



Diana Farmer and Satyan Lakshminrusimha

## A new year

As we have entered the new year, we have rededicated our commitment to support children and families here in our Sacramento region and beyond. Our hospital remains very busy and we remain focused on using our expertise to help children who need us most.

We continue to grow our team. We have welcomed new general pediatrics physician Samhita Bhargava, new pediatric endocrinologist Caroline Schulmeister and new pediatric clinical nurse specialist Lisa Tsang. On behalf of our health care team, we are so honored to provide world-class care, close to home.

This year, we have also released our 2020–2021 UC Davis Children's Hospital Annual Report. [See the highlights](#) from this past year and what we have accomplished as a team.

As always, thank you for your support and all the best wishes to you in 2022.

Thank you,

Satyan and Diana



## Team behind separation of conjoined twins receives DAISY Award

A DAISY Team Award was presented this week to the team behind the successful separation of conjoined craniopagus twins [Abigail and Micaela](#) Bachinskiy. The award recognizes outstanding members of the nursing community.

Chief nursing and patient care services officer [Toby Marsh](#) and executive director of perioperative services [Wendy Willson](#) presented certificates and pins to the team at a morning awards celebration.

"Cases like this remind us of why we went into health care. To be part of a highly skilled and dedicated team that, when necessary, can come together to witness a rare miracle like this," Willson said.

The nine-month-old twins were separated in a marathon 24-hour surgery in the [Children's Surgery Center](#) operating room the weekend of October 24, 2020.



The event took more than 10 months of planning and involved an interdisciplinary team of more than 30 members. They included neurosurgeons, plastic surgeons, anesthesiologists, Children's Surgery Center nurses and technicians/assistants. The group was led by neurosurgeon Michael Edwards; medical director of the Children's Surgery Center and anesthesiologist Rajvinder Dhamrait; and operating room team leader nurse Aida Benitez.

"We could not be more proud of what this team achieved that day for this family," Marsh said. "Thanks to this extraordinary team, these twins are now enjoying a 'separate but together' new chapter in their lives as active toddlers." [READ MORE »](#)

## Physician pioneers new minimally invasive procedure to implant world's smallest pacemaker in children

UC Davis pediatric electrophysiologist [Dan Cortez](#) put two objects onto the table in front of Courtney and Owen Clark. They had a decision to make: Which pacemaker should their 10-year-old daughter Avery receive?

One was a size of an audio cassette tape. The second was the size of a pill.

"The choice was pretty straightforward. We wanted the smaller one, without all of the leads and cords. It could be implanted directly into her heart without surgery," said Owen Clark, whose daughter Avery was diagnosed with a rare mitochondrial disease that had impacted other organs. "Why would anyone choose the other one?"

The Clarks feel grateful to have had the choice, especially a minimally invasive choice. Avery was hospitalized with an unexpected Type 1 diabetes diagnosis, when they learned that her heart blockage had worsened.

Cortez brought his unique expertise performing this minimally invasive procedure to UC Davis Health in the fall of 2021, only a month before his meeting with Avery.

Pacemakers are typically used in children who have congenital complete heart block, a rare condition that strikes 1 in about 15,000 to 22,000 children. Most traditional pacemakers are surgically implanted through the chest to the outside of the heart and are connected to the heart by leads. [READ MORE »](#)

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



Researchers from United States and Canada co-lead study of children to learn more about risk factors for severe outcomes

A [new international study](#) offers a clearer picture of the impact of COVID-19 infection and the risk of severe outcomes on young people around the world.

The study was co-led by a team of researchers from [UC Davis Health](#), University of Calgary's Cumming School of Medicine and Ann & Robert H. Lurie Children's Hospital of Chicago. It followed

more than 10,300 children at 41 emergency departments in 10 countries, including the United States and Canada.

"The results of our study show that risk factors such as age, underlying chronic illness, and symptom duration were important risk factors for severe outcomes," said [Nathan Kuppermann](#), chair of the [Department of Emergency Medicine](#) and co-lead of the study.

Researchers found children not admitted to the hospital at an initial emergency department visit rarely deteriorated significantly after the first visit. [READ MORE »](#)



## New study finds combination of telemedicine, in-person visits best fit for asthma care

### Can telemedicine improve asthma care for pediatric and young adult patients?

A new [UC Davis Health study](#) reviews telemedicine use among patients with asthma. The researchers identify best practices that can minimize health disparities, maximize patient experience and increase access. It is the first study to evaluate provider-to-patient telemedicine use for asthma care among children and young adults. The study was published this month in the [Journal of Asthma](#).

[READ MORE »](#)

# New study finds excellent long-term outcomes with infant kidney transplants

A new [UC Davis study](#) finds improved outcomes for children with kidney disease who receive transplants as infants.



Infant kidney transplants comprise a small percentage of all pediatric kidney transplants in the U.S. Since January 1, 2000, the [Organ Procurement and Transplantation Network \(OPTN\)](#) database reports that fewer than half of 1% of all kidney transplants were infants.

Care providers often wait until an infant grows larger because of the technical challenges of performing this surgery on a small recipient. Most prefer to put infants on dialysis in the hopes of

improving patient survival odds and limiting graft failure, which is when the body rejects the transplanted organ.

The study found that an infant kidney transplant has a higher graft failure rate in the first year compared to preteen and teen kidney transplants. Yet, the graft failure rates in infant kidney transplants are comparable or even lower after the first year. The research was published in the journal *Transplantation Direct*. [READ MORE »](#)

# Parenting intervention program receives \$5 million in federal grants

The [Substance Abuse and Mental Health Services Administration \(SAMHSA\)](#) has recently granted a total of \$5 million over five years to UC Davis Health's [PC-CARE program](#), a parenting intervention for children ages 1–10.

### The grants fund two key projects:

- The development of a training and education platform: A \$600,000 grant will be used to train 320 mental health providers in PC-CARE and 380 workers in PC-CARE Toolbox, an adapted model for the non-mental health workforce. Both PC-CARE

and PC-CARE Toolbox are designed to educate caregivers and children about the effects of trauma on children and to teach and practice positive communication skills, calming skills and effective behavior management strategies. The project will also create the PC-CARE Learning Center, a web-based training platform to help standardize trainees' learning about child trauma and principles of PC-CARE.

- Support for families during the reunification process: \$400,000 to provide systematic trauma screening and an adaptation of PC-CARE to biological parents and their young children in the process of reunification after an out-of-home, foster-care placement. This will help parents and children better adjust to this transition and give parents tools to support this process.

[READ MORE »](#)



# Shorter therapy for caregivers of children with behavioral challenges is effective

## New study compares PCIT and PC-CARE programs

A new program for caregivers of children with behavioral challenges may be more effective than an established parent intervention. The program, developed at the [UC Davis CAARE Diagnostic and Treatment Center](#), is called [Parent-Child Care \(PC-CARE\)](#). PC-CARE showed more

improvements in child behavior when compared to [Parent-Child Interaction Therapy \(PCIT\)](#) and parents stuck with it longer.

In a UC Davis Health study published in *Child Psychiatry and Human Development*, researchers compared parent retention and child improvement in caregiver-child pairs taking part in either the Parent-Child Care (PC-CARE) program or Parent-Child Interaction Therapy (PCIT) over a seven-week period.

The study found that parents were 2.5 times more likely to finish seven weeks of PC-CARE intervention than the same amount of time in PCIT. Over the same period, PC-CARE also showed greater rates of improvement in child and parent outcomes compared with PCIT. [READ MORE »](#)



## STARS offers specialized telehealth services to kids with disabilities in rural areas

[UC Davis tele-physiatry program](#) provides high quality care to children with special healthcare needs in underserved communities.

Children with neurological or musculoskeletal conditions need unique medical care and therapy that is often not available in rural areas. Physiatrists, who are physicians with expertise in caring for people with physical disabilities, are few and generally concentrated in urban academic medical centers.

To provide better access to physiatry care, UC Davis Health designed and implemented the School-Based Tele-Physiatry Assistance for Rehabilitative and Therapeutic Services (STARS) program. Using telemedicine, STARS brings subspecialty care to kids in rural and underserved communities.

A recent study, published in the *Archives of Physical Medicine and Rehabilitation*, found that this tele-physiatry program can provide parents and providers with the same perceived quality of care as in-person encounters. It is also more economical, offering a savings of about \$100 per visit. [READ MORE »](#)

## Awards and Honors



### Shaikh leads American Academy of Pediatrics' quality improvement council

Ulfat Shaikh, medical director of health care quality and professor of pediatrics at UC Davis Health, has been elected chairperson of the American Academy of Pediatrics (AAP) Council on Quality Improvement and Patient Safety (COQIPS).

In this role, Shaikh supports the mission and vision of the council by ensuring that current priorities are moving forward, representing COQIPS in leadership meetings, guiding the development of new activities, supporting the work of the council's five subcommittees and collaborating with AAP staff on the overall operations of the council.

"Through this role, I look forward to supporting the AAP's more than 67,000 pediatrician members in ensuring that the children and families we serve receive high-quality, safe, equitable and family-centered health care," Shaikh said. [READ MORE >](#)

## UC Davis Pediatric Echocardiography Lab re-accredited by national organization

The UC Davis Pediatric Heart Center is the only center in Sacramento to attain IAC endorsement for children and pregnant women

The UC Davis Pediatric Heart Center's Pediatric Echocardiography Laboratory has been re-accredited by the Intersocietal Accreditation Commission (IAC) in pediatric transthoracic, pediatric transesophageal and fetal echocardiography. This latest accreditation earlier this month confirms the center's ongoing commitment to providing high-quality patient care. Started in 2015, the UC Davis Pediatric Heart Center is the only center in Sacramento with this accreditation for children and pregnant women. It is a three-year accreditation.



The accreditation process is comprised of a detailed self-evaluation followed by a thorough review by a panel of medical experts. It enables both the critical operational and technical components of the applicant facility to be assessed, including representative case studies and their corresponding final reports. [READ MORE >](#)

### Neonatal transport nurse honored at pediatric research conference

UC Davis neonatal transport nurse Evan Giusto received the Western Society for Pediatric Research (WSPR) Abbott Subspecialty Travel Award and presented his research at this month's WSPR Conference.



Giusto's research was focused on the subspecialty of neonatal pulmonology. He compared continuous chest compressions on high frequency ventilation to traditional synchronized chest compressions with positive pressure ventilation. Giusto compared the two in a preterm asphyxiated cardiac arrest lamb model.

His abstract was selected by the WSPR officers based on merit and ranking by subspecialty reviewers.

"The skillset that I acquired as a neonatal transport nurse provided the foundation for me to conduct this animal translational research. I am honored to accept this award and hope it advances neonatal resuscitation and improves neurodevelopmental outcomes," Giusto said. "I would like to thank Drs. Satyanarayana Lakshminrusimha and Payam Vali for their mentorship as well as my manager Sheryl Ruth for providing institutional support."

## Linenberger appointed to chair of ANPD's Recognition Committee



Michelle Linenberger, professional development nurse specialist and nurse educator at UC Davis Children's Hospital, has been appointed chair of the Association for Nursing Professional Development (ANPD)'s Recognition Committee.

The chair position is appointed by the ANPD National Board. The Recognition Committee reviews submissions and selects recipients of awards and scholarships offered by ANPD.

"Serving on a committee at the national level for my professional organization was important to me to not only get more involved and represent my institution, but also to grow my network nationally and share my expertise," Linenberger said. "I am honored to work with a dedicated group of nursing professional development specialists from all over the country to improve the quality of care we provide and enhance patient outcomes by recognizing the outstanding achievements and contributors to ANPD." [READ MORE >](#)

## Innovation

### Southern California baby travels to UC Davis Health for a game-changing procedure

Cardiac catheterization saves baby with superior vena cava syndrome, relieves severe swelling

When baby Mateo was diagnosed with superior vena cava syndrome and suffered severe head and upper body swelling, UC Davis chief of pediatric cardiology and world-renowned interventional cardiologist Frank Ing performed a cardiac catheterization, which made all the difference.

“Dr. Ing was able to get past the old blood clot and restore the blood flow in the vein. It was life-saving for our son,” said Mateo’s mother Robin Watkins.

Two stents were placed in Mateo’s superior vena cava and the innominate vein, another major vein in the thorax. The positive effects of this cardiac catheterization were seen almost immediately once normal blood flow from the head and neck back to the heart was restored. His chest tube was removed the following day following the successful procedure.

His swelling improved, and Mateo was able to open his eyes again.

More milestones followed. Robin remembers the joy of finally holding Mateo for the first time in seven weeks.

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## Video spotlight



### ECMO — Lifesaving Support for Failing Organs

Extracorporeal life support (ECLS), also known as extracorporeal membrane oxygenation or ECMO, is one of the most advanced forms of life support available to patients experiencing acute failure of the cardiac and respiratory systems, including critical cases of COVID-19. UC Davis Medical Center has received the Platinum Level ELSO Award for Excellence in Life Support from the Extracorporeal Life Support Organization (ELSO) for its Extracorporeal Life Support Program. The program provides lifesaving support for failing organ systems in infants, children and adults.

[WATCH THE VIDEO »](#)

## Giving back



### Virtual Holiday Toy Drive raises \$21,125 for hospitalized kids

The holidays were merry and bright for hospitalized kids at UC Davis Children’s Hospital, thanks to \$21,125 that was raised during this year’s Virtual Toy Drive. More than 100 people also donated 450 toys and gifts from the hospital’s Amazon Wish List, totaling \$10,212. These were delivered directly to the hospital. [READ MORE »](#)

### Spirit Halloween donates \$113,305 to UC Davis Children’s Hospital

Thank you to Spirit Halloween’s [Spirit of Children](#) program for donating \$113,305 to UC Davis Children’s Hospital. This donation will fund the UC Davis child life fellowship, which provides training for certified child life specialists.



### CIRCLE Clinic donors bring trauma-informed comprehensive health services to Sacramento foster youth

Katy and Dale Carlsen have partnered with UC Davis Health to transform a shared vision into reality: a comprehensive, trauma-informed program to support foster youth in all aspects of wellness, including mental health.

The first of its kind in Northern California, the [CIRCLE \(Comprehensive Integration of Resilience into Child Life Experiences\) Clinic](#) provides medical services for children in the foster care system, offering them access to a primary care medical home from UC Davis pediatricians, mental and behavioral health services, and other health-related care.

Katy Carlsen is a pediatrician, alumna of both UC Davis and the [UC Davis School of Medicine](#) resident program, and volunteer clinical faculty member at UC Davis Health, where she now trains today’s medical residents. Her husband, Dale Carlsen, is the founder and former CEO of The Sleep Train Mattress Center.

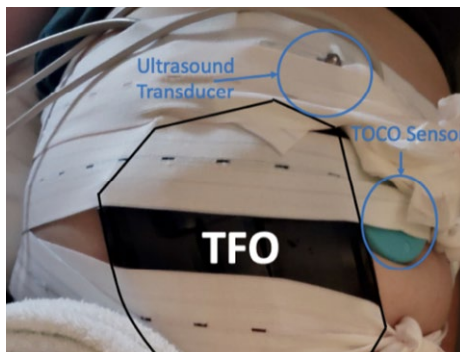
“Katy and I believe in helping others and in particular children in foster care, as these kids did nothing wrong, but simply had parents that for one reason or another could not care

for them,” Dale Carlsen said. “Katy has been working on this project for over 10 years and we are excited to be part of the consortium helping to finally expand these kids’ health care through a more comprehensive health model with UC Davis.”

The Carlsens’ \$2.55 million gift to UC Davis Health provides start-up funds for the CIRCLE Clinic as well as an endowment for sustained support. The clinic is a collaboration between UC Davis and the Sacramento County Health Center, and partners with other UC Davis Health units like the [MIND Institute](#) and the [Child and Adolescent Abuse Resource and Evaluation \(CAARE\) Center](#).

[READ MORE »](#)





### UC Davis lab develops fetal oximetry device to prevent unnecessary C-sections

UC Davis electrical and computer engineering professor Soheil Ghiasi's lab has built a specialized device to measure a baby's blood oxygen saturation levels non-invasively. It's called a transabdominal fetal pulse oximeter (TFO). A new father himself, Ghiasi says the birth of his young daughter inspired this research. The work is supported by grants from the National Science Foundation and the National Institutes of Health.

The research team is currently testing the accuracy of the fetal oximeter in pregnant ewes, in collaboration with [Diana L. Farmer](#), chair of the [UC Davis Department of Surgery](#) and an internationally renowned fetal and neonatal surgeon at UC Davis Health. [READ MORE »](#)

## Leiserowitz appointed interim executive director of Medical Group



Following the appointment of [UC Davis Medical Group's](#) executive director as interim dean for the [UC Davis School of Medicine](#), UC Davis Medical Group Board Chair [Gary S. Leiserowitz](#), M.D., will also serve as interim executive director for the Medical Group.

The UC Davis Medical Group represents all organized medical group practices as well as primary and specialty care faculty physicians. The Medical Group's Board is made up of UC Davis physicians and executive leaders.

Leiserowitz completed his residency in Obstetrics and Gynecology at UC Davis in 1989. He completed a fellowship in Gynecology Oncology at the Mayo Clinic in 1993, and then was appointed to the faculty at UC Davis in 1993. He currently serves as Professor and Chair in the [Department of Obstetrics and Gynecology](#), and is a member of the Division of Gynecologic Oncology. [READ MORE »](#)

### Honoring STEPS team

The Davis 3/Tower 3 team has honored the amazing work of the Supportive Therapies and Enhanced Palliative Services (STEPS) team.

Theresa Murdock-Vlautin and pediatric nurse practitioner Karen Brand have been instrumental in the implementation of perinatal palliative care.

[Find out more about the STEPS program »](#)



## A call to gynecologic surgeons to reduce excess opioid pills after hysterectomy



A new [UC Davis Health](#) study updates the recommendations surrounding opioid prescriptions after hysterectomy, the surgical operation to remove the uterus. The researchers studied the current patterns of opioid prescribing and consumption after the operation.

Their study, published in the *Journal of Minimally Invasive Gynecology*, urged the surgeons to respond to the opioid epidemic by reducing excess opioid pills

after hysterectomy. It encouraged them to provide both the smallest effective prescription size and helpful resources for safe opioid disposal.

"Surgeons are playing an unintentional role in the opioid epidemic with excess prescription of opioids for postoperative pain," said [Bahareh Nejad](#), professor of obstetrics and gynecology, director of robotic surgery at UC Davis Health and co-author on the study. [READ MORE »](#)

## Patient Milestone

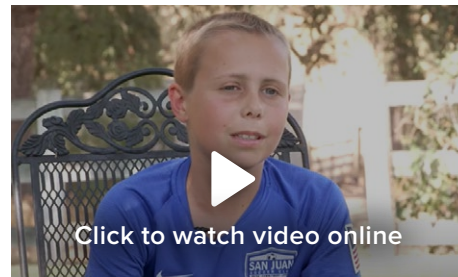


### Baby with rare heart condition transported to UC Davis for life-saving surgery

For the first five months of Heidi Carson's life, her family didn't know anything was wrong. But their daughter had a rare congenital heart defect called total anomalous pulmonary venous return (TAPVR).

It wasn't until she lost her strong cry that the family sought medical advice. Local doctors suspected foreign body aspiration and she was transferred to UC Davis Children's Hospital.

"Right away we could see she was in the best hands and I very much valued the way I was treated as a member of Heidi's team," Carson said. "One attending physician told me his philosophy was that, to care for the patient meant truly caring for the patient. We were touched by his genuine concern and careful analysis of our situation as he directed Heidi's post-surgery plan," Carson said. [READ HEIDI'S STORY »](#)



[Click to watch video online](#)

### Video: Riley's story

Children with cancer find the care they need at the UC Davis Comprehensive Cancer Center.

One success story is Riley Blum, 13, from Wilton, who was diagnosed in 2020 with acute lymphoblastic leukemia, also known as ALL. He is now back out on the soccer field practicing with his team.

[WATCH THE VIDEO »](#)

## Nurse Kuzmich makes all the difference to parents of premature twins

Antonio Zamora and Marlene Campos have two miracles to be thankful for: their twin boys, Giovanni and Jonathan, who were born at 24 weeks.

Weighing less than two pounds each, they survived many complications shortly after birth. Zamora describes the weeks and months that followed as a rollercoaster.

But luckily for the family, they had a third miracle to be grateful for: Amy Kuzmich, the clinical nurse specialist for [pediatric gastroenterology](#) at [UC Davis Children's Hospital](#). Kuzmich helped the family through some of their darkest days in the hospital.

Giovanni was diagnosed with volvulus, a twisting of the gastrointestinal tract, which blocked blood flow and caused the affected intestine to die. Half of Giovanni's gut needed to be removed, and he had an extensive bowel resection surgery.

After surgery, Giovanni required care for short gut syndrome, a condition in which the body can't absorb enough fluids and nutrition because a part of the intestine has been removed.

Giovanni couldn't receive feedings by mouth. He spent time on total parenteral nutrition (TPN), which provides fluids intravenously, bypassing the gastrointestinal tract.

"Both boys were really sick, and I remember crying hard the first time I met Amy Kuzmich. That day I was so down. She cried with me and then told me that everything was going to be okay," said Zamora, who was trying to juggle a job and care for two babies who were at two different hospitals.

Kuzmich gave him the reassurance that she and the UC Davis Children's Hospital team would keep him updated and take good care of Giovanni while Antonio and Marlene needed to be away from the bedside.

"For a parent with a sick baby, Amy just made everything easier," said Antonio Zamora, father to twins, Giovanni and Jonathan, who were born less than 2 pounds. "She was a nurse, a doctor, a social worker and a mom all in one."

[READ THIS PATIENT STORY »](#)



### A patient first

In December, UC Davis Health gave its first patient the FDA-approved, once-a-month injectable HIV medication. No more daily oral medication needed.

Here is the team that helped make it possible. From left to right: UC Davis pharmacist Joy Dray, Sunburst Projects RN Diana Pretzlaff, UC Davis pediatric infectious diseases physician Natasha Nakra and UC Davis Pediatric Specialty Clinics RN Tami Emslie.

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