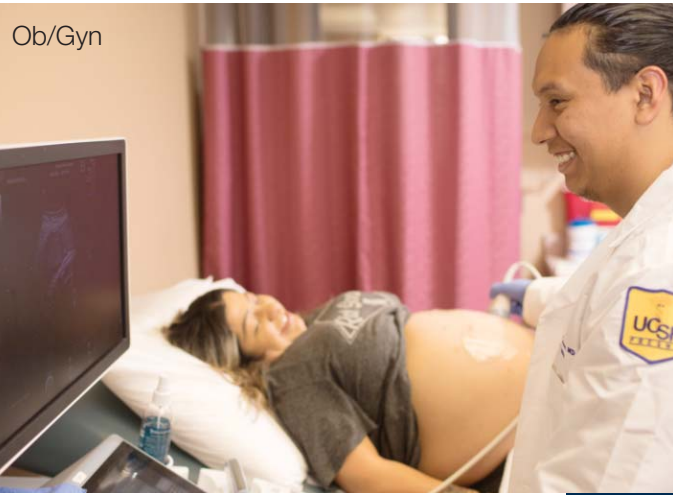


Psychiatry

IMPROVING
HEALTH IN THE
SAN JOAQUIN VALLEY



Ob/Gyn



UCSF FRESNO ANNUAL REPORT 2019-2020



Pulmonary/Critical Care

UCSF Fresno



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Care.
heal.

Message from the Associate Dean



from the Valley to serve the Valley. Another vital and necessary element of medical education is residency training. Also known as graduate medical education, residency training makes up the bulk of education that takes place at UCSF Fresno. Residency is when medical school graduates spend the required three to seven years training under faculty supervision prior to practicing independently.

Statistics show that physicians tend to practice in the area near where they completed residency training. Roughly 50% of physicians who complete training at UCSF Fresno stay in the Central Valley to provide care, teach future physicians or continue their education. Excellent and proven undergraduate and graduate medical education are needed in the Valley to ensure an ongoing pipeline of physicians for the region.

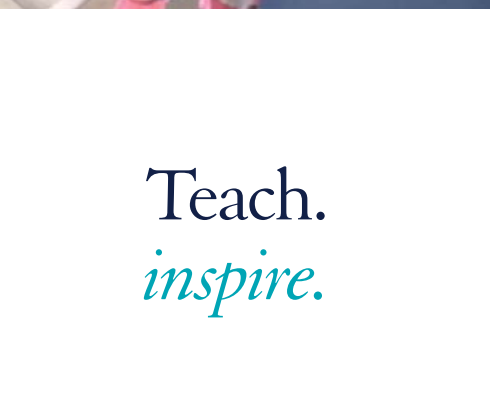
As a regional campus of the UCSF School of Medicine, UCSF Fresno improves health through education, patient care, research, and community partnerships. In the past year, UCSF achieved significant milestones involving medical student education in the San Joaquin Valley, all during challenging times and the COVID-19 pandemic. Our faculty, trainees and staff pivoted and persevered to continue our critical work in learning environments, at bedsides and in the community, while addressing the renewed movement for social justice that calls on each of us to recognize, reject and break down systemic barriers and racism for our patients, trainees, colleagues and community. The resilience and dedication of the UCSF Fresno community, the lessons learned and the milestones we achieved together with our partners are cause for celebration and are highlighted in this annual report.

COVID-19, unfortunately, had a serious and negative financial impact on UCSF Fresno, with resources being diverted to cover unexpected costs associated with the pandemic, such as COVID-19-related research. UCSF Fresno is absorbing the costs of these studies absent outside funding to better understand the impact on Valley populations and effectiveness of treatments and potential treatments. UCSF Fresno also stepped up to provide wellness resources for frontline UCSF Fresno physicians. Additional costs were incurred to minimize the spread of COVID-19 on the UCSF Fresno campus. These included measures necessary to transition from on-site learning and working to distance learning and telecommuting.

Through it all, we learned that with challenge comes change and opportunity and even the darkest clouds have silver linings. We learned to deliver telehealth more effectively. We enhanced distance learning. And we developed new partnerships to help our community respond to the pandemic. We showed determination and collaboration. And we are the better for it. We are your UCSF Fresno.

Sincerely,

Michael W. Peterson, MD, FCCP, MACP
Y. Frank and Roxie Moradian Chair in Medicine
UCSF Professor of Medicine
UCSF Fresno Associate Dean



Question.
discover.

Among our achievements, in August 2019, the first students in the new UCSF San Joaquin Valley Program in Medical Education (SJV PRIME) started classes at the main campus in San Francisco. Increasing the number of physicians practicing in the Valley and diversifying the physician workforce are goals of the SJV PRIME. The structure of the new program calls for students to spend the bulk of their training in Fresno and the Valley with the goal of retaining them in the region for residency training.

In June 2020, thanks to Gov. Gavin Newsom, the California Legislature and the longstanding advocacy of Assembly Member Adam Gray, the state budget included \$15 million a year in ongoing funding to support expanded medical student education at UCSF Fresno in partnership with UC Merced. Planning is underway now.

These milestones represent important opportunities for local students on the pathway to becoming practicing physicians. Medical student education or undergraduate medical education is an important component of training physicians



Engage.
enrich.





Kenny Banh, MD, FACEP
Assistant Dean for Undergraduate Medical Education (UME)

As Assistant Dean for UME, I oversee the training of medical students 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 2018, UCSF Fresno was accredited as a regional 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 most of their medical school training at UCSF Fresno. In 2019, the first students in the new UCSF SJV PRIME started classes at the main campus in San Francisco. They will begin training at UCSF Fresno in January 2021. The 2020-2021 state budget, signed in June, included \$15 million a year in ongoing funding to expand medical student education at UCSF Fresno in partnership with UC Merced. Plans are underway now to determine the scope of that effort. Meanwhile, pre-COVID-19 pandemic, we grew clinical opportunities for students and increased our offerings in student services, community outreach as well as research. The learning environment looked different for much of this year, yet as always, we encourage trainees to consider careers in the Valley and are working with regional partners to expand training opportunities and increase medical and educational outreach throughout the region.



Roger Mortimer, MD
Assistant Dean for Academic Affairs

I took over as Assistant Dean for Academic Affairs in February 2020. In my portfolio are faculty promotion and advancement and continuing medical education. UCSF assures the quality of teachers in the academic appointment process. We assess and monitor teaching, clinical care and service. Our role is to oversee who will be teaching our residents and students as well as seeing that faculty get the recognition they deserve within the university. One of UCSF's roles is also providing continuing education in the Valley. The people who live here deserve the finest clinical care which requires ongoing training and education. We are adapting to the current COVID-19 situation by converting our education from traditional in-person conferences to a virtual format. We strive to remain the foremost provider of continuing education in the Valley



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 19 sub-specialty graduate medical education programs at UCSF Fresno. The goal of GME at UCSF Fresno is to train skilled, caring physicians who are interested in caring for 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, we continued to build on our commitment to wellness. We held the first Wellness Fair for all faculty and trainees as well as all staff from Community Regional Medical Center, University Centers of Excellence/Central California Faculty Medical Group and UCSF Fresno. When the COVID-19 pandemic hit, we took measures to protect our campus community and converted our clinical skills labs to respite rooms. The rooms and amenities were available to faculty and trainees to decompress after demanding shifts. Department of Psychiatry faculty volunteered to provide counseling 24 hours a day, seven days a week to trainees, faculty and their families impacted by the pandemic. UCSF Fresno also stepped up to provide alternative housing for frontline UCSF Fresno physicians to self-isolate after being exposed to the novel coronavirus or out of concern for vulnerable family members. UCSF Fresno started its alternative housing and other wellness programs before the state initiated its Project Roomkey. In addition, we revitalized our commitment to diversity, equity and inclusion. A Health Equity Action Lab was established to address health disparities and inequities experienced by the diverse population served in the San Joaquin Valley.

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 regional campus of the UCSF School of Medicine to lead the San Joaquin Valley Program in Medical Education (SJV PRIME), a training program to prepare medical students to address the unique health needs of the region's growing, diverse and underserved populations.

300+

Physicians trained each year

9

Residency specialties

19

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 SJV PRIME students come from backgrounds underrepresented in medicine

550k+

Patient visits annually at clinical partner sites

Partners and Affiliates

As a regional graduate and undergraduate medical education campus of the UCSF School of Medicine, UCSF Fresno conducts its training and patient care through a network of affiliated partners. Medical students, residents and fellows 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 Medical Centers
 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 – Fresno Medical Center

UCSF and UCSF Fresno

UCSF Benioff Children's Hospital
 UCSF Medical Center
 UCSF Medical Center at Mount Zion
 UCSF Liver Transplant Program at Parnassus
 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 Specialists
 University Medicine Associates
 University Neurosciences Institute
 University Neurosciences Institute, Visalia
 University Obstetrics & Gynecology Center
 University Orthopaedic Associates
 University Pediatric Specialists
 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
 Valley Vascular Surgery Associates

Other Affiliated Health Care Institutions and Training Sites

Advanced Laparoscopic Surgical Associates
 Anther Pediatric and Adult Sleep Center
 Baz Allergy & Asthma Institute
 Nirmal Brar, MD

California Poison Control System
 Cardiovascular Consultants Heart Center
 Central Valley Regional Center
 County of Fresno Department of Behavioral Health
 County of Fresno Department of Public Health
 County of Fresno Sheriff Coroner's Office
 CPMC Mission Bernal Campus - Sutter Health
 EPU Children's Center
 Eye-Q Vision Care, Fresno
 Fresno Oral Maxillofacial Surgery & Dental Implant Center
 Fresno State University Health and Psychological Services
 Fresno Surgical Hospital
 Fresno Unified School District
 Heritage Crossing Inpatient Hospice
 Hinds Hospice
 Kaiser Permanente Fresno Medical Center
 Kaweah Delta Health Care District, Visalia
 Optimal Hospice Care
 Orthopaedic Associates Medical Clinic, Inc.
 Peachwood Medical Group
 Raintree Convalescent Hospital
 Saint Agnes Medical Center
 Sequoia Surgical Pavilion, Visalia
 Sierra Pacific Orthopedics
 Summit Surgical
 Transitions Children's Services
 Turning Point of Central California Rural Mental Health Clinics
 Valley Children's Hospital
 Valley Health Team, Fresno
 Valley Surgical Specialists
 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.

Camarena Health Centers, Madera
 Central Valley Indian Health, Clovis
 Golden Valley Health Centers, Merced
 Livingston Medical Group, Livingston
 Madera Community Hospital – Rural Health Clinics, Madera
 United Health Centers of the San Joaquin Valley, Parlier and Mendota Health Centers

UCSF Fresno received 9,922 applications from residents and fellows and conducted 1,390 interviews for 95 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
- Advanced Cardiovascular Imaging
- 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



2019-2020 Academic Year as of 6/1/20

School of Medicine Residency Programs		# Trainees
Emergency Medicine		42
Family and Community Medicine		41
Internal Medicine - Preliminary		10
Internal Medicine - Categorical		66
Internal Medicine - Chief Residents		4
Obstetrics/Gynecology		16
Orthopaedic Surgery		18
Pediatrics		36
Psychiatry		18
Surgery		24
Total		275

School of Dentistry Residency Programs		# Trainees
Oral Maxillofacial Surgery (OMFS) Preliminary		1
OMFS		15
Total		16

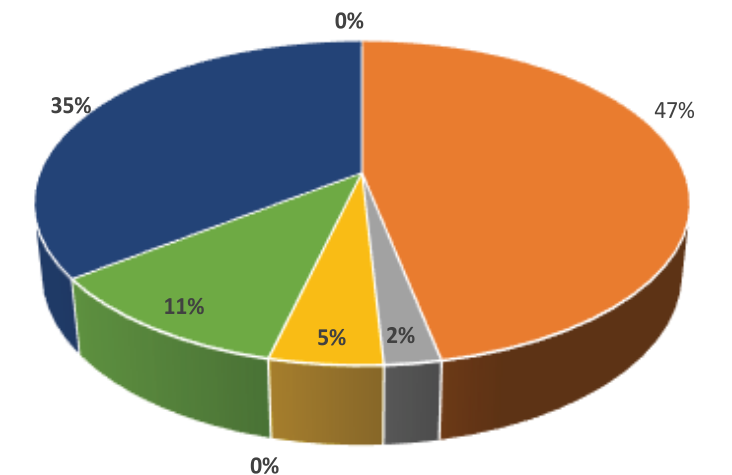
Accredited Fellowship Programs		# Trainees
Acute Care Surgery		2
Cardiovascular		9
Gastroenterology		6
Hematology/Oncology		6
Hospice/Palliative Care		3
Infectious Diseases		4
Interventional Cardiology		1
Pulmonary Disease/Critical Care		9
Sleep Medicine		1
Surgery Critical Care		1
Total		42

Non-Accredited Programs		# Trainees
Community Pediatrics Fellowship (Peds)		0
Head and Neck Oncology and Microvascular Reconstruction (OMFS)		1
HIV Fellowship (FCM)		0
Maternal Child Health Fellowship (FCM)		1
Medical Education Fellowship (EM)		1
Pediatric Chief Residents		2
Emergency Ultrasound Fellowship		0
Wilderness Medicine Fellowship (EM)		1
Total		6

Total 2019-2020 GME Trainees		
Residents (SOM)		275
Residents (SOD)		16
Accredited Fellows		42
Non-Accredited Fellows		6
Total		339

2019-2020 Academic Year

Resident and Fellow Diversity



- American Indian or Alaskan Native
- Asian
- Black or African American
- Hispanic, Latino or of Spanish Origin
- Native Hawaiian or Other Pacific Islander
- Other
- White





Stacy Sawtelle-Vohra, MD

UCSF Fresno Resident and Fellow Graduation Highlights

Graduating classes this year share the common bond of moving to the next phase of their life, education or careers during a pandemic. With more than 100 medical residents and fellows, along with three oral and maxillofacial surgery dental residents and four physician assistants, the UCSF Fresno Class of 2020 was a unique one.

UCSF Fresno was recognized as a regional medical school campus during their training, with a dedicated cohort of students in the UCSF SJV PRIME that will train at UCSF Fresno for two and a half years — longer than any other cohort of medical students. UCSF Fresno’s Class of 2020 helped set the standards for this achievement. The UCSF Fresno Class of 2020 also confronted a novel new disease, COVID-19. In addition, they graduated just as the nation erupted in protest rightfully calling for an end to police brutality against Blacks and longstanding systemic racism.

The UCSF Fresno Class of 2020 showed resiliency, determination and courage by utilizing their knowledge, skills and influence to adapt to new ways of learning, provide high quality care and advocate for patients regardless of their background or ability to pay. Many of the graduates stayed in the Central Valley to care for patients, teach future physicians or continue their medical education.

“Regardless of their specialty or sub-specialty, these newly minted physicians and health care providers share the common bond of confronting a novel new disease and as a result, adapting to new ways of learning and caring for patients during the COVID-19 pandemic,” said Michael W. Peterson, MD, associate dean at UCSF Fresno. “They are entering the workforce at a time when they are needed most as health care providers and to advocate for patients and address the consequences of poverty, discrimination and health disparities. We are pleased to have helped them fine tune their skills and to see the physicians they are today.”

UCSF Fresno held a virtual commencement to recognize graduates. Graduates from Community Medical Centers General Dentistry Residency Program also were recognized. In addition, various departments held their own socially distanced and virtual events to recognize graduates.

UCSF Fresno 2020 Graduation Highlights:

70% of residents and fellows who completed training in the Department of Emergency Medicine stayed in the Central Valley to provide care.

44% of residents and fellows who completed training in the Department of Family and Community Medicine stayed in the region.

All three fellows in the Hospice and Palliative Medicine (HPM) program remained in the Valley. Two joined the HPM faculty at UCSF Fresno.

44% of internal medicine residents (categorical) stayed in the Valley.

50% of residents who completed training in the Department of Pediatrics stayed in the region.

63% of all graduates stayed in California to provide care or continue their education.

Award Recipients:

Eric Reid, DO, UCSF Fresno Internal Medicine Residency Program, “Outstanding First-Year Resident,” Community Medical Centers (CMC)

Nicholas Artinian, MD, UCSF Fresno Family and Community Medicine Residency Program, “Outstanding Resident or Fellow Teacher,” CMC

Liana Milanes, MD, UCSF Fresno Family and Community Residency Program, “Outstanding Attending Teacher,” CMC

Harlan Husted, PharmD, Community Regional Medical Center, “Outstanding Non-Physician Teacher,” CMC

Mackensie Yore, MD, UCSF Fresno Emergency Medicine Residency Program, “Borba House Staff Research – Resident Award”

William Chiang, MD, UCSF Fresno Emergency Medicine, Wilderness Medicine Fellowship, “Borba House Staff Research – Fellow Award”

Amir Fathi, MD, UCSF Fresno Department of Surgery, “Borba Faculty Research Award”

Angela Sehgal, MD, UCSF Fresno Internal Medicine Residency Program, “ICare Award,” VA Central California Health Care System

Tara Brah, MD, UCSF Fresno Obstetrics/ Gynecology Residency Program, “Leon S. Peters Resident of the Year Award,” Leon S. Peters Foundation

Eric Lindvall, DO, UCSF Fresno Department of Orthopaedic Surgery, “Kaiser Award for Excellence in Teaching”

Tara Brah, MD, UCSF Fresno Obstetrics/ Gynecology Residency Program, “Steven N. Parks Leadership Award,” Fresno Madera Medical Society



Nicholas Artinian, MD, is the first in his family to go to college and to become a physician. He completed training in UCSF Fresno's three-year Family and Community Medicine Residency Program. Dr. Artinian was recognized with the Outstanding Resident Teacher award presented by Community Medical Centers' Jeff Thomas, MD. His parents, who themselves did not finish high school, worked tirelessly to provide for him and his sister, Dr. Artinian said. He earned his undergraduate degree at UC Santa Barbara and medical degree at St. George's University. Dr. Artinian spends his spare time with family and friends, playing soccer with the UCSF Fresno resident team and exercising. He is practicing in Bakersfield and Tehachapi with Kaiser Permanente as an outpatient physician.



Christina Patty, MD, completed a three-year residency training program in Family and Community Medicine at UCSF Fresno. She is serving her home community at Visalia Medical Clinic where she was a patient growing up. Dr. Patty chose family medicine because of the relationships she's able to build with patients over many years. The specialty also allows her to pursue many interests and it is never boring, she said. The best aspect of training at UCSF Fresno is full spectrum training in both rural and urban settings, she said. It's allowed her to learn from some of the best doctors in the Valley. She spends off-time with her two-year old son and husband, Rafael Martinez, MD. Dr. Rafael Martinez completed training in Family and Community Medicine at UCSF Fresno last year. He now works for United Health Centers in Parlier. Dr. Martinez and Dr. Patty met in high school and went to prom together. The couple welcomed their second child recently. A graduate of Redwood High School in Visalia, Dr. Patty completed her bachelor's at California State University, Long Beach and earned a medical degree from Universidad Autonoma de Guadalajara.



Sukhjit Dhillon, MD, completed a four-year residency training program in Emergency Medicine at UCSF Fresno and joined the Emergency Medicine faculty. A native of Punjab, India, Dr. Dhillon grew up in Fresno, but said instances she recalls in India when her family could not afford quality care motivated her to become a physician who advocates for patients. At the start of the COVID-19 pandemic, she worked with Rais Vohra, MD, UCSF Emergency Medicine faculty member and Interim Health Officer at the Fresno County Department of Public Health. Dr. Dhillon wrote guidelines and protocols using Centers for Disease Control and Prevention recommendations. She continues to help at the health department as time allows. Dr. Dhillon graduated from Buchanan High School in Clovis and received a bachelor's in Biomedical Physics from Fresno State. She earned both a master's in biomedical sciences and a medical degree at Chicago Medical School.



Ivett Renteria, MD, MPH, a first-generation college graduate, completed her final year at UCSF Fresno as chief resident in the Department of Pediatrics. She joined the Department of Pediatrics as faculty at UCSF Fresno and sees patients as a pediatric hospitalist and general outpatient pediatrician. The best part of training at UCSF Fresno has been the people, the people she trained with, her mentors and the children and families she is privileged to care for, she said. The reason she was drawn to the San Joaquin Valley is the same reason she stayed – to care for the underserved Hispanic population and empower them to take control of their child's health needs. When not working, she enjoys outdoor adventures with her husband and 17-month old son. Dr. Renteria attended Glendale Adventist Academy, graduated from UC Irvine, earned a master's in public health from USC and a medical degree from St. George's University. She credits her success to her parents.



Ryan Howard, MD, completed a fellowship in Hospice and Palliative Medicine (HPM) in the Department of Family and Community Medicine at UCSF Fresno. Dr. Howard stayed in the region to serve as Medical Director of Kaweah Delta Hospice and Palliative Medicine Services in Visalia. Patients with very serious illnesses are among the most vulnerable patient populations and their families are often equally as vulnerable, he said. He chose to complete a fellowship in Palliative Medicine because of the serious need for such care providers in the region. All three of the Hospice and Palliative Medicine fellows stayed in the Central Valley. He said working alongside faculty was the best part of training at UCSF Fresno. Dr. Howard attended the University of North Florida in Jacksonville, worked as an EMT in Florida and earned a medical degree from Florida State University College of Medicine. He completed residency training in Family and Community Medicine at the University of Arizona. He and wife, Michelle, own land near Three Rivers, which they are developing. Dr. Howard gives thanks to his wife for her support during his fellowship and residency training.



Manavjeet Sidhu, MD, MBA, completed a four-year emergency medicine residency program at UCSF Fresno as a chief resident. Dr. Sidhu started as Chief of the Fresno VA Medical Center Emergency Department. In addition, he is staying at UCSF Fresno as emergency medicine faculty. He is honored to serve veterans, teach residents clinically and continue as a practicing physician. Dr. Sidhu chose to train in emergency medicine at UCSF Fresno because the program offers a unique training experience given the patient volume, diversity of patient population, variety of pathology, and abundance of procedures. In addition, faculty, staff and fellow residents foster a positive environment, he said. Dr. Sidhu, a native of the San Fernando Valley in California, graduated from UCLA and earned a medical degree and Master of Business Administration as part of a joint program at New York University where he's also a faculty member. He has consulted for multiple health care related companies and serves on the boards of health care ventures. Earlier this year, he worked with ABC News in Manhattan, producing medical segments for World News Tonight, Good Morning America and Nightline.

UCSF Fresno physicians and residents were on the forefront of protecting public health and caring for COVID-19 patients from the onset, responding with adaptability, tenacity and determination in addressing the pandemic at the bedside, through medical research and in the learning environment.



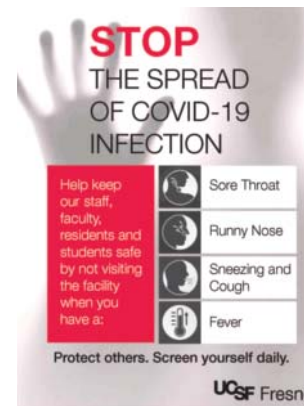
Faculty and residents quickly learned how to diagnose, screen and treat patients for a new disease that little was known about. They assumed public health leadership roles in the community; sought the best diagnostic and patient treatments through participation in the latest research studies; pivoted to telemedicine for outpatient care when possible; adapted to a virtual training environment; and they learned together how to deal with stress and psychological impacts of providing care in a potentially deadly environment.

On the front lines of care, UCSF faculty and residents in the UCSF Fresno Department of Emergency Medicine staffed adult, pediatric and pregnant patients' tents outside of the Emergency Department at Community Regional Medical Center (CRMC), evaluating and screening patients with respiratory illness for potential COVID-19. Pediatrics residents and faculty and fellows in Pulmonary and Critical Care provided care for patients who had or were at risk for COVID-19 in the hospital and outpatient settings.



UCSF Fresno forged partnerships with public health departments to help educate and inform the community about the pandemic. UCSF Fresno's Rais Vohra, MD, was appointed interim health officer for the Fresno County Department of Public Health. A UCSF Fresno faculty member since 2009, Dr. Vohra continued his faculty appointment and worked Emergency Department shifts at CRMC. Simon Paul, MD, served as UCSF Fresno assistant dean for Academic Affairs until his appointment early this spring as health officer for Madera County. Although no longer an assistant dean, Dr. Paul remains part-time faculty in the Department of Internal Medicine at UCSF Fresno.

Medicine residents were pulled from out-of-town selective experiences early in the pandemic and reassigned to covering the Emergency Department at CRMC and to help at the Fresno County Department of Public Health. Sukhjit Dhillon, MD, then a fourth-year Emergency Medicine resident and now a faculty member in the department, assisted Dr. Vohra with the COVID-19 response. Other Emergency Medicine residents helped to track and research confirmed virus cases in the county, among other duties. Faculty and residents translated COVID-19 public health educational materials to Spanish, Punjabi and Hmong, and taped educational video messages. Residents also participated in virtual town hall meetings alongside state legislators to educate the public about the novel coronavirus.



Keeping faculty and residents safe, as they worked around the clock, was a priority. UCSF Fresno collaborated with clinical partners and UCSF to assure that faculty and staff had adequate personal protective equipment. Adjustments in Graduate Medical Education were necessary, including pulling Internal Medicine residents and Pulmonary Critical Care Fellows from elective and pulmonary consult services to provide extra coverage in the Intensive Care Unit during the surge in COVID-19 cases experienced from mid-May until the end of August. In response to COVID 19, Obstetrics/Gynecology resident schedules were adjusted to decrease exposure risk. Changes were made to minimize the number of other providers who work closely with residents; traditional four-week block assignments were changed to one-week coverage to account for the increased hours and stress on certain inpatient rotations. A separate back-up rotation was created for junior and senior residents in preparation for possible extended sick calls or quarantine; and new limitations were placed on the number of residents and faculty who were present for rounding to reduce possible exposure to COVID-19.

UCSF Fresno staff responded quickly to cancel community events and Continuing Medical Education events to prevent the possible spread of COVID-19. Programs and Information Technology Services staff converted department meetings to virtual gatherings and made graduation in June a virtual event. Beginning in March, interactive virtual town halls were initiated to provide information about COVID-19 developments and health and safety protocols among other issues. A UCSF Fresno online COVID-19 Resources page was developed by Communications and Information Technology Services and regularly updated with information about COVID-19 and policies and processes important to UCSF Fresno faculty, trainees and staff, as well as helpful information for the public.

COVID-19 placed additional stressors on faculty, trainees and staff. UCSF Fresno provided online wellness resources and created relaxation rooms for faculty, fellows and residents to have a quiet, peaceful place to decompress. In addition, faculty in the Department of Psychiatry volunteered to provide confidential counseling. In early April, UCSF Fresno began offering alternative housing in hotel rooms for clinicians who had concerns about exposing vulnerable family members to COVID-19.

Despite disruptions to UCSF Fresno caused by COVID-19, faculty and residents continued to be innovators in health and patient care. UCSF Fresno faculty participated in national and international clinical trials, giving San Joaquin Valley patients access to the latest drugs and treatments for COVID-19. UCSF Fresno launched a new Health Equity Action Lab to address disparities and inequities experienced by the diverse patient population served in the San Joaquin Valley.

Through these unprecedented times, working together with clinical partners, UCSF Fresno continued to meet the health care needs of patients and train future physicians to address the doctor shortages in the region and the health care needs of the rapidly growing population in the Valley.



UCSF Fresno Welcomes New Residents



In previous years, new residents or interns typically started their training at UCSF Fresno with a weeklong orientation and clinical skills boot camp. This year, due to COVID-19, the traditional format was not possible. Instead, the Graduate Medical Education Department implemented a hybrid orientation, onboarding interns by department over a few dates and staggering times each department was on site. New residents were tested for COVID-19, fit tested for masks, and participated in hands-on donning and doffing among other activities. All new residents gathered online for workshops led by UCSF Fresno and Community Regional Medical Center leadership as well as a virtual boot camp.



UCSF Fresno in the News



Media often turn to UCSF Fresno faculty physicians 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 autism, Doctors Academy, the doctor shortage, healthy eating, liver disease, medical students and Match Day, Mobile Heal, pulmonary hypertension, mass shooting in Fresno and trauma preparedness. In addition, many interviews were requested for information on COVID-19, including events canceled due to the pandemic, signs and symptoms, prevention, testing, mental health, effect on pregnant women, economic impact, masks and face coverings, shortages of hydroxychloroquine and impact on rheumatology patients, alternative housing for frontline health care providers, UCSF Fresno Wilderness Medicine fellow volunteering in New York, drop in emergency room visits, and research among many other topics.

In addition, faculty and residents worked with the Department of Public Health, elected officials and other organizations to provide information on COVID-19 in Hmong, Punjabi and Spanish.

Associate Dean Michael W. Peterson, MD, wrote an op-ed in The Fresno Bee on UCSF Fresno's response to the pandemic. Amir Khan, MD, wrote a piece on stroke risk and COVID-19, which ran in GV Wire. Students in the UCSF SJV PRIME wrote an opinion piece on the need to diversify the physician workforce.



UCSF Fresno Gynecologic Oncologist Provides State-of-the Art Surgery for Valley Woman with Complex Case



Dennis DeSimone, DO

When Kristi Blackwell of Hanford needed surgery for endometrial cancer this spring, she felt confident in the referral to Dennis DeSimone, DO, a UCSF Fresno gynecologic oncologist. She knew that UCSF Fresno had easy access to studies and clinical trials, stayed up to date on the latest technology and would have plans for care for patients like herself.

Blackwell, 52, felt even better after her first meeting with Dr. DeSimone, where the two talked for 45 minutes as he reviewed her case. “He is one of the most amazing doctors I have ever met,” Blackwell said.

Dr. DeSimone is one of only two full-time gynecologic oncologists in the Central Valley, this year joining UCSF Fresno’s Trung “Tim” Nguyen, DO, director of gynecologic oncology, in the UCSF Fresno Department of Obstetrics/Gynecology. Drs. Nguyen and DeSimone are board certified and fellowship trained in gynecologic oncology.

“We are trained in advanced oncological surgeries for the treatment of complex disease, such as endometrial cancer,” Dr. DeSimone said.

In the United States, endometrial cancer is the most common cancer of the female reproductive organs, according to the American Cancer Society. Worldwide, it is the sixth most common cancer in women, according to the World Cancer Research Fund International. Most malignancies are diagnosed in an early stage – vaginal bleeding in post-menopausal women is the most common sign of cancer. However, in some patients the disease is not detected early.

In Blackwell’s case, the cancer was at a more advanced stage. In June, Blackwell went to a hospital with heavy vaginal bleeding, and emergency physicians suspected uterine fibroids. A biopsy ordered by her gynecologist, however, showed cancer in the endometrium (the lining of the uterus). “It was a blessing in disguise that I went to the ER or I would be in worse shape than I am now,” she said.

Dr. DeSimone, who has expertise in robotic surgery, performed Blackwell’s hysterectomy and removal of both ovaries and fallopian tubes. Robotic surgery allows for more accuracy, patients generally have faster recoveries and there is less morbidity, he said. “If this (robotic) surgery was not available in Fresno, patients would have to be sent three or more hours away to Sacramento or San Francisco,” Dr. DeSimone said.

Because Blackwell had a diagnosis of endometrial cancer, Dr. DeSimone had ordered a sentinel lymph node mapping, where a dye is injected into the cervix to map out lymph nodes that are stained with a dye. “In her case in particular, she had a CT scan that showed she had some concerning lymph nodes,” Dr. DeSimone said. The identified lymph nodes were removed during the surgery, as well as other lymph nodes that appeared abnormal at the time of surgery, he said. Post-surgery, laboratory results showed the cancer had spread to the lymph nodes. The recommendation was for Blackwell to have chemotherapy and radiation oncology therapy. Dr. DeSimone coordinated care for both therapies at Community Cancer Institute (CCI) in Clovis, home to Hematology/Oncology faculty at UCSF Fresno and its Hematology/Oncology Fellowship program.

“He was very thorough in explaining everything to me,” Blackwell said of the time Dr. DeSimone spent with her to explain her diagnosis. “He’s very understanding,” she said.

UCSF Fresno physicians provide care, including at CCI, that otherwise patients would have to leave the region to receive, Dr. DeSimone said. “It’s a pleasure to serve the people in the Central Valley, and there’s just a tremendous need – it’s an underserved area – and I am just glad to provide this service for them.”

UCSF Fresno Meets Increasing Need for Psychiatrists Trained for Child Mental Health Services

UCSF Fresno child and adolescent psychiatrists Karen Kraus, MD, and Patrick Shea, MD, are training medical school students and residents to address mental health needs of children and teenagers as increasingly youths are being hospitalized for self-harm injuries and suicide rates have reached their highest in nearly six decades.

Suicide now is the second leading cause of death for young people ages 10 to 24 in the United States; and in California, about 7.5 of every 100,000 youths ages 13 to 21 died by suicide in 2017, up from a rate of 4.9 per 100,000 in 2008.

Incidents of self-harm by youths also have sharply increased with more than 85,000 youths ages 13 to 21 being seen for mental health diagnoses at California hospital emergency departments in 2018, according to Kaiser Health News.

The trends in youth suicide and self-harm behavior are disturbing, Dr. Kraus said. “Over the span of five years, there has been an enormous increase in the number and severity of psychiatric problems that we are seeing at Community Regional Medical Center,” she said. “In 2014, there was only one or two kids a month on the general pediatric service who were being referred for a psychiatric consultation, and now it’s seven a month.”

UCSF Fresno’s psychiatry residency program places an importance on child/adolescent psychiatry to address the mental health needs of young people in the San Joaquin Valley, where there is a dearth of child psychiatrists. “Our mission has to do with training physicians uniquely committed and qualified to work in challenging practice environments – and any psychiatrist who remains in the San Joaquin Valley has to be able to help adolescents,” Dr. Kraus said.

California and the San Joaquin Valley are identified as being severe shortage areas for child and adolescent psychiatry. California has 13 psychiatrists per 100,000 children and in the San Joaquin Valley there are only 5 psychiatrists per 100,000, according to the American Academy of Child and Adolescent Psychiatry. A ratio of 47 psychiatrists to 100,000 children is considered sufficient.

The severe shortage of child/adolescent psychiatrists makes it necessary for general psychiatrists to understand child/adolescent psychiatry, Dr. Kraus said. “As a general psychiatrist you are not a sub-specialist and you don’t need to know everything, but you need to know what the child/adolescent guidelines are and you need to follow them,” she said. “You need to be able to assess what a child needs and to be able to orchestrate the treatment.”

All UCSF Fresno psychiatry residents, regardless of their interest in child/adolescent psychiatry, do at least a minimum of a year (equivalent to a day a week) working with children and adolescents as part of their core rotation that runs from the middle of the third year to the middle of the fourth year of residency, Dr. Kraus said. And residents who express an interest in child/adolescent psychiatry have opportunities for a two-year longitudinal experience with child/adolescent psychiatry, she said.

Psychiatric consults also are made for pediatric patients who are admitted for traumatic injuries, including once-a-week rounds at the burn unit. Children with burns often have protracted stays in the hospital and long courses of medical treatment, Dr. Kraus said. The focus is on trauma-informed developmentally responsive care with a secondary goal of prevention of post-traumatic stress disorder (PTSD), she said.

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Patrick Shea, MD, and medical student

UCSF Fresno Brings Advanced Cancer Care to Patients in the San Joaquin Valley



Haifaa Abdulhaq, MD

UCSF Fresno became the newest member of the University of California Hematologic Malignancies Consortium (UCHMC) in 2019. The UCHMC is a collaboration of academic physicians doing clinical research at five UC Cancer Centers. UCSF Fresno joined the consortium as its sixth member. Inclusion in the UCHMC allows UCSF Fresno medical oncologists to work jointly with researchers at UC Cancer Centers located at UC Davis, UCSF, UC Irvine, UC San Diego and UCLA; and the collaboration opens the door for patients in the San Joaquin Valley with cancers of the blood to participate in clinical trials that have mostly been unavailable to them.

“Being a part of the UC Hematologic Malignancies Consortium will enable us to offer clinical trials available through the consortium here in Fresno so our patients don’t have to travel to San Francisco, Los Angeles, Sacramento or San Diego for this,” said Haifaa Abdulhaq, MD, associate clinical professor at UCSF and director of hematology at UCSF Fresno.

The membership in the consortium will allow UCSF Fresno to participate in large, pharmaceutical-funded hematologic malignancies trials, and it will provide a platform at UCSF Fresno to initiate new clinical trials for patients with leukemia, lymphomas and other blood cancers. Identifying and enrolling patients with rare cancers can be a challenge, and clinical trials need enough patients for results to be scientifically valid.

“We have been trying to develop partnerships for research and foster research by having more clinical trials here,” said Uzair Chaudhary, MD, UCSF professor of

Psychiatry residents also work with Dr. Kraus at University Psychiatry Associates (UPA), an outpatient clinic. At any one time, the residents’ caseloads of pediatric patients at UPA averages around 10 and over the course of a year, they will have evaluated approximately 20 children and adolescents total. UCSF Fresno introduces child/adolescent mental health to UCSF medical students including those in the San Joaquin Valley Program in Medical Education (SJV PRIME). The students conduct rotations at UCSF Fresno.

SJV PRIME students are with Dr. Shea at the Fresno County Department of Behavioral Health, where he sees children and adolescent patients. “The SJV PRIME students definitely are seeing depressed adolescents who they have to assess for suicidal thoughts,” he said. UCSF medical students also have opportunities to be present at psychiatry consults at CRMC. Most students will see at least one adolescent who has attempted suicide, Dr. Shea said.

Providing medical students and residents hands-on experiences with young patients and lectures on child and adolescent mental health are essential to building a physician workforce for the Valley that is prepared to address the rise in suicides and self-harm behavior among young people, Drs. Kraus and Shea said. UCSF Fresno is committed to providing that vital education and training in child/adolescent psychiatry.

clinical medicine and interim chief of medicine at UCSF Fresno. “Our overarching goal is to achieve designation by the National Cancer Institute,” he said. There currently are 71 NCI-designated centers in the United States that meet standards for cancer research and provide cutting-edge treatments to patients.

By participation in the UCHMC and by working toward an NCI designation, UCSF Fresno patients will benefit by enrollment in clinical trials, Dr. Chaudhary said. “Patients get better care when they are on a clinical trial because they are followed very stringently,” he said. “And they benefit from newer therapies. Patients will have more opportunities to participate in novel treatments.”

In September 2017, UCSF Fresno took over the Community Medical Centers Cancer Services Clinical Research Program through a collaboration agreement. In August 2018, cancer research was consolidated under one roof at the Community Cancer Institute (CCI) in Clovis, allowing for more coordination of care and for a quadrupling of enrollment to clinical trials as compared to previous years. UCSF Fresno medical oncologists are UCSF faculty and provide cancer care at CCI.

UCSF Fresno medical oncologists stay abreast of the latest in treatments that emerge from clinical trials to provide cutting-edge care for patients with all types of cancer, from breast, lung, prostate, pancreatic, lymphomas, leukemia, bladder, etc. Each of the UCSF Fresno medical oncologists has interests in specialized areas of oncology care and cancer research. Dr. Chaudhary, chief of hematology/oncology, specializes in gastrointestinal, genitourinary cancers; Dr. Abdulhaq and Mohammed Sani Bukari, MD, specialize in hematologic malignancies; Li Li, MD, PhD, specializes in lung cancer; and Constance Stoehr, MD, specializes in gynecologic and breast cancers.

Multidisciplinary tumor boards meet to discuss patient cases, which include medical oncologists, surgeons, pathologists, radiation oncologists all sitting together to recommend treatment. “It’s medical care in one-stop,” Dr. Chaudhary said.

“I have had the best treatment by UCSF Fresno doctors at this facility,” said David Peters, 77, a Kingsburg farmer and board member of the Leon S. Peters Foundation. Peters was diagnosed with cancer of the spine and lungs by physicians at the UCSF Fresno and Community Regional Medical Center Lung Nodule Program.

Peters was referred to Dr. Abdulhaq for oncology care, which has included radiation and chemotherapy. “I’ve had complete faith in the UCSF Fresno program,” Peters said. “I’m doing well. I’m strong.”

UCSF Fresno is committed to providing outstanding clinical care, promoting research and teaching the next generation of physicians, Dr. Chaudhary said.

UCSF Fresno physicians provide much of the safety-net treatment in Fresno and surrounding areas, and that includes the care they provide to cancer patients at CCI. UCSF Fresno serves a diverse and socio-economically disadvantaged population regardless of health insurance. “At UCSF Fresno, the overall goal is to serve the community,” said Dr. Chaudhary.



UCSF Fresno Cardiologist Brings New Implantable Heart Monitor to San Joaquin Valley

Richard Kiel, MD

Checking blood pressure and weight daily for indications of a worsening heart condition is a way of life for patients with heart failure, but UCSF Fresno cardiologist Richard G. Kiel, MD, has introduced a new implantable monitoring system that detects subtle variations in heart function before numbers on scales and blood pressure gauges raise alarms.

About two-dozen patients in the San Joaquin Valley so far this year have received CardioMEMS™ HF System, a miniature wireless monitor that tracks changes in pulmonary artery pressures before the appearance of symptoms, such as swollen ankles and shortness of breath.

“It is a simple, elegant system that can help keep patients healthy, allowing them to feel better and do more, walk farther, spend more time with their families and have a better quality of life,” Dr. Kiel said. “It also has been shown to reduce re-hospitalizations for heart failure symptoms, which can be very costly.”

The implantable monitor is a battery-free pressure-sensing device that is smaller than a dime. Other implantable monitors have been larger, the size of pacemakers, had wires that were threaded directly into

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the heart and needed battery replacement. And none of the prior monitors have been shown to be really effective at reducing re-hospitalizations and improving quality of life for patients with heart failure, Dr. Kiel said.

Patients who receive CardioMEMS™ HF System have the wireless device permanently implanted into an artery in the lungs. The minimally-invasive surgical procedure involves a catheter inserted through a vein in the leg or neck. Patients can be up and back walking within a short time.

The monitor is ingeniously simple, Dr. Kiel said. One time a day, patients lay on a pillow-device for 30 seconds while heart rates and artery pressures are wirelessly transmitted to a secure website that physicians can access for review.

CardioMEMS™ HF System was approved by the U.S. Food and Drug Administration in May 2014. The first surgical procedure to implant the monitor in the western United States was performed at UC San Francisco School of Medicine in September 2014 by Liviu Klein, MD, associate professor of medicine, and director of Cardiology Clinical Research and the Mechanical Circulatory and Heart Failure Device Programs. Dr. Kiel was introduced to the monitor in 2016 by Dr. Klein, during an Advanced Heart Failure and Cardiac Transplant Fellowship at UCSF. Following the one-year fellowship, Dr. Kiel returned to UCSF Fresno and in late 2019 successfully brought the implantable monitoring program to Community Regional Medical Center (CRMC).

Besides its miniature size, lack of wires and battery, the beauty of the monitor is that it gives physicians information about the status of the heart in real time so adjustments can be made to medications before conditions deteriorate, Dr. Kiel said.

Patients who receive the heart monitor have been diagnosed as having Class III heart failure, meaning they become short of breath with mild activities, such as getting up out of bed, taking a shower, getting dressed, putting on shoes. Patients who benefit the most are those who have been admitted to the hospital at least once in the last year, Dr. Kiel said. Patients who are appropriate to receive the monitor are those who respond to diuretic therapy.

Research has shown that increases in pressures captured by the monitor precede symptoms of worsening heart failure by a couple of weeks. “The pressure tells us how much fluid patients are retaining or how much they are losing — and over time that is what leads to symptoms, Dr. Kiel said. “The pressure builds up higher and higher, and more of the fluid is pushed into the tissues of the lungs and pushed into tissues of the legs resulting in shortness of breath, swelling and all the symptoms of heart failure.”



CardioMEMS™ HF System, a miniature wireless monitor

The monitor’s ability to alert physicians to changes in patients’ heart conditions has been shown to reduce the rate of heart failure re-hospitalizations, which saves patients and hospitals money, Dr. Kiel said. “The biggest part of expenditure on heart failure really comes from what happens in the hospital. So really if we can prevent one hospitalization it’s probably paying for all the costs associated with this device.”

About 6.5 million adults in the United States have heart failure, according to the federal Centers for Disease Control and Prevention. Dr. Kiel estimates 1,000 patients with heart failure in the Fresno area could potentially benefit from the CardioMEMS™ implant.

The device also saves time for patients – and physicians. Physical monitoring of a patient with heart failure involves patients weighing themselves, taking their blood pressure and letting physicians know of any changes or symptoms. Patients need appointments for routine checkups, and physicians have to set aside a 20 to 30-minute block of time for office visit that could be done at home in 30 seconds by the implantable monitor.

“The monitor just makes it easier and more efficient for everybody,” Dr. Kiel said.

Patients who have received the monitor also report an improvement in their overall well-being with the device lessening anxiety that can be associated with heart failure and the constant monitoring required to remain healthy. “We should do everything to keep patients healthy and to improve the quality of their lives,” Dr. Kiel said. “This certainly is one of those things.”

Providing CardioMEMS™ to patients in the Valley has been a joint effort of UCSF Fresno and CRMC. “It’s more than I could do myself and more than even a team of doctors could do,” Dr. Kiel said. “It takes some dedicated employees to really help drive it forward and make sure it’s successful and as effective as possible.”

UCSF Fresno Lung Nodule Program Helping Patients in the San Joaquin Valley for 10 Years

A decade ago, patients in the San Joaquin Valley who had suspicious spots on their lungs could wait 70 days or longer to see a specialist to find out if the nodules were lung cancer, but a Lung Nodule Program of UCSF Fresno and Community Medical Centers has reduced the time to seven to 10 days for diagnosis, staging and treatment plan. The speedy turnaround is better than national and international recommended times.

The Lung Nodule Program is the only comprehensive, rapid, early diagnosis and management center for lung cancer of its kind in central California and is one of only 25 Centers of Excellence for Lung Cancer in the nation designated by the GO2 Foundation for Lung Cancer, a national nonprofit organization serving the lung cancer community. Dr. Michael W. Peterson, MD, UCSF professor of medicine and associate dean at UCSF Fresno, launched the Lung Nodule Program during his tenure as Chief of Medicine at UCSF Fresno in 2009. Dr. Daya Upadhyay, MD, medical director of the Lung Nodule Program, and UCSF associate professor of Medicine, who joined in 2014, enhanced the program further to a nationally recognized Center of Excellence in Lung Cancer.

The unique diagnostic center for thousands of incidentally detected lung nodules in the Central Valley is one of the largest centers in the nation. “Before the Lung Nodule Program, patients were waiting worried for over two months that they might have cancer, and they were left to fend for themselves in a complicated medical environment. While, physicians had to overcome challenges of differentiating Valley fever, a fungal lung infection to that from lung cancer,” said Dr. Peterson, a leading expert on Valley fever (Coccidioidomycosis).

Through speedy diagnosis, treatment and ongoing management, the Lung Nodule Program has improved lung cancer patient survival. In the past five years, the Lung Nodule Program has reduced late-stage cancer diagnoses from about 60% in 2009 to 16% in 2019, “which means we are saving lives,” Dr. Upadhyay said. “Every faculty physician has literally put their hearts into this program and our staff members and navigators are gems, they are the pillars of our program” she said. “It’s hard work, but it’s gratifying.”

Faculty with the Lung Nodule Program include Kathryn Bilello, MD, Mohamed Fayed, MD, Pravachan Hegde, MD, and Karl Van Gundy, MD.

“Since its conception in 2009, this program has grown in both qualitative and quantitative standards by providing ‘state of art’



Daya Upadhyay, MD, and Michael Peterson, MD

care using the national guidelines standards to a wide spectrum of patients with lung nodules and lung cancer; currently we see nearly 3,000 patients annually,” said Dr. Upadhyay.

Identification of specific tumor mutations has revolutionized the cancer treatment. “All patients with advance stage lung cancer get a 360 gene mutation analysis, then we design mutation based ‘Personalized Treatment’ such as, targeted therapy, immunotherapy or chemo-radiation per national guidelines for better results,” said Dr. Upadhyay, who is director of Translational Research at UCSF Fresno.

David Peters, 77, a Kingsburg farmer, board member of the Leon S. Peters Foundation and a former Kingsburg agriculture teacher, had back pain that led to an MRI last year and detection of spots on his spine and lungs. At the Lung Nodule Program, he was told the nodules on both his spine and lungs were cancerous. “Dr. Upadhyay was always upfront, but never scary,” Peters said. The tumor board reviewed Peters case and recommended he receive radiation for the nodules on his spine. “The treatment eliminated my excruciating back pain,” Peters said. He then was treated with chemotherapy by UCSF Fresno oncologist Dr. Haifaa Abdulhaq, MD. “I know people who have gone out of the area for cancer treatment, but I would say our doctors and our graduates are superior to any doctors or any program that is out there,” Peters said.

Faculty Awards, Honors, Achievements and Appointments

As a regional 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 the Fresno regional campus were honored this past year for their dedication to innovation and excellence in medical education, outstanding patient care and service.



Erica Gastelum, MD, received the UCSF Academic Senate Distinction in Teaching Award for faculty at UCSF five years or fewer. Dr. Gastelum is a Health Sciences Assistant Clinical Professor in the UCSF Fresno Department of Pediatrics. She is Medical Student Clerkship Director for Pediatrics and is Co-Director of SJV PRIME LIFE Program at UCSF Fresno.



The Western Society for Pediatric Research recently presented **Cynthia Curry, MD**, UCSF professor of Pediatrics at UCSF Fresno, emerita, with the Joseph W. St. Geme Jr. Education Award, a prestigious education and research award given every two years. Dr. Curry was nominated by several colleagues in genetics.

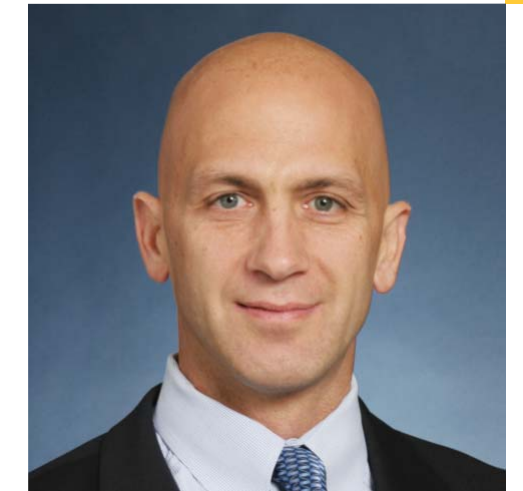


Amir H. Fathi, MD, assistant clinical professor in the Department of Surgery and Hepato-Pancreatic Biliary Surgery Program at Community Regional Medical Center, was selected as 2020 UCSF Fresno Faculty Research Award recipient. Dr. Fathi received the award for his population-based analysis of patients with a focus on predicting aggressive behavior in nonfunctional pancreatic neuroendocrine tumors with emphasis on tumor size significance and survival trends. This award is designed to stimulate creative research by recognizing the faculty member whose research is judged by a review committee to be the most significant and meritorious during the academic year.



Photo: Fresno Chamber of Commerce

Rais Vohra, MD, professor of Emergency Medicine and Clinical Pharmacy at UCSF Fresno, received a Key to the City from Mayor Lee Brand during the 2020 State of the City Address. Dr. Vohra received the recognition for his work as Interim Health Officer for the County of Fresno in response to the COVID-19 pandemic.



Eric Lindvall, DO, chief of the UCSF Fresno Department of Orthopaedic Surgery, was selected as the recipient of the 2020 Kaiser Award for Excellence in Teaching. The UCSF School of Medicine recognizes exceptional faculty instructors through this annual award. Only medical students and residents can nominate teaching faculty for this significant academic distinction.



Lori Weichenthal, MD, (back row, red) received a Lifetime Achievement Award from the Fresno Madera Medical Society. An emergency medicine physician and Assistant Dean for Graduate Medical Education at UCSF Fresno, Dr. Weichenthal was the first female leader in the UCSF Fresno Department of Emergency Medicine. She helped establish the Wilderness Medicine Fellowship at UCSF Fresno and has forged a path for residents and other female faculty alike.



UCSF Clinical Professor of Neurology and faculty member in the Department of Pediatrics **Harrol T. (Terry) Hutchison, MD, PhD**, received the Child Neurology Society's 2019 Arnold P. Gold Foundation Humanism in Medicine Award in October at the society meeting in Charlotte, North Carolina. The award recognizes his extraordinary and ongoing humanism in his medical career. The award is named for the late Arnold P. Gold, MD, who is considered a founder of modern child neurology.



Alexander Sherriffs, MD, was reappointed to the San Joaquin Valley Air Pollution Control District by Gov. Gavin Newsom. The board establishes air pollution standards for the region.

Dr. Sherriffs has served on the board since 2011. He is a health sciences clinical professor in the Department of Family and Community Medicine.

Congratulations to faculty members **Alya Ahmad, MD**; associate clinical professor in the Department of Pediatrics; **Candice Reyes, MD**, associate clinical professor in the Department of Medicine and division director of Rheumatology; and **Kam Lun Au Yeung, MD**, assistant professor in the Department of Internal Medicine for completing the UCSF Teaching Scholars Program (TSP). TSP is a year-long faculty development program that fosters educational leaders and scholars through an intensive seminar series, mentored projects, a network of educational colleagues and collaborative learning.

L to R: Serena Yang, MD, formerly Chief of Pediatrics; Dr. Au Yeung; Michael Peterson, MD, Associate Dean at UCSF Fresno; Dr. Reyes. Not pictured: Dr. Ahmad.



Scholarly Activity

1100+

Health professionals and others attended UCSF Fresno conferences and events

69

Quality Improvement projects

6

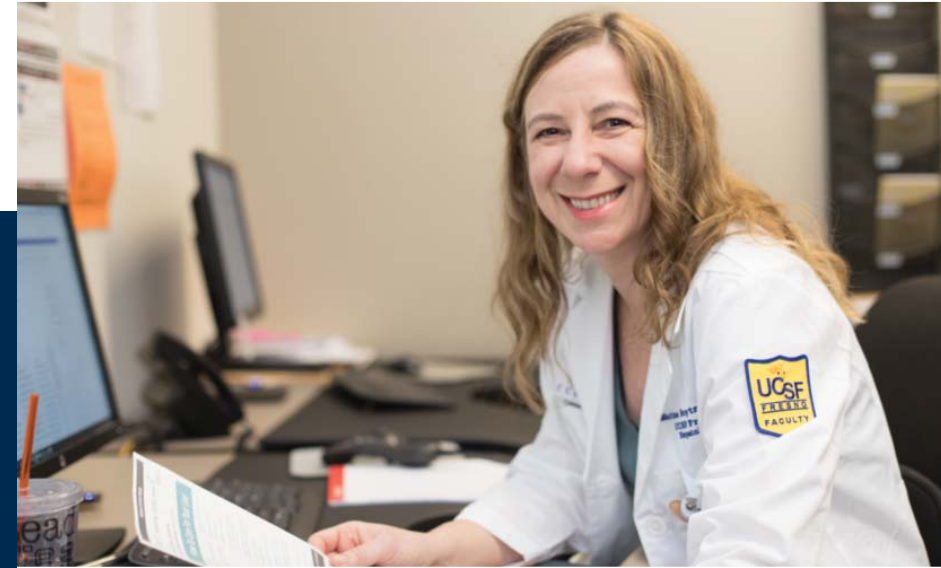
CME and community events hosted (including virtual graduation)

31

Grants awarded to faculty at UCSF Fresno

79

Publications by faculty at UCSF Fresno



Marina Roytman, MD

UCSF Fresno Physicians Participating in COVID-19 Clinical Trials for Effective Treatments and Improved Outcomes

UCSF Fresno is translating scientific discoveries and laboratory breakthroughs into improved patient care and therapies, and in response to COVID-19 faculty physicians have been participating in national and international clinical trials, investigating effects of the novel coronavirus on patients and looking for effective treatments and ways to improve health outcomes.

As a regional campus of UCSF, an institution that is world-renowned for its research, the faculty at UCSF Fresno are well-equipped to lead research projects across a spectrum of medical disciplines. UCSF Fresno physicians in Emergency Medicine, Internal Medicine, Surgery and Obstetrics/Gynecology have been leading research on COVID-19 since the beginning of the pandemic.

UCSF Fresno physicians have been regularly meeting each month to discuss current COVID-19 clinical trials and foster interest in future research projects. "It's to collaborate, coordinate and brainstorm together," said Eyad Almasri, MD, a UCSF Fresno pulmonary and critical care specialist, who organized the research group. "This is a very hard, demanding time and we're trying to pool our resources together."

"This shows the collaborative effort of what is going on at UCSF Fresno since the beginning of the pandemic," said Marina Roytman, MD, a hepatologist who is leading research at UCSF Fresno as part of a 20 academic-center consortium that is studying patients diagnosed with COVID-19 who have chronic liver disease.

Here is a look at COVID-19 studies at UCSF Fresno:

- Eyad Almasri, MD, a UCSF Fresno pulmonary disease and

critical care specialist, is leading a study of the anti-viral drug remdesivir for COVID-19 patients with severe respiratory failure and who require mechanical ventilation support. The federal Food and Drug Administration has given approval for critically ill patients to receive the drug. Remdesivir has shown promise in reducing the length of illness of hospitalized patients. Dr. Almasri also participated in a national, randomized, double-blinded placebo-controlled National Institutes of Health-funded study to look at the efficacy and safety of Hydroxychloroquine, an immunosuppressive drug and anti-parasite that can treat and prevent malaria and also treat lupus and arthritis. The study, considered the gold standard in clinical trials, concluded Hydroxychloroquine was not beneficial and the study was stopped.

- Brian Chinnock, MD, Emergency Medicine research director at UCSF Fresno, participated in a UCSF-initiated study, "An Assessment of Emergency Medicine Physicians' Anxiety Levels and Potential Stress Mitigation Measures during the COVID-19 Pandemic Acceleration Phase." The study assessed anxiety and burnout levels, home life changes and measures to relieve stress. A cross-sectional e-mail survey was sent to all EM physicians at seven academic emergency departments, including Community Regional Medical Center in Fresno. The study, published in the Society for Academic Emergency Medicine, found the acceleration phase of COVID-19 pandemic induced substantial stress and anxiety and that the best measures of decreasing stress were enhanced availability of personal protection equipment, rapid turnaround testing at provider discretion and clear communication about COVID-19 protocol changes. "Those kind of stress mitigators got twice as many points as having

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easily available mental health care or Zoom meetings to discuss changes in COVID-19,” Dr. Chinnock said.

- **Mohamed Fayed, MD**, a UCSF Fresno pulmonary and critical care disease specialist, is studying the effect of extracorporeal membrane oxygenation (ECMO) with COVID-19 patients. The prospective/retrospective multi-center short period incidence observational study is of intensive care unit patients. ECMO is a technique of providing extra respiratory support for patients who are failing conventional respiratory support. UCSF Fresno has a dedicated team for ECMO to address the need for respiratory and/or cardiac ECMO support.

- **Anna Kazaryan, MD**, a UCSF Fresno rheumatologist, is leading a COVIDD (COVID-19 Patients with Vitamin D Deficiency) study. In the first phase of the study, she is looking at the prevalence, incidence and disease outcomes of Vitamin D deficiency in Central Valley patients to see if there is a correlation between lower levels of the Vitamin and a higher risk of getting the coronavirus; and if patients with low Vitamin D levels who are diagnosed with COVID-19 have worse outcomes than COVID-19 patients with normal-higher levels of Vitamin D. “Vitamin D plays such an integral role in our immune system. It regulates your immune cells and reduces inflammation.” Dr. Kazaryan said. “And so far, all the COVID-19 patients we have seen have had Vitamin D deficiency; and the ones with the lowest Vitamin D are in the ICU (Intensive Care Unit),” she said.

- **Subhashini Ladella, MD, FACOG**, UCSF associate professor, director of Maternal-Fetal Medicine at UCSF Fresno, is the UCSF Fresno lead researcher as part of a multinational, multicenter collaborative effort and study group of COVID-19 in pregnancy. The data from this retrospective study aims to assess COVID-19 infection on maternal morbidity and mortality. The World Association of Perinatal Medicine invited Dr. Ladella to participate in the study. The non-profit association brings together groups and individuals throughout the world to promote the science of perinatal medicine. Early reports out of China have shown mother-to-child transmission of the coronavirus is less likely although the data is limited and anecdotal for COVID-19 pregnant women and newborns with respect to the severity and anticipated prognosis. “The multinational study should provide better information and guidelines for perinatal providers for the diagnosis, clinical care and treatment of COVID-19 during pregnancy,” Dr. Ladella said.

- **Leigh Ann O’Banion, MD**, a UCSF Fresno vascular surgeon, is participating in a worldwide project called COVIDSurg. The international, cohort study, aims to assess the outcomes of surgery in patients diagnosed with COVID-19. “We have been



collecting data since March and enrollment just closed so we should be having outcome data here pretty soon,” Dr. O’Banion said. Dr. O’Banion is participating in a second international Vascular Surgery COVID-19 Collaborative (VASCC) to evaluate the effect of the systematic, widespread, and immediate postponement of vascular surgery on patient outcomes around the world. “Our research could impact lives of vascular patients affected by the COVID-19 pandemic, and understanding the consequences of surgical postponement of vascular diseases will help us moving forward as COVID-19 is here to stay for the foreseeable future,” she said.

- **Elham Rahmati, MD**, a UCSF Fresno infectious disease specialist, is leading a study on convalescent plasma therapy for treatment of COVID-19 patients with severe to life-threatening disease. The treatment involves infusion of plasma rich antibodies from COVID-19 recovered patients to patients who are sick from the disease. It usually takes time for COVID-19 patients to develop their own antibodies to fight the virus and as a result infection can progress rapidly at times. The study is to investigate whether the transfused antibodies can neutralize the invading virus and change the course of the disease. Dr. Rahmati’s research is in conjunction with the Mayo Clinic’s Convalescent Plasma Expanded Access Program.

- **Marina Roytman, MD, FACP**, a hepatologist and director of the UCSF Fresno Liver Program, is among researchers from 20 academic centers nationwide who are part of a COLD (COVID-19 in Liver Disease) consortium to study COVID-19 in patients who have been diagnosed with underlying chronic liver disease. “There is not much understanding of what COVID-19 does, and particularly with patients with chronic liver disease,” said Dr. Roytman, the principal investigator of the COLD study at UCSF Fresno. The consortium has subdivided patients who have undergone liver transplant and those with fatty liver disease. UCSF Fresno is looking primarily at patients with fatty liver disease, a condition where fat cells build up in the liver.

Continuing Medical Education

As the largest academic medical education institution in the San Joaquin Valley, UCSF Fresno hosts many continuing 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 some longstanding events were canceled due to the COVID-19 pandemic. UCSF Fresno offered three CME events this year. Two took place before COVID-19.

As a leading provider of lung infection expertise, UCSF Fresno’s Department of Internal Medicine presented the first **Lung Infection Symposium** in October 2019. The daylong event focused on Valley fever and Nontuberculous Mycobacteria, two under recognized lung infections that can cause significant morbidity and mortality if left untreated.

In February 2020, the UCSF Fresno Division of Endocrinology held the second annual **Endocrine and Diabetes Symposium for Primary Care Providers**. Primary care physicians and allied health care professionals learned about current trends, new guidelines and the latest expert recommendations at this free CME symposium.

Public health orders preventing large in-person gatherings required the cancellation of the Air Pollution and Climate Change Symposium, High Sierra Wilderness and Travel Medicine Conference, and Autism Symposium this year.

UCSF Fresno CME soon adapted by offering its first virtual conference. The 15th annual **Cardiology in the Valley Symposium** was held in May 2020 via Zoom webinar. The event focused on critical decision making in cardiology and offered a firsthand historical perspective of the field. The event exceeded expected enrollment and suggested that webinars may be a new means for UCSF Fresno CME to deliver continuing education in the future.

Thanks to the faculty program directors of the lung infection, endocrinology and cardiology conferences respectively Mohamed Fayed, MD; Soe Naing, MD, MRCP, FACE; and John Ambrose, MD; for their dedication to sharing clinical information and expertise aimed at improving health in the San Joaquin Valley.

For more information about upcoming Continuing Medical Education events at UCSF Fresno, go to <https://www.fresno.ucsf.edu/continuing-medical-education/> or email cme@fresno.ucsf.edu



UCSF Fresno Oral and Maxillofacial Surgery Partners with Fresno Chaffee Zoo to Care for Unique Patient



Siabu with baby

When Siabu, a 32-year old female orangutan presented with biopsy-proven squamous cell carcinoma of the left mandible, the Fresno Chaffee Zoo turned to Dr. Robert Julian and the UCSF Fresno Department of Oral and Maxillofacial Surgery (OMFS).

Siabu had lost a few lower left teeth, which led to dental treatment by Scott Jett, DMD, and Michelle Asselin, DDS, in collaboration with the zoo's supervising veterinary medicine team, under the direction of Shannon Nodolf, DVM, chief veterinary officer. Under heavy sedation, several other teeth were extracted, and a biopsy was taken of the soft tissues of the left mandibular alveolus. Results from the biopsy returned as invasive squamous cell carcinoma.

On March 4, 2020, Siabu had surgery performed by faculty and residents in the UCSF Fresno Department of OMFS to remove the malignant tumor of the left lower jaw. This surgery was only completed after careful consideration by the veterinary medicine team headed by Dr. Nodolf who consulted oncologists at UC Davis and diligently worked toward arriving at the best possible treatment course for the patient, said Robert Julian, DDS, MD, FACS, chief and program director of the UCSF Fresno Oral and Maxillofacial Surgery Residency Program.

Dr. Nodolf thanked the UCSF Fresno team. "We are lucky to have been able to work with this fantastic team who so generously provided their diverse expertise, but also helped to coordinate getting all of the equipment and hardware for the procedure donated," Dr. Nodolf said. "From the initial consult to their thoughtful follow up, everyone involved was so dedicated to ensuring the best outcome for Siabu and we are so grateful for their partnership in helping us care for this beloved patient."

Oral cancer is rare in primates and known to be a devastating disease in human beings, and thus the treatment logic was basically modeled after the treatment indications for a human case, Dr. Julian said.

Siabu, pictured with her baby Hantu, tolerated surgery well and is receiving further therapy to recover from her illness.

Fresno Investment Plan Drives Valley Initiatives Forward, Including Medical Student Education

In summer 2019, UCSF Fresno was invited to participate in a bold communitywide effort. The initiative, known as Fresno DRIVE (Developing the Region's Inclusive and Vibrant Economy), is a 10-year investment plan aimed at developing a sustainable economy for residents of the greater Fresno Area.

Sponsored by the Central Valley Community Foundation, with support from the James Irvine Foundation, Fresno DRIVE encompasses a steering committee of more than 150 organizations and participation from over 300 community leaders.

The initiative, named the Fresno COVID-19 Equity Project (CEP), linked UCSF Fresno with community-based organizations (CBOs) to provide free and equitable access to testing. A collaboration with the CBOs and the Fresno County Department of Public Health expands the project to include contact tracing, community education, social support and health care services to improve health in areas that would benefit most.

UCSF Fresno's proposal was one of the initiatives included in the DRIVE Community Investment Plan. UCSF Fresno's initiative focused on increasing the number of SJV PRIME medical students trained in Fresno and the Valley, providing academic preparation and enrichments programs to local K-16 students to grow the pipeline of physicians and other health care providers, and ramping up clinical research focused on vulnerable populations in the Valley.

A Fresno DRIVE contingency met with Gov. Gavin Newsom in October 2019 to brief him on the effort. The plan was then fine-tuned and unveiled at the California Economic Summit in Fresno in November 2019. The plan was widely praised, including by the governor.

In January 2020, Gov. Newsom's proposed budget contained funding for the Valley and Fresno DRIVE, including some funding for expansion of medical student training at UCSF Fresno in partnership with UC Merced. On March 19, 2020, a mandatory statewide stay-at-home order was issued in California due to



Fresno DRIVE representatives in Sacramento

the COVID-19 pandemic. Understandably, the state's focus shifted to responding to the pandemic, protecting public health and fostering economic recovery. Funding for medical student education in the San Joaquin Valley was uncertain.

But, in June, the Legislature and Gov. Newsom passed a state budget that provided \$15 million a year in ongoing funding to the University of California to expand medical student education in the Valley as part of a partnership among the UC Office of the President, UCSF, UCSF Fresno and UC Merced. By committing to the funding, the Governor and Legislature recognized the great need and value of expanding medical education and physician training in the Valley, which has one of the lowest physician-to-population ratios in the state. In addition, Valley community members live with more chronic health conditions and health disparities than those in other parts of California.

The state funding specifically allows UCSF to further develop plans jointly with UC Merced to prepare undergraduate students, especially those who reflect the Valley's diverse populations, for entry into the UCSF School of Medicine San Joaquin Valley Program in Medical Education (SJV PRIME). SJV PRIME trains students from the Valley to provide culturally competent, accessible care in the region, especially for underserved populations. The finalization of the state budget and certainty of the \$15 million in ongoing funding is a testament to the advocacy of Fresno DRIVE, state elected leaders including Assembly Member Adam Gray, and is a win for training up-and-coming future physicians from the Valley for the Valley. The 10-year investment plan is a work in progress and as such, the work of Fresno DRIVE is ongoing. UCSF Fresno remains an active participant.

UCSF Fresno Health Equity Action Lab Addresses Health Disparities and Inequities



A unique effort is underway at UCSF Fresno as a newly created Health Equity Action Lab has been launched to address health disparities and inequities experienced by the diverse patient population served in the San Joaquin Valley.

“The purpose of the UCSF Fresno Health Equity Action Lab is to bring together physicians and others from the different programs to learn about health inequities, to share the work they are doing in this arena (outreach programs, research, etc.), and to brainstorm about other ways to improve the health of our communities,” said Lori Weichenthal, MD, UCSF Fresno assistant dean of Graduate Medical Education, associate program director of Emergency Medicine, and UCSF professor of Clinical Emergency Medicine.

Understanding social, environmental, and structural factors affecting patient populations is important for all physicians, and especially in Fresno, where there are huge disparities in life expectancy, access to care, exposure to air pollution, and poverty, among other inequities and disparities, said Mackenzie Yore, a fourth-year resident in Emergency Medicine who developed the Health Equity Action Lab with the support of Dr. Weichenthal and Kenny Banh, MD, UCSF Fresno assistant dean of Undergraduate Medical Education and UCSF associate clinical professor of Emergency Medicine.

“Fresno seems to me to be the perfect place to have a strong emphasis on health equity because our patient population could benefit so much,” Dr. Yore said. “The lab is a place to gain a better understanding of the resources available to patients who need them as a part of our treatment plans.”

UCSF Fresno’s decision to open the lab to all residencies sets it apart from other health equity projects. Health equity tracks for residents typically are targeted to a specific training program, such as Emergency Medicine, Dr. Yore said. She considered limiting the UCSF Fresno lab to Emergency Medicine but opened it to all nine of UCSF Fresno’s residency programs, 19 fellowship programs and the three physician assistant residency programs after conducting a campus-wide survey that showed widespread interest.

Establishing the UCSF Fresno Health Equity Action Lab allows physicians, like Dr. Yore, to improve health on a community scale. During medical school at Stanford, Dr. Yore studied emergency medical care in Tanzania for a master’s in Global Health from UCSF, and she chose to specialize in Emergency Medicine because, “I wanted a career where I could be a full-time physician, but have the ability to take on community-engaged projects and policy work,” she said. “I hope to get back into Global Health, but in the past several years, I realized we have a lot of work to do right here.”

The UCSF Fresno Health Equity Action Lab provides the mechanism for many different health professionals to work together to address health inequities. Participants will be given selected readings on health equity issues, and Dr. Yore wants to arrange conversations and collaborations with community-based organizations and local institutions who serve at-risk groups of Fresnoans.

“I hope this can grow and turn into a really thriving and growing community of people who want to be community engaged and work across departments; and for this to be a lasting program at UCSF Fresno,” Dr. Yore said.

City of Fresno, UCSF Fresno and Community Organizations Respond to COVID-19

In June, the Fresno City Council approved a grant agreement with UCSF Fresno to significantly expand testing for COVID-19, especially in underserved communities and communities of color. Proposed by Mayor Lee Brand and City Manager Wilma Quan and championed by Council President Miguel Arias and Councilmember Esmeralda Soria, the agreement appropriated \$5 million from the City’s CARES Act funds to support the project and improve Fresno’s response to the pandemic.

The initiative, named the Fresno COVID-19 Equity Project (CEP), linked UCSF Fresno with community-based organizations to provide free and equitable access to testing, contact tracing, community education, social support and health care services to improve health in areas that would benefit most.

Fresno CEP builds upon UCSF Fresno’s Mobile Health and Learning or Mobile HeaL. Emergency medicine physician and assistant dean at UCSF Fresno Kenny Banh, MD, started Mobile HeaL in the fall of 2018. Mobile HeaL provides mobile health services to vulnerable populations. In addition to providing remote, accessible health care, Mobile HeaL offers learning opportunities for medical students and pre-health students under the guidance of experienced medical residents and faculty physicians at UCSF Fresno.

CARES funding from the City allowed Mobile HeaL to hire additional personnel, purchase equipment, increase the number of mobile units and establish a static location to provide services and remote testing. Community connections and goals were developed over the summer to facilitate services and testing in neighborhoods, at schools, churches and other locations throughout central, southwest, and southeast Fresno.

Partnering community-based organizations include: African American Clergy Taskforce, Black Wellness & Prosperity Center, Central Valley Health Policy Institute, Centro Binacional Para El Desarrollo Indígena Oaxaqueño, Centro La Familia, Cultiva La Salud, Cultural Brokers Inc., Fresno Building Healthy Communities, The Fresno Center, Fresno Economic Opportunities Commission, Fresno Interdenominational Refugee Ministries, Fresno Metro Black Chamber of Commerce, Go Public Schools Fresno, Jakara Movement, Reading and Beyond, Take a Stand Committee, and West Fresno Family Resource Center. Fresno CEP officially launched in September 2020 and is set to run through December 2020.



UCSF Fresno Liver Expo Was a Potentially Life-Saving Event for Fresno Woman

One Saturday morning last fall, Lisa Crespin had an open day on her calendar and decided to attend UCSF Fresno's free Liver Expo. Crespin was feeling good, other than being a little uncomfortably overweight, a condition she had struggled with most of her adult life. When she won a lottery drawing for a liver test at the Expo, she expected good results.

Crespin, 54, of Fresno, had no recognizable symptoms of liver disease, such as yellowing of the skin or eyes. A nondrinker, she knew she had diabetes, but said, "I thought I had a healthy liver." A free scan of her liver, however, showed Crespin had nonalcoholic fatty liver disease. Follow-up tests done later would reveal other health problems, including a large tumor dangerously pressing against a kidney.

Having the liver scan likely saved her kidney – and possibly her life, Crespin said. "I was fortunate to be one of the persons who got the scan and was there at the Liver Expo that day."

The UCSF Fresno Liver Expo, an event offered for the first time in the community, was led and inspired by Marina Roytman, MD, a hepatologist and director of the UCSF Fresno Liver Program. Dr. Roytman had two main goals: educate the public about liver diseases and give people the opportunity to be tested for fatty liver disease and hepatitis C, a blood-borne cause of liver scarring.

Liver diseases often have few or no symptoms and remain undiagnosed until the liver has been badly scarred; and contrary to common thought, not all liver diseases are caused by alcoholism, Dr. Roytman said. An unhealthy diet, lack of exercise, diabetes and being overweight are among the risk factors for nonalcoholic fatty liver disease, a condition caused by a buildup of fat cells in the liver.

Fatty liver disease can progress to cirrhosis (scarring of the liver), increasing the risk of liver cancer and can lead to liver failure. "It's critically important to diagnose cases early," Dr. Roytman said. "If we wait too long with the diagnosis then the



Marina Roytman, MD, and Liver Expo volunteers

patients will present with complications of cirrhosis, and this is what we do not want to happen."

The Liver Expo, held in October, attracted about 200 people. About 100 people were tested for hepatitis C, done with a finger stick to get a drop of blood. About two-dozen people were tested for fatty liver disease. In the past, testing for fatty liver disease required an invasive biopsy, but a sound-wave based tool, FibroScan, which Dr. Roytman has expanded the use of in Fresno, is painless and takes about 15 minutes. FibroScan measures fibrosis (scarring) and steatosis (fatty cell build up) of the liver.

The scan of Crespin's liver showed more than 66% of the liver cells had been replaced by fat and there was some scarring. She received the test results from Gieric Laput, MD, then a first-year clinical fellow in the UCSF Fresno Department of Gastroenterology and Hepatology. Dr. Laput advised her to make an appointment with Dr. Roytman for further testing, but he also gave her some encouraging news. If she lost 10% of her body weight, or about 20 pounds, she could lower the fat in her liver and reverse some of the scarring.

"He scared me straight," Crespin said of Dr. Laput. Since October, she has lost more than 70 pounds by incorporating a lifestyle that includes healthy eating and exercise. "Something clicked that day," she said. "Now I know I have the ability to change and it's just making better choices."

Laput is happy he made an impact on Crespin. "This reminds me to strive for meaningful connections with my patients every day," he said. The UCSF Fresno Liver Expo was a great opportunity to volunteer, he said. "As a physician in training, it was fulfilling to be part of an event where health care providers and patients interact as fellow members of the community. I was especially excited to witness how technology such as the FibroScan was employed with instantaneous effect. Within that short span of time patients were able to have the severity of their liver disease assessed, have their test results interpreted, and then receive advice on the spot, which in the outpatient setting can take up to a few months. Thus, we were able to curtail a delay and change many lives that single day. On an individual level, I strongly believe in empowering patients with knowledge that gives them agency to take an active role in their own health."



Lisa Crespin

By the time of Crespin's appointment with Dr. Roytman, she had accomplished a 10% weight loss. "She had already done the important thing," Dr. Roytman said. But patients with liver cirrhosis are at risk of certain conditions, such as liver cancer, and that needed to be ruled out. An ultrasound showed a worrisome spot on the liver. A CT scan alleviated worry about the spot, but it showed a large mass on the left side of Crespin's abdomen. "It was a completely unexpected finding," Dr. Roytman said.

More imaging of Crespin's abdomen showed the tumor was displacing her left kidney and the findings were consistent with fat-related soft-tissue cancer, which left untreated could be life-threatening. Her case was taken before a multidisciplinary Tumor Board at Community Regional Medical Center and it was determined surgery was the best option. In June, Amir Fathi, MD, a UCSF Fresno surgeon who specializes in surgeries of the liver and pancreas, removed the mass intact from Crespin's abdomen in an eight-hour operation that included repositioning and realigning the colon and kidney.

After surgery, results from an examination of the mass held more surprises. The tumor was noncancerous. Crespin's case was an extremely rare occurrence with less than five such cases reported in medical literature, Dr. Fathi said. She had a very rare condition where the mass was comprised of six smaller parts consisting of six of her lymph nodes that had been completely taken over by benign fatty deposits of up to 20 times bigger than normal lymph nodes.

But without the FibroScan of her liver leading to discovery of the tumor, the results could have been far different, Dr. Fathi said. The UCSF Fresno Liver Expo allowed people like Crespin to get tested for rare, silent diseases, he said. "It was a one of a kind screening event that has never happened in the central San Joaquin Valley before and opened up opportunities to screen the patients not only about their liver but about other parts of their abdomen as well, eventually."

Crespin is recovering well from the surgery, and is looking forward to seeing her son, who is 21, go to medical school and become a doctor. "I feel today, at 54, to tell you the truth, better than I felt at 30," she said. She advises others to take advantage of free screenings. "I encourage people who are overweight that if you feel something, don't just say it's weight. It could be such as what was happening to me."

Crespin is an example of who the Liver Expo was designed for, and the outcome "is definitely more than I was hoping to accomplish," Dr. Roytman said. She is planning a second UCSF Fresno Liver Expo for the community on Saturday, Oct. 10, from 9 a.m. to noon. This one, due to COVID-19, will be a "virtual" event.

"This is a service UCSF Fresno can offer to the people in the Valley," Dr. Roytman said. "We have a huge problem here with people being overweight, obese, with high blood pressure, high cholesterol and diabetes – all risk factors for fatty liver disease. This is why we want to give people access to the FibroScan screening."



UCSF Fresno Celebrates 20-year Partnership with Fresno Unified, County Schools

Katherine A. Flores, MD, and Emy Lopez Phillips, EdD, with the UCSF Fresno Latino Center for Medical Education and Research

Enrique Cazares-Navarro started medical school this summer, realizing a goal that took root a decade ago in a freshman class at the UCSF Fresno Latino Center for Medical Education and Research (LaCMER) Doctors Academy program at Sunnyside High School.

Cazares-Navarro grew up in Parlier, the first child in his family to be born in the United States and the first to learn English. An interest in medicine developed early from translating for his parents at doctor appointments, and by middle school he was determined to attend the UCSF Fresno Doctors Academy (DA).

"I knew the Doctors Academy would provide me with the academic rigor I wanted to get from high school to prepare me for an undergraduate degree," Cazares-Navarro said.

Since graduating from DA in 2014, he has earned a Biology degree in the Smittcamp Family Honors College at Fresno State and completed a master's degree in Community Health and Prevention Research at Stanford University School of Medicine. Two medical schools in the Midwest accepted his applications and offered scholarships. Cazares-Navarro is

attending medical school at Michigan State University College of Human Medicine at their Grand Rapids campus.

Cazares-Navarro said he has a desire to return to the San Joaquin Valley. "I would love one day to come back to Fresno and come back to serve my community. There are a lot of health disparities and health inequities in Fresno that I would like to resolve as a physician and as a public health advocate."

The DA started in 1999 at Sunnyside High School as a partnership between LaCMER and Fresno Unified School District (FUSD) and the Fresno County Office of Education to strengthen the educational pipeline of under-represented or disadvantaged students interested in health careers. From the beginning as a rigorous academic and college preparatory program, DA also has emphasized community service. Its mission has been to help students to focus on careers in health and medicine who will ultimately return to the Valley and provide culturally competent health services to the medically underserved.

Pathway programs are critical to addressing the health care needs in the Valley and California, said Katherine Flores, MD, associate clinical professor in Family Medicine at the UCSF School of Medicine, and the founder and director of LaCMER. "If we're going to diversify the workforce and increase the number of students who believe that they can become a health professional, we have to support them along their journey."

The partnership between UCSF Fresno and the schools has created a unique program that over the past two decades has grown into one of the largest, if not the largest academic and college preparatory program of its kind in California and nationwide. Each year, a total of about 600 students are enrolled in DA and Junior Doctors Academy (JDA) for middle school students.

Having a tie with UCSF School of Medicine has been critical to the credibility of the program, Dr. Flores said. "But in order to be successful, this had to be a partnership," she said. "It had to include the school districts, because these are their students. They have invited us into their schools and allowed us to run a program conjointly with them to do the things that we believe are important."

Three high schools in Fresno County – Sunnyside, Caruthers and Selma – have DA programs. (Caruthers and Selma were added in 2007). A JDA in 2000 added students at Kings Canyon, Sequoia, Terronez and Caruthers middle schools.

Dr. Flores gets inquiries all the time from schools interested in opening a DA. More could be added if funding were available to help with startup and sustainability, she said.

School officials credit the DA program for creating a healthy academic competition on campuses that has helped boost academic opportunities and successes for non-DA and DA students alike.

DA students are required to take Advanced Placement and Honors courses throughout their four years in High School. All students need to complete A-G coursework to be considered for admission to a UC or CSU and at Sunnyside High, Vice Principal Michele Anderson said this has led to more students on campus taking the necessary courses as A-G completion rates have increased in the past 10 years from roughly 30% A-G course completion to now nearly 60%. Having DA at the school is a source of pride for Sunnyside, Anderson said. "We're connected to UCSF, which really does bring prestige to the program."

DA has had a profound effect on Caruthers High School in the rural community of 2,500 in southwest Fresno County, said Principal Mark Fowler. He taught the first DA class at the 600-student high school in 2007. He calls DA "the life blood of the campus." From a principal's perspective, "it changes your entire campus," Fowler said.

Caruthers High had four AP classes when Fowler taught the DA class 13 years ago. Today, there are 10 AP classes. AP Biology was added this year, and the principal said "the reality is half of the students in that class are not DA, but they're friends with DA kids. And now they want to compete academically with DA kids. So the trickledown effect of that is you almost triple your AP classes offered because now kids want to compete academically."

Goals for students have changed in the community, too. "The new norm is the expectation that kids go to four-year universities and that was not true 15 years ago," Fowler said. "Graduation from high school used to be the finish line for some of our kids and now it's just another step in the process."

Fowler has been a staunch supporter of DA and pushed for JDA in Caruthers, where eighth graders in academic good-standing automatically are accepted into DA as high school freshmen. "I had seen what it had done for us academically here, he said. "I also knew there was not another seventh through 12th grade pipeline in the entire state and we could be the first."

The DA has 865 alumni, and many are still in college, but the program has been able to track some of its college graduates. There are 360 known alumni who have earned bachelor's degrees; 60 who have master's degrees and 18 who hold doctorate degrees (nine of the 18 have medical degrees, three

are dentists, two are pharmacists and one is a physical therapist.)

Sunnyside DA alum Amitoj Singh, 23, of Fresno, said he wants to return to serve the community after finishing medical school and residency. Singh is one of six medical students admitted to the first class of the UCSF San Joaquin Valley Program in Medical Education (SVJ PRIME). The program is designed for future physicians who are committed to providing high-quality, culturally competent and accessible medical care that addresses the Valley's unique health needs. "It (DA) taught me how prevalent health disparities were in the Valley," Singh said.

Monique Atwal, MD, 29, a native of Selma and 2008 Sunnyside DA graduate, is a resident in psychiatry at UCSF Fresno. Dr. Atwal left the Valley to get her bachelor's degree at UCLA and then was accepted to the UC Davis SVJ PRIME. She is the first in her family to go to medical school, and the staff at DA helped with her medical school applications, she said. "They were really good in helping support me." In return, Dr. Atwal has made time to talk to DA students. Her plan is to stay in Fresno after residency.

Nou Lee, PharmD, 27, graduated from UCSF School of Pharmacy in 2018. A first-generation college student, Dr. Lee is one of eight siblings and the first to get a bachelor's degree and doctorate degree. DA helped her build a stronger relationship with her parents, farmworkers in the Hmong community, she said. The program "is not all about the students; it's about the students and their families," she said. Dr. Lee received a scholarship to attend pharmacy school through the DA affiliation with UCSF. "It was a big motivation to finish school," she said, "UCSF is a very prestigious school." Dr. Lee completed a one-year post-graduate residency program at Community Medical Centers (CMC) and now is an ambulatory infusion center pharmacist with CMC.

Dr. Flores is proud of each and every DA alum. "Whether they're an MD or whether they have a doctorate in public health or whether they chose to not go on and even get a master's degree, what matters is they really took to heart what we taught them and they're giving back," she said.

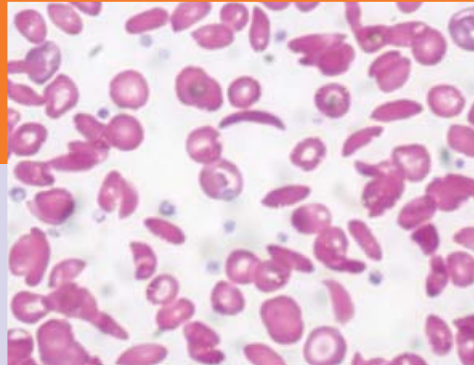
Doctors Academy alumni





Mohammed Sani Bukari, MD

UCSF Fresno Opens Comprehensive Sickle Cell Disease Care Clinic for Adults



One in 365 people of African ancestry in California will carry a gene trait for sickle cell disease, a group of disorders that affect red blood cells that deliver oxygen throughout the body. About one in 13 African Americans in California have sickle cell disease, which among other conditions includes sickle cell anemia — a low red blood cell count that features repeated infections and episodes of pain.

In 2020, UCSF Fresno opened a comprehensive adult sickle cell disease care clinic with funding from a \$75,000 state grant.

The UCSF Fresno clinic is located at the Community Cancer Institute in Clovis and provides comprehensive care, including screening for complications of the blood disease, and coordination of care with other specialties, including genetics, counseling, pain management, orthopaedics, surgery and obstetrics/gynecology.

“The overall goal is to reduce utilization of emergency departments as a point of care by patients and minimize hospitalizations for pain management, as well as improving quality of care and eventually decreasing cost of care,” said Mohammed Sani Bukari, MD, a UCSF assistant clinical professor and a UCSF Fresno oncologist who is board certified in Hematology, Internal Medicine, Oncology and Pediatrics. Dr. Bukari wrote the grant proposal for the clinic.

The Cayenne Wellness Center, a community-based organization, provides access to community resources, such as help with transportation to clinic visits; and support groups. The three-year grant is administered by the Center for Inherited Blood Diseases. Cayenne Wellness has been helping people with sickle cell disease in California since 2000.

The lifespan of Californians with sickle cell disease is lower than for populations with sickle cell disease living in other states, said Carolyn Rowley, PhD, founder and executive director of Cayenne Wellness Center. Many times, people with sickle cell disease do not receive timely and the latest, most effective care, she said. “Having a clinic with a person like Dr. Bukari who is a specialist and who is aware of how to manage, how to treat, what to look for is very important.”

This is the only operating sickle cell disease clinic for adults in the greater Fresno area. Madera County has a sickle cell disease clinic for children at Valley Children’s Hospital. UCSF Fresno will cooperate with Valley Children’s to help teens transitioning from the pediatric clinic to the adult clinic, Dr. Bukari said.



The Future of Medical Education at UCSF Fresno

UCSF Fresno quietly turned 45 this year. For the betterment of the Fresno area and the San Joaquin Valley, we have grown significantly in size and scope since we were established. We are now the largest academic physician-training program between San Francisco and Los Angeles. Medical student education (undergraduate medical education) is expanding on our campus. New partnerships, including with the City of Fresno, Fresno County and numerous community-based organizations, are underway to provide COVID-19 testing, outreach and education, and preventative health care services to more underserved populations outside of hospital and clinic walls. We are revitalizing our commitment to diversity, equity and inclusion in a number of ways. By any measure, our future looks bright. Just as partnerships and steady, ongoing commitment were critical in 1975, they are essential to our path forward today.

An article in The Fresno Bee, dated June 20, 1975, reported that the Veterans Administration, in affiliation with the University of California, approved a site for a “medical school” adjacent to the VA Hospital in Fresno and provided \$7.4 million to support the effort. The announcement reportedly was the result of a 15-year effort led by then Rep. B.F. Sisk and several local and state officials. Sisk was a Congressman who represented Fresno, Merced and Modesto and is the namesake for the Fresno County Superior Courthouse in downtown Fresno.

UCSF Fresno is here because the dire need for more physicians in the San Joaquin Valley was recognized nearly 50 years ago. UCSF Fresno was started as a graduate medical education program responsible for residency training rather than a medical school. It was believed then that residency training was the most effective way to retain physicians in the region. They were right. Statistics show that physicians tend to practice in areas near where they complete training.

Fast forward to today, UCSF Fresno currently provides training to residents (medical school graduates) in eight medical specialties, fellows (physicians seeking advanced training beyond residency) in 19 fellowships, dental residents in oral maxillofacial surgery, and physician assistants in three PA residencies. Roughly 50% of the physicians who complete training at UCSF Fresno stay in the Central Valley and 80% stay in California to provide care. But it is not enough.

The San Joaquin Valley continues to have one of the lowest physician to population ratios in the state. Even more physicians are needed to care for our growing, aging, diverse, and underserved populations. Training of medical students at UCSF Fresno in partnership with UC Merced through the new UCSF San Joaquin Valley Program in Medical Education strengthens the pipeline and efforts to train and retain our own physicians. Medical students who complete their training at UCSF Fresno are more likely to conduct residency training in the Valley and in turn, more likely to stay to provide care. Medical student education and residency training are inextricably linked to producing the physicians desperately needed in the Valley, especially those who represent the communities they serve.

It is important to note, public medical student education is funded by state support, tuition and fees. Residency training is not. Residency training at UCSF Fresno is funded in very small part by variable funding from the state, by the federal government (Medicare) using an outdated funding model from 1997, the VA hospital, and our clinical partners. Ongoing, reliable partnerships and financial investment are essential to ensuring excellent medical education and a constant pipeline of physicians for the region. Just like it takes a village to raise a child, it takes a community commitment to grow a physician. UCSF is dedicated to the San Joaquin Valley through the UCSF School of Medicine Fresno regional campus and we will continue to require robust support from our critical partners.

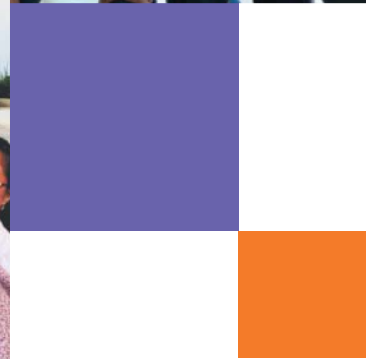
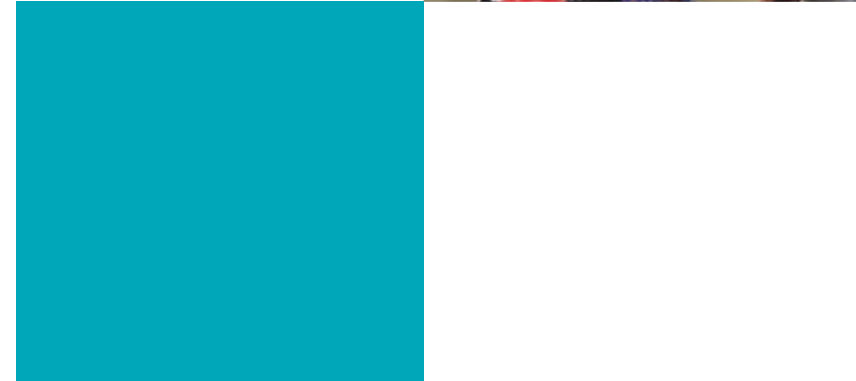


Spotted on Campus





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