

2022-2023

Annual Report

HEALTHY AND
HOPEFUL FUTURES

YEAR IN REVIEW





TABLE OF CONTENTS

2 At a glance

4 Welcome

SPECIALTIES

- 6** Cancer
- 8** Cardiology & heart surgery
- 10** Diabetes & endocrinology
- 12** Gastroenterology/GI surgery
- 14** Maternity care
- 16** Neonatology
- 18** Nephrology & kidney transplantation
- 20** Neurology & neurosurgery
- 22** Orthopaedics
- 24** Pulmonology
- 26** Surgery
- 28** Trauma & emergency

SERVING OUR REGION AND BEYOND

- 30** Nursing
- 32** Community outreach
- 34** Patient-centered care
- 36** Philanthropic support
- 38** By the numbers

AT A GLANCE

Select highlights from UC Davis Children's Hospital

- In 2023–2024, *U.S. News & World Report* ranked UC Davis Children's Hospital among the nation's best in three pediatric specialties, diabetes & endocrinology, nephrology, and orthopedics. The orthopedics ranking was awarded in collaboration with Shriners Children's Northern California, our long-standing partner in caring for children with burns, spinal cord injuries, orthopedic disorders and urological issues.
- JoAnne Natale, M.D., UC Davis Vice Chair of Quality and Safety, was appointed associate chief medical officer for children's health at UC Davis Health. Natale's duties include providing expertise for high quality and safe patient care, coordinating care and services for patients throughout the health system, and reviewing and providing physician perspective for policies that relate to care coordination, care progression and patient access.
- Pediatric gastroenterologist Daphne Say, M.D., was appointed to the new position of vice chair of ambulatory operations at UC Davis Children's Hospital, where she serves as a physician-administrator to lead pediatric ambulatory care. Her duties include engaging in administrative oversight of physician provider issues at the UC Davis Glassrock Clinic, pediatric subspecialty clinics, Sacramento Native American Health Center and Sacramento County Health Center.
- Tiffani Johnson, M.D., M.Sc., was named president-elect of the Academic Pediatric Association (APA). Her responsibilities include chairing board meetings, representing the APA at regional, society and programmatic meetings, and serving on the APA Executive Committee. Johnson serves as a national mentor for the APA Young Investigator Award and New Century Scholars programs and co-chairs the APA Race in Medicine Special Interest Group, which seeks to bring awareness to the role of race in the practice of medicine and provide youth development support.
- 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, returned home after spending three months in Ireland sharing best practices in telehealth with the Royal College of Surgeons in Ireland (RCSI) and Children's Health Ireland (CHI). Marcin's time overseas was sponsored by the Fulbright U.S. Scholar Program, which offers college and university faculty, as well as artists and professionals,

the opportunity to teach, conduct research and pursue professional projects worldwide. Marcin was selected as a Fulbright U.S. Scholar for 2022–2023, joining the ranks of more than 400,000 Fulbright U.S. Scholars who have made new connections around the globe.

- UC Davis Health's family medicine, pediatrics, and obstetrics & gynecology residency programs were awarded \$950,000 in CalMedForce funding for 2023. Administered by Physicians for a Healthy California, CalMedForce program's goal is to expand the physician workforce in the state while addressing shortages and providing care in medically underserved areas.
- The UC Davis Fetal Care and Treatment Center and UC Davis Health Prenatal Diagnosis Center of Northern California were awarded an ultrasound practice accreditation from the Ultrasound Practice Accreditation Council of the American Institute of Ultrasound in Medicine (AIUM). Both centers were accredited in the areas of obstetrics standard and detailed second trimester OB ultrasound.
- Pediatric hospitalist Michelle Hamline, M.D., Ph.D., M.A.S., received the 2023 Eli Gold Prize. The award is given to faculty members who have achieved prominence in clinical, teaching, research and/or community service. Hamline is recognized for her work and leadership in growing the community partnership between UC Davis Children's Hospital and Adventist Health Lodi Memorial so rural families can receive the most innovative care.



**PROUD TO OFFER
FAMILIES A UNIQUE
COMBINATION OF
PERSONALIZED CARE
AND EXTRAORDINARY
MEDICAL EXPERTISE.**

WELCOME

All of us at UC Davis Children's Hospital are enormously proud that we've had yet another outstanding year, and we're thankful for the extraordinary work and dedication that our talented faculty members and care teams continue to display.

During this past year, we expanded our leadership team and are honored to welcome UC Davis pediatric gastroenterologist Daphne Say as vice chair of ambulatory operations, pediatric critical care physician JoAnne Natale as associate chief medical officer for children's health, and Ann Tompkins as ambulatory operations director of women's and children's services.

We've also drawn more national recognition in patient care, research, and quality improvement initiatives. Recognition is important to our mission, but what we are most proud of is the world-class care and comfort we continue to provide to children and their families at our nationally ranked pediatric academic hospital.

Here are some of the reasons our care resonates both nationally and locally. We were ranked in three pediatric specialties and among the Best Children's Hospitals by *U.S. News & World Report*. Our hospital was also once again ranked among the nation's elite institutions for valuing the nursing profession, earning its third Magnet® Designation from the American Nurses Credentialing Center, and our level I Children's Surgery Center's PACU received a silver-level Beacon Award for Excellence by the American Association of Critical-Care Nurses.

In addition, our clinician-scientists continue to successfully develop one-of-a-kind treatments, such as the world's first human clinical trial using stem cells to treat spina bifida before birth and the first



AS ALWAYS,
THANK YOU FOR
YOUR SUPPORT
AND PARTNERSHIP!

in California to offer life-changing therapy for patients with Duchenne muscular dystrophy (DMD).

This year, our partnerships with outlying and community hospitals have also expanded. We've partnered at a second location with the Sacramento Native American Health Center to improve access to pediatric services, and have continued to keep families closer to home through telehealth and our Regional NICU Network, which is comprised of seven Northern California hospitals.

For referring providers and families in our 33-county, 65,000-square-mile service area, we hope these highlights and others in this report will continue to affirm the trust you place in us.



Satyan Lakshminrusimha, M.D.

Pediatrician-in-Chief, UC Davis Children's Hospital

Shinjiro Hirose, M.D., F.A.C.S.

Surgeon-in-Chief, UC Davis Children's Hospital

Brenda Chagolla, Ph.D., R.N., C.N.S., FACHE

Associate Chief Nursing Officer, Patient Care Services,
UC Davis Children's Hospital



SACRAMENTO
Project ADAM
SAVES LIVES

IMPROVE CARE NOW

Children's
Miracle Network
Hospitals

Baby-
Friendly
USA

CANCER

The region's only NCI-designated center

UC Davis Comprehensive Cancer Center is the only National Cancer Institute-designated center serving the Central Valley and inland Northern California, a region of more than 6 million people. Our team includes experts such as chief of pediatric hematology and oncology Marcio Malogolowkin, M.D., an international leader in pediatric liver tumors and an authority on adolescent and young adult (AYA) cancers.

UC Davis oncologist and researcher receives local cancer award

UC Davis Comprehensive Cancer Center selected pediatric oncologist and clinical researcher Elysia Alvarez, M.D., M.P.H., as the 2023 Christine and Helen Landgraf Memorial Research Award recipient. Alvarez, an associate professor of clinical pediatrics, received \$25,000 to expand her research of disparities in cancer survival outcomes among adolescents and young adults. She has special expertise treating young patients with solid tumors and co-leads the Pediatric, Adolescent, and Young Adult Comprehensive Sarcoma Clinic at the cancer center.

THE CANCER CENTER IS ONE OF ONLY 72 IN THE NATION WITH THE DESIGNATION, AND IS THE ONLY NCI-DESIGNATED CENTER IN SACRAMENTO, WITH MORE THAN 100,000 PATIENTS VISITING ANNUALLY.



“This was our home for three years. They are like our family. I can’t thank the team enough for helping Isaac make the best of this time.”

DAISY FRANCO, WHOSE SON ISAAC RECEIVED TREATMENT AFTER BEING DIAGNOSED WITH ACUTE LYMPHOBLASTIC LEUKEMIA (ALL).

Learning from the largest prospective non-rhabdomyosarcoma soft tissue sarcoma clinical trial

A new analysis, led by Elysia Alvarez, M.D., M.P.H., better defines the clinical features and outcomes of young patients with non-rhabdomyosarcoma soft tissue sarcoma (NRSTS) with regional and distant lymph node (LN) metastases. The analysis of patients comes from the largest prospective

clinical trial of pediatric and young adult NRSTS in North America conducted by the Children’s Oncology Group. The researchers findings published in the *European Journal of Cancer* show that nodal recurrence was uncommon in young NRSTS patients with nodal metastases who received protocol-specified surgery and radiotherapy, documenting the efficacy of this approach for future patients.



Frank Ing, M.D., chief of pediatric cardiology and Gary Raff, M.D., senior pediatric cardiothoracic surgeon with Elizabeth Vincent and son Carter after a successful cath procedure.

“Everything went remarkably well. We’re so lucky that Dr. Ing was available to do these procedures.”

ELIZABETH VINCENT, WHOSE SON CARTER WAS BORN WITH A SINGLE VENTRICLE DEFECT IN HIS HEART. FRANK ING, INTERVENTIONAL CARDIOLOGIST AND CO-DIRECTOR OF THE UC DAVIS PEDIATRIC HEART CENTER, PERFORMED AN INNOVATIVE CATH PROCEDURE TO STAVE OFF MAJOR CARDIAC SURGERY JUST DAYS AFTER HIS BIRTH.

CARDIOLOGY AND HEART SURGERY

World-first retrievable leadless pacemaker procedure

UC Davis director of pediatric electrophysiology Dan Cortez, M.D., Ph.D., is the first physician in the world to implant a retrievable leadless pacemaker in a child. Aveir VR, manufactured by Abbott, is designed to be easily retrievable for battery replacement. Most traditional pacemakers are surgically implanted through the chest to the outside of the heart, then connected to the heart by leads; this retrievable pacemaker was implanted through the internal jugular vein in the Cardiac Catheterization Lab and has no leads — instead, the heart absorbs it. In 2018, Cortez was the first physician in the world to implant a Micra leadless pacemaker through the internal jugular vein in a child.

Project ADAM helps prepare schools for cardiac emergencies

Project ADAM Sacramento, a UC Davis Children's Hospital cardiac emergency preparedness program, provides free community heart screenings and reaches out to schools to ensure that staff, faculty, students and families are trained on how to perform CPR and use automated external defibrillators (AEDs). This year, Project ADAM Sacramento designated Davis Joint Unified School District as a Heart Safe School District — the first school district in California to earn this title.

DAN CORTEZ, M.D., PH.D., IMPLANTED THE WORLD'S FIRST RETRIEVABLE LEADLESS PACEMAKER IN A CHILD USING A MINIMALLY INVASIVE TECHNIQUE, AND IS THE LEADING EXPERT FOR HIS UNIQUE PROCEDURE ON CHILDREN.

DIABETES AND ENDOCRINOLOGY

Endocrine patients gain more access to mental health services

Pediatric patients with endocrinology disorders now have access to mental health services and support through the UC Davis CAARE Center, thanks to a unique integrated care model launched at UC Davis Health. Funded by the Department of Pediatrics, patients can connect with a mental health therapist — regardless of health insurance or ability to pay — to understand needs and undergo therapies that address high-risk behaviors, emotional difficulties, and improve child-caregiver relationships.

Nationally ranked

Our pediatric diabetes and endocrinology program ranked 41st nationally in the 2023–2024 U.S. News & World Report Best Children's Hospitals survey.

Pediatric endocrinologist receives senior researcher award

Nicole Glaser, M.D., received the Senior Researcher Award from the Pediatric Endocrine Society (PES). The national honor is awarded to a senior investigator whose innovative and leading-edge clinical, basic or translational research has significantly advanced the field of pediatric endocrinology and earned the nominee international recognition in the field. Glaser holds the Dean's Endowed Professorship for Childhood Diabetes Research; is recognized as an international expert in pediatric diabetic ketoacidosis (DKA); and has been involved in the development of several national and international guidelines for DKA management that guide current practice worldwide.

OUR ENDOCRINOLOGISTS PROVIDE THE BEST EVALUATION AND TREATMENT FOR CHILDREN WITH ENDOCRINE DISORDERS.



“Braylin has received phenomenal care from the endocrinology team at UC Davis Children’s Hospital. Since Braylin’s type 1 diabetes diagnosis, the team has kept a close eye on her and keeps us up to date with all the modern technology to make Braylin’s diagnosis just a little bit easier and more kid friendly. We are forever grateful and blessed for the above-and-beyond care we receive from ALL of Braylin’s specialty teams. Without them we would not be where we are today!”

MEGAN MCMULLEN, ON DAUGHTER BRAYLIN’S CARE AFTER SHE WAS DIAGNOSED WITH TYPE 1 DIABETES FOLLOWING AN E. COLI INFECTION THAT DAMAGED HER KIDNEYS AND PANCREAS.



“Even though it was a scary time, the visit to the AIM Clinic was anything but. After his first infusion, Adam asked when he could go back and see his friends at the clinic. They just adore him there.”

KELLY ZEHNDER-OLSON, WHOSE SON ADAM HAS INFLAMMATORY BOWEL DISEASE AND WAS THE FIRST PEDIATRIC PATIENT TO RECEIVE INFUSIONS IN THE ACUTE INFECTION MANAGEMENT (AIM) CLINIC.

GASTROENTEROLOGY/ GI SURGERY

GI patients gain more access to mental health services

Pediatric patients with chronic gastrointestinal conditions now have access to mental health services and support through the UC Davis CAARE Center, thanks to a unique integrated care model launched at UC Davis Health. Funded by the Department of Pediatrics, patients can connect with a mental health therapist — regardless of health insurance or ability to pay — to understand needs and undergo therapies that address high-risk behaviors, emotional difficulties, and improve child-caregiver relationships.

New vice chair of ambulatory operations

Pediatric gastroenterologist Daphne Say, M.D., was appointed to the new position of vice chair of ambulatory operations at UC Davis Children's Hospital, where she serves as a physician-administrator to lead pediatric ambulatory care. Her job duties include engaging in administrative oversight of physician provider issues at the UC Davis Glassrock Clinic, pediatric subspecialty clinics, Sacramento Native American Health Center and Sacramento County Health Center.

New review examines post pandemic telehealth landscape

A new review by Daphne Say, M.D., and co-authors assesses the current pediatric gastroenterology telehealth landscape and examines challenges — such as inequitable access to broadband internet and poor digital literacy — that inhibit successful telehealth implementation and sustainability. Published in the *Journal of Pediatric Gastroenterology and Nutrition*, the authors propose avenues for improvement in pediatric telehealth GI practice including identifying clinical scenarios best suited for virtual evaluation, standardizing telehealth curricula for pediatric GI trainees, and developing recommendations for return to in-person care.

**WE RECOGNIZE THAT MENTAL
HEALTH AND PHYSICAL
HEALTH ARE ONE AND
WE'RE PROVIDING CARE
TO HELP THE WHOLE PERSON.**

MATERNITY CARE

Black women with sickle cell disease experience worse maternal outcomes

A study led by UC Davis Health has found Black women in the U.S. experience disproportionately worse maternal health outcomes than all other racial groups, which further negatively impacts Black women with sickle cell disease. The findings, published in the *American Journal of Hematology*, highlight the importance of multidisciplinary perinatal care, ongoing studies to target sickle cell disease modification, and increased public health efforts to reduce disparities in pregnancy-related outcomes for women with sickle cell disease.

Helping rural providers care for mothers with opioid use disorder, opioid-exposed infants

To improve maternal-fetal care throughout the region, UC Davis Health perinatal, neonatal and opioid use disorder specialists work with rural hospitals and community partners through telehealth to share recommendations and best practices. Conducted as part of the Optimizing Pregnancy and Infant Outcomes in Substance Use Disorder (OPIOID) and Neonatal Abstinence Syndrome (NAS) research project, the group aims to keep mothers and their infants together in their communities to decrease social and emotional stressors and give families the healthiest start.

A Newsweek Best Maternity Hospital

UC Davis Medical Center was named to Newsweek's 2023 Best Maternity Hospitals which recognizes facilities that have provided exceptional care to mothers, newborns and their families. Best Maternity Hospitals meet Leapfrog standards for lower rates of C-sections, early elective delivery, and episiotomy, as well as for assuring bilirubin screening for all newborns and blood clot prevention techniques for mothers delivering via C-section.

New volunteer doula program

UC Davis Medical Center launched a new, free volunteer doula program. Our trained doulas can be requested by patients upon admission. Each doula is dedicated to one laboring patient and provides 1:1 emotional and physical support through labor and delivery.

**NAMED A NEWSWEEK
BEST MATERNITY HOSPITAL
FOUR YEARS IN A ROW.**

“I truly cannot express enough how grateful we are for UC Davis and how much I love every person I came into contact with who helped us through this. The pregnancy, the birth and everything after. It was a dream come true. Everything turned out perfectly. We don’t take that for granted.”

BRIANNA THOMPSON, WHO RECEIVED IVIG TREATMENTS DURING PREGNANCY AFTER HER FIRST BABY PASSED AWAY FROM NEONATAL HEMOCHROMATOSIS.



Photo courtesy of Leann Marie Photography



“Alfredo has been a patient of UC Davis Children’s Hospital since birth. Whenever he has an appointment or procedure, the staff and doctors are always so supportive. They go out of their way to make us feel comfortable.

I can’t thank UC Davis enough for the care that has been provided to my son. UC Davis is the best hospital out there!”

RUBY MORAN, ON HER SON ALFREDO’S CARE AFTER HE WAS DELIVERED AT 27 WEEKS AND ADMITTED TO THE UC DAVIS LEVEL IV NICU.



NEONATOLOGY

Epinephrine effective during neonatal resuscitation

UC Davis Health researchers published a commentary in the journal *Pediatric Research* in which they review existing data on the efficacy of epinephrine during neonatal resuscitation. Lead author Deepika Sankaran, M.D., F.A.A.P., neonatologist at UC Davis Children's Hospital and Adventist Health and Rideout Hospital, summarized the evidence supporting epinephrine use and presented the gaps in current knowledge in the optimal timing, route, dose and interval of epinephrine administration.

Neonatologist receives Hartwell Foundation research award

Geoanna Bautista, M.D., assistant professor of pediatrics and Clinical and Translational Science Center scholar, was among ten scientists to receive the Individual Biomedical Research Awards from The Hartwell Foundation. The Hartwell competition funds early-stage, innovative and leading-edge biomedical research to benefit children in the U.S. Her honored research focuses specifically on intestinal inflammation and dysmotility in babies with gastroschisis.

Virtual NICU program earns Telehealth Equity Catalyst Award

UC Davis Health received a Telehealth Equity Catalyst Award from the Association of American Medical Colleges for our efforts to advance health care equity and telehealth. Jennifer Rosenthal, M.D., M.A.S., associate professor of pediatrics, and collaborators Kristin Hoffman, M.D., Leah Meisel, Elva Horath, Audriana Ketchersid, and Daniel Stein were recognized for their work on expanding UC Davis Health's NICU Virtual Family-Centered Rounds (FCR) program across diverse language groups. The program, implemented in March 2020 as a pilot trial, engages families in multidisciplinary bedside rounds for hospitalized patients, giving parents and caregivers a chance to be virtually present at their baby's bedside through a tele-health platform.

**HOME TO A LEVEL IV
NEWBORN ICU (THE
HIGHEST LEVEL OF CARE).**

NEPHROLOGY AND KIDNEY TRANSPLANTATION

'Save the vein' initiative helps children with kidney disease

The UC Davis pediatric nephrology team launched an initiative to help preserve the veins of children with chronic kidney disease and end-stage kidney disease. Medical teams use the dominant arm for lab draws and IV placement, while preserving the veins of the non-dominant arm for future venous access. Patients receive a "save the vein" arm band to identify their non-dominant arm, and are identified in the electronic medical record so phlebotomists, providers, and nurses remember to minimize blood draws.

Nationally ranked

Our pediatric nephrology program ranked 34th nationally in the 2023–2024 *U.S. News & World Report Best Children's Hospitals* survey.

Unique dialysis service provides bridge to transplant

To better serve children waiting for a kidney, our program continues to be the region's only outpatient peritoneal dialysis service for patients under 10 years of age.

OUR NATIONALLY RANKED PROGRAM CONTINUES TO BE THE REGION'S ONLY OUTPATIENT PERITONEAL DIALYSIS SERVICE FOR PATIENTS UNDER 10.



"I just don't know that I would get that kind of attention and care anywhere else but UC Davis Health. Lily is like a VIP there. And she's so happy and healthy."

ASHA REPACE, ON DAUGHTER LILY'S CARE AFTER SHE WAS BORN WITH BRANCHIO-OTO-RENAL SYNDROME, A CONDITION THAT QUICKLY BEGAN TO DETERIORATE HER KIDNEYS AND HEARING.

LEADERS IN
QUALITY PATIENT
CARE AND
INNOVATORS
IN RESEARCH.



“They did a good job of answering our questions and providing their rationale for their decisions. And the team took good care of us. His nurses would sit with us and check in to see how things were going.”

ANNE GAST, WHOSE SON JAMES HAD SURGERY
AFTER A RUPTURED BRAIN ANEURYSM.

NEUROLOGY AND NEUROSURGERY



James's neurosurgeons Ben Waldau, M.D., and Marike Zwienenberg, M.D.

Comprehensive Epilepsy Program receives highest national accreditation rating

Our Comprehensive Epilepsy Program has been accredited as a level 4 center for adult and pediatric epilepsy, the highest designation awarded, by the National Association of Epilepsy Centers (NAEC). The program is a leader in the surgical management of refractory epilepsy, with a wide array of services that includes a new 11-bed monitoring unit.

As a level 4 center, the program provides more complex forms of intensive neurodiagnostic monitoring, as well as more extensive medical neuropsychological and psychosocial treatment. Level 4 centers also offer complete evaluation for epilepsy surgery and a broad range of surgical procedures, such as minimally invasive laser surgery and devices such as responsive neurostimulation, deep brain stimulation and vagal nerve stimulation.

ORTHOPAEDICS

First in California to offer life-changing therapy for Duchenne muscular dystrophy (DMD)

A 5-year-old UC Davis Children's Hospital patient diagnosed with DMD is the first in California and fourth in the nation to receive groundbreaking gene therapy outside of clinical trials. The treatment, years in the making, brings hope to as many as 12,000 people in the U.S., mostly males, who live with DMD, one of the most severe types of muscular dystrophy. Being part of this historic moment was a career highlight for Craig McDonald, M.D., an award-winning researcher in the field of neuromuscular disorders.

Developing in-utero therapy for DMD

Aijun Wang, Ph.D., vice chair for translational research, innovation and entrepreneurship in the Department of Surgery, and his team are collaborating with Murthy laboratory at UC Berkeley to develop a much-needed cure for Duchenne muscular dystrophy (DMD). Using an in-utero gene editing formula that encodes dystrophin, a key protein in stabilizing muscle fiber, the plan is to edit genes in the heart, diaphragm, and limb muscles to correct DMD mutations before the onset of the disease. The groundbreaking work is funded by a \$2 million grant from the California Institute for Regenerative Medicine (CIRM).

International study provides foundation for future DMD research

Researchers in the Department of Physical Medicine and Rehabilitation launched an international study in collaboration with the Cooperative International Neuromuscular Research Group (CINRG) and Therapeutic Research in Neuromuscular Disorder Solutions (TRiNDS) on the natural history of Duchenne muscular dystrophy (DMD). The study will build a robust database on the progression of the disorder from patients around the world which will help provide future insight into DMD treatments.

Nationally ranked

U.S. News & World Report ranked our pediatric orthopaedic program 20th nationally in 2023–2024, in collaboration with Shriners Children's Northern California, our long-standing partner on orthopedic disorders and spinal injuries.



R. Lor Randall, M.D., FACS, Chair of the Department of Orthopaedic Surgery, Raminta Theriault, M.D., and Judas Kelley, M.D., celebrate after Darren's surgery.

"We are thankful to have had access to this level of care. We think the world of Dr. Randall and his staff. Meeting him was life changing."

BARON COLBERT, ON HIS SON DARREN'S CARE AFTER HE WAS DIAGNOSED WITH OSTEOSARCOMA AND HAD SURGERY TO SAVE HIS LEG.

GROUNDBREAKING GENE THERAPY FOR DUCHENNE MUSCULAR DYSTROPHY BRINGS HOPE TO AS MANY AS 12,000 PEOPLE IN THE U.S.



“Being transferred to UC Davis was a blessing. The whole situation was scary and confusing. UC Davis made sure we were informed each step of the process. Dr. Nandalike has been amazing from the beginning. She has advocated for my daughter, educated us as a family, and has been diligent and professional in caring for De’Jaye. We thank her for being down to earth and bringing so much light to our dark situation.”

TIFFANY DAVIS, ON HER DAUGHTER’S CARE AFTER SHE WAS DIAGNOSED WITH NARCOLEPSY WITH CATAPLEXY.

PULMONOLOGY

New pediatric pulmonary sickle cell clinic

Our comprehensive pulmonary sickle cell clinic for children and young adults up to age 24, is designed to address complications such as asthma, exercise intolerance, and sleep disordered breathing. It is the first clinic of its kind in the Sacramento area. By embedding the pediatric pulmonologist into the sickle cell clinic, patients receive continuity from the same team giving their regular sickle cell care. They also receive the added benefit of addressing breathing problems with the help of a lung expert. Highest-risk patients are identified by their hematologist and referred to the clinic, which provides pulmonary function testing and home sleep studies.

First pediatric laryngoscopy procedure performed in sleep clinic

UC Davis' pediatric pulmonology team successfully performed its first flexible laryngoscopy procedure in the pediatric sleep clinic. As Sacramento's only clinic to offer this service, the procedure provides information about the upper airway anatomy and possible reasons for upper airway obstruction. The findings of this procedure can guide physicians and families on the best management strategies for their child's pulmonary and sleep-related conditions.

OUR PEDIATRIC PULMONOLOGY TEAM IS COMPRISED OF BOARD-CERTIFIED PEDIATRIC PULMONOLOGISTS, CLINICAL NURSES, RESPIRATORY THERAPISTS, CLINICAL PHARMACISTS, DIETITIANS AND SOCIAL WORKERS.

SURGERY

Farmer first UC Davis Health faculty member appointed to a leadership role with the National Academy of Medicine

Diana Farmer, M.D., chair of the UC Davis Department of Surgery, has become the first UC Davis Health faculty member to be assigned to a prestigious leadership position within the National Academy of Medicine (NAM). Farmer was appointed to the NAM membership committee, and will also serve as the Vice Chair of Section 6, which is one of 12 membership sections in the organization's structure. The section Farmer will help oversee encompasses surgery, anesthesiology, ophthalmology, and radiology. The appointment is considered one of the highest honors in health and medicine.

PACU silver-level Beacon Award for Excellence

Our Post-Anesthesia Care Unit (PACU) and Children's Surgery Center PACU received a silver-level Beacon Award for Excellence from the American Association of Critical-Care Nurses (AACN). We are the only PACU on the West Coast to receive this honor. The Beacon Award for Excellence — a significant milestone on the path to exceptional patient care and healthy work environments — recognizes caregivers who successfully improve patient outcomes and align practices with AACN's six Healthy Work Environment Standards. These standards are skilled communication, true collaboration, effective decision-making, appropriate staffing, meaningful recognition and authentic leadership.



“It was so nice listening to the team. It was like a NASCAR pit crew. They worked together seamlessly.”

UC DAVIS PEDIATRIC SURGERY NURSE MATHEW HIPWELL, WHOSE DAUGHTER ELLIE WAS HOSPITALIZED AND HAD OPEN-HEART SURGERY WHEN HER RSV DIAGNOSIS REVEALED AN UNDIAGNOSED HEART CONDITION.



Program linked to shorter hospital stays, declines in narcotic use

Among other findings, a UC Davis Children’s Hospital study published in the *Journal of the American College of Surgeons* showed that a Children’s Surgery Verification Quality Improvement Program reduced surgical wait times, cut hospital stays, and significantly curbed narcotics use in children who had major operations for traumatic femur fractures. The results of the study represent the tremendous effort over the last decade to improve the care of traumatically injured children and exemplify the absolute best possible care for pediatric orthopaedic patients in Northern California.

Cleft and Craniofacial team receive national recognition

Our Cleft and Craniofacial Program earned Cleft Palate and Craniofacial team approval from the American Cleft Palate Craniofacial Association (ACPA). The team is one of over 195 in the U.S. and Canada to be recognized for meeting the Standards of Team Care for Cleft and Craniofacial Teams. The ACPA team approval verifies that cleft and craniofacial care is provided in a coordinated and consistent manner; follows the proper sequence; and takes place within the framework of the patient’s overall developmental, medical and psychological needs.

Farmer receives national research excellence award

Diana Farmer, M.D., received the esteemed Robert E. Gross Award for Excellence in Pediatric Research and Achievement from the American Pediatric Surgical Association (APSA). The award acknowledges exceptional contributions that have revolutionized the way pediatric surgeons approach a specific issue, and recognizes ground breaking work that stands the test of time and is widely accepted as the gold standard in the field.

Farmer’s contributions have reshaped pediatric surgical practices, with her expertise encompassing treatment of birth defects both inside and outside the womb. She conceived the MOMS Trial in the early 2000s, which showed fetal surgery could reduce neurological deficits associated with spina bifida; she is now leading the world’s first *CuRe Trial (Cellular Therapy for In Utero Repair of Myelomeningocele) combining stem cells and surgery to treat the most severe form of the disease. Her accomplishments extend over two decades, during which she has made significant advancements as the first female fetal surgeon.

*CuRe Trial Phase 1 was completed and successfully passed all safety hurdles with the Data and Safety Monitoring Board. Phase 2 has begun.

"The team really focused on Julia, helping her get better. They made us feel at home. It was as good an experience as you can have in the hospital."

MELISSA LYNN, WHOSE DAUGHTER JULIA WAS HOSPITALIZED AFTER A TUBING ACCIDENT.



HOME TO THE ONLY LEVEL 1 TRAUMA CENTER FOR BOTH ADULTS AND CHILDREN IN INLAND NORTHERN CALIFORNIA.

TRAUMA AND EMERGENCY

Fewer hospital-to-hospital transfers with telemedicine

New UC Davis Health research confirms that pediatric critical care telemedicine consults with clinicians in rural and community emergency departments result in significantly fewer interfacility transfers. Authors said the study, published in *JAMA Network Open*, is the first randomized clinical trial assessing the impact of telemedicine consults on transfer rates compared to the current standard of care, telephone consultations.

Over two decades of PECARN power

The Department of Emergency Medicine renewed its four-year, \$2.8 million grant with the Pediatric Emergency Care Applied Research Network (PECARN). The network and its major studies have helped care teams across the U.S. make treatment decisions with more evidence-based confidence — and less side effects on children. The group of 18 pediatric emergency departments in academic, urban and rural hospitals serves more than 1 million acutely ill and injured children every year. Nathan Kuppermann, M.D., Bo Tomas Brofeldt Endowed Chair of Emergency Medicine was one of its founding principal investigators in 2001.

Emergency department preparedness cuts mortality risk in children

A six-year study, co-authored by Nathan Kuppermann, M.D., showed that emergency departments with high pediatric readiness standards have lower pediatric mortality rates. Involving nearly 800,000 children receiving emergency care in 11 states, investigators found that injured children had a 60% reduced chance of in-hospital death, and those with acute medical conditions had a 76% reduction. Authors of the study believe these results have national policy implications.

Working to predict mental health issues after concussions

Researchers at UC Davis Health and the Kennedy Krieger Institute have received a five-year, \$2.5 million grant from the Centers for Disease Control and Prevention to study adolescent mental health following a concussion or traumatic brain injury. The health care teams will develop and validate a prognostic tool in hopes to provide evidence for clinical decision-making, help reduce uncertainty amongst clinicians, and decrease health disparities for patients.

NURSING

Nation's highest recognition for nursing excellence

UC Davis Medical Center has once again been ranked among the nation's elite institutions for valuing the nursing profession, earning its third Magnet® Designation from the American Nurses Credentialing Center (ANCC)'s Magnet® Recognition Program. The Magnet® program is the nation's highest form of recognition for nursing excellence, and less than 10% of hospitals in the nation earn the designation. UC Davis Medical Center is one of 54 hospitals in California to have earned Magnet® designation.

DAISY Foundation honors nurse

Pediatric endocrinology outpatient nurse Sultanna Iden, B.S.N., R.N., C.D.C.E.S., was the award recipient of a 2023 DAISY Award for exemplifying the nursing values of extraordinary compassion, courage and integrity in every situation. Iden was recognized for her contributions over the past 22 years as an essential team member providing patient education to families, including training on various diabetes technologies and conducting education classes and support groups.

Pediatric surgery nurse's national award

Pediatric surgery nurse Andrea Reich, B.S.N., R.N., was honored by the American Pediatric Surgical Nurses Association (APSNA) with its Spotlight Award, which recognizes a member who demonstrates involvement in pediatric surgery exceeding usual job expectations. APSNA is a national organization that shapes pediatric surgical nursing through advocacy, collaboration, mentorship and leadership.

AT UC DAVIS CHILDREN'S HOSPITAL, PATIENTS ARE AT THE CENTER OF EVERYTHING WE DO. AND WE'RE PROUD THAT OUR HIGHLY-TRAINED PEDIATRIC NURSES PROVIDE EXTRAORDINARY LOVE, COMPASSION, COURAGE, AND INTEGRITY IN EVERY SITUATION.

UC DAVIS MEDICAL CENTER IS ONE OF
54 HOSPITALS IN CALIFORNIA TO HAVE
EARNED MAGNET® DESIGNATION.



COMMUNITY OUTREACH

Popular players with Republic FC

UC Davis Health is a founding and ongoing season-presenting partner of the Republic FC, and serves as the official medical provider for the club's players. UC Davis Health's kit (jersey) sponsorship of the team helps to emphasize, model and normalize health and outdoor activity for area youth. The partnership also creates opportunities for players to interact with patients during special visits to our children's hospital. In 2023, players visited with patients and families bringing cheer and signing autographs.



32

Safe Kids Greater Sacramento honored with national award

Safe Kids Worldwide — a nonprofit working to protect kids from preventable injuries — honored Safe Kids Greater Sacramento at UC Davis Health with the Herta Feely Communications and Advocacy Award for outstanding work in communications, awareness and advocacy. The award was one of 16 presented at the Safe Kids Childhood Injury Prevention Convention, an event where safety professionals come together to network, learn and collaborate on efforts to enhance children's safety.

Sacramento Native American Health Center (SNAHC) partnership expands

For six years, we've partnered with the Sacramento Native American Health Center to improve access to services and pediatricians in the city's Midtown neighborhood. Now SNAHC has offered additional convenience by opening its newest location in South Sacramento — a community comprising nearly 15% of the area's Native American population. The expansion helps fill the health care gap by providing a range of services including medical, behavioral health, dental and supportive care.

EVERY YEAR, WE PARTICIPATE IN, PARTNER WITH OR SPONSOR OVER 200 COMMUNITY EVENTS AND PROGRAMS.

Seven NorCal community hospitals part of UC Davis' NICU network

We're keeping families closer to home through our Regional NICU Network, which is comprised of Barton Memorial Hospital, Adventist Health Lodi Memorial, Adventist Health and Rideout, Mercy Medical Center Redding, Mercy San Juan Medical Center, St. Joseph's Medical Center, and Methodist Hospital of Sacramento. The partnerships are designed to increase the level of neonatal care available locally while decreasing the need for transfers to UC Davis, home to a level IV NICU for the highest-acuity cases.

PACES webinars continue to help community hospitals

The Pediatric Acute Care Education Sessions (PACES) program continues to offer free peer-to-peer virtual webinars and roundtable discussions to support clinicians caring for pediatric patients at rural community hospitals. The sessions provide education and clinical guidelines for a wide range of topics, such as treatment of pediatric patients with diabetic ketoacidosis, head trauma, Brief Resolved Unexplained Event (BRUE) and more.

Public education through media outreach

The innovative UC Davis Children's Hospital Media and Child Health Education Program provides training and opportunities for pediatric residents to gain media experience and educate the public about important child health issues. This year, residents:

- published three editorials
- made three television appearances as content experts
- discussed child health topics on a podcast
- and hosted their own original resident educational podcast series called Pedia-gogy™



Supporting community wellness

We're partners with several wellness-related community organizations and events, including the Sacramento Running Association's California International Marathon (CIM), UC Davis Athletics and more.



PATIENT-CENTERED CARE

Specialty clinic makeover enhances patient experience

Children and families visiting the pediatric pulmonology, cardiology and endocrinology clinics are visually transported to a seaside town, complete with a pier, following the creation of a new, kid-friendly clinic waiting room. As part of our Patient Friendly Environment Initiative, the walls feature lighthouses, sea life and pirate ships. These colorful, themed murals help children relax and have inspired pediatric staff.

Support group helps children cope through a caregiver's illness

The UC Davis Child Life and Creative Arts Therapy Department launched Coping Together, a group for children and adolescents who have a parent or caregiver with cancer or other serious illness. The support group provides opportunities for sharing, self-expression and coming together to explore coping strategies.

New teen lounge brings healing power of fun

Thanks to The Who and the rock band's Teen Cancer America organization, a teen lounge was opened at UC Davis Children's Hospital to help young patients recover from cancer or other medical conditions. The lounge offers video games, an Infinity Game Table, book library, movie collection, art corner, and a computer for homework or connecting with friends and family.

Aromatherapy program offers benefits to patients

AethereoSticks, a personal aromatherapy device infused with essential oils, is a scentsational new option to reduce patient anxiety, increase relaxation and alleviate nausea. In 2020, the aromatherapy program launched in the Pediatric and Cardiac Intensive Care Unit and Pediatric Infusion Center and has now expanded into 18 units throughout the hospital.

AS PART OF OUR PATIENT FRIENDLY ENVIRONMENT INITIATIVE, THE WALLS FEATURE Lighthouses, SEA LIFE AND PIRATE SHIPS.

PHILANTHROPIC SUPPORT

Spirit Halloween raises over \$124,000 for patients

A record-breaking donation of \$124,696 was raised for UC Davis Children's Hospital's Child Life and Creative Arts Therapy Department, which supports the emotional needs of pediatric patients and families. Annual donations from Spirit Halloween's Spirit of Children foundation fund the UC Davis child life fellowship program, which provides additional training and supervision to aspiring certified child life specialists. The specialty retail store has donated more than \$900,000 to UC Davis Children's Hospital during the past decade.

Virtual Toy Drive raises over \$28,000

Every hospitalized child at UC Davis Children's Hospital received free toys for the holidays in 2022. Patelco Credit Union offered a donation match of \$10,000 to support the virtual toy drive, and more than 70 people donated over 500 toys and gifts from the hospital's Amazon wish list. Additional funds were used to provide art and music supplies, treasure box prizes and giveaways during hospitalizations as well as visits to the Comprehensive Cancer Center and MIND Institute. Children who celebrated their birthday in the hospital also received gifts, thanks to the generosity of donors.

St. Baldrick's 'Brave the Shave' raises funds for childhood cancer research

More than 90 "shavees" stepped up to have their hair shaved after raising money for pediatric cancer research at UC Davis Comprehensive Cancer Center. Keaton's Child Cancer Alliance — a nonprofit that provides financial, emotional, and educational assistance to children and families battling cancer — teams up with Supercuts and the cancer center each year to sponsor the local event. Since its inception more than 20 years ago, Keaton's Child Cancer Alliance has donated close to \$2.5 million to the pediatric oncology program at the cancer center.

Hyundai Hope on Wheels brings colorful high fives, \$100,000 to cancer research

Last August, multi-colored painted handprints covered an electric car as childhood cancer survivors and their families showed appreciation after Hyundai delivered a \$100,000 check to help with pediatric cancer research. The grant money will help fund two initiatives: tele-operated collaborative robots to take hospitalized patients on real-time "virtual field trips" to the California State Railroad Museum, Sacramento Zoo, and the Effie Yeaw Nature Center; and fund research involving aggressive pediatric cancers such as rare malignant rhabdoid tumors.

Children's Miracle Network Hospitals Child Champion

UC Davis Children's Hospital is a proud member of the Children's Miracle Network Hospitals (CMN), an international nonprofit dedicated to raising funds for, and awareness of, children's hospitals. Donations create miracles by funding medical care, research, equipment and programs that save and improve the lives of our children including this year's local Children's Miracle Network child champion Braylin McMullen.

Braylin was 3 years old when her kidneys starting failing due to an E. coli diagnosis. She landed in the Pediatric and Cardiac Intensive Care Unit at UC Davis Children's Hospital and spent months recovering from kidney and pancreas damage. She received care from our outpatient peritoneal dialysis service and in 2019 successfully received a kidney transplant. Every year, 170 Children's Miracle Network Hospitals identify a "champion" in each of their communities to serve as the face for children treated at their local children's hospital.

**BRAYLIN,
PATIENT**



BY THE



The Central Valley's only **level 1** pediatric trauma center, with **115,065** clinic visits, **7,412** hospital admissions and **19,588** emergency department visits this year.



NUMBERS



THE WEST COAST'S FIRST LEVEL I CHILDREN'S SURGERY CENTER

as verified by the American College of Surgeons, with 5,488 children's surgeries this year.



NATIONALLY RANKED IN 3 SPECIALTIES:

diabetes & endocrinology, nephrology, and orthopedics



PROVIDES CARE FOR CHILDREN IN 33 COUNTIES

covering **65,000-square-miles**, with over **2,525 transfers** accepted from referring institutions.



PHYSICIANS ACROSS MORE THAN 30 SUBSPECIALTIES

(the region's greatest diversity of pediatric subspecialties).



DESIGNATED CHILDREN'S HOSPITAL BEDS

- Neonatal Intensive Care Unit (NICU) – **49**
- Pediatric and Cardiac Intensive Care Unit (PICU) – **24**
- General Pediatrics – **48**
- Pediatric Emergency Department – **13**
- Children's Surgery Center – **7** operating rooms, **1** procedure room, **24** pre-op/post-op beds



881 MEMBERS OF OUR ALL-R.N. NURSING STAFF HAVE BEEN TRAINED TO CARE FOR CHILDREN

- Granted Magnet® recognition status by the American Nurses Credentialing Center
- **91.8%** of UC Davis nurses hold a B.S.N. degree or higher
- **19.8%** hold advanced degrees
- **59%** of UC Davis nurses have obtained a specialty certification

OUR MISSION

UC Davis Children's Hospital is committed to ensuring the health and well-being of children by promoting wellness through patient care, education, research and community service and by providing a regionally and nationally recognized center for innovative children's health care, making available the very best care possible.

children.ucdavis.edu





children.ucdavis.edu



UC Davis Children's Hospital Contact Information

Referrals/Transfers 800-UCD-4-KIDS (800-823-4543)

Clinical Telehealth Program 877-430-5332

Regional Affiliations and Outreach 916-734-0558 or 916-734-0750

Continuing Medical Education 916-734-5352

Center for Professional Practice of Nursing 916-734-9790

Giving and Donations 916-734-9400

24-Hour Hospital Operator 916-734-2011

2022–2023

Annual Report

HEALTHY AND

HOPEFUL FUTURES

YEAR IN REVIEW

