; and they participate if they are available. Volunteers are expected to be able to be self-sufficient for days at a time in harsh environments; and all go through training to be a SAR team member. The training includes wilderness first aid, land navigation, water and snow survival and rescue skills.

Dr. Mortimer, who has a special interest in caving and is the Western regional coordinator of the National Cave Rescue Commission, joined the SAR Mountaineering Unit to practice rope skills. He currently is an assistant training officer focusing on teaching technical rope skills in preparation for the team taking the Mountain Rescue (MRA) accreditation test. He's also teaching aspects of wilderness first aid.

"It's an opportunity to make a difference for someone," Dr. Mortimer said. "The people we search for are often outdoors people who have had a bad day, so, being an outdoors person, it's a little bit of taking care of one's own people. And it's an area to do academic research where I have a passion."

Drs. Spano, Mortimer, Long and Ganti are studying whether the Fresno County SAR team is unusual in having five physicians on its team. They are surveying SAR teams across the United States to find out.



"Accessing and caring for victims in the rugged mountains of the central Sierra Nevada is almost always a challenge," said Fresno County Sheriff's Lt. Kathy Curtice, the SAR commander. "Having physicians on our team who can be deployed into the field greatly improves our ability to conduct successful missions, while providing the best patient care possible," she said.

Having a physician on the team can be helpful, but teamwork is essential," Dr. Long said. "It's recognizing that to get one person out of the wilderness it often takes 10, 20, 30 people to do that." In some rescues, sending the faculty physician to extract an injured person would not be the best approach, she said. "Whoever has the most medical knowledge and is able to safely assess the patient is who is sent first. It's always safety first – you send the person with the highest training and the highest medical level to get to the patient."

Giving Back to Patients' Families

Faculty, residents and staff at UCSF Fresno have hosted meals at Terry's House from nearly the beginning of the hospitality home, which opened across from Community Regional Medical Center (CRMC) eight years ago.

Terry's House provides safe, convenient and affordable lodging for families who have a loved one who is critically ill and receiving care at the hospital.

This year, volunteers from the UCSF Fresno departments of Emergency Medicine, Obstetrics and Gynecology and Surgery provided meals on different occasions for families staying at Terry's House.

A meal can be nourishing and comforting to the families, said Christa M. Short, director of Terry's House. "The generosity of UCSF Fresno faculty, residents and staff has had a lasting impact on thousands of families from across the globe," she said. "For families who call Terry's House "home," having a warm meal on the table after a long day at the hospital is something our families often mention as one of the most memorable and comforting aspects of Terry's House.



"This partnership has proven time and time again, that our friends and colleagues at UCSF Fresno take caring for patients and families beyond the walls of the hospital and they ensure that together, we are able to provide the best possible care and experience for those who need us most. We are tremendously grateful for the dedicated service, caring hearts and helping hands that continue to propel the Terry's House mission forward!"

UCSF Fresno Promotes Women's Heart Health



Heart disease is the leading cause of death for women in the U.S., and women in Fresno County are among those at highest risk of cardiovascular disease in California and nationwide. To help increase awareness and improve heart health among women, UCSF Fresno held its Fifth Annual Women's Heart Fair in March at UCSF Fresno. More than 200 people attended the free public event, which included free screenings for cholesterol, glucose, blood pressure, height, weight, BMI, hepatitis C test, scan for fatty liver disease – and yoga. The UCSF Fresno Heart Fair is presented in partnership with University Centers of Excellence, Community Regional Medical Center (CRMC) and the American Heart Association's Central Valley Division. The fair is organized by UCSF Fresno's Chief of Cardiology and Associate Clinical Professor of Medicine, Teresa Daniele, MD, FACC. Dr. Daniele started The Center for Women's Cardiovascular Health Program at CRMC for area patients, and she is director of the UCSF Fresno Cardiovascular Fellowship Program. This year's women's heart fair also included a presentation on liver disease and the connection to heart disease by Marina Roytman, MD, FACP, a Health Sciences clinical professor and director of the Liver Program at UCSF Fresno; and a presentation on Venous Disease Beyond the aesthetics by Leigh Ann O'Banion, MD, a fellowship trained vascular surgeon and assistant clinical professor in the Department of Surgery at UCSF Fresno.

UCSF Fresno Physicians Serve as Sideline Docs for Fresno Foxes



Injuries can make or break a professional soccer team's season, and faculty physicians and residents at UCSF Fresno volunteer to provide crucial medical services to the Fresno Football Club (The Foxes), the city's professional soccer club. Under the medical directorship of orthopaedic surgeon John Wiemann, MD, assistant professor at UCSF Fresno, members of the Foxes have access to dozens of medical professionals, including orthopaedic surgeons, dermatologists, family medicine practitioners, chiropractors and acupuncturists.

This year, a total of five core UCSF faculty at UCSF Fresno volunteer their services, along with 11 residents in the UCSF Fresno Department of Orthopaedic Surgery. In addition, Dr. Wiemann coordinates with another 30 medical professionals from the community who volunteer to provide services on and off the field.

"Dr. Wiemann has got everyone together, and it's been unbelievable. Everything you could think of in the medical world, we have someone helping us out," said Frank Yallop, general manager of the Fresno Football Club. "I couldn't be happier with all of the hours they put in and the way they conduct themselves."

For dermatologist Gregory L. Simpson, MD, associate professor at UCSF Fresno and a Foxes season ticketholder, volunteering at games is enjoyable. "I'm a big soccer fan and having a local team, I just want to help out," Dr. Simpson said.

Foxes games have good turnouts and are family events – having a professional team is good for the community, Dr. Wiemann said. "So to be able to support local professional athletics is beneficial to the city and it's helpful to the players to have good medical care," he said. "And it's good for everyone for us to be providing that good medical care."

Pediatrics Collaborates for Healthy Kids and Community

Led by pediatric endocrinologist Renee Kinman, MD, PhD, the UCSF Fresno Department of Pediatrics developed partnerships with Fresno Unified School District, the Fresno County Department of Public Health and the Fresno County Health Improvement Project (FCHIP) to promote a culture of health for youths in the community. Activities this year included: presentations by students highlighting their community health improvement efforts at the Second Annual FCHIP Partnership Breakfast; Fresno High Women's Alliance students presented at the American Federation for Clinical Research Western Regional Conference. UCSF Fresno residents in pediatrics, family and community medicine, and internal medicine hosted the first UCSF Fresno Job Shadow Day for Fresno Unified high school students interested in health careers. San Joaquin Valley PRIME third-year medical students served as role models for students at Design Science Early College Entry High School, Roosevelt High School, Edison High School and Gaston Middle School.





UCSF Fresno OMFS Offers Free Oral Cancer Screenings

UCSF Fresno offered free oral health screenings at BIG Hat Days in Clovis and free screening examinations at the Community Cancer Institute (CCI) in Clovis. The free oral and maxillofacial surgery services were inspired by Brian Woo, DDS, MD, director of Head and Neck Oncology and Microvascular Reconstruction at UCSF Fresno – in cooperation with UCSF Fresno oncologists at the CCI. UCSF Fresno providers staffed a booth at BIG Hat Days, a long-time downtown Clovis Chamber of Commerce event. Flyers for free cancer screening exams and informational brochures about head and neck cancer were handed out to about 300 festival-goers. Following BIG Hat Days, examinations were provided to approximately 100 people who came for the free follow-up service.

The effort involved faculty, fellows and residents in the UCSF Fresno Department of Oral Maxillofacial Surgery (OMFS) along with UCSF Fresno oncologists. Nurses at CCI also volunteered at the screenings and examinations. “Fresno has a high incidence of advanced head and neck cancer, and we thought this was a good way to give back to the community and let the community know about the services we offer in Fresno,” said Jay Fedorowicz, DDS, and UCSF Fresno Head and Neck Oncology and Microvascular Reconstruction fellow. “We hope patients know that they do not have to go to UCSF or UCLA or Stanford to be treated for head and neck cancer,” he said. Dr. Fedorowicz said the UCSF Fresno OMFS program hopes to make free screenings a yearly event.



UCSF Fresno Offers No-Cost Breast Screenings and Mammograms

In the United States about one in eight women will be diagnosed with breast cancer in her lifetime. Early detection and treatment save lives. To help reduce breast cancer deaths in Fresno, UCSF Fresno and Susan G. Komen® Northern and Central California offered a breast education, screening and mammogram event at UCSF Fresno.

Ibironke Adelaja, MD, an assistant clinical professor at UCSF Fresno, envisioned the event and brought numerous partners together to make it happen. A breast cancer surgeon, Dr. Adelaja specializes in the care of women and men with benign and malignant breast diseases. The event included a no-cost screening and mammogram for some low-income participants who qualified.

“Breast cancer incidence and deaths vary greatly by ethnicity, socio-economic status and even geographical location, Dr. Adelaja said. “Early detection and treatment are extremely important. Simply put, they save lives and that’s the motivation for this event.”

Partners, in addition to Komen Northern and Central California were Life Saving Images, Inc., Susan G. Komen® Circle of Promise®, Anthem Blue Cross Foundation, Community Medical Centers, Central Valley Black Nurses Association and California Health Collaborative.

Faculty Partnering to Reduce Preterm Births in Fresno County



Faculty physicians in the Department of Obstetrics and Gynecology at UCSF Fresno have led local work groups, provided services and led research projects for the Fresno County Preterm Birth Initiative (PBTi-Fresno), which works in partnership with the UCSF Preterm Birth Initiative California (PBTi-CA).

PTBi-CA is working to reduce preterm birth and improve outcomes in San Francisco, Oakland and Fresno. PBTi-Fresno and PBTi-CA are part of a 10-year Preterm Birth Initiative funded by philanthropists Lynne and Marc Benioff.

Five years ago, when PBTi-Fresno launched, Fresno County had among the highest preterm birth rates in the nation at 11.1%. Since then, UCSF Fresno has worked with Fresno State, community organizations and moms with lived experience to reduce that rate toward achieving the initiative's goal of 7% by 2025. In 2017, the latest rates available, Fresno County's preterm birth rate was 9.2% (California's rate was 8.7%).

PTBi-CA and PTBi-Fresno have focused on developing strategies in three areas to reduce preterm birth in high-risk populations. Subhashini Ladella, MD, associate clinical professor and director of Maternal-Fetal Medicine at UCSF Fresno, co-chaired the Fresno County work group for care

and support during pregnancy.

"UCSF Fresno has played a vital role in PTBi-Fresno," Dr. Ladella said.

Glow!, a prenatal care program with wraparound services for low-income women that takes place in a group setting, was launched as a result of the care and support group that she co-chaired. UCSF Fresno provides the medical providers for Glow! patients.

Christopher Downer, MD, assistant clinical professor in the Department of Obstetrics and Gynecology, director of obstetrics, and director of the residency program at UCSF Fresno, is the principal investigator of a feasibility study to see if high-risk patients who develop complications can remain in Glow!. He also hopes to study, in conjunction with UCSF, the outcomes of patients in group prenatal care with those getting traditional prenatal care.

Dr. Ladella also has researched the suspected under-utilization of progesterone supplementation, an evidence based clinical intervention known to reduce recurrence of preterm birth in moms at risk for reoccurrence based on prior history of preterm birth. The study results confirmed a significant under-utilization of progesterone with less than 25% implementation in the eligible high risk pregnant mothers. The study also assessed various barriers to utilization. Phase two of the study will focus on addressing these barriers.

Mobile HeaL Takes Health and Learning on the Road

UCSF Fresno's Mobile Health and Learning (HeaL) Clinic, led by Kenny Banh, MD, assistant dean for undergraduate medical education, expanded its outreach and services this year, holding Lesbian, Gay, Bisexual, Transgender, Queer (LGBTQ) friendly clinics in downtown Fresno, and traveling north to the small communities of Balico, Denair and Patterson in Stanislaus County. Mobile HeaL provided basic health screenings, vaccinations and medical care for over 400 residents who are most in need of access to health care. Health care services involve faculty physicians at UCSF Fresno, residents, medical students, regional college and university pre-health students and community partners. Over 100 pre-medical and medical students and residents participated. By volunteering at Mobile HeaL clinics, pre-health students gain valuable clinical skills and experiences needed to be successful applicants to health professional school and medical students gain knowledge and develop the skills needed as practicing physicians. Mobile HeaL also helps pre-medical and medical students make mentoring connections and develop a sense of community. Mobile HeaL is supported by Anthem Blue Cross, the Central Valley Community Foundation, Legacy Health Endowment and American Ambulance.



The Future of Medical Education at UCSF Fresno



A goal at UCSF Fresno is to create a local pathway for aspiring doctors to pursue their educational and career goals from high schools, to community colleges, to four-year universities, to medical school, and through residency. This pathway is required to help prepare, recruit, train, and retain future health care professionals who reflect the demographics of the region and are committed to providing high-quality, culturally competent and accessible medical care in the Valley. A significant milestone occurred in 2018 when UCSF Fresno was approved as a branch campus of the UCSF School of Medicine.

While we've been a regional graduate medical education campus since our establishment in 1975, the branch campus designation paved the way for the UCSF School of Medicine to become the degree-granting institution for the San Joaquin Valley Program in Medical Education (SJV PRIME). It also allows students in the program to spend the bulk of their medical school training at UCSF Fresno and in the Valley. Students in the new UCSF SJV PRIME, started at the UCSF main campus in fall 2019. After 18 months, the students will move to UCSF Fresno in 2021 for two and a half years. By concluding their medical school training here, the expectation is that they will stay in the Valley for residency training and eventual practice. Medical students admitted to SJV PRIME are future physicians with an expressed interest in practicing in the Valley and working with underserved populations.

Traditionally, UCSF Fresno trains about 300 medical students from other UC campuses and from across the U.S. on a rotating basis. But, training students from the Valley is essential. The two best predictors of where physicians will practice are where they complete training and where they grew up.

UCSF Fresno residency programs, SJV PRIME, the UCSF Fresno Doctors Academy programs along with our many other strong community partnerships provide a significant

basis for the desperately needed pathway.

California faces a projected shortfall of up to 4,100 primary care clinicians in just 10 years, according to the California Future Health Workforce Commission. The San Joaquin Valley already has a severe shortage of physicians and is one of the fastest growing areas in the state. In addition, with about one-third of the region's physicians at or near retirement age, the Valley will be hit especially hard by the shortage of doctors.

As a branch campus of the consistently top-ranked UCSF School of Medicine, faculty physicians at UCSF Fresno provide UCSF care in the Valley while training the next generation of physicians for the region and state.

But, it takes at least 11 to 15 years to produce a practicing physician. In addition to training our own, the future requires that we work more efficiently and in teams to train, heal, care and discover.

Technology will continue to be at the forefront. UCSF Fresno is making progress on development of self-serve, web-based data dashboards to support population health studies and enable research related to Valley patient populations. When complete, the project will put agile data analytic tools into the hands of researchers, physicians, and trainees to work more collaboratively.

Wellness among faculty and trainees and fostering a diverse and inclusive community continue to be among our top priorities. And our focus remains on improving health in the Valley through culturally competent teaching, outstanding patient care, innovative discovery and community engagement.

To learn more, go to: www.fresno.ucsf.edu

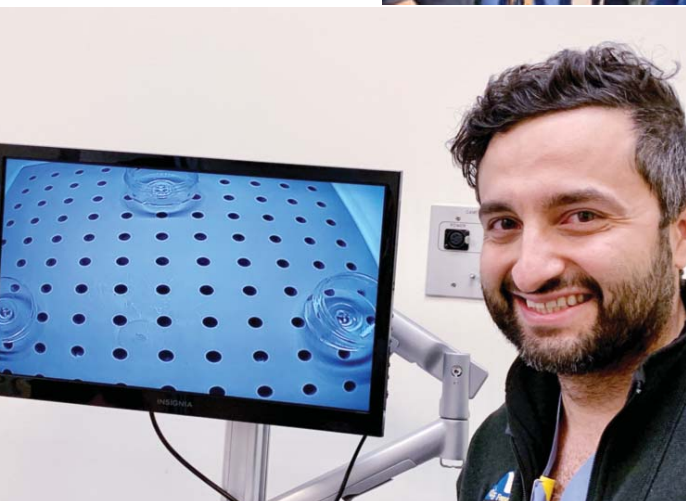
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Spotted on Campus

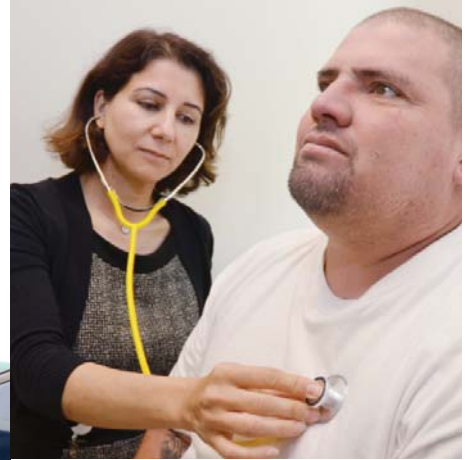
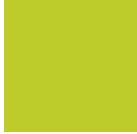




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UCSF Fresno

155 North Fresno Street
Fresno, CA 93701
Phone: (559) 499-6400 | Fax: (559) 499-6411

info@fresno.ucsf.edu
www.fresno.ucsf.edu

