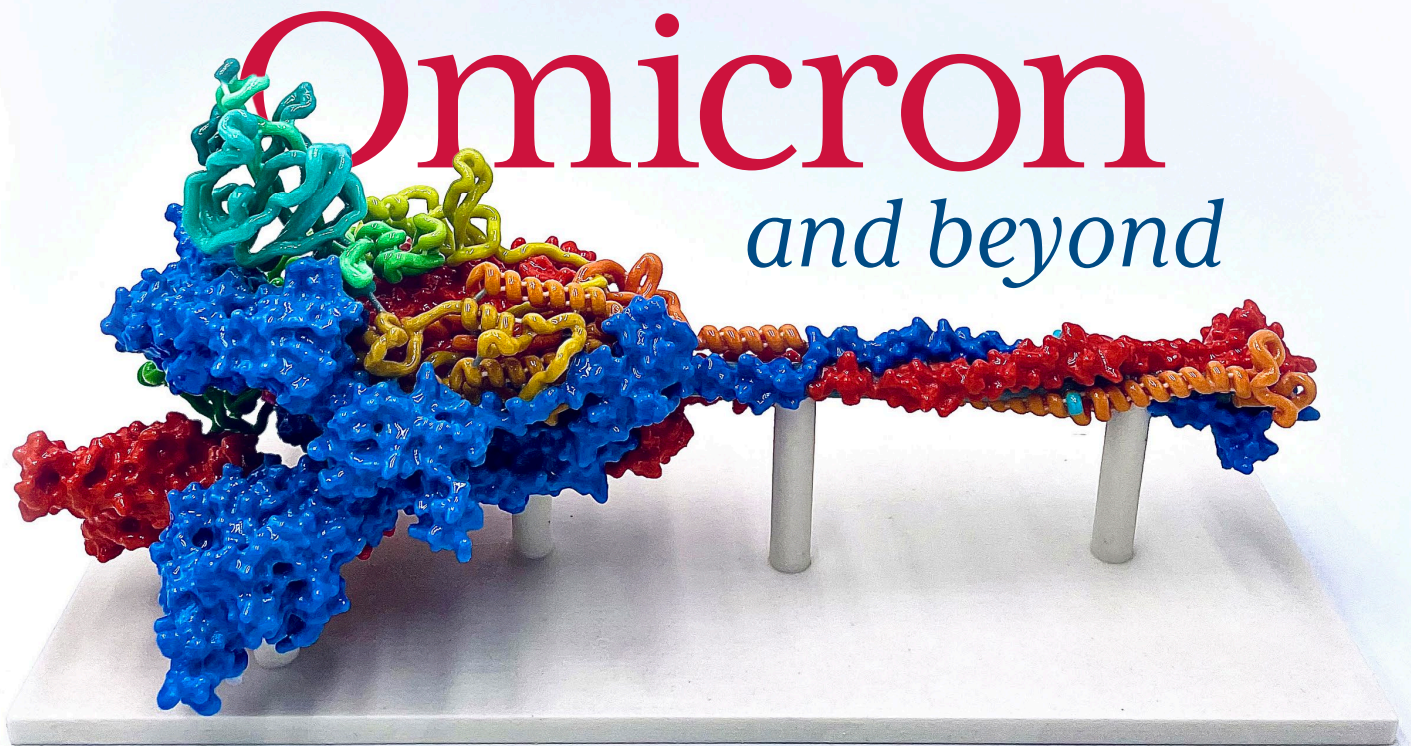


UC DAVIS HEALTH

Spring/Summer 2022



Our continuing response to
the coronavirus pandemic

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Among America's best grad schools *page 3* Med school in 3 years *page 22*
Refugee trauma and brain health *page 26* School of Medicine alumni weekend *page 33*
Remembering Faith Fitzgerald *page 38*

Personalizing health care and transforming lives



As health care evolves, UC Davis Health is guided by our vision to provide exceptional care and extraordinary compassion to our patients and communities, especially the most vulnerable, while delivering leading-edge instruction to our medical and nursing students so they can help us to revolutionize patient care. We're rapidly enhancing our digital platforms to better serve patients in more expansive and efficient ways, and seizing on opportunities the pandemic has created to accelerate the benefits of digital health for everyone.

In this innovative spirit, this issue of *UC Davis Health* magazine provides highlights of what we've recently achieved, including some stories about our response to the pandemic, but also a novel School of Medicine M.D. pathway, Vietnamese refugee dementia research, engaging alumni activities, and a momentous groundbreaking for Aggie Square — the first new research space to be added to the Sacramento Campus of UC Davis in more than 40 years. Other content spotlights the late emeritus professor Faith Fitzgerald, medical school students, and updates on our rising rankings and prolific research.

Looking ahead, the future of health care will be dominated by algorithms promoting care by exception, big data availability across multiple platforms, and artificial intelligence's role in helping all practitioners to provide more precise personalized care and wellness. We're beyond the brink of this transformation because it's happening now. The health industry can improve how it treats patients, as every person's health journey is different. Today, through technology, we're more able to personalize it for each patient through, for example, wearable devices and other smart technology.

We're committed to making sure this promise of better, easier care is upheld for everyone. As the science and research tells us,

health equity can no longer be an aspirational goal. Equitable access to quality health care is an important yardstick of an advanced, democratic society. We strongly feel that each person who walks through the doors of the UC Davis Medical Center is a very special person, inclusive of their background, orientation, and material circumstance. Now, we just have to make them feel that way, too.

I recall the words of Mahatma Gandhi, who once said, "Our ability to reach unity in diversity will be the beauty and the test of our civilization."

This sense of humanity, unity and partnerships reflects the best of UC Davis Health, where we "complete, not compete" with our health allies. We're creating dynamic regional partnerships, making strategic investments to redefine the future of health care, expanding our physical capacity, and moving to value-based models of care delivery and reimbursement, all of which can help us reach deep into communities and neighborhoods that have historically faced barriers to care.

Our strategic shift seeks to reinvent the academic medical center model as a collaborative partner that facilitates a high level of patient care throughout Northern California, thereby better utilizing the region's health care assets and bringing higher-level care delivery closer to home for patients.

As a health system, our promise is to put our patients at the center of everything we do, each and every day. We hope you enjoy reading about the many ways we are doing just that.

Yours in health,

David Lubarsky, M.D., M.B.A., F.A.S.A.
Vice Chancellor of Human Health Sciences
Chief Executive Officer, UC Davis Health

Transforming lives by improving health locally and globally



Throughout my 26-year tenure at UC Davis School of Medicine, it's been a privilege to be part of our world-class community of mission-driven students, trainees, clinician-educators, and researchers. Together, we are

transforming lives by improving health locally and globally.

This year, *U.S. News & World Report* ranked UC Davis School of Medicine as the third most diverse medical school in the country and in the top 10 nationally in family medicine and primary care. We are also ranked prominently in public health, research and a wide range of specialties.

Our medical school continues to be both a leader in diversity and a research powerhouse, with a record \$368 million in external research funding in 2020-2021, including recent record-high National Institutes of Health funding.

We are leading the nation in training tomorrow's workforce of physician leaders who reflect California's diverse communities. Historically, the physician workforce has not represented the diversity of the communities it serves. Research strongly indicates that when

patients share the same race and ethnicity as their physicians, it can help build trust and lead to better health outcomes — especially among our most vulnerable patients.

Our medical school is trailblazing innovative pre-med and medical school pathway programs to train physician

Leading the nation in training tomorrow's diverse physician leaders

leaders with the backgrounds and cultural competencies to best serve our richly diverse population here in California. These include expanding programs focusing on training physicians to serve in rural areas and our new program to train physicians who will serve Native American and Alaska Native communities.

This year, we had a successful LCME site visit and anticipate a full eight-year reaccreditation. We are also implementing our new five-year strategic plan in alignment with the UC Davis Health NEXT Clinical Strategic Plan. Developed with the input of more than 200 School of Medicine constituents, the school's plan is a comprehensive guide to advance our education, clinical care, research, and community partnership missions.

This May, we celebrated our 51st graduating class. I'm proud to share that all 126 of our graduating fourth-year medical students matched to residencies in 20 specialties across 18 states. Nearly 66 percent are going into primary care residencies — far above the national average. Seventy-six percent of our

graduates will remain in California.

Our extraordinary students have received national recognition throughout the pandemic for their leadership in global health efforts, commitment to health equity, and success in serving vulnerable communities.

I thank our School of Medicine family and our provider and community partners for continuing to be an inspiration with their dedication, talent and compassion as we seek to transform lives by improving health locally and globally.

Sincerely,

Susan Murin, M.D., M.Sc., M.B.A.
Interim Dean, UC Davis School of Medicine
Professor, Pulmonary Critical Care and Sleep Medicine

A publication for alumni,
donors, faculty and friends
of UC Davis Health

in this issue

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OMICRON AND BEYOND

As the Omicron surge peaked, UC Davis Medical Center saw a record number of COVID hospitalizations – most involving severe symptoms – and a record-breaking number of overall emergency department visits.

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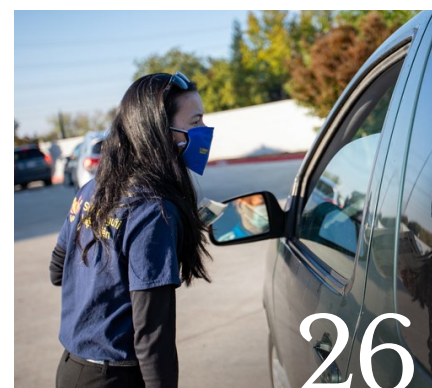
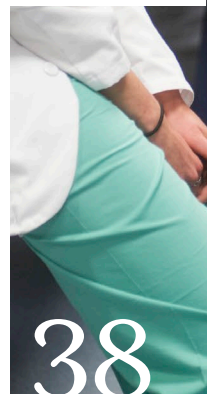
THREE-YEAR MED SCHOOL

The pioneering ACE-PC accelerated pathway aims to meet society’s urgent need for primary care physicians.

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REFUGEE TRAUMA & BRAIN HEALTH

Understanding the mental trauma experienced by refugees – and what role it may play in dementias.



departments

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On the cover: A 3D-printed SARS-CoV-2 spike glycoprotein model displayed in the Smithsonian Institution Futures exhibit. Source/credits: Submitted by user cruzp2 to NIH 3D Print Exchange. The model was prepared at the direction of Dr. Barney Graham, the Deputy Director of the Vaccine Research Center of the National Institute of Allergy and Infectious Diseases.

In Brief

Top-10 in the U.S. for primary care training



Schools of medicine and nursing listed among nation’s best

The UC Davis School of Medicine and the Betty Irene Moore School of Nursing at UC Davis continue to rank among the best graduate schools in the country, according to *U.S. News & World Report*.

According to the publication’s 2023 rankings, the School of Medicine earned three rankings in the national Top 10: 3rd in diversity, 7th in family medicine and 8th for primary care.

The Betty Irene Moore School of Nursing’s master’s-degree nursing programs now rank 23rd in the nation, up one spot from last year’s rankings. For the first time, the

Master of Science – Family Nurse Practitioner program is ranked No. 7.

This is the second consecutive year the School of Medicine was included in the top five for diversity among its students, and it was the only medical school in the top five for diversity on the West Coast. The medical school also landed No. 19 in public health.

“This national recognition is a testament to both the faculty and students at these two schools of health, and demonstrates our commitment as an academic health system to prepare the providers of tomorrow, so they will deliver exceptional care and advance health equity



for our patients and communities,” said David Lubarsky, M.D., M.B.A., F.A.S.A., CEO of UC Davis Health and vice chancellor of human health sciences.

School of Medicine breaks new record for NIH research funding

8 departments in Top 20 nationally

In 2021, the UC Davis School of Medicine achieved a new record of National Institutes of Health (NIH) research funding with more than \$194 million in grants, an increase of about \$13 million over the previous year.

The latest Blue Ridge Institute for Medical Research ranking placed UC Davis among the nation’s leading medical schools for NIH funding. It ranked the school 33rd nationally, three spots above its 2020 ranking.

Eight departments ranked in the top 20 nationally in their respective fields (see column page right). The UC Davis Departments of Cell Biology and Human Anatomy, Medical Microbiology and Immunology, and Emergency Medicine scored the highest funding in their respective fields among all University of California medical centers.

“We’re proud of our researchers across all disciplines who, amidst the pandemic, remained at the forefront of finding answers to medicine’s toughest questions,” said Susan Murin, M.D., M.Sc., M.B.A., interim dean of the UC Davis School of Medicine.

School of Medicine departments in Top 20 for NIH funding in 2021:

- Cell Biology and Human Anatomy, 7th
- Neurology, 7th
- Public Health Sciences, 8th
- Orthopaedic Surgery, 12th
- Urologic Surgery, 12th
- Psychiatry and Behavioral Sciences, 14th
- Dermatology, 14th
- Medical Microbiology and Immunology, 20th

Murin School of Medicine interim dean

Susan Murin, M.D., M.Sc., M.B.A., has been appointed interim dean for the UC Davis School of Medicine, to lead the school's faculty recruitment, research, and education missions, and its re-accreditation by the Liaison Committee on Medical Education (LCME) this year.

Murin most recently served as Vice Dean for Clinical Affairs, Executive Director of the UC Davis Medical Group, and Associate Clinical Strategy Officer. She previously served as Chief of the Division of Pulmonary, Critical Care and Sleep Medicine, Vice Chair for Clinical Affairs and Executive Vice Chair of Internal Medicine, and Chief of the Medical Staff at UC Davis.

In October, former School of Medicine Dean Allison Brashear, M.D., M.B.A., accepted a position as the Vice President for Health Sciences and Dean of the Jacobs School of Medicine and Biomedical Sciences at the University at Buffalo, New York. Brashear indicated she accepted the position to be closer to her children, who are both on the East Coast.



Sadro new chief financial officer



Cheryl Sadro, C.P.A., M.S.M., is the new chief financial officer for UC Davis Health, with a career that spans

more than 35 years of service in public accountancy and financial leadership of major, mission-based health systems. Sadro was most recently executive vice president and chief business and finance officer at the University of Texas Medical Branch, and previously served as a CFO with Catholic Health Initiatives and Ascension Health. She has been recognized on multiple occasions as one of the Women Hospital and Health System Leaders to Know by *Becker's Hospital Review*. Sadro succeeds Tim Maurice, who is transitioning to a new role as a senior advisor.

NEW VICE DEAN FOR RESEARCH



Kim Barrett, Ph.D., distinguished professor of medicine at UC San Diego and director of the division of graduate education at the National Science Foundation, was appointed vice dean for research at the UC Davis School of Medicine last fall. Barrett has more than 30 years of notable scientific research and institutional leadership experience, and is an internationally recognized scholar in gastrointestinal physiology who has published extensively. She's received numerous awards for academic contributions, teaching, administration and mentoring, including the 2021 Distinguished Achievement Award for Basic Science from the American Gastroenterological Association. In San Diego, she was Graduate Division dean and vice chair for research in the Department of Medicine.

ASSOCIATE DEANS FOR DIVERSITY AND INCLUSION



The School of Medicine named **Ruth Shim, M.D., M.P.H.**, as associate dean for diverse and inclusive education and **Jorge A. Garcia, M.D., M.S., F.A.C.P.**, associate dean for diverse and inclusive learning communities last year. Shim works to ensure that the curriculum and education programs are accessible and relevant, and Garcia works to enhance and build a diverse and welcoming learning environment and culture, and incorporate inclusion efforts. Shim is the Luke & Grace Kim Professor in Cultural Psychiatry, co-editor of *The Social Determinants of Mental Health* and *Social (In)Justice and Mental Health*. Garcia has earned multiple teaching honors, including the American College of Physicians Distinguished Teacher and Mentor Award.



Nichols associate dean for academics

Amy Nichols, Ed.D., R.N., C.N.S., C.H.S.E., A.N.E.F., has been appointed associate dean for academics at the Betty Irene Moore School of Nursing, after interim service. She continues to guide program leaders, overseeing the school's graduate-degree programs, and also serves as chair of the Nursing Science and Health-Care Leadership Graduate Group. She's an editorial board member for *Nursing Administration Quarterly*, a contributing editor for *PSNet*, and an Academy of Nursing Education fellow.

Farmer is American Surgical Association president



UC Davis Department of Surgery Distinguished Professor and Chair **Diana Farmer, M.D., F.A.C.S., F.R.C.S.**, was sworn in as president of the American Surgical Association (ASA) in April. Farmer is the first surgical leader from UC Davis Health

named to the position, and the third woman elected president in the ASA's 142-year history. Farmer was one of the first fetal surgeons with more than two decades of experience treating birth defects in the womb, and has pioneered foundational techniques in pediatric and fetal surgery. She's currently researching a novel stem cell therapy developed in her lab, and conducting an FDA-approved first-in-human clinical trial for repairing damaged neural tissue in spina bifida patients before birth.

Shaikh leads AAP quality improvement council



Ulfat Shaikh, M.D., M.P.H., M.S., medical director of health care quality and professor of pediatrics, has been elected chairperson of the American Academy of Pediatrics (AAP) Council on Quality Improvement and Patient Safety (COQIPS). The body is led by 11 elected leaders and home to over 700 members with expertise in quality improvement and patient safety. Shaikh's expertise is in measuring performance in health care and supporting clinicians in designing, implementing and evaluating quality improvement initiatives, and she has led training and coaching programs in QI methods for public, private and academic organizations. She begins her two-year term as chair this summer.

HIGHLY CITED RESEARCHERS

Five UC Davis Health researchers were recognized in Clarivate's 2021 list of Highly Cited Researchers.™ The company identifies 6,600 researchers worldwide who demonstrated significant influence through publication of multiple highly cited papers during the last decade. Names are drawn from publications that rank in the top 1% by citations for field and publication year in the Web of Science™ citation index. Included UC Davis Health researchers were: **Jonathan Eisen, Ph.D.**, and **Andreas Bäuml, Ph.D.**, medical microbiology and immunology; and **Sally Rogers, Ph.D.**, psychiatry & behavioral sciences and MIND Institute faculty member. The list also included former UC Davis faculty Magdalena Cerda and Mariana Byndloss.

Nursing school dean elected to national board

Stephen J. Cavanagh, M.P.A., R.N., F.A.C.H.E., F.A.A.N., dean of the Betty Irene Moore School of Nursing at UC Davis, has been elected to the American Association of Colleges of Nursing (AACN) Board of Directors. Based in Washington D.C., the AACN is the national voice for academic nursing, representing 840 schools of nursing nationwide. It establishes quality standards for nursing education and influences the nursing profession to improve health care. AACN leads the development of competency expectations for graduates of baccalaureate, master's and Doctor of Nursing Practice (D.N.P.) programs.



Awards, appointment for disparities expert



Sergio Aguilar-Gaxiola, M.D., Ph.D., founder and director of the UC Davis Center for Reducing Health Disparities, has been appointed to a state panel to promote health and wellness for Californians. Gov. Gavin Newsom named Aguilar-

Gaxiola and 15 other state leaders in February to the Governor's Advisory Council on Physical Fitness and Mental Well-Being.

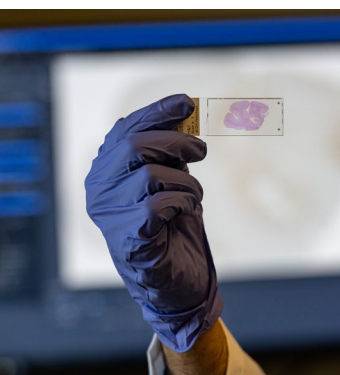
Last year Aguilar-Gaxiola received two national awards for his contributions to science and behavioral health research: The National Hispanic Science Network's (NHSN) 2021 National Award of Excellence in Research by a Senior Investigator, and the 2021 Lifetime Award for the Advancement of Latino Behavioral Health from the National Latino Behavioral Health Association (NLBHA).

NCI renews ‘comprehensive’ designation for cancer center

The National Cancer Institute once again recognized UC Davis Comprehensive Cancer Center as one of the nation’s most elite, awarding the center \$17.5 million over five years and renewing its “comprehensive” designation in recognition of breadth and depth in research, care, cancer control and population sciences. The UC Davis center is one of only 51 with the designation nationally, and is the only NCI-designated center outside of San Francisco from the Bay Area to Portland and Salt Lake City, with more than 100,000 patients visiting annually. Treatment at NCI-designated cancer centers is associated with improved outcomes for many people with cancer.



30 years of Alzheimer’s research, care



UC Davis School of Medicine has been awarded a five-year, \$16 million grant from the National Institute on Aging (NIA), part of the National Institutes of Health (NIH), for the continued funding of the Alzheimer’s Disease Research Center (ADRC). The grant marks 30 years of continuous funding for the ADRC, a congressionally designated NIH Center of Excellence. It is one of 33

Alzheimer’s Disease Research Centers funded by the NIA, which have been critical to the progress in Alzheimer’s and dementia research in the U.S.

RANKED AMONG THE WORLD’S BEST HOSPITALS

Newsweek has named UC Davis Medical Center to its annual list of the “World’s Best Hospitals,” placing it 33rd in the U.S. and among the top 150 globally. It was the only hospital in the Sacramento region to earn recognition in 2022 in the ratings, which tap surveys of medical experts, patient surveys, and data.

ONE OF THE BEST EMPLOYERS IN CALIFORNIA

UC Davis Health was 12th on *Forbes’* fall 2021 ranking of best employers in California, based on a survey that included questions about safety of the workplace and employers’ openness to telecommuting—important factors amid a pandemic. Additionally, it was the top-ranked employer in the “health care and social” sector.

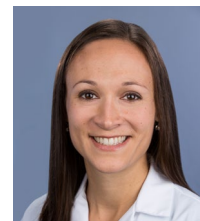
LEADING TOBACCO-CESSATION EFFORTS

The UC Davis Center for Healthcare Policy and Research (CHPR) received a \$7.5 million, five-year grant from the California Department of Public Health to help curb tobacco smoking in California. The grant will allow CHPR to lead the Healthy Living Clinic Initiative (HLICI), a program that provides intensive training and technical assistance on cessation to around 40 community clinics serving at-risk populations.

NATIONAL LGBTQ+ HEALTH CARE HONORS

The Human Rights Campaign Foundation has designated UC Davis Medical Center an LGBTQ+ Healthcare Equality Leader as part of the foundation’s 2022 Healthcare Equality Index report. This is the 11th consecutive year that the group has recognized the medical center for advancing LGBTQ+ equity among its patients and employees. The medical center again earned a perfect score of 100 points by fully achieving the foundation’s criteria for excellence.

Top 10 Clinical Research Achievement Award



Alicia Agnoli, M.D., M.P.H., M.H.S., an assistant professor of family and community medicine, has been honored with a 2022 Top 10 Clinical Research Achievement Award by the Clinical Research Forum (CR Forum) for her work studying opioid dose

tapering. Agnoli was also presented with the Distinguished Clinical Research Achievement Award for creativity, innovation and novel approach that demonstrated immediate impact on health and well-being. A CR Forum panel selected Top 10 recipients from clinical studies in peer-reviewed journals in 2021.

Telehealth leader a Fulbright Scholar



James Marcin, M.D., M.P.H., director of the UC Davis Center for Health and Technology, vice chair for pediatric clinical research and professor of pediatrics, has been selected as a Fulbright U.S. Scholar for 2022–2023. Marcin will work with the Royal College of

Surgeons in Ireland (RCSI) and Children’s Health Ireland (CHI) to advance pediatric health care in Ireland as a new children’s hospital integrates novel telehealth and digital health technologies. Marcin has extensive experience collaborating with other telehealth programs internationally, and currently directs the largest pediatric tele-emergency network in the U.S.

TOP COMMISSION ON CANCER AWARD

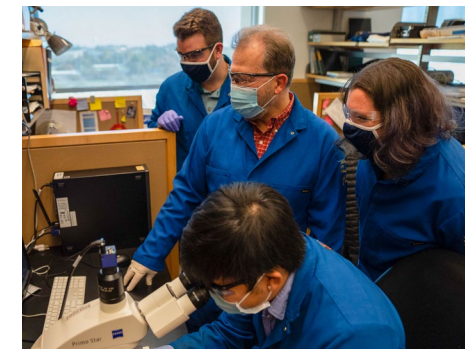


Richard Bold, M.D., UC Davis Comprehensive Cancer Center physician-in-chief and surgical oncologist with the UC Davis Department of Surgery, has been recognized for his outstanding service to cancer care by the American College of Surgeons

Commission on Cancer (CoC). Bold was selected as one of four CoC “state chairs” in the country. As a CoC state chair and American Cancer Society Commission on Cancer Liaison Physician (CLP) for the UC Davis center, Bold received the 2021 State Chair Outstanding Performance Award for going above and beyond the scope of normal duties.

Robert Koch Prize for microbiota research

Andreas Bäuml, Ph.D., was awarded the Robert Koch Prize last November for his groundbreaking research on the role of intestinal epithelium in the composition of microbiota, and its effects in infectious and inflammatory diseases. The research provides completely new starting points for restoring the balance between



microflora and the body. The prize is one of Germany’s most prestigious scientific awards, and Bäuml shares it with Yasmine Belkaid, Ph.D., of the National Institute of Allergy and Infectious Diseases. Bäuml is vice chair of research and professor in the Department of Medical Microbiology and Immunology.

Honored for work with underrepresented communities

Tiffani Johnson, M.D., M.Sc., assistant professor and pediatric emergency physician at UC Davis Health, is the recipient of a national award for her efforts to improve the quality of care for underserved children. The American Academy of Pediatrics (AAP) recently honored her with its inaugural Minority Health, Equity and Inclusion Award, which recognizes outstanding contributions to advance health equity for underrepresented communities. Johnson is a nationally recognized researcher and thought leader on race and racism



and its impact on child health, focused on understanding root causes of health care disparities and examining racism in health care and early childhood education settings.



Another PRISM Award for medical center nurses

UC Davis Medical Center's Accelerated Access Unit received the AMSN PRISM Award® last fall, a national honor that recognizes collective achievements and contributions of the unit's nursing staff. The award, which stands for Premier Recognition in the Specialty of Med-Surg, is co-sponsored by the Academy of Medical-Surgical Nurses (AMSN) and the Medical-Surgical Nursing Certification Board (MSNCB). UC Davis was the first hospital in California to receive a PRISM Award, and at the time of the med-surg award was top in California and West with six.

FORMER NEI DIRECTOR IS KELLY PRESIDENTIAL CHAIR



Paul A. Sieving, M.D., Ph.D., was inducted last fall as inaugural holder of the School of Medicine's Neil and MJ Kelly Presidential Chair in Vitreoretinal Science. Sieving previously served as director of the NIH's National Eye Institute (NEI), and is known for the NEI Audacious Goals Initiative in Regenerative Medicine. Kelly was the first resident to graduate from UC Davis' Department of Ophthalmology & Vision Science, and later became the world's first physician to perform macular hole surgery.

BROOKS-KAYAL NAMED GABOR PRESIDENTIAL CHAIR



Department of Neurology Chair **Amy R. Brooks-Kayal, M.D., F.A.A.N., F.A.N.A., F.A.E.S.**, has been inducted as inaugural holder of the Andrew John Gabor, M.D., Ph.D. Presidential Chair. Brooks-Kayal is an internationally recognized neurologist, epilepsy expert, and research leader on novel seizure therapies, who has served as president of the American Epilepsy Society and held other national roles. Gabor, also a national leader in epilepsy research and UC Davis' neurology chair from 1981 to 1991, passed away in 2016.

VITREORETINAL SPECIALIST IS ROTH ENDOWED CHAIR

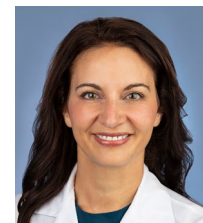


Susanna Soon-Chun Park, M.D., Ph.D., is inaugural holder of the Barbara A. and Alan M. Roth, M.D. Endowed Chair for Discovery, Education and Patient Care. Park directs the university's retina division and vitreoretinal fellowship, and was one of the first U.S. investigators to receive FDA clearance to conduct NIH-funded clinical trials using stem cells for vision loss. Roth, a late UC Davis faculty member, was an important collaborator in early Department of Ophthalmology stem cell research.

AMA Inspiration Awards



Two UC Davis Health faculty members joined a highly select group of physicians to be honored with a 2021 American Medical Association Women Physicians Section Inspiration Award. **Micaela Godzich, M.D., M.S.**, associate residency program director with Family and



Community Medicine, and **Veronique Taché, M.D., M.A.S.**, residency program director with Obstetrics and Gynecology, both received the national recognition, which honors nearly 60 physicians who have offered time, wisdom and support throughout the professional careers of fellow physicians, residents and students.

More than 200 physicians named 'Top Docs'

More than 200 UC Davis Health physicians have been included on a list of the region's best doctors in the 2021 *Sacramento Magazine* "Top Docs" survey. See: health.ucdavis.edu/medicalcenter/top-docs/top-docs-2021.html

First in region to grow cancer-fighting CAR T cells

Genetically modified cancer-fighting cells are now developed on campus at UC Davis Health as part of a new cellular therapy program, launched with clinical trials focused on blood cancers. UC Davis is one of only a few medical centers in California manufacturing CAR T cells on site, and the only UC campus doing so as of early spring. CAR T-cell therapy works by modifying the receptors of the T cells so they spot specific cancers, even if the cancer cells try to stay hidden. The FDA first approved the immunotherapy approach in 2017. At UC Davis, the Institute for Regenerative Cures Good Manufacturing Practice (GMP) Facility processes the T cells removed from patients; researchers say that local processing increases affordability, and provides a fresh product that leaves T cells more persistent and with better memory.



Pioneering pediatric pacemaker procedure



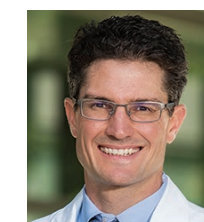
Pediatric electrophysiologist **Dan Cortez, M.D., Ph.D.**, is implanting the world's smallest pacemaker to patients using a minimally invasive technique, and is the leading expert for his unique procedure on children. While most traditional pacemakers are surgically implanted through

the chest to the outside of the heart, and then connected by lead, the world-first Micra leadless pacemaker was approved by the FDA in 2016. Many physicians in Northern California are trained to implant the device in adults through the leg vein; Cortez was first in Northern California to implant through the internal jugular vein, the device's vendor confirms.

Central Valley's First 'Scarless' Thyroidectomy



Claire Graves, M.D., and **Michael Campbell, M.D.**, performed UC Davis Health's first "scarless" thyroidectomy early this year using a technique known as a transoral thyroidectomy. The approach requires three small incisions inside the lower lip, through which endoscopic instruments run between the jaw and skin to remove the thyroid. The procedure, which leaves no visible surgical scar on the neck, was pioneered in Thailand in 2014 and is now used in a handful of U.S. medical centers.



Geriatric Emergency Department Accreditation

The American College of Emergency Physicians (ACEP) has awarded Geriatric Emergency Department Accreditation — Gold Level 1, the highest level — to the geriatric ED at UC Davis Medical Center. UC Davis Health is the only ED in Sacramento to earn the accreditation, and joins only 21 other EDs in the nation with gold status. Last year, the ED was named an Age-Friendly Health Systems Committed to Care Excellence for its age-friendly approach; the initiative involves The John A. Hartford Foundation and the Institute for Healthcare Improvement (IHI). The designations are goals for UC Davis Health's Healthy Aging Initiative, designed to create an integrated approach to older adults across the lifespan and all care settings here (see health.ucdavis.edu/aging).

4-STAR VIZIENT RATING FOR MEDICAL CENTER

UC Davis Health was recognized as a four-star hospital in the 2021 Quality and Accountability Ranking by Vizient Inc., a national leader in health care performance improvement. Out of 101 members in the Comprehensive Academic Medical Centers group, UC Davis Health ranked 29th nationally for excellence in delivering high-quality care. 565 participating hospitals were segmented into four cohorts for the rankings. UC Davis Health ranked 9th nationally in the highest weighted measure, mortality, and ranked No. 1 in equity.

Continuing Medical Education

- Education calendar
- Online education

health.ucdavis.edu/cme

Notable quotes

“As long as we have large pockets and large numbers of individuals that are unvaccinated, we’ll get new variants.”

Epidemiologist **Lorena Garcia, M.P.H., Dr.P.H.**, in a December *Guardian* report about how some rural areas struggled with both Delta and Omicron.

“There’s no question in my mind now that everybody is going to either be vaccinated, or they’re going to get COVID.”

Dean Blumberg, M.D., chief of pediatric diseases, in a December Capital Public Radio story about vaccination rates among kids and teens as availability expands.

“I hope it’ll provide a voice to the community about what they’re going through. And hopefully we can find intervention and services that can help them and their adult children, as well.”

Neurology researcher **Oanh Meyer, Ph.D., M.A.S.**, in an *NBC News/NBC Asian America* article about her study into links between wartime trauma and dementia in the Vietnamese American community (see feature page 26).

“I have some fit 65-year-old patients than can run circles around many 20-year-olds.”

Sports medicine physician **Brandee Waite, M.D.**, in an *American Heart Association News* story about how the death of a “Sex and the City” character prompted some fans to wonder about exercise safety in older adults.

“Not only are [vaccinated individuals] protected from getting disease, but specifically they’re protected from severe disease, meaning hospitalization and risk of death. And this has been shown repeatedly in the data that has been produced or put out into the medical literature since the advent of the vaccine.”

Infectious disease clinical professor **Natascha Tuznik, D.O., F.A.C.P.**, in a *Women’s Health* story on COVID reinfection and prevention.

A summary of recent findings in clinical, translational and basic-science research at UC Davis

Body of Knowledge



Taking bile acids or treatments that regulate their production levels may help control inflammation from psoriasis, a UC Davis Health study has found. Published in the *Journal of Investigative Dermatology*, it suggests that bile acids may stop immune T cells from producing a proinflammatory protein known as IL-17A and blocking the immune cell movement to the inflammation site. Bile acids significantly inhibited inflammation without causing apparent systemic adverse effects, researchers said.



New UC Davis MIND Institute research has identified a novel human gene linked to fetal brain development and autism spectrum disorder (ASD). The discovery also links the gene to the mother’s early prenatal vitamin use and placental oxygen levels. In a study published in *Genome Biology*, the researchers used genomic sequencing to find a DNA methylation signature in the placenta of newborns eventually diagnosed with autism. This signature mark was linked to early fetal neurodevelopment.



UC Davis researchers have discovered a signaling mechanism that allows intracellular bacteria like *Salmonella* to evade destruction by the host’s immune system. The study, published in *Cell Host & Microbe*, found that the bacteria can infect macrophages, a type of immune cell. The *Salmonella* triggers the death of the host macrophage, then tricks other immune cells into safely delivering them into another macrophage rather than destroying them. Understanding the mechanism may help future treatments to help offset growing antibiotic resistance.



Among other findings, a UC Davis Health-led study published in *JAMA Network Open* showed that repeated breast cancer screening with 3D mammography only modestly decreases the chance of a false positive result compared with standard digital 2D mammography. The researchers analyzed data collected by the Breast Cancer Surveillance Consortium on 3 million screening mammograms for 903,495 women aged 40–79 years.



UC Davis scientists may have unlocked the function of a mysterious structure found on neurons. In a study published in *PNAS*, researchers revealed the unusual clusters are calcium-signaling “hotspots” that activate gene transcription, allowing neurons to produce crucial proteins. The results may provide information that could shape new research into the role of the signaling in brain function, they said, and perhaps eventually into the development of new classes of therapeutics.

A study led by UC Davis has found significant differences in gut bacteria between Black and white women, even after accounting for their insulin sensitivity status. The study, published in *PLOS ONE*, is the first to focus on premenopausal Black and white women and to show such differences. By characterizing the gut microbiome in Black women, researchers say they might understand the health disparities in the development of heart and metabolic diseases in this population.

A milestone for Aggie Square



Construction has started on the mixed-use innovation district, which includes 1 million square feet of research and commercial space



UC Davis, the city of Sacramento and project developer Wexford Science and Technology celebrated a milestone in the university's Aggie Square project with a ceremonial groundbreaking in February. Construction begins this spring on the project's first phase, which includes two buildings designed for science, technology and engineering, and a Lifelong Learning Building dedicated to classrooms and public programs.

Located on UC Davis' Sacramento campus, Aggie Square is an innovation hub that brings together university research and teaching, industry, and the community to create opportunities for communities across the region. It will be home to research programs, private industry partners, classrooms, student housing, and public-facing programs that engage local communities and entrepreneurs.

"Aggie Square is the ultimate 'innovation ecosystem.' It's part laboratory, classroom, workplace, business incubator and community

gathering place," said UC Davis Chancellor Gary S. May. "We're building a place where companies, researchers, students, faculty and community advocates work side by side, where leading-edge UC Davis research powers innovative companies, and where UC Davis provides training for up-and-coming industries and for residents who live in surrounding neighborhoods."

Aggie Square is designed to leverage UC Davis' strengths in life sciences, technology, engineering, food, health and social impact — driven by talented faculty, students and staff, and aligned with the university's public service mission and desire to be a community partner.

"I'm proud that our city has partnered with both UC Davis and our community to make Aggie Square a reality," said Sacramento Mayor Darrell Steinberg. "We are creating an economic center with thousands of new jobs, and the people in our neighborhoods will be the primary beneficiaries. Aggie Square stands as an example of what is possible."

Aggie Square will address the need for additional research space in Sacramento, especially "wet lab" space for both academic and industrial use, and is expected to help attract both government and private research funding to Sacramento and UC Davis. The mixed-used innovation district will ultimately have 1 million square feet of research, wet labs, and commercial space.

An economic impact report completed in 2020 estimated that Aggie Square would add nearly \$5 billion a year to the economy of the Sacramento region and generate 25,000 jobs. The construction phase will deliver an additional \$2.6 billion in one-off economic impact and 15,000 job-years.

Those jobs will benefit the local community. In April 2021, UC Davis, Wexford and the city of Sacramento agreed on a Community Benefits Partnership Agreement based on three years of input from local residents. The agreement directs \$50 million toward affordable housing in the neighborhood, thousands of jobs in construction and in the completed project, improvements to the Broadway and Stockton Boulevard corridors, and annual funding for community projects.



In January 2020, Aggie Square announced that the Alice Waters Institute for Edible Education would be the project's first tenant. UC Davis has also launched an immersive undergraduate program, Quarter at Aggie Square.

Learn more: aggiesquare.ucdavis.edu

A partnership with Amazon for digital health equity



UC Davis Health and Amazon Web Services announce the first Cloud Innovation Center based out of an academic medical center

This winter UC Davis Health became the world's first academic medical center to launch a Cloud Innovation Center (CIC) powered by Amazon Web Services. Focused on digital health equity, the new center will allow clinicians, patients, developers, and students to exchange ideas, and to design and prototype solutions focused on making digital health more equitable and accessible worldwide.

"Digital health equity has become a front-and-center issue, particularly during the COVID-19 pandemic," said David Lubarsky, M.D., M.B.A., F.A.S.A., CEO of UC Davis Health. "Many of our underserved communities have struggled even more to receive the care they need, and the digital divide has only widened.

"We're committed to finding innovative ways to make health care more accessible to every patient, no matter who they are or where they live."

UC Davis Health and Amazon Web Services will each commit staff to work with clinicians, students, organizations, and the community to define real-world challenges around digital health equity through the CIC.

The challenges will explore difficult issues around providing equitable care to a diverse patient population. They may address issues around remote patient care, discrepancies in technology used for health care, transportation, or mental health that could be improved to better serve a diversity of patients.

Projects will be driven by clinicians, patients, and the community-at-large who will submit their challenge ideas. The challenge findings will be published as open source for other community members to access, build upon, and implement.

"Many clinicians and patients are mandated to use certain products and services, but they're often left out of the decision-making process," said Ashish Atreja, M.D., M.P.H., chief information officer and chief digital officer at UC Davis Health. "Our goal with the CIC is to create a global collaborative community with a mission to leave no patient, clinician, or researcher behind in the digital transformation of health care."

The CIC is the latest initiative from UC Davis Health to advance digital medicine through its Digital CoLab

(Digital Collaborative for Innovation and Validation), a digital health innovation hub focused on accelerating digital health technologies to make health care more accessible, equitable, and inclusive. Digital CoLab will serve as the CIC's liaison between participants.

The UC Davis Health CIC is part of the Amazon Web Services global CIC Program, which brings together nonprofit, education, and government organizations. The goal is to collaborate on solutions to address challenges and real-world problems that matter most to communities related to health care, smart cities, sustainability, and cybersecurity. Organizations bring their expertise, while Amazon provides resources, to work through challenges to find new ways to innovate.

"Our collaboration with Amazon Web Services will provide us with a tool to unlock the intrapreneurial spirit of our clinicians, patients, and developers in the region to provide a one-of-a-kind space — where people who've never had a voice in health care will be the ones driving the thinking and innovation," said Keisuke Nakagawa, M.D., executive director of the UC Davis Health CIC and director of innovation for the Digital CoLab.

Learn more: health.ucdavis.edu/CoLab/cloud-innovation-center

National prominence as a robotic surgery training center

UC Davis Health is one of six host institutions for the AATS Cardiac Surgical Robotics Program

UC Davis Health has been designated as a training center for the American Association for Thoracic Surgery (AATS) Foundation's Cardiac Surgical Robotics Program, the first such center in California and just the sixth in the United States.

Under the leadership of Bob Kiaii, M.D., F.R.C.S.C., F.A.C.S., chief of the Division of Adult Cardiac Surgery, and adult cardiac surgeon Jorge Catrip, M.D., surgeons from across the country will come to UC Davis Health to learn techniques to master the fundamentals of robotic mitral valve surgery. UC Davis is the program's first training center in the West.

"This designation is a significant accomplishment by the dedicated members of our robotic cardiac team, including nursing, perfusion, anesthesia and cardiac surgery," said Kiaii, who is the 2021/2022 president of the International Society of Minimally Invasive Cardiothoracic Surgery (ISMICS). "It illustrates our mission to offer the most advanced medical technology and provide the best health care to our patients."



UC Davis Health cardiac surgery chief Bob Kiaii and team members in a robotic surgery suite. Kiaii has performed a number of pioneering robotic operations and is the 2021/2022 president of the International Society of Minimally Invasive Cardiothoracic Surgery (ISMICS).

Kiaii and Catrip will be the primary surgeons leading the trainings at the host center. Kiaii joined the Department of Surgery in 2019 and is known internationally as a leader in pioneering minimally invasive cardiac procedures, including robotic-assisted heart surgery. He performed a number of pioneering operations before arriving at UC Davis from Canada's Western University, including the world's first robotic-assisted surgeries for aortic valve replacement for aortic valve stenosis, right atrial perforation repair, and left atrial appendage ligation for atrial fibrillation.

In 2020, Kiaii performed Northern California's first robotic mitral valve repair, as one of the initial cases at UC Davis Health to leverage his long expertise in advancing minimally invasive cardiac surgery techniques.

Catrip completed a clinical fellowship in Minimally Invasive Cardiac Surgery (MICS) and robotic heart surgery at the University Hospital, London in Canada under Kiaii's leadership, as well as a clinical fellowship in valve repair at Toronto General Hospital and an observership in totally endoscopic coronary artery bypass surgery at the Maryland Medical Center in Baltimore. He's double board-certified in general surgery and cardiothoracic surgery, and previously served as deputy chief of adult cardiovascular surgery at the Instituto Nacional de Cardiología Ignacio Chavez in Mexico City.

Other host surgeons and institutions that have partnered with the AATS program include:

- Cleveland Clinic: Marc Gillinov, M.D.
- Emory University at Midtown: Michael Halkos, M.D.
- Mayo Clinic: Joseph Dearani, M.D.
- New York University: Eugene Grossi, M.D.
- West Virginia University: Vinay Badhwar, M.D.

"Advanced robotics is revolutionizing minimally-invasive surgery for both the patient and the physician," Kiaii said. "The robot overcomes the limitations of traditional technology and allows patients to have proven cardiac surgical repairs without the invasive incisions."

Learn more: aats.org

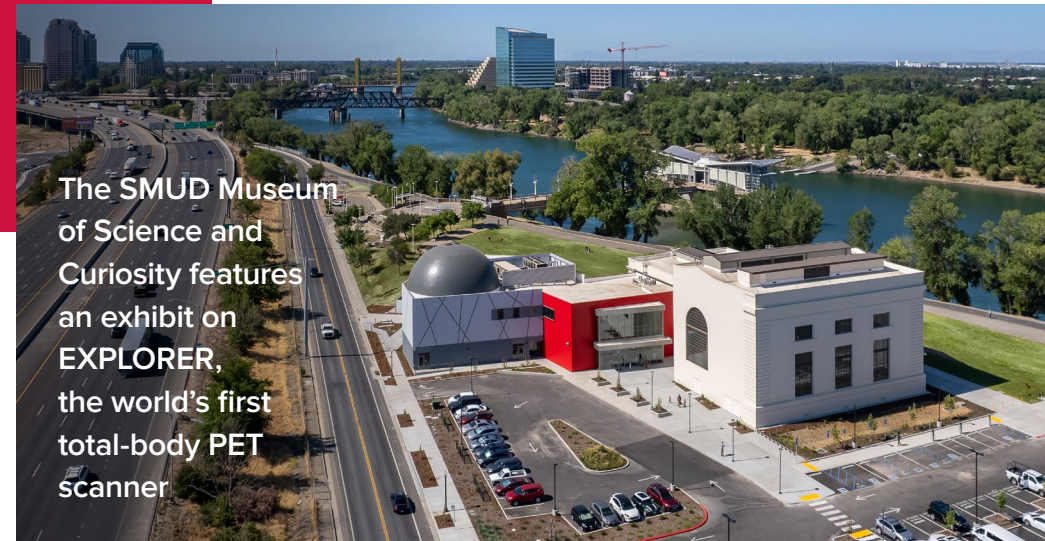
UC Davis support, technology part of Sacramento's newest science center

UC Davis Health and UC Davis are sponsors of the SMUD Museum of Science and Curiosity (MOSAC), a new epicenter for STEAM education located in a long-abandoned historic power station on Sacramento's waterfront.

Naming partnerships announced last fall give UC Davis Health naming rights to MOSAC's current Health Headlines and Innovation exhibit gallery, and also its future Health Gallery. UC Davis will name the Digital Dome Theater at the museum, which overlooks Matsui Waterfront Park along the Sacramento River and Interstate 5 just north of Old Sacramento.

Built in 1912, the towering, vault-like concrete structure sat vacant and dilapidated for decades until a long-running partnership between the Powerhouse Science Center, the city, the Sacramento County Office of Education, SMUD, and a range of corporate partners and individual donors led to reuse for informal science education and experiences. Construction was completed in 2021, with the Powerhouse Science Center renamed and rebranded in 2020 as the SMUD Museum of Science and Curiosity, or simply MOSAC.

UC Davis Health's 15-year, \$3 million investment in the future Health Gallery



The SMUD Museum of Science and Curiosity features an exhibit on EXPLORER, the world's first total-body PET scanner

will help to create exhibits showing advancements in fields such as medical imaging and personalized cellular therapies, rapidly changing "headlines" in health research, and local examples of public health programming that are making a difference in our region.

In the Health Headlines and Innovation exhibit gallery, among the first items on display is a model of the EXPLORER Total Body Scanner, which can take an instant snapshot of the entire body in seconds. EXPLORER was developed at UC Davis and the brain-child of Simon Cherry, Ph.D., distinguished professor in the UC Davis Department of Biomedical Engineering, and Ramsey Badawi, Ph.D., professor and vice chair of research in the Department of Radiology.

EXPLORER is unique in that it can image the entire body simultaneously, looking for diseased tissue. This approach

is an improvement over traditional positron emission tomography (PET) scanners, which can scan only in 20-centimeter segments at a time and take more than 15 minutes to image a patient. The technology is a potential game-changer in diagnosing and treating many diseases, such as cancer, arthritis and cardiovascular disease.

With UC Davis' 15-year, \$2.5 million contribution to the Digital Dome Theater, and its diverse expertise in the sciences, arts and humanities, the university will be working closely with MOSAC in improving and expanding K-12 educational courses and public programming in the areas of science, technology, engineering, arts and math, collectively known as STEAM.

The UC Davis Multiverse Theater will host a variety of shows, such as: astronomy and planetarium presentations; films on chemistry and physics; and special features like "Secrets of the Universe," an IMAX film featuring UC Davis researchers (info: ucdavis.edu/news/secrets-multiverse).

MOSAC opened in November, including the Health Headlines and Innovation exhibit and the Digital Dome Theater. The full Health Gallery experience is expected to be installed in 2023.

Learn more: visitmosac.org and explorer.ucdavis.edu

"We are facing some of the biggest challenges in history, which will be resolved by the scientists, engineers, researchers, and health care workers of tomorrow. Who better to partner with us in our mission to prepare these future innovators?"

MICHELE WONG
MOSAC EXECUTIVE DIRECTOR,
ON THE UNIVERSITY'S INVOLVEMENT IN THE MUSEUM

Our continuing response to the coronavirus pandemic



Nov. 19
The federal government opens COVID-19 booster shots to all adults.

Dec. 17

A community warning

UC Davis Health infectious disease experts issue a media advisory urging the community to keep up with prevention behaviors during the holiday season, following soaring COVID-19 hospitalizations in recent weeks at UC Davis Medical Center. The increase follows additional travel and indoor gatherings over Thanksgiving, experts say, indicating the risk of a winter surge. The CDC has recently warned that rapidly increasing Omicron cases are likely to create a national surge in coming weeks.



2021

Aug. 17

Boosters begin

As COVID-19 cases rise due to the Delta variant, UC Davis Health begins reaching out to immunocompromised patients who meet the CDC's new criteria for the third dose vaccinations.

Sept. 24

UC Davis Health begins giving boosters to broader group

Following CDC recommendations, UC Davis Health begins administering third Pfizer/BioNTech COVID-19 vaccine booster shots to other groups more at risk because of age, health or occupation.

Sept. 29

Testing potential treatments and vaccines



Image credit: NIAID-RML

The search for safe and effective COVID treatments continues at the UC Davis School of Medicine, with researchers recruiting for multiple clinical trials involving stem-cell-based therapies, monoclonal antibodies, oral antivirals, and other experimental drugs or approaches. UC Davis received about \$42 million in COVID-19 research funds in 2020-21, with the School of Medicine's share nearly \$28.5 million.

Oct. 20

Volunteers bring vax clinics to underserved areas

Dozens of UC Davis Health volunteers set up tents to provide COVID-19 shots at community events in medically underserved areas around the county. When the summer surge sent waves of unvaccinated patients to the hospital, faculty members worked closely with School of Medicine leadership to develop a targeted approach to help educate and vaccinate residents of disadvantaged neighborhoods. The mobile clinics are staffed by UC Davis Health doctors, employees, and more than 120 medical and nursing students.

Nov. 26

The World Health Organization recognizes the Omicron strain as a variant of concern, citing an unusually heavy number of mutations and a swift rise in cases were discovered in southern Africa earlier in the month.

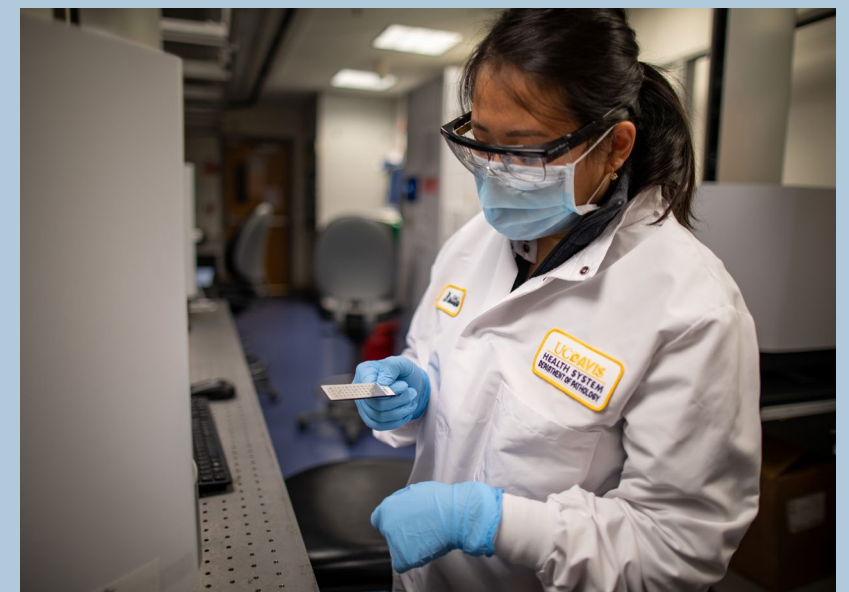
Dec. 1

The first confirmed U.S. case of Omicron is identified, a day after the nation also designates it as a variant of concern.

Dec. 17

Machine learning drives new COVID test

UC Davis Health, in partnership with SpectraPass, is evaluating a new type of rapid COVID-19 test co-developed by the startup company and Pathology and Laboratory Medicine faculty. The scalable system is designed to accurately perform on-site tests for hundreds or potentially thousands of people, using machine learning to analyze protein profiles issued in response to infection. A study published by developers in *Nature Scientific Reports* found the novel method 98.3% accurate for positive tests and 96% for negative.



With more than **75** COVID-19 research grants, the School Medicine conducted at least **28** studies to find potent treatments and vaccines.

Dec. 29

Testing initiative helps migrant communities

A crucial effort by UC Davis Health to detect COVID-19 among farmworkers and other vulnerable populations has resulted in more than 17,000 rapid tests to date given to residents of four Central California counties, officials say. Underway since February, the NIH-supported ÓRALE initiative offers free screening primarily to Latinos with a focus on agricultural essential workers at locations and hours convenient to them. Of those screened, about 1,050 tested positive and were offered counseling on next steps.



Jan. 14

UC Davis Medical Center is formally designated as a State Surge Hospital, allowing administrators to bring in more staff to provide care and continue to serve the needs of seriously ill patients.

Jan. 20

Dissecting COVID's impact on sense of smell

UC Davis Health otolaryngologists and molecular neuroscientists receive a NIH grant to characterize the severity and length of patient smell loss, collect samples, and conduct in-depth protein analyses to dissect the mechanisms that cause olfactory dysfunction. The team in this unique collaboration hopes to potentially identify diagnostic tools and therapeutic treatments.

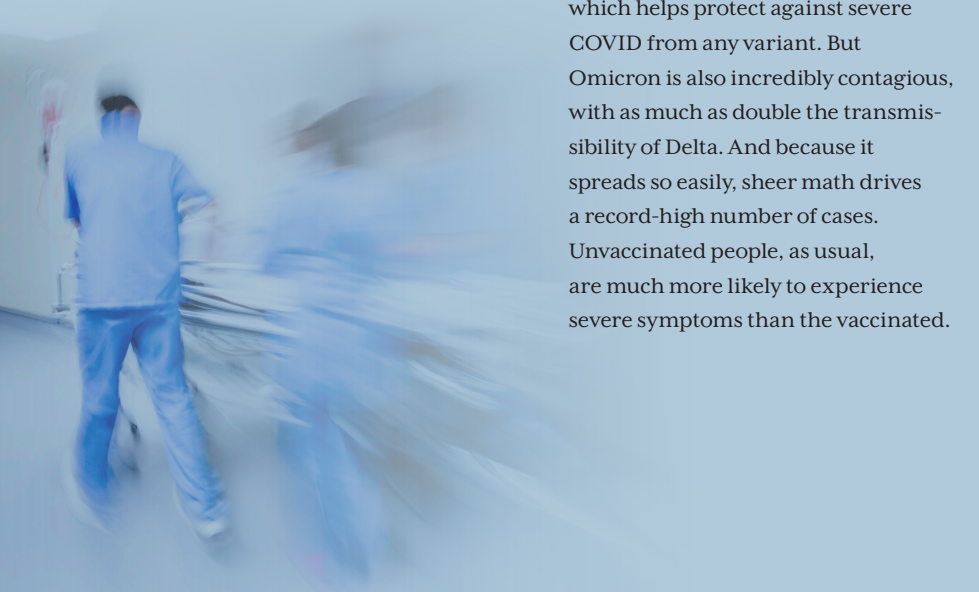


2022

Dec. 28

Record-breaking number of Emergency Department visits

UC Davis Medical Center providers treat more than 300 patients in the Emergency Department — an all-time high — due to a combination of COVID-related illnesses, flu, traffic accidents, and patients with chronic diseases.



Jan. 7

Omicron's sheer infectiousness upends lives

Both California and Sacramento County see record numbers of infections, with testing in great demand and the statewide positivity rate over 21%. Fortunately, Omicron appears to cause milder illness in many people compared to previous variants. Many people are now vaccinated as well, which helps protect against severe COVID from any variant. But Omicron is also incredibly contagious, with as much as double the transmissibility of Delta. And because it spreads so easily, sheer math drives a record-high number of cases. Unvaccinated people, as usual, are much more likely to experience severe symptoms than the vaccinated.

Jan. 11

International study identifies predictors of severe outcomes in children with COVID-19

A new international study co-led by UC Davis Health offers a clearer picture of COVID-19 risk for young people worldwide. With co-leaders University of Calgary and Children's Hospital of Chicago, the Pediatric Emergency Research Network study followed more than 10,300 children in 10 countries, including 3,200 who tested positive. Patients older than five, with chronic illness, previous pneumonia, and presenting to hospital four to seven days after onset were found at higher risk for severe outcomes.



Jan. 18

Record COVID hospitalizations

UC Davis Medical Center reports a record 126 patients hospitalized at the medical center with active COVID-19 infections — most of them with severe symptoms. On Jan. 1, there were 37. The new number surpasses the previous winter's peak of 125 COVID patients. According to state and local health dashboards, COVID-19 cases, hospitalizations and symptom-driven ER visits had set new all-time-record high numbers for Sacramento County over the previous week.

Jan. 25

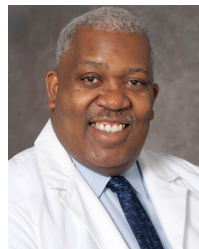
Paxlovid antiviral pill introduced

UC Davis Health becomes one of a few designated academic medical centers in California to receive Pfizer's new COVID antiviral Paxlovid, used at UC Davis Medical Center and outpatient clinics to protect very at-risk patients from the most severe effects of COVID-19. Medical experts say the pill is a valuable treatment option because unlike other available therapies, people who are newly infected can easily take it at home.



Feb. 2

Highlighting COVID safety for the Black community



Pediatrician Michael Lucien, associate medical director of the UC Davis Health Community Physicians Group, participates in a webinar addressing the effects of COVID-19 on the Black community, and answers questions from the public. “The Effects of COVID-19 on African American/Black

Youth: How To Keep Your Family and Children Safe” is part of a UC Davis Institute for Diversity, Equity and Advancement (IDEA) series. COVID-19 has disproportionately affected the U.S. Black population throughout the pandemic.

March 11

California lifts its mask mandate for schools, after lifting it for vaccinated and then unvaccinated individuals in previous weeks.

March 14

COVID’s impact on health care workers

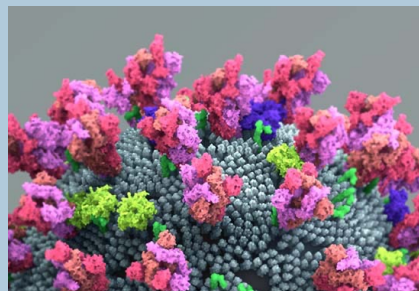
Two years after the start of the pandemic, a panel of experts from UC Davis Health shares perspectives on what it has been like for health care providers on KVIE’s “Studio Sacramento.”

Participants include Chief Wellness Officer Peter Yellowlees, peer responder coordinator Michelle Linenberger, and ICU nurse Andrea Vega-Breaux, a registered nurse in the medical ICU. “It’s shown the public what health care workers do and lifted the veil of secrecy to show health care heroes and their essential value,” Yellowlees explains. “On the other side, it’s been extremely stressful and a lot of exposure to ‘moral injuries, which is an inability to work to the best of your training or practice.’”



Feb. 9

A UC Davis-engineered antibody helps block SARS-CoV-2 transmission



Inspired by an approach used in cancer therapeutics, UC Davis Health Medical Microbiology and Immunology researchers announce they have engineered a novel antibody, FuGI, that can directly interfere with the cell-to-cell transmission ability of SARS-CoV-2. FuGI targets the enzyme furin, which the virus uses for its efficient chain of infections in human cells. A study evaluating efficacy of the antibody appears in *Microbiology Spectrum*.

March 2

Vulnerable groups receive COVID-19 shots from UC Davis Health, thanks to federal grant

The latest effort by UC Davis Health to bring COVID-19 shots to hard-to-reach, vulnerable populations is a strategic project funded by a federal grant and overseen by the California Department of Public Health Office of Health Equity. The emphasis of “MOVE IT UP” is on Latino farmworkers and African Americans in Sacramento and Yolo counties. The UC Davis Center for Reducing Health Disparities is the lead on the initiative, which has administered 3,000 doses since December.

March 8

Testing more booster options

UC Davis Health partners with Pfizer on two new clinical trials to test the COVID-19 booster vaccine in healthy adults. The first study aims to test if different doses produce similar immune responses, with participants randomly assigned either the standard 30-micrograms or 10. The second study will analyze levels of troponin I, a heart muscle protein, before and after boosting. UC Davis Health was one of 150 sites worldwide participating in the original clinical trial for the Pfizer vaccine candidate, the first time mRNA-based vaccines are used against an infectious disease.



March 15

Future Pandemic and Rapid Response Institute

Following the passage of federal spending legislation, UC Davis will receive \$1 million to lay the foundation needed to launch a Future Pandemic and Rapid Response Institute that can help the U.S. anticipate, prevent, recognize and respond to emerging diseases and pandemic threats. The new institute will build on UC Davis’ decades of emerging infectious disease research and its USAID-funded leadership in pandemic prevention and response in other countries to apply its experience and expertise to national needs.

April 23

In a nod to the crucial role of science during the pandemic, senior director of clinical pathology Nam Tran, is named marshal for UC Davis’ Picnic Day after emerging as a key local and national figure in COVID-19 testing.

At the start of the pandemic, Tran and colleagues gained national attention for developing a COVID-19 diagnostic test from scratch in just 19 days. Four additional platforms deployed by June, including a two-hour test for the ED.

By fall 2020, Tran’s team rolled out a rapid PCR test for flu and COVID. In spring 2021, Tran and collaborators debuted a novel platform for use outside health care, with SpectraPass. Tran also worked to gear up statewide testing on California’s task force.

Since the pandemic began, UC Davis Health lab professionals have performed more than 223,000 COVID-19 tests.

“The challenge is to address what we have learned during the pandemic – such as the existing health disparities exacerbated by the pandemic, the limitations of current tests, and the unknowns related to infection,” Tran said in April. “The virus still has a lot to teach us.”



“The virus still has a lot to teach us.”

NAM TRAN, SENIOR DIRECTOR OF CLINICAL PATHOLOGY

ACE-PC medical student Alejandra Hernández Villagomez learns how to prepare COVID-19 vaccine doses from her professor Ian Kim during their volunteer shift at a community vaccination clinic.

Med school in 3 years – with real patients in week 1

The pioneering ACE-PC accelerated pathway program aims to meet society's urgent need for primary care physicians

In his first days of medical school this past summer, Semaj Hornbuckle absorbed a series of fast-paced topics that most students don't encounter until much later in their studies.

He learned how to write detailed notes on patient medical conditions. He discovered how to take accurate readings of vital signs. He even picked up techniques from seasoned professors on

how to perform a physical examination.

By the end of a dizzying first week, Hornbuckle and a select group of classmates from the UC Davis School of Medicine took the next step of their academic journey: They headed off campus and walked nervously into an outpatient clinic, where they cared for patients under the supervision of experienced physician mentors.

In the majority of U.S. medical schools, students begin their clerkships, their most important clinical experience, in their third year. But Hornbuckle and nine classmates are part of an accelerated pathway that puts them through medical school in just three years instead of four. The goal is to produce primary care doctors more quickly for Californians who desperately need them.

The innovative program is called ACE-PC, short for Accelerated Competency-based Education in Primary Care. ACE-PC was developed through a partnership between UC Davis and Kaiser Permanente Northern California, known for its emphasis on primary care and preventative medicine.

For Hornbuckle, ACE-PC is an intense year-round education in two classrooms – one at the UC Davis Health campus, the other in the exam rooms of Kaiser Permanente's Fair Oaks Medical Offices.

"I feel honored to be in this position, but I don't take it lightly," Hornbuckle said. "I try to prepare as much as possible and understand that everything I'm learning in class right now can be tied and related to something I'm going to see in clinic."

An audacious proposal

The origins of ACE-PC date back to 2013, when the American Medical Association (AMA) challenged medical schools to find creative ways to train physicians to better meet the health needs of patients.

UC Davis, a longtime leader in preparing students to work in diverse, low-resource communities, came up with an audacious proposal: The School of Medicine would team up with Kaiser Permanente to develop a novel pathway for highly-qualified students committed to becoming primary care doctors. The program would compress medical education into three years by providing a rigorous longitudinal curriculum, including summers and authentic clinical experiences beginning in the very first week.



A record 10 students are enrolled in the current, first-year class of ACE-PC, the program that offers medical school education in just three years instead of four.

"Many people thought it couldn't be done," said Mark Henderson, M.D., the associate dean of admissions who gathered colleagues around his kitchen table to start planning ACE-PC in 2013. "But we understood the urgent need to address the primary care shortage in California and elsewhere, specifically by enhancing the diversity of the workforce to better reflect the populations we aim to serve."

"We are excited to see the fruits of our labor these past few years, as more and more former students join the ranks of the primary care workforce, many in medically underserved areas."

— ALICIA GONZÁLEZ-FLORES, EXECUTIVE DIRECTOR, UC DAVIS SCHOOL OF MEDICINE COMMUNITY HEALTH SCHOLARS

The AMA awarded the partnership a \$1 million grant, and in 2014 the School of Medicine welcomed its first six ACE-PC students. A total of 53 have now completed the program, which prepares students for residency training in primary care internal medicine or family

medicine. The current, first-year ACE-PC class has 10 students, a record high.

"One of the reasons ACE-PC has been successful is that students gain the skills that prepare them for high-quality residency programs," said Alicia González-Flores, M.D., executive director of Community Health Scholars, the UC Davis School of Medicine initiative that oversees ACE-PC and other workforce development pathways. "We are excited to see the fruits of our labor these past few years, as more and more former students join the ranks of the primary care workforce, many in medically underserved areas."

Committed to primary care

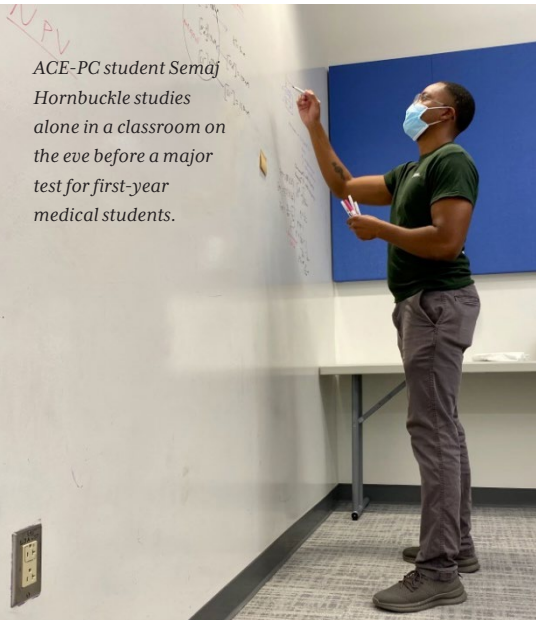
Students like Hornbuckle are drawn to careers in primary care because they want to have meaningful relationships with patients, educate them on disease prevention, and help manage their chronic conditions.

Students are selected for ACE-PC based on this commitment to primary care. They are typically older than traditional medical students and have worked in health care settings after college. They bring life experience and an appreciation for patient-centered care, and are more likely to come from disadvantaged backgrounds.

"These students come from very diverse backgrounds and they want to return to serve their communities," said Hillary Campbell, M.D., an internal

medicine physician who leads medical education initiatives at Kaiser Permanente in Greater Sacramento. “Their life experiences make them really good physicians.”

One thing ACE-PC students all have in common: They aspire to be medical messengers within their own, frequently underserved, communities.



ACE-PC student Semaj Hornbuckle studies alone in a classroom on the eve before a major test for first-year medical students.

Hornbuckle knew he wanted to pursue medicine in the moments after his father had a stroke in their South Sacramento home.

“I drove him to the emergency room,” Hornbuckle said. “I took it upon myself to just be a person of action to understand what’s going on and to spread that information to other individuals.”

Hornbuckle, who is Black, hopes to be a primary care doctor in South Sacramento because he personally knows

African Americans who distrust the medical system. He knows — and research has proven — patients of color feel more comfortable talking candidly about health issues, and are more likely to pursue treatments, if their physician looks like them or understands their culture.

“I just want to be a resource that people can utilize in order to deal with their health needs,” Hornbuckle said, “because many individuals don’t go and deal with their hypertension, or don’t manage their diabetes or other chronic illnesses — and many complications including stroke could be avoided if they went to a primary care physician on a regular basis.”

Clinical care at the heart of the program

Once students are accepted into the UC Davis School of Medicine, they may apply to one of several specialized pathways intended to boost the number of doctors in underserved areas and address health inequities. ACE-PC is the most demanding, and the only one that catapults students into a clinic on the fifth day of medical school.

The immediate, hands-on experience makes all the difference for students such as Alejandra Hernández Villagomez. She was raised in Healdsburg, in Sonoma County, and has a special affinity for people like her mother — monolingual Spanish-speaking immigrants who want to have *confianza*, or trust, in their primary care provider.

“I was a translator for my mom at a very young age,” Hernández Villagomez said. “Since my mom is only Spanish

speaking, I would go to her visits with her. And seeing how uncomfortable she was telling her doctor about her home remedies, for fear of being misjudged or misunderstood, made me realize that I could have been that doctor that she was looking for at that time.”

Hernández Villagomez helped provide medical care in Oaxaca, Mexico, as part of an undergrad study abroad program, and later worked as an emergency room medical scribe. But she admits being “a little scared” when going into Kaiser Permanente’s Downtown Commons Medical Offices to conduct her first physical exam.

“Usually in med school you just work with standardized patients, actors who are pretending to be patients, and you don’t get to actually work with real patients until your third year unless you’re involved with student-run clinics,” she said.

“Being able to work with actual patients and being able to see a disease that is manifested in somebody other than, you know it’s faked in another patient, I’m able to relate better to what the disease is, and to the patient,” she added. “It’s very inspiring and very enlightening to be able to work with patients at a very early stage.”

Her preceptor and mentor, David Roldan, M.D., who graduated from the UC Davis School of Medicine, says he’s “amazed” by Hernández Villagomez’ clinical skills.

“She’s able to talk to a patient, have the insight to ask certain questions that you know as a seasoned physician you



sometimes forget to ask, so I can recognize that she’s had a journey to get to medicine that has made her a special candidate,” Roldan said. “She’s a perfect fit for the ACE-PC program.”

A solution to the physician shortage

Within the next eight years, California is projected to face a shortfall of more than

“California’s minoritized and rural communities suffer the most from physician workforce shortages. Accelerated medical school programs are the type of innovation needed to help solve this crisis,” said Tonya Fancher, M.D., M.P.H., the school of medicine’s associate dean who oversees efforts to diversify the physician workforce.

When ACE-PC first started, there were just a handful of three-year medical school programs in the U.S. Now there are more than 20, according to the Consortium of Accelerated Medical Pathway Programs.

UC Davis leaders are grateful for the partnership with Kaiser Permanente, which makes the program and its growth possible.

“Kaiser Permanente is a leader in medical care in our community and throughout California, as well as nationally,” Fancher said. “We would not be the School of Medicine we are without their support of ACE-

PC and many other programs.”

Over the next three years, students like Hornbuckle and Hernández Villagomez acknowledge they have a huge responsibility. They know it won’t be an easy road.

One of their professors and mentors can relate.

“The challenges and the stresses of med school are unique and can be hard to understand for someone who hasn’t gone through it. So the support we get from our classmates is really important for getting through medical school in one piece,” said Ian Kim, M.D., a graduate of the first ACE-PC class who is now a primary care physician at Communi-Care, a local community health center. Kim is also a faculty member in the Department of Family and Community Medicine at UC Davis Health and teaches ACE-PC students the skills needed to interact with patients.

Of the six students in the inaugural class, one works at Kaiser Permanente, three are practicing in community-based primary care settings, and another is pursuing a nephrology fellowship, Kim said.

The accelerated medical school program resulted in long-lasting friendships for Kim and his classmates. “We are still texting each other all the time, we’ve gone to each other’s weddings,” Kim said. The first six graduates have finished their residencies and are talking about holding a reunion.

Kaiser’s Campbell, who along with Henderson, Fancher and other physicians who started ACE-PC helps to select students for the program, looks forward to the next few years when dozens of graduates-turned-residents will join the primary care workforce.

“We’re very committed to a diverse and equitable workforce to serve our patients and all of California,” she said. “We feel like it’s just a win-win-win-win situation for the students, for the patients, for Kaiser Permanente and for UC Davis.”

The looming shortage

- California is projected to have a shortage of 4,100 primary care clinicians in 2030.
- This decade, California will have 10% fewer primary care clinicians than needed to maintain current primary care utilization rates.
- The number of primary care physicians per 100,000 Californians is 50, below the Council on Graduate Medical Education (COGME), recommended supply of 60–80.
- More than one-third of California’s physicians and nurse practitioners are over age 55, and expected to retire or reduce work hours this decade (pre-pandemic estimates).
- 7 million Californians live in Health Professional Shortage Areas (HPSAs), a federal designation for counties experiencing shortfalls of primary care, dental care, or mental health providers.
- Approximately 70% of those living in HPSAs are Latino, African American, and Native American.

Source: California Future Health Workforce Commission Final Report, 2019.

Understanding the cognitive legacy of the Vietnam War



Understanding the connection between trauma and dementia among Vietnamese in the U.S. is a personal mission for UC Davis Health researcher Oanh Meyer.

Her mother, Anh Le, arrived in the United States in 1975 as a Vietnam War refugee just one day before the fall of Saigon. She settled in America and raised a family, but the trauma of living in war-torn Vietnam throughout the conflict took a toll on her.

Now 85 and suffering from dementia and possibly Alzheimer's disease, Anh Le is haunted by imagined threats from military soldiers, made worse by a long-held distrust of

authority. Her fears stem from past experiences of living in a war-torn Vietnam, terrified that family members and loved ones would be taken and never come back.

An estimated 2 million civilians were killed on both sides during the conflict, and some 1.1 million North Vietnamese and Viet Cong fighters died. U.S. armed forces deaths were approximately 58,000.

"In the beginning of the disease, my mother constantly thought that the government and military were nearby and were watching her," said Meyer.

A novel new study will follow older Vietnamese Americans, to see what role adversity and trauma may play in dementias.

With a new first-of-its-kind study, Meyer hopes to better understand how the legacy of surviving the Vietnam War, and the status of being a refugee in the U.S., impacts brain health.

\$7.2 million effort

UC Davis has been recruiting older Vietnamese Americans in the Sacramento and Santa Clara regions for a study of aging and memory. The five-year research project, Vietnamese Insights Into Aging Program (VIP), is funded with a \$7.2 million grant from the National Institute on Aging, part of the National Institutes of Health.

Vietnamese Americans are the largest Southeast Asian group in the U.S. About 158,000 live in the Sacramento and Santa Clara regions, many of whom survived the trauma of the Vietnam War first-hand.

"We know that many Vietnamese Americans have experienced early life adversity and trauma as well as depression, all of which may increase their risk for cognitive impairment and the development of dementia," said Meyer, lead investigator for the grant.

Meyer (Ph.D., M.A.S.) is an associate professor of neurology at UC Davis Health's Alzheimer's Disease Research Center. She's also the co-director of the Integrating Special Populations into Research program in the university's Clinical and Translational Science Center. Van Ta Park, a professor in the School of Nursing at UCSF, is the co-investigator for the study with Meyer.

Oanh Meyer and colleagues distribute flyers announcing the new study at a food distribution event at Asian Resources Inc., a nonprofit organization that serves limited-English and low-income communities in Sacramento.

Around the time of the fall of Saigon in 1975, the U.S. sponsored the evacuation of an estimated 125,000 refugees. In the following years, there was a mass exodus as the humanitarian crisis increased. Currently, more than 2 million people of Vietnamese descent live in the U.S.

Fastest-growing U.S. minority group

Asian Americans are the fastest-growing racial minority group in the U.S., but there's a lack of research on their cognitive aging and risks for Alzheimer's disease and related dementias. For the VIP study, Meyer hopes to recruit about 570 Vietnamese Americans 65 and older from the greater Northern California area.

Study participants in the Sacramento region will come into the clinic at UC Davis Health or to Asian Resources Inc., Meyer's community partner organization, once a year for at least three years. In the Santa Clara region, participants will receive their assessment at ICAN, Park's community partner organization.

"There are conflicts around the globe resulting in continued arrivals of refugees in the U.S. By understanding more about this one population, we may be able to help other generations of refugees as well," Meyer said.

Additional UC Davis investigators for the study include Sarah Farias, Ph.D., in the Department of Neurology, Danielle Jenine Harvey, Ph.D., and Rachel Whitmer, Ph.D., in the Department of Public Health Sciences, and Ladson Hinton, M.D., in the Department of Psychiatry and Behavioral Sciences.



Duy Nguyen, an aspiring psychiatrist, seeks to educate providers about trauma endured by refugees



“My mother had actually tried to escape seven times and failed, and each time she got caught, she went to prison.”

— DUY NGUYEN

Duy Nguyen with his mother in Sacramento. Both escaped communist Vietnam when he was just 5 years old.

A medical student shares insights about the refugee experience

Duy Nguyen was just 5 years old when smugglers led him, his mother, his aunt and about 40 other people toward a boat to escape communist Vietnam.

“It was a huge gamble,” Nguyen recalled. “My mother had actually tried to escape seven times and failed, and each time she got caught, she went to prison.”

Getting to the boat was rough — passengers had to walk through shallow but wave-whipped water to reach the vessel in the cover of night. By the time he boarded, Nguyen had become separated from his family but was reunited shortly after the boat headed toward the Philippines.

experience are real, but it is important to see what may have been gained from those experiences,” Nguyen wrote in the paper, “Hunted: Thoughts on Escape and Safety.”

“For a year, we lived like animals, each day scavenging for food and safety, scampering along hidden trails untouched by sidewalks or laws, our predators both criminals and the police — we knew we could be killed on sight,” Nguyen wrote.

“And, in fact, it’s been estimated that up to 70% of us died. It is no wonder that even years later in the safety of a new land, we carried this hiding with us, whether in school or in a doctor’s office.”

Nguyen is now a student at the UC Davis School of Medicine, where he will graduate in May.

He’s eager to share vital insight about the refugee experience with behavioral health providers: Nguyen wrote a paper about his saga that was recently published in the *Journal of the American Academy of Child & Adolescent Psychiatry*.

“The traumas of the refugee

Escaping was deadly experience for some

Nguyen, a fourth-year medical student and aspiring psychiatrist, was born in Ho Chi Minh City in 1976. It was just a year after the Vietnam War ended and the communist government prevented citizens from easily leaving.

Two family members died trying to flee. But Nguyen’s mom was so determined to leave and never return that she devised a morbid-sounding suicide pact: In case they were caught, she would kill Nguyen, then kill herself. “We would die together,” Nguyen said. “If you took such a journey, you’d have to have that kind of mindset.”

Nguyen’s mother was 23 when she paid the smugglers for the escape. The boat captain’s plan was to steer to the Philippines because the island country had the nearest U.S. Embassy. But the vessel ran out of fuel and drifted to Malaysia, where authorities intercepted the boat by firing gunshots and briefly jailed the passengers.

After boarding another boat, Nguyen, his mother and his aunt arrived in the Philippines. They remained in a refugee camp for about six months while waiting for paperwork that authorized their resettlement in the United States. They flew to San Diego and moved in with Nguyen’s uncle in nearby La Mesa.

Challenges of resettling in the U.S.

Nguyen struggled in his new surroundings.

“We had lost everything; now, we were lost in everything. I was mute for two years in school because I was never taught English. I cheated when my first-grade teacher asked students to write down their names and looked at what the boy next to me wrote: Steve McNeely. I copied that. And then Robert Taylor, Seth Campfield: I copied their names too,” Nguyen wrote.

“I did not know how to write Duy Nguyen. I failed first grade.” Nguyen eventually learned English and succeeded in school, but it was largely a difficult experience.

He later learned that the refugee experience is universal, no matter if the newcomers are from Latin America, Asia or Africa.

“All have had some kind of trauma,” Nguyen said. “You were ejected out of a chaotic society, you diverged from civilization in a life-and-death struggle, you made some sort of a trek, then came to America and had a post-migration culture shock,” he said.

The refugee experience is a lasting one, Nguyen stated. It includes psychiatric disorders, post-traumatic stress disorder (PTSD), disruptive behavior, depression and even psychosis.

“My hope is that if I was a refugee child in front of you, that this would be the story you would try to tell me about myself. It would help me understand that I had persevered,” Nguyen wrote.

“When an athlete wins a championship or a woman gives birth, we look at them in light of what they have accomplished

or created. We admire their determination and will, and then we say, now let’s take a look at those injuries.”

Sharing his story with health professionals

Writing about his refugee experience, Nguyen said, has been therapeutic. In addition to educating providers, Nguyen also wants to share his experience with younger Vietnamese Americans who don’t understand some of the traumas the previous generations have endured.

Nguyen graduated from UC Berkeley in 2001 with degrees in psychology and literature and stayed in the East Bay, where he taught English literature at San Leandro High School. He also was a theater director. After 14 years of teaching he decided to apply to medical school. After graduating this spring, Nguyen will head to UCSF-Fresno for its psychiatric residency program.

His mother and aunt, meanwhile, graduated from college and are both senior software engineers at Qualcomm in San Diego.

Looking back, Nguyen says the misfortune in his life has also been his fortune, which he acknowledges is ironic. Because he survived devastating circumstances during childhood, he sees how life always has promise, which makes it hard to be cynical as an adult.

Many refugees become humanist, valuing family and society above personal ambition “because we had been so hurt by life and have witnessed so many people sacrifice for others,” he said.

“Children who are privileged and have never had to face hardship perhaps also have a hard time understanding another’s pain. They can be blind to the fact that people can sacrifice for each other,” Nguyen said. “It is not because they are surrounded by selfish people, but because their circumstances have never demanded that.”

In many instances, Nguyen said, their parents or friends never had the experience of risking their lives or making sacrifices for them.

“They never got the chance to see that they are loved and because of this, perhaps, the world may even seem a less loving place. But it isn’t,” Nguyen said.

“I remember my mother begging for me when I was starving and giving me the food, she received. I remember my aunt trying to give me the best seat in a garbage truck that drove us to the refugee camp. I remember the man, a stranger, who put me on his shoulders so I would not drown when we fled the police,” he said.

“And these memories continually remind me of the kindness that surrounds us.”

Learn more: “Hunted: Thoughts on Escape and Safety” *JAACAP Connect*, Issue 8.2, Spring 2021.

Medical student selected for distinguished global health fellowship

UC DAVIS HEALTH

Jade Tso is one of four aspiring U.S. physicians chosen by the American Medical Women's Association

Jade Tso's passion for scientific research and global health started when she was 15. She interned with the American Chemical Society, which connected her to a notable chemist at UC Davis: Betty Burri of the federal government's Western Human Nutrition Research Center.

Tso worked under Burri on a project related to vitamin A deficiency, a condition rare in the U.S. but common in other countries.

"This experience broadened my view of what science and research could look like," Tso said.

The former intern is now a first-year UC Davis medical student in the ARC-MD honors pathway, short for Academic Research Careers for Medical Doctors. And she's on track to accomplish great things: Tso was recently named a 2021-2023 Anne C. Carter Global Health Fellow by the American Medical Women's Association (AMWA). Tso is one of only four fellows selected from across the United States.

The fellowship allows students who are passionate about global health to conduct research around the world, perform medical services and chair AMWA committees. The first year of the program is focused primarily on global health curriculum, meeting other fellows, writing blog posts and coming up with research topics. The second year is dedicated to implementing a major research project.

"When I was applying, I really wanted to join a community of women who are also aspiring leaders in global health, and I hope to apply the leadership and project management skills I've gained from previous experiences to the fellowship's second-year capstone project," Tso said. "I'm looking forward to listening to community members and helping to design programs that best serve their priorities."

An early interest in medicine

Tso was born in New York. She moved to Elk Grove as a child where she developed an interest in medicine.

When she was 12, her father was diagnosed with idiopathic cardiomyopathy, a disorder of the heart muscle that makes it difficult to pump blood. Her family watched her father lose more

than 50 pounds and go in and out of intensive care units for eight months before he received a heart transplant.

"This experience inspired me to want to be the physician serving patients and their families in their hardest moments. It also began my interest in cardiology," Tso said. "I believe that building stronger health care systems to fight cardiovascular diseases will become a major theme in global health in the coming decades."

Tso already has valuable research and global health programming experience on her résumé.

After graduating from Franklin High School in Elk Grove, she enrolled at Duke University. There, she led a community-based nutrition project in Argentina and conducted research on mosquito-borne diseases in Costa Rica. She also researched delivery models for anticoagulants in sub-Saharan Africa for a project based at Harvard Medical School.

She spent six years facilitating workshops and coaching leaders from around the country to organize advocacy efforts for global health legislation on behalf of Partners in Health Engage, a nonprofit dedicated to improving health care to the underserved.

Following her college graduation, she spent two years at Advance Access & Delivery, a global health organization that assigned her to help prevent tuberculosis in the Republic of Georgia, then develop COVID-19 testing strategies at Oklahoma City homeless shelters.

Tso led a community-based nutrition project in Argentina and conducted research on mosquito-borne diseases in Costa Rica. She also researched delivery models for anticoagulants in sub-Saharan Africa for a project based at Harvard Medical School.

Each of the experiences, Tso said, has reinforced a couple of core principles.

"One, health care is a human right. And two, policy and public health initiatives should directly address barriers to care and honor the struggles of the most vulnerable patients," Tso said. "The stories I have had the privilege of hearing from patients have challenged me to think about system-level changes that could make health care more accessible."

As an ARC-MD student, Tso will attend the first three years of traditional medical school, take a year off to conduct research, then graduate after her fifth year.

On track for a career in research

Tso's recognition as an Anne C. Carter Global Health Fellow reflects the caliber of ARC-MD students at UC Davis.

"All members of the ARC-MD program are incredibly proud of Jade's accomplishment," said Professor Luis

Fernando Santana, Ph.D., the Arline Miller Rolkin Endowed Chair in Physiology & Membrane Biology.

"This award is an example of how we achieve our goal of developing the next generation of diverse, team oriented, community health-committed faculty," said Professor of Internal Medicine Frederick J. Meyers, M.D., M.A.C.P., who oversees the ARC-MD pathway.

Tso, who enjoys photography, running, golf, and watching Duke basketball, is eager to enter a medical career that will allow her to care for patients, conduct research and prevent diseases around the world.

She has fond memories of the high school internship that started her educational and career path.

"As I reflect on what has been an almost 10-year journey, I am very excited because I know this is just the beginning," she said. "I am passionate about empowering the voices of those who are too often left behind by the health care system. It will be my lifelong journey to prove that the highest standard of health care can be provided in low-resource settings."



Jade Tso and her colleagues in November 2017, working on a mosquito prevalence research project in Costa Rica.

Alumni association updates

Alumni Weekend (and an important transition)

On the following pages you'll find photos from Alumni Weekend 21-22, which we celebrated just a few weeks ago. We hope they'll make you smile and inspire you to return to campus for Alumni Weekend next year. You'll be hearing from us about a spring date for 2023 in the coming months.

In this issue you'll also see our bow to six of our exceptional alumni — our School of Medicine Alumni Association (SOMAA) Alumni award recipients for 2021 and 2022. We celebrate them and all our past recipients, and we know there are many alums doing amazing work who have yet to be honored.

We want your help in identifying other outstanding alums doing exceptional work who deserve recognition through our annual awards, whether next year or in years to come. The nomination process is simple. Visit the SOMAA website health.ucdavis.edu/medalumni. Click the Awards tab and "Submit a Nomination." (Note that self-nominations are welcome.)

Finally, we are celebrating 6+ years of happy work and saying farewell — and readying for an important transition. Alumni Engagement Director M.L. Farrell is retiring in June. The search is underway for her successor, and we look forward to not only a smooth transition to a new leader for alumni engagement, but to staying connected with M.L. as she moves on to volunteer work and enjoying a leisurely coffee with SOM friends and colleagues now and then.

Keep an eye out for word from us soon introducing our new director. Until then, Lisa Schaffer, managing executive director of development (SOM), will be your contact for all things SOM alumni.



Doug Gross (M.D., '90)
President
UC Davis School of Medicine
Alumni Association



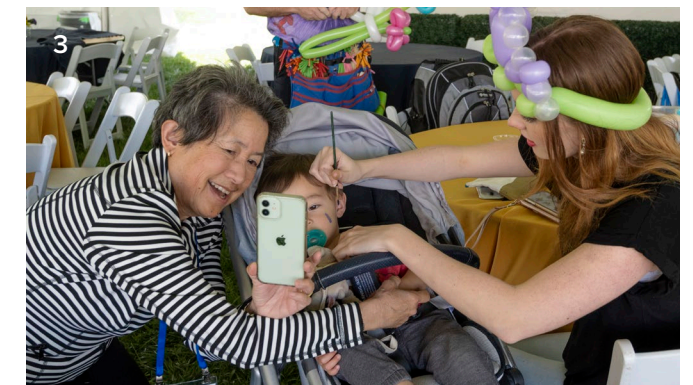
M.L. Farrell
(Retired) Director
School of Medicine
Alumni Engagement



Lisa Schaffer
Managing Executive Director
of Development
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- 1 Cheers for our first-ever 50th reunion! Members of the Class of 1972 share memories on Friday afternoon.
- 2 SOMAA President Doug Gross (M.D. '90) welcomes the crowd to the first in-person Alumni Weekend since the start of the coronavirus pandemic. The event was an opportunity for 5-year class reunion celebrations for M.D. grad years ending in 0, 1, 2, 5, 6 and 7.
- 3 Turnout (and laughter) were high at a gathering to share memories of working with and learning from the late Faith Fitzgerald. For a memorial story about Dr. Fitzgerald and links to additional remembrances and past interviews, see p. 38-39.
- 4 Ruth Shim, associate dean of diverse and inclusive education, gives one of four presentations by prominent faculty about innovations in medical education and research at UC Davis Health. Shim is co-editor of the books *The Social Determinants of Mental Health* and *Social (In)Justice and Mental Health*.



- 1 Members of the Class of 1982 gather for their 40-year reunion.
- 2 Young alumni with Lauren Snow, the School of Medicine's longtime director of financial aid (and a leader in stewarding and advancing student scholarships), who retired in 2021.
- 3 Class of 2017 colleagues Andrew Chomchuwensawat and Walter Chang reconnect.
- 4 At a tribute session for Faith Fitzgerald, 1990s alumni connect with Ernie Lewis, emeritus professor of clinical urology and emeritus associate dean for Medical Education and Student Affairs.

- 1 Nancy Griffith and Jean Katow get creative on behalf of their class at the new SMUD Museum of Science and Curiosity (see p. 15), site of the 2021 and 2022 Alumni Awards presentation (see p. 36-37).
- 2 UC Davis Medical Center's chief administrator Brad Simmons shares how UC Davis Health's campus – and regional mission – are continuing to evolve, with a goal of “completing not competing” to advance health and care across Northern California.
- 3 Face painting and other treats were part of the informal family-friendly activities on the Vanderhoef Commons Saturday afternoon, a time for adults to catch up casually with faculty and staff.
- 4 Folks from the classes of 2001 and 2002 represent Generation X!



David Inwards-Breland (M.D. '97), Michael Neely (M.D. '96), Christopher Longhurst (M.S. '00, M.D. '01), Robert E. Fontaine (B.S. '68, M.D. '72), Bruce Spurlock (M.D. '86), and Kathryn (Katy) Carlsen (B.S. '87, R.S. '94).

School of Medicine Alumni Awards 2021–2022

Michael N. Neely, M.D. '96

2021 Distinguished Alumnus Award

Board-certified pediatric infectious diseases authority Michael Neely is an internationally recognized leader in development of computerized drug behavior models that help identify the best drug dose to achieve optimal concentrations for individual patients. He has research and clinical expertise in pediatric clinical pharmacometrics, population pharmacokinetic and pharmacodynamic modeling and simulation.

Neely, a professor of pediatrics and a clinical scholar at the University of Southern California (USC) Keck School of Medicine and a professor of pediatric infectious diseases at Children's Hospital of Los Angeles (CHLA), is the director of USC's Laboratory of Applied Pharmacokinetics and Bioinformatics. He is chief of infectious diseases at CHLA, where he applies state-of-the-art analytical techniques to optimize therapy for mycobacterium abscessus, pseudomonas aeruginosa, staphylococcus aureus and other tenacious infections, which are particularly problematic

for patients with cystic fibrosis and other chronic lung conditions.

Neely, who holds a master's degree in clinical and biomedical investigations, is a former member of the U.S. Food and Drug Administration Anti-infective Drug Advisory Committee, and is a fellow of the American College of Clinical Pharmacology. His research has received funding from the National Institutes of Health continually since 2007, with additional funding from the FDA and private foundations.

Christopher A. Longhurst, M.S. '00, M.D. '01

2021 Transformational Leadership Award

Even though Christopher Longhurst is a neonatologist, much of the work that he does benefits patients of all ages. Board certified in general pediatrics and in clinical informatics, Longhurst cares for newborns in his clinical practice at UC San Diego's Jacobs Medical Center in La Jolla, while also serving as the chief medical officer (CMO) and chief digital officer (CDO) for the entire UC San Diego Health system. His CMO responsibilities encompass all aspects of clinical care, including regulatory compliance, patient and clinician satisfaction, quality and safety. As the CDO, he oversees health technology planning and application throughout UC San Diego.

He also is an associate dean overseeing the education and research missions in UCSD's School of Medicine within the context of the clinical environment. As a professor with dual appointments in the Departments of Pediatrics and Biomedical Informatics, Longhurst teaches medical students, residents and fellows. He obtained his master's degree in medical informatics as well as his M.D. degree at UC Davis. He conducts research to expand the use of health information technology to benefit patients and staff members, and his findings have been published in the *New England Journal of Medicine*, *JAMA*, *Pediatrics* and other journals.

Bruce Spurlock, M.D. '86

2021 Humanitarian Award

Among a short list of the nation's top hospital safety advocates and advisors, Bruce Spurlock's name rises to the top. As president and chief executive officer of Roseville-based Cynosure Health, a nonprofit health care quality consulting and training organization, he is on a quest to eliminate suboptimal care by helping hospitals and medical practices identify and implement patient safety measures. He advances that objective as president and CEO of Convergence Health Consulting Inc., a management consulting firm that works with hospitals, health care plans, purchasers and medical groups. Spurlock additionally is executive director of Cal Hospital Compare, a public reporting initiative through which health plan representatives, consumer groups, state agencies and hospitals assess California hospital performance.

Spurlock, who is an adjunct affiliate with Stanford Health Policy — jointly operated by the Freeman Spogli Institute for International Studies and Stanford University — also has made an imprint internationally. He is vice president of the Raise Your Hand Foundation, which funds educational opportunities and scholarships for young adults in Liberia. Spurlock began his career practicing internal medicine and serving as chief of patient education for the Sacramento Area with the Permanente Medical Group.

Kathryn (Katy) Carlsen, B.S. '87, R.S. '94

2022 Humanitarian Award

Pediatrician Katy Carlsen had spent the better part of a decade in her full-time Kaiser Permanente practice when she realized that she wanted to help children on a broader scale — particularly foster children. Her quest led her to a position with a Placer County public health agency, as well as to become a UC Davis Health volunteer clinical faculty member beginning in 2000, training medical residents in pediatrics.

She shared a deep concern for foster children with her husband, Dale Carlsen, the founder and former CEO of the Sleep Train chain of mattress retail stores. With a \$2.55 million gift for start-up and operating endowment funds, the couple helped establish the CIRCLE (Comprehensive Integration of Resilience into Child Life Experiences) Clinic to furnish trauma-informed medical services for children in the foster care system. UC Davis and the Sacramento County Health Center collaboratively operate the clinic, in partnership with the MIND Institute, the Child and Adolescent Abuse Resource and Evaluation (CAARE) Center and other UC Davis Health units. Through the CIRCLE Clinic, which opened in November 2020 in Sacramento, foster children have primary care access to UC Davis pediatricians — including Katy Carlsen — as well as mental and behavioral health services.

Robert E. Fontaine, B.S. '68, M.D. '72

2022 Distinguished Alumnus Award

Almost immediately following his graduation from the UC Davis School of Medicine, medical epidemiologist Robert Fontaine joined the staff of the U.S. Centers For Disease Control and Prevention, with which he has remained since. Now a senior advisor in the Workforce and Institution Development Branch of the Division of Global Health Protection at the CDC, Fontaine has distinguished himself as one of the world's foremost field epidemiologists. He devoted his career to establishing and overseeing field epidemiology training programs (FETPs) throughout the world, including Saudi Arabia, Jordan and China. In that role, he has mentored more than 250 FETP trainees who in turn have trained thousands of others, and who investigate disease outbreaks and apply epidemiolog-

ical research to solve public health problems throughout the globe.

In response to the SARS breakout in 2003, he advised and trained Chinese physicians to investigate, contain and eradicate diseases, including H1N1 and H5N1 flu viruses. The Chinese government expressed gratitude in 2007 by presenting him with the Friendship Award — the highest honor given by China to a foreigner. In October 2021, the CDC honored Fontaine with a Lifetime Scientific Achievement Award, presented in recognition of his body of work contributing to public health worldwide.

David Inwards-Breland, M.D. '97

2022 Transformational Leadership Award

Pediatrician and health systems administrator David Inwards-Breland has gained recognition and admiration throughout his career for bringing focus to gender-affirming care in adolescent medicine. Since 2020 he has been a UC San Diego clinical professor of pediatrics, chief of the Division of Adolescent and Young Adult Medicine, and co-director of the Center for Gender-Affirming Care at Rady Children's Hospital in San Diego. The Center for Gender-Affirming Care treats children, adolescents and young adults with gender dysphoria and related health care needs. Gender dysphoria is the deep emotional distress resulting from a mismatch between a person's assigned gender at birth and gender identity. The center provides comprehensive care by means of a multidisciplinary, family systems approach, involving mental health professionals, endocrinologists and adolescent medicine specialists.

Inwards-Breland previously was the clinical director of the Division of Adolescent Medicine at Seattle Children's Hospital. During his 11-year era there he conducted research that was instrumental in establishing the Seattle Children's Gender Clinic, for which he served as medical director. He performs scholarly studies on adolescent male health, depression, transgender and nonbinary youths, and disenfranchised youths. Inwards-Breland is a member of the American Board of Pediatrics sub-board on adolescent medicine.

Cal Aggie Alumni Association

In March the CAAA also named Olivia M. Campa, M.D. '14, the recipient of that association's Young Alumni Award for 2022, citing her leadership roles, community impact, and commitment to advancing diversity, equity and inclusion. For information, visit alumni.ucdavis.edu.

The medical community loses a titan



The incomparable **Faith Fitzgerald**, who served 38 years with the UC Davis School of Medicine, was an innovator in patient-centered care

Faith Thayer Fitzgerald, who devoted nearly four decades to educating the next generation of physicians at the UC Davis School of Medicine, passed away in December at the age of 78. She leaves a rich legacy of accomplishments and an indelible imprint on the community she loved.

Fitzgerald, or “F2” as she was affectionately known, joined the faculty of the School of Medicine in 1980 and was an emeritus professor who served 38 years in the Department of Internal Medicine.

Among her contributions to UC Davis Health, she served as residency program director, a position she held for nearly 20 years, chief of general medicine, vice chair for education, and the School of Medicine’s first associate dean for humanities and bioethics.

“Faith leaves behind a powerful legacy and sphere of influence, having

inspired thousands of students and residents at UC Davis and countless internists all over the world,” said Susan Murin, M.D., M.Sc., M.B.A., interim dean of the School of Medicine. “Among her many gifts was the ability to share the joy of practicing medicine, in teaching, and the continual pursuit of excellence. Her impact on our campus, health system and those who had the privilege of knowing her is immeasurable.”

A patient-centered approach

As a physician, Fitzgerald was known for her unique ability to connect with patients. An innovator in patient-centered care, she preached to colleagues and students about the importance of listening to patient’s stories and experiences.

“If you listen to the patient, they will tell you all you need to know,” she would say.

Always dressed in black, Fitzgerald would begin pre-rounds at 3 a.m. and meet individually with patients, leaving handwritten notes in their charts.

Fitzgerald often connected on a deeper level with patients. Her unique bedside manner allowed her to involve them in decisions about their care and gain their insights to better treat their illnesses.

“Faith intuitively understood that it’s the stories around patients and their cases that helps us connect to the patient as a human and secondarily to the patient as a human being with a disease,” said Paul Aronowitz, M.D., M.A.C.P., clerkship director of internal medicine at UC Davis.

A dedicated and gifted educator

Known for holding herself and her students to the highest ethical and professional standards, Fitzgerald shared her knowledge and philosophy with students throughout the world. She served as a visiting professor and lecturer in 30 states and 10 foreign countries.

“I try to exemplify to students the exhilaration of medicine, the honor and awesome responsibility of patient trust and the beauty of the scientific thought process,” Fitzgerald said during an interview with the U.S. National Library of Medicine.

A gifted storyteller, Fitzgerald taught the science of medicine through the art of storytelling and the magic of personal relationships.

“Many of us were inspired by her, and she made teaching a noble profession and academic identity for clinicians here at the School of Medicine long before the institution fully caught up with that idea,” said Mark E. Servis, M.D., vice dean

Distinguished Teacher Award, the California Medical Association Golden Apple Award and the UC San Francisco Gold Headed Cane.

In addition to national and regional recognition, she received countless awards from UC Davis, including the prestigious Hibbard Williams Lifetime Achievement award, the Tupper Award for Excellence in Teaching and the UC Davis School of Medicine Golden Apple Award. She was also chosen as the UC Davis Senior Class Outstanding Clinical Teacher seven times and was named the Department of Medicine Distinguished Faculty Teacher on four separate occasions.



“Empathy is not the same thing as kindness, sympathy, pity or understanding — it is rather knowing of someone’s suffering, and having the inescapable awareness that this could be me. Empathy is the most valuable gift a physician can give to their patients.”

—Faith Thayer Fitzgerald

for medical education. “She will be missed, but her work will live on in the countless students, residents, faculty and staff who learned from her.”

An internationally recognized clinician

Throughout her illustrious career, Fitzgerald received over three dozen teaching awards. In 2002 she received the Alpha Omega Alpha medical honor society’s Robert J. Glaser Award for providing medical students with an outstanding educational experience. Additional teaching awards included the American College of Physicians

“These awards and accolades barely summarize her career adequately,” said Aronowitz. “For those who knew her, Faith will be remembered for her inspiring nature, superb clinical acumen, and as a consummate educator and true patient advocate.”

A formal memorial event for Fitzgerald was held in March, and a recording is available for viewing on the School of Medicine’s Facebook site — see the column at right for details. Alumni Weekend 2021-2022 also included an informal tribute session.

Remembering Faith Fitzgerald

The snapshot below includes a sampling of remembrances for Dr. Fitzgerald, and of past videos and articles featuring her. Many more are available on social media channels such as Twitter, Facebook and YouTube.

Virtual memorial ceremony

A Zoom recording of the School of Medicine’s event, including speaker remembrances, video condolences, video clips and a picture slideshow.

facebook.com/UCDavisMedicine/videos/dr-faith-fitzgeralds-virtual-memorial-ceremony/735599830760561

(FB page home: facebook.com/UCDavisMedicine/)

Dr. Faith Fitzgerald: Excellence in Teaching

Department of Internal Medicine video interviews with Dr. Fitzgerald and residents.

<https://vimeo.com/17282141>

U.S. Library of Medicine interview

For the “Changing the Face of Medicine” exhibition.

cfmedicine.nlm.nih.gov/physicians/biography_113.html

Mountainlion Internal Medicine podcast #133 – A Tribute to Faith Fitzgerald MD MACP

Hosted by UC Davis internal medicine clerkship director Paul Aronowitz, and featuring three stories as told by Dr. Fitzgerald herself.

soundcloud.com/mountainlion-2/a-tribute-to-faith-fitzgerald-md-macp

(podcast home: soundcloud.com/mountainlion-2)

Keynote address: 2014 School of Medicine Commencement Ceremony

<https://youtu.be/j9qDVtfH8FY>

2014 Mini Medical School lecture: “Aging in a Culture of Gerontophobia”

Introduced by (and including a whimsical biographical poem by) UC Davis geriatrician Calvin Hirsch.

https://health.ucdavis.edu/minimed/Video_Sessions/2014_Video_Sessions.html

Faith Fitzgerald, M.D., Medical Student Scholarship Fund

<https://give.ucdavis.edu/MOME/325008>

In memoriam

CYNTHIA NG, M.D. '99

Dear Classmates, Friends and Colleagues: With a heavy heart, we want to let you know that Cindy Ng, M.D., our wonderful friend and UCD SOM Class of 1999 classmate, passed away on January 6 after a brave 4.5 year battle with lung cancer. She is survived by her husband, Dave Gebala, and her two sweet daughters, Reina (10) and Matea (12). Cindy was the most incredible wife, mother, friend, and caring, dedicated physician. She will be greatly missed by all that knew her.

A celebration of Cindy's life was planned for March at Crane Cove Park in San Francisco.

- Stephanie D'Augustine stephdaug@gmail.com
- Stacie Bennett (Ransome) stacieb72@yahoo.com
- Julie Letsinger (Crowder) jletsinger@yahoo.com
- Courtney Hallum c.hallum@me.com

Editor's note: As part of the event, memories, stories and photos were solicited for a Kudoboard to be shared with Ng's daughters. At press time, the board was still viewable and accepting comments at [kudoboard.com/boards/cpvyuXao](https://www.kudoboard.com/boards/cpvyuXao).

DAVID ATKINSON, M.D. '91

David Atkinson, M.D. '91, passed away August 28, 2021.

Dr. Atkinson was an accomplished pediatric cardiologist with an unrelenting dedication to his patients, and was a gifted educator and mentor to colleagues and trainees.

Dr. Atkinson received a B.A. in English Literature from UCLA and his M.D. from UC Davis. He completed his pediatrics internship, residency, and cardiology fellowship at the UCLA Center for Health Sciences, and joined the Division of Pediatric Cardiology at Harbor-UCLA in 2002, serving most recently as Clinical Professor of Pediatrics.

Dr. Atkinson will be remembered for his steadfast dedication to his patients, as an innovator, and as an advocate for high-quality care. He was an accomplished pediatric cardiologist, specializing in fetal congenital heart disease and serving as the director of the pediatric echocardiography laboratory. He established the fetal echocardiography clinic at Olive View-UCLA Medical Center, so that expectant mothers would not have to travel. He also established a transitional clinic for teenagers and young adults with congenital heart disease at Harbor-UCLA. For many years, he directed the challenging Clinical Pathologic Conference (CPC) program for senior pediatric residents.

Dr. Atkinson was the author of multiple publications and book chapters, served on several department committees, and chaired the John F. Wolf Human Subjects Committee for the Lundquist Institute.

Dr. Atkinson was a gifted academician, but first and foremost, he was a loving and beloved husband and father. His family planned a celebration of his life in fall 2021.

Excerpted from UCLA Department of Pediatrics note to colleagues

MALCOLM MILLER, M.D.

Malcolm Miller, M.D., 75, died Dec. 18, 2021, at Heart of the Rockies Regional Medical Center in Salida, with his family by his side. He received his bachelor of science degree from Colorado State University and went to medical school at UC Davis. He did his internship at Mount Zion Hospital in San Francisco and a fellowship at UCSF. He was board certified in family practice and diagnostic radiology and worked as a medical doctor in California, Colorado, Alaska and the Southwest. He served as radiologist at Heart of the Rockies Regional Medical Center in the late 1980s and early 1990s. In 2004 he moved to Salida and worked as a radiologist until he retired.

Dr. Miller was an accomplished skier and whitewater boater, and enjoyed many other outdoor sports. He also was a highly experienced cook of Asian cuisine, and a collector of classic vinyl records and comic books. He was a member of the American Board of Family Medicine, American College of Radiology, American Roentgen Ray Society, Sierra Club and Greater Arkansas River Nature Association.

Dr. Miller was preceded in death by his parents and wife, Jayne Poorbaugh. Survivors include two children, three grandchildren, a sister-in-law, three brothers-in-law, six nephews, one niece, his "river tribe" and numerous friends and colleagues. A celebration of his life was to be planned for a future date when more people can gather. Arrangements are with Lewis and Glenn Funeral Home in Salida.

Excerpted from Lewis and Glenn Funeral Home and Fairview Cemetery

MICHAEL "WAYNE" SALO, M.D. '71

Michael "Wayne" Salo, M.D., passed away in fall 2021 after a six-year battle with cancer. He is survived by his loving wife of 33 years, Ruth; his three children Anne, Katherine and Alex; and five precious grandchildren. Wayne was born in Troy, New York but moved to Lawrence, Mass. as a young boy, where he attended Central Catholic High School (CCHS) graduating in 1963. Following his years at CCHS, Wayne attended Georgetown University graduating in 1967. He stayed at Georgetown for medical school, receiving his M.D. as a member of the class of 1971.

Wayne was an avid Georgetown Basketball fan and cheered the Hoyas through both winning and losing seasons. After completing a psychiatric residency at the Menninger Institute in Kansas, he settled in Northern California. Wayne joined UC Davis as chief psychiatrist at Student Health in 1988. During his 26-year tenure at Student Health Services, Wayne was beloved by both the medical and counseling staff for his empathy and his refreshing sense of humor. He will be remembered for his dedication to providing care to undergraduate, medical and veterinary UC Davis students.

Wayne was a kind and brilliant man who enjoyed reading, history, travel and good music. Most importantly, he was a loving husband and a devoted father who always put family first. It is hard to imagine life without him.

Submitted by Ruth Salo

EDITOR'S NOTE: Due to an editor's error, the name of KEN GEIGER, B.S. '80, M.D. '84, was misspelled in the In Memoriam section of a previous issue of *UC Davis Health* magazine. We apologize for the error – Ed.

An update from Stephen Cavanagh, dean of the Betty Irene Moore School of Nursing at UC Davis

Applying pandemic lessons

This spring signals optimism at the Betty Irene Moore School of Nursing at UC Davis. As California and the world transition from pandemic to endemic, we focus on our future growth and increase the value our programs, graduates and research bring to local communities and beyond.

Just as Governor Newsom's SMARTER plan builds on lessons learned over the past two years and the state's ongoing commitment to equity, we here at the School of Nursing harness how we innovated in crisis and chart our course to achieve our vision: optimal health and health equity for all.

In alignment with the UC Davis campus, UC Davis Health and the UC Davis School of Medicine strategic plans, the School of Nursing launched a comprehensive strategic plan. We seek to leverage our unique strengths to advance each mission area for measurable impact to our collective communities.

We engaged more than 200 people, including leadership, faculty, staff, students, alumni and postdoctoral scholars. Our goals for the next three to five years include providing an exceptional education and growing our research program to increased engagement with our community partners and integration within UC Davis Health.

Achieving those means we must also create an environment where all

can thrive and where we identify, attract and retain diverse students, faculty and staff to advance diversity, equity and inclusion.

Our school is an exemplar at UC Davis for its commitment to diversity, equity and inclusion issues — through our mission, vision and values to the ways in which we work with one another and collaborate with our community. We recognize the valuable role we have to play in addressing health care challenges facing our state.

More than half of Californians living with mental health illness do not receive the psychiatric care they need, and the situation is projected to get worse. Mental health needs surpass the availability of specialized providers. The COVID-19 pandemic has only exacerbated the mental health crisis in California, underscoring the immense need for providers across the state. To answer the call, we, along with the UCSF and UCLA schools of nursing, partner to train 300 nurse practitioners across state to become psychiatric mental health specialists by 2025.

The pandemic has also led to burnout among some nurses and, at least according to one report, a potential shortage of more than 44,000 nurses by 2030. That presents both a challenge and an opportunity to develop a future workforce of nurses that mirror the diversity of the populations we serve.



Stephen Cavanagh, Ph.D., M.P.A., R.N., F.A.C.H.E., F.A.A.N.

The School of Nursing's Summer Health Institute for Nursing Exploration and Success (SHINES) aims to do just that. Currently under development, the program would expose Sacramento high school students to the nursing profession, learn what nursing pathways suit their needs and how to succeed in their academic aspirations. The program is similar to Prep Médico, a partnership between the UC Davis School of Medicine and Kaiser Permanente to expand diversity in medicine and ultimately increase the number of Latinos who choose to become physicians.

"The Future of Nursing 2020-2030: Charting a Path to Achieve Health Equity" was released in May 2021. It offers a road map for how nurses can work to reduce health disparities and promote equity. The School of Nursing lives out its diversity statement "to prepare graduates who can inform and participate in improving the health policies needed for health equity to be achieved and for longstanding patterns of inequality to be interrupted." Moving forward, we will fulfill our strategic goals to further our commitment to health equity.

Over the past two years, we've innovated in ways we never imagined and thrived in the face of incredible challenges. We approach this post-pandemic world with time-tested flexibility and continued resolve to apply all we've learned and keep working toward our mission, together, with you.

Doctoral graduate realizes dream, fulfills critical role for nursing's future

The coronavirus pandemic thrust the world into a learning experience — from mask wearing and social distancing to vaccine effectiveness and value of friends and family.

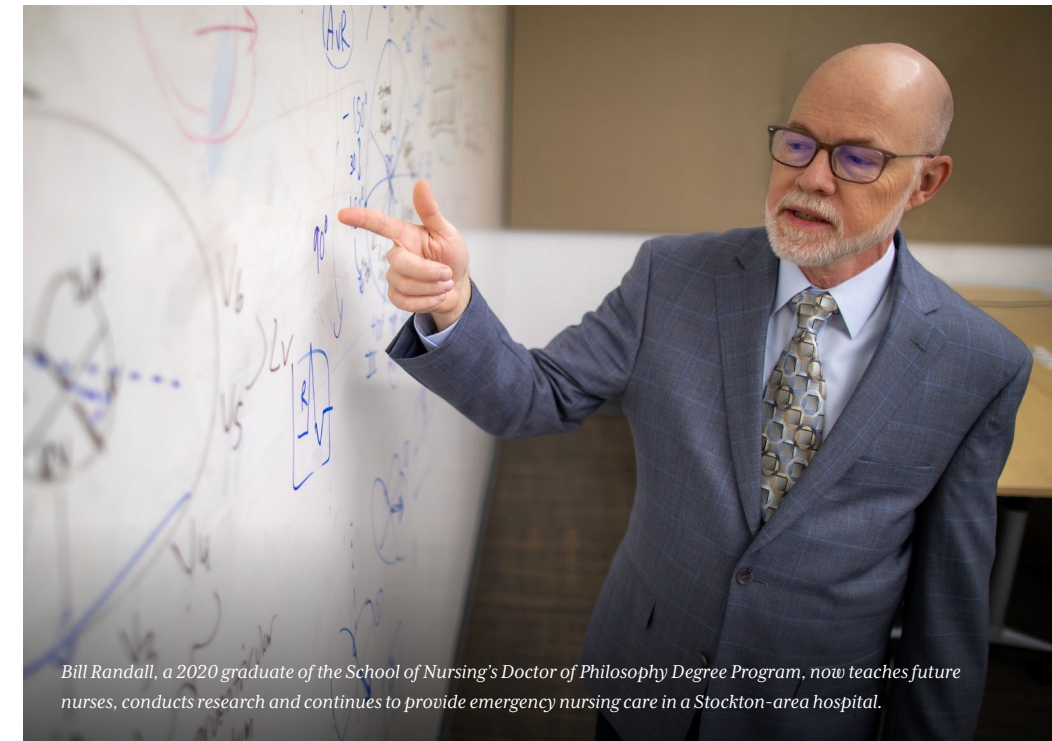
For Bill Randall, a newly minted doctoral degree prepared him to educate future nurses for a post-pandemic world and further his research in emergency nursing.

"I really wanted to teach the newbies to help guide them and mold them into what a nurse should be," explained Randall, a Class of 2020 graduate from the Betty Irene Moore School of Nursing Doctor of Philosophy (Ph.D.) Degree Program in Nursing Science and Health-Care Leadership. "I bring in my rich, diverse experience to talk about an array of topics and make it salient."

As an assistant professor at Samuel Merritt University in Sacramento, California, Randall discusses salient topics, such as COVID-19 vaccinations and end-of-life care, in his Introduction to Nursing course. He also works with students about how to build robust nurse-physician relationships. This, at a time when nursing schools across the country turn away qualified applicants from undergraduate and graduate programs each year.

The Betty Irene Moore School of Nursing at UC Davis was launched, in part, to address the nursing faculty shortage. Graduates, such as Randall, influence and elevate the next generation of nursing students who in turn will go on to practice in a variety of nursing roles and influence the course of American health care reform. Today, more than 20 doctoral and postdoctoral alumni educate the next generation of nurses at colleges and universities nationwide.

"Our Ph.D. program is committed to preparing future faculty who engage in research as well as teaching. While the curriculum emphasizes research, it also includes



"I really wanted to teach the newbies to help guide them and mold them into what a nurse should be."

—BILL RANDALL

opportunities for mentored classroom teaching experience and elective coursework in pedagogy," explained Janice F. Bell, Ph.D., M.P.H., M.N., F.A.A.N., doctoral program director. "Our profession is facing a nursing shortage and we take seriously the imperative to prepare future nursing faculty who are ready to conduct innovative research, to teach the next generation, and to lead service initiatives

locally, nationally and globally."

It's the impact Randall hoped to bring when he entered the program in 2016 excited to achieve, what he calls, the epitome of nursing education. The experience ultimately took him beyond his wildest dreams.

"Getting the Ph.D. in nursing was lifelong dream," he said. "Getting the degree is one thing. But being able to utilize that degree on the job and in academia, it offers promotion opportunities, research opportunities," he said. "I'm amazed at the prospects that have come from it."

A record-setting 11 UC Davis physician assistant students earn national award



Eleven UC Davis physician assistant students recently earned scholarships for their commitment to provide primary health services in Health Professional Shortage Areas.

Scholarships benefit students with passion for rural service

Renee Wadsworth grew up in north-eastern Shasta County. There are no stoplights, only a stop sign.

She remembers what it was like to visit a health care provider.

“I remember I’d get someone that I liked, but then, they’d move away,” said Wadsworth, a second-year physician assistant (P.A.) student at the Betty Irene Moore School of Nursing at UC Davis.

Not only do rural areas have a tough time attracting and keeping providers, but rural residents often lack access to basic transportation. That experience sparked Wadsworth’s desire to attend UC Davis and become a P.A. who would,

one day, return to a rural community similar to that in which she grew up.

Those dreams are also a major reason why Wadsworth, and 10 of her fellow UC Davis P.A. students, earned scholarships from the National Health Service Corps (NHSC). The scholarships are awarded to students pursuing primary care health professions training, in return for a commitment to provide primary health services in a Health Professional Shortage Area.

“Being blessed with this scholarship opens my opportunities to any area, and I want to go to where I’m needed most,” said first-year P.A. student Mike Needham, who grew up in a rural area. “So many people have to travel 30 minutes up to two hours to see a provider. I want to cross that bridge and help those people.”

The scholarship pays for tuition and other education-related expenses, and also provides a monthly stipend to assist with living expenses.

This is the first time such a large number of School of Nursing first- and second-year P.A. students have earned the scholarships. The recipients, who join the more than 1,500 NHSC scholars nationwide, are:

- Kristine Babayan
- Aliyah Bell
- Jesse Duro
- Emmanuelle Ganzon
- Mario Navarro
- Michael Needham
- Hieu Nguyen
- Thuy Dung Nguyen
- Leticia Garcia Reyes
- Putue Teh
- Renee Wadsworth

“We are so proud of these P.A. students,” said Stephen Cavanagh, School of Nursing dean. “We recognize the need for skilled, culturally competent professionals and have built a program that prepares leaders in a variety of settings.”

In alignment with the school’s vision to advance health, the P.A. program works to improve the availability of culturally relevant primary health care to underserved populations throughout California.

“I chose UC Davis because of its emphasis on primary care and rural care,” Wadsworth said. “Now, I really have the opportunity to live out my dreams and really help the people I wanted to help from the beginning.”

Betty Irene Moore School of Nursing Alumni Updates

NEW DOCTOR OF NURSING PRACTICE DEGREE PROGRAM

This summer the School of Nursing welcomes its first class in the new Doctor of Nursing Practice – Family Nurse Practitioner (D.N.P.-F.N.P.) Degree Program, a post-baccalaureate offering that prepares new family nurse practitioners. The three-year hybrid program combines distance-based education with on-campus immersions to prepare advanced practice providers who engage in patient- and family-centered, evidence-based primary care. Like other School of Nursing programs, D.N.P.-F.N.P. is led by the interprofessional Nursing Science and Health-Care Leadership Graduate Group, a team of more than 60 faculty from across UC Davis. Other Nursing Science and Health-Care Leadership Degrees include a Doctor of Philosophy, Master’s Entry Program in Nursing, and a master’s-degree program for physician assistant studies.

HONORED FOR EXCELLENCE IN DIVERSITY

The School of Nursing was one of only 50 U.S. health professions colleges and universities identified as a recipient of the 2021 Health Professions Higher Education Excellence in Diversity (HEED) Award by *INSIGHT Into Diversity* magazine last fall. The award honors outstanding examples of higher-ed schools committed to making diversity and inclusion a top priority.

WHA ESTABLISHES FIRST ENDOWED PROFESSORSHIP

A gift from Western Health Advantage announced last fall will create the first endowed professorship at the Betty Irene Moore School of Nursing at UC Davis. The inaugural holder of the Western Health Advantage Endowed Professorship is Associate Dean for Research Janice F. Bell, Ph.D., M.P.H., M.N., F.A.A.N., nationally recognized for distinguished scholarship in health and caregiving research. The \$1 million endowed professorship establishes a five-year term and supports a mid-career or senior faculty member whose specialty advances health through nursing education, research, practice and leadership.

GRANT PAVES WAY FOR RESEARCH

Julie Bidwell, Ph.D., R.N., an assistant professor in the Family Caregiving Institute at the School of Nursing, received a three-year, \$450,000 grant from the National Institutes of Health to fund her study of hospital-to-home transitions for older adult couples who are managing heart failure. School leaders say Bidwell’s success is important to the young school’s success in growing its research programs.

DIVERSITY LEADER ACADEMY OF NURSING EDUCATION FELLOW

Professor and associate dean for Health Equity, Diversity and Inclusion Piri Ackerman-Barger, Ph.D., R.N., C.N.E., F.A.A.N., was among 19 distinguished nurse educators inducted last year into the National League for Nursing (NLN) Academy of Nursing Education. Ackerman-Barger leads the School of Nursing’s efforts to create a diverse and welcoming setting in which to learn, work and collaborate.

EDITOR’S NOTE: School of Nursing class notes will return next issue.

Help make a difference

Need a quick and easy way to feel great about yourself and know you’re making a difference in the lives of UC Davis students?

Make a gift to the School of Medicine or Betty Irene Moore School of Nursing. No matter the size of your donation, what counts is your participation!

Visit give.ucdavis.edu/MEDI or give.ucdavis.edu/SONU

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Remembering Faith Fitzgerald

“If you listen to the patient, they will tell you all you need to know,” was wisdom often shared by Faith Thayer Fitzgerald, the legendary clinician and educator who devoted nearly four decades to teaching at the UC Davis School of Medicine. Fitzgerald passed away in December at the age of 78, leaving a rich legacy of accomplishments and prompting a flood of fond remembrances from colleagues and former students across the nation. To read a memorial story about Fitzgerald, and for web links to the School of Medicine’s virtual memorial ceremony and other past articles and videos featuring her, see p. 38.

