

From Trauma to Healing

For 50 years, the Rape Treatment Center at UCLA Santa Monica Medical Center has provided comprehensive care, treatment and support for victims of sexual assault.

CONTENTS U Magazine Fall 2024



A PUBLICATION OF UCLA HEALTH AND DAVID GEFFEN SCHOOL OF MEDICINE AT UCLA

VICE CHANCELLOR, UCLA HEALTH SCIENCES CEO LICLA HEALTH

John C. Mazziotta, MD (RES '81, FEL '83), PhD

PRESIDENT, UCLA HEALTH CEO, UCLA HOSPITAL SYSTEM ASSOCIATE VICE CHANCELLOR, LICLA HEALTH SCIENCES Johnese Spisso, MPA

> DEAN, DAVID GEFFEN SCHOOL OF MEDICINE AT UCLA

Steven M. Dubinett, MD (RES '84)

CHIEF OF COMMUNICATIONS Judy Fortin

CHIEF OF MARKETING

Dominic Parero

FDITOR

David Greenwald

NEWS & DIGITAL EDITOR

Diya Chacko

FRIENDS EDITOR

Julie Kirst

ART DIRECTION & DESIGN

Rent Control Creative

CONTRIBUTING WRITERS

Mary-Rose Abraham Arleen F. Brown, MD (FEL '98), PhD Marina Dundierski Keith C Norris MD PhD Antony Purcell Stephani Sutherland, PhD Vanessa Villafuerte

> PROOFREADER David Barrad

EDITORIAL ADVISORY COMMITTEE Benjamin J. Ansell, MD '92 (RES '95)

Sherin II Devaskar MD Patrick T. Dowling, MD Steven M. Dubinett, MD (RES '84) Dieter R. Enzmann, MD Brandon Koretz, MD (RES '99, FEL '00) Bartly J. Mondino, MD Janet P. Pregler, MD Thomas B Strouse MD (RES '91) Lindsey Williams

> Cover Illustration by Nicole Xu

DEPARTMENTS

02 Leadership



It will take multidisciplinary teams to move forward into the new era of predictive medicine. By Steven M. Dubinett, MD (RES '84)

04 Annals of Diversity

Overcoming the cultural, social and socioeconomic factors that contribute to lack of diversity in clinical trials is essential to improving health care for underrepresented populations. By Keith C. Norris, MD. PhD. and Arleen F. Brown. MD (FEL '98), PhD

06 The Cutting Edge

How one organ donation changed two lives.

14 Spotlight: Dr. Robert Prins

A former UCLA gymnast soars in the lab to find more effective treatments for patients with brain tumors.

Conversation: Gail Abarbanel, LCSW

The founder of the Rape Treatment Center talks about 50 years of helping victims of sexual assault



FEATURES



20 From Trauma to Healing

For 50 years, the Rape Treatment Center at UCLA Santa Monica Medical Center has provided comprehensive care, treatment and support for victims of sexual assault.

By Mary-Rose Abraham



34 Beyond the **Baby Blues**

The incidence of postpartum depression is bordering on a crisis, but a new drug treatment could provide critical — even life-saving — relief within days.

By Stephani Sutherland, PhD

42 Faculty

Summers spent with her grandfather taught Dr. Maie St. John many of the important lessons that would guide her future career. By Vanessa Villafuerte



44 Friends

A major gift powers the new California Institute for Immunology and Immunotherapy.

52 Epilogue

An accident forever changed his life, but one patient learned that hope can be the best therapy. By Anthony Purcell



BREAKTHROUGHS AND NEWS FROM UCLA HEALTH.

Share Your Thoughts with Us

Your input is important, so please give us your comments and feedback. Include your name, email address, city and state of residence and, if you are a UCLA medical alum (MD, PhD, resident and/ or fellow), your degree(s) and graduation year(s). Letters and/or comments may be edited for clarity and/or length.

Submit letters to: editormedicine@mednet.ucla.edu

To read *U* Magazine online, go to: uclahealth.org/pubs/u-magazine

To subscribe to *U* Magazine digitally, go to: uclahealth.org/subscribe









uclahealth.org/social-media

Fall 2024 Volume 44 · Issue 3

Patients, or the families of patients, quoted and/or photographed or pictured in this publication have given their consent to have their names and/or images used and their stories told.

©Copyright 2024 by The Regents of the University of California. Permission to reprint may be granted by contacting the editor, U Magazine, 10960 Wilshire Blvd., Ste. 1955, Los Angeles, CA 90024. Email: dgreenwald@mednet.ucla.edu



Printed on recycled paper

"Hold on to that humanity. Hold on to that integrity and that personal connection. That is the essence of medicine: giving of your mind and heart selflessly to help others."

Dr. Maie St. John

Predicting the Future of Medicine at UCLA

I know how difficult it can be to start a career in medical research — I sometimes liken it to trying to kick a 50-yard field goal against the wind. There are many obstacles to balancing one's time between clinical and research

endeavors and optimizing the necessary resources. Our academic, clinical and research environment is enhanced by working in teams that can include basic scientists, physician scientists and clinicians, all of whom unite to tackle major problems in health care. Medical research is like a team sport.

Multidisciplinary teams are particularly important as we move into the era of predictive medicine, the aim of which is to anticipate clinical problems before they arise. Our ability to accurately determine and understand risk will enable us to promote health by preventing the onset of disease and, eventually, eliminating advanced disease.

This transformation already is being facilitated by new tools enabled by artificial intelligence. These tools are being used to evaluate trends in clinical data, such as laboratory values, wave forms and imaging. Could we cure cancer earlier using Al-detection strategies that identify tumors before they become visible? Doing so already has been demonstrated using a deep-learning model that predicts lung cancer risk from a single, low-dose chest CT scan.

Nearly every clinical pathway can take advantage of new opportunities that can be created through more accurate prediction. Through the application of these new tools, we will be able to make more accurate predictions that will inform the treatment we deliver and improve outcomes for patients. Learning how to use and apply these tools provides an area for academic investigation that enables us to implement innovative and impactful interventions.

New Al-driven solutions will require development of these tools in the context of diverse populations that allow decision-making to be both accurate and equitable. Because so much of our health is related to the social determinants of health, these existing social determinants will require inclusion in all of the algorithms. With a fuller understanding of the social determinants of

health, we can focus on addressing risk and, therefore, promoting health rather than only treating disease.

UCLA is an exceptional environment in which to explore this approach. UCLA Health already features the Office of Health Informatics and Analytics, the Department of Computational Medicine, the Institute for Precision Health, the Clinical Informatics Fellowship and the Graduate Program in Medical Informatics, as well as other Al-related work.

There also is vast expertise that reaches across the entirety of our campus. Together with the Health System and the David Geffen School of Medicine at UCLA, we have highly relevant expertise in the schools of

engineering, public health, public policy, law, education, nursing and management. Collaborations leveraging these UCLA resources will allow us to address the issues of health equity, innovation and implementation. Our collaborations across this vast spectrum also will inform and expand our training opportunities, resulting in a work force prepared for predictive medicine.

Working together, we will ensure that UCLA is at the forefront of implementing innovations in predictive medicine to make a significant difference in the lives of our patients. When we unite our efforts, the wind will still be strong, but it will be at our backs.

StemenTowbinett

Steven M. Dubinett, MD (RES '84)
Dean, David Geffen School of Medicine at UCLA
Associate Vice Chancellor for Research



NATIONAL HONOR ROLL 35 CONSECUTIVE YEARS



in LOS ANGELES & CALIFORNIA*



*Tied for #1 ranking

U Magazine Fall 2024 **ANNALS OF DIVERSITY**

DIVERSE CLINICAL TRIALS LEAD TO HEALTHIER OUTCOMES AND SAVE LIVES

By Keith C. Norris, MD, PhD, and Arleen F. Brown, MD (FEL '98), PhD

WE HAVE EXPERIENCED IN OUR OWN

families how racial and ethnic inequities in clinical trials — studies involving patients that evaluate the effectiveness and safety of medicines, devices or lifestyles to prevent or treat disease — can lead to tragic impacts on outcomes for patients of color.

trying to determine if a new medication is effective, data points like blood pressure can act as strong informational signposts. But when it comes to how race and ethnicity impact results, the data may not be as obvious, and we should be more cautious when drawing conclusions from studies looking at small groups. Just because a medication shows promise for one racial or ethnic group doesn't guarantee the same outcome for everyone.

Not because of their race, per se, but because of the higher rate of comorbidity and underlying pre-clinical disease due to limited resources and opportunities for many minority groups.

At UCLA, we are working to address such inequities through the UCLA Clinical and Translational Science Institute's Community Engagement and Research Program, of which we are co-directors. The program supports researchers in designing more inclusive clinical trials through large investments that are critical to success, When researchers, for example, are such as helping study participants overcome transportation issues and bringing internet access to a rural community. Experts can also help with regulatory and other process-related challenges.

> There are also service-level activities, such as a consultation service through the Community Engagement Research Program to help investigators build trust and minimize potential roadblocks to participation in clinical trials. Such community education and proactive



partnerships are critical to improving representation in medical research for developing therapies that are effective for everyone.

Additionally, in partnership with the American Heart Association (AHA), we are engaged with colleagues from the University of Hawaii at Manoa and Washington State University to use smart phone messaging strategies such as texts and videos to encourage Native Hawaiians, Native Americans and other underrepresented groups to participate in studies about heart health.

It can be a steep, uphill climb. Cultural, social and socioeconomic factors continue to influence the lack of diversity in clinical trials. To recruit participants from underrepresented populations, you have to consider the reasons behind their lack of participation. Some of these reasons fall under the social determinants of health, such as lack of transportation and childcare. Other barriers are distrust of researchers, lack of knowledge about research processes and fear of potential negative effects or risk.

these barriers using tactics such as establishing diverse research teams and dedicating increased resources to directly address patient barriers. For example, our project in partnership with the AHA explores culturally tailored approaches such as hula dancing activities in Native Hawaii communities, culturally tailored lated issues for African American and Hispanic communities in Los Angeles and research as "ceremony," embedding it within the culture, to examine sleep apnea in Native American communities. These culturally tailored approaches aim to increase representation by considering additional factors such as age, gender and specific health conditions.

Other UCLA researchers also are exploring ways to diversify studies. In July 2024, an interdisciplinary team began a study of how tests used to determine eligibility for new drugs like lecanemab to treat Alzheimer's disease may vary in different racial and ethnic groups. They then plan to develop educational tools for patients and providers that highlight the differences, with the goal of tailoring care for each group.

In another study, a UCLA Health neurologist is developing a questionnaire

IT CAN BE A STEEP, UPHILL CLIMB. CULTURAL, SOCIAL AND SOCIOECONOMIC FACTORS CONTINUE TO INFLUENCE THE LACK OF DIVERSITY IN CLINICAL TRIALS. TO RECRUIT PARTICIPANTS FROM UNDERREPRESENTED POPULATIONS, YOU HAVE TO CONSIDER THE REASONS BEHIND WHY THEY MAY NOT BE PARTICIPATING.

that will include questions about factors that are known to influence the likelihood that a Black individual will sign up for a clinical trial. The assessment will We must find better ways to overcome ultimately help researchers focused on Parkinson's disease evaluate and improve their recruitment of Black participants in

It is important for teams going into a community to provide the background and lay the foundation with patient advocates, leaders and organizations about what clinical trials are, why they nutrition for heart and metabolism-re- are important, when there is benefit (or not) to a patient, why we need to do a given trial and why UCLA is a trustworthy partner in doing clinical trials. Their support can help address obstacles tied to recruiting and retaining volunteers for clinical trials.

> The long-term goal is for the right treatment to be delivered to the right person at the right time, for all populations.

While health care professionals and institutions have made a start in diversifying clinical research, progress has been slow largely because of systemic issues and lack of investment. Nonetheless, we are seeing positive change resulting from increased awareness and policy shifts around diversity in research. Just the fact that there's a conversation is progress.

A key point of moving toward inclusivity revolves around involving community leaders and organizations in research projects. This is a recommendation of

the National Academies of Sciences, Engineering and Medicine, which recently had a team of researchers take a close look at this issue.

For example, during recruitment for a clinical trial, a person may be faced with an on-the-spot decision about their participation. Ideally, they will have the necessary information based on what they heard from trusted community leaders or learned themselves to give them peace of mind regarding past negative health care experiences or historical concerns.

There is a moral and scientific urgency to increase diversity in clinical trials, build trust with communities and promote fairness. But it is our job to prove to our communities we are trustworthy. We must continue to address each trial and community barrier to optimize a representative group of participants. At the end of the day, all communities benefit from advancements in quality medical research.

Dr. Keith C. Norris is Distinguished Professor of Medicine at the David Geffen School of Medicine at UCLA. Dr. Arleen F. Brown is professor of medicine and a health services researcher.



For more information about the UCLA Clinical and Translational Science Institute, scan the OR code or go to: ctsi.ucla.edu

One Donation Given, Two Lives Changed

TO GIVE A KIDNEY TO SOMEONE IN NEED IS ALWAYS

an act of selfless generosity and kindness. But when Clay Garcelli first made the decision to help his younger brother by donating a kidney, he didn't know that his choice would change the course of not one, but two lives. Garcelli's brother, Carter, already had received one kidney transplant, but after a year his body rejected the donor organ. Garcelli wanted to step in to donate a kidney to his brother, but preliminary testing determined he was not a match.

Then Garcelli learned about the UCLA Health Kidney Exchange Program, which presented him with an opportunity to help his brother — though indirectly. UCLA Health's Kidney Exchange Program was designed to expand the pool of potential donors and increase access to patients in need of a transplant. In a coordinated medical swap, "I could donate my kidney to someone else, and in turn, another donor who was compatible would be able to give their kidney to my brother," Garcelli says.

The process went smoothly, and Garcelli's brother received a new kidney in February. "They initially thought that it would take a long time to find a match for him. I was impressed that they were able to find a kidney so quickly," Garcelli says.

The recipient of Garcelli's kidney, Sonya Glover, had been on the transplant waiting list for nearly a decade. Before the surgery, Garcelli and Glover were unknown to each other, but they met not long after in the hospital. A video capturing the emotional moment of their first meeting — both still wearing their hospital gowns — went viral, and it generated national media attention.

"Thank you so much! Thank you! You're such a blessing!" Glover exclaimed as she reached from her chair to embrace Garcelli when he stepped into her room.

Apart from the altruism of donating a kidney to a stranger and the high level of coordination necessary to facilitate an exchange of organs among unrelated donors and recipients, there is another compelling element to this story: Garcelli is a 25-year-old white male; Glover is a Black woman three decades older.

Kidney disease affects more than one-in-seven adults in the U.S. Black people account for 30% of patients with end-stage kidney disease and are nearly four times as likely as white people to develop it, according to the National Institutes of Health.

Lack of access to health care, as well as disparities in testing, means that, overall, Black people are more likely to die from kidney disease. And, like Glover, those on the list for a kidney transplant may wait longer for a new organ; the average wait for Black patients who need an organ transplant is a year longer than for white patients, according to the Association of American Medical Colleges.

Programs such as UCLA Health's relieve the pressure on the waiting list by increasing the likelihood of successful matches for patients. Such programs are essential in a health care landscape where the number of patients in need far exceeds the number of available organs.

The kidney exchange model allows for a broader compatibility net, ensuring that even when direct family donation isn't possible, patients can still have hope through the generosity of altruistic donors.

It is not unusual for people of differing races, like Garcelli and Glover, to be matched, as race and ethnicity are not determining factors in matching organ donors and recipients. But Jeffrey Veale, MD (FEL 'o6), director of the UCLA Kidney Exchange Program and the surgeon who performed Glover's transplant, sees a broader message for society at large in this case.

When it comes to medical care, "the focus always should be on human need, and the willingness of individuals to step forward to help meet that need," Dr. Veale says. "Garcelli is a white male. Glover is a 57-year-old Black woman. A kidney is pink."

Says Glover: "There are no color lines when it comes to something like this, and I love that."

Today, relieved of the burden of life-sustaining dialysis treatments, Glover can enjoy everyday activities with her family, including spending time with her new granddaughter, who was born at UCLA Health just days following her procedure. "Every day, I wake up thankful that I have this new kidney," she says. "It's changed my life in so many ways."

Of her meeting with her donor, "It was amazing meeting Clay," Glover says. "I wanted to meet him and hoped I would get the chance. When he walked in my room, I was just overwhelmed."

As Glover said to ABC News' *Good Morning America*: "I told him and his wife ... like, we're connected forever. You guys will get random cards from me. It's like that, you know, it's like you're my family now."

It is rare that an altruistic donor gets to meet his or her recipient — the patient's information is kept private and, in many cases, the donor and recipient are in different hospitals, if not different cities or states. This time, however, both Glover and Garcelli were at UCLA Health.

"I wanted to meet Sonya, too," Garcelli says. "When Dr. Veale asked if I wanted to meet her, I was, like, 'Let's go!' It was such a great feeling."

- Chayil Champion



For more information about kidney transplantation at UCLA Health scan the QR code or go to: uclahealth.org/medical-services/transplants/kidney-transplant

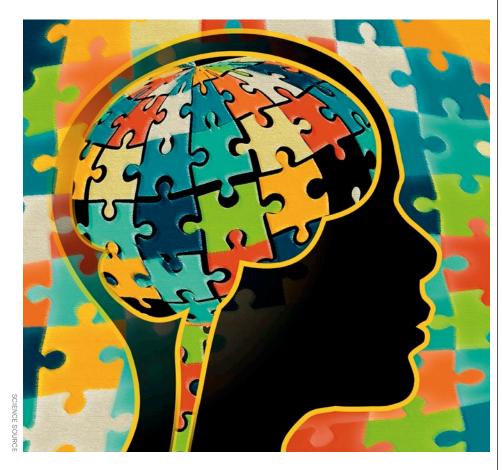


To view a video of Garcelli and Glover's meeting, scan the QR code or go



8 THE CUTTING EDGE U Magazine Fall 2024

Study Links Autism to Genetic Mechanisms



A GROUNDBREAKING STUDY LED

by UCLA Health has unveiled the most detailed view of the complex biological mechanisms underlying autism, showing the first link between genetic risk for the disorder and observed cellular and genetic activity across different layers of the brain.

The study is part of the second package of studies from the National Institutes of Health consortium, PsychENCODE. Launched in 2015, the initiative, chaired by UCLA Health neurogeneticist Daniel Geschwind, MD (RES '95, FEL '97), PhD, is working to create maps of gene regulation across different regions of the brain and different stages of brain development. The consortium aims to bridge the gap between the genetic risk for various psychiatric disorders and the potential causal mechanisms at the molecular level.

"This collection of manuscripts from PsychENCODE, both individually and as a package, provides an unprecedented resource for understanding the relationship of disease risk to genetic mechanisms in the brain," Dr. Geschwind says.

Dr. Geschwind's study on autism builds on decades of his group's research profiling the genes that increase the susceptibility to autism spectrum disorder and defining the convergent molecular changes observed in the brains of individuals with autism. However, what drives these molecular changes, and how they relate to genetic susceptibility in this complex condition at the cellular and circuit level, are not well understood.

Gene profiling for autism spectrum disorder, with a few exceptions in smaller studies, has long been limited to using bulk tissue from brains from autistic individuals after death. These tissue

studies are unable to provide detailed information such as the differences in brain layer, circuit level and cell type-specific pathways associated with autism as well as mechanisms for gene regulation.

To address this, Dr. Geschwind used advances in single-cell assays, a technique that makes it possible to extract and identify the genetic information in the nuclei of individual cells. This technique provides researchers the ability to navigate the brain's complex network of different cell types.

More than 800,000 nuclei were isolated from post-mortem brain tissue of 66 individuals ages 2 to 60, including 33 individuals with autism spectrum disorder and 30 neurotypical individuals who acted as controls. The individuals with autism included five with a defined genetic form called 15q duplication syndrome. Each sample was matched by age, sex and cause of death balanced across cases and controls. Through this, Dr. Geschwind and his team were able to identify the major cortical cell types affected in autism spectrum disorder, which included both neurons and their support cells, known as glial cells. In particular, the study found the most profound changes in the neurons that connect the two hemispheres and provide long range connectivity between different brain regions and a group of interneurons, called somatostatin interneurons, that are important for maturation and refinement of brain circuits.

A critical aspect of this study was the identification of specific transcription factor networks — the web of interactions whereby proteins control when a gene is expressed or inhibited — that drive these changes that were observed. Remarkably, these drivers were enriched in known high-confidence autism spectrum disorder risk genes and influenced large changes in differential expression across specific cell subtypes. This is the first time that a potential mechanism connects changes occurring in the brain in ASD directly to the underlying genetic causes.

— Will Houston

"Molecular Cascades and Cell Type-specific Signatures in ASD Revealed by Single-cell Genomics," *Science*, May 24, 2024

Scientists Accurately Measure Cancer Evolution

UCLA-LED RESEARCHERS HAVE shed light on the intricate processes underlying cancer evolution and defined the optimal algorithms to analyze the genetic makeup of tumors. The findings detail new online resources that help scientists select the best algorithms for analyzing tumor evolution, enhancing diagnostic accuracy and treatment planning. Understanding the evolution of tumors is crucial for treating cancer. Tumors with more genetic diversity tend to be harder to treat and more likely to resist therapy. The timing of specific mutations can also affect how well treatments work.

To better measure the evolution process, scientists use subclonal reconstruction algorithms to analyze DNA sequencing data from tumors, which leads to a better understanding of how cancers start, grow and respond to treatment and provides valuable insights for diagnosis and treatment strategies. This method, which involves complex mathematical and computer algorithms, has become an important tool for better understanding and tracking the cancer evolution process. However, dozens of algorithms have been developed for this task, and until now, it has been unclear which are the most accurate and when they work well. This uncertainty has become a barrier to wider clinical adoption.

"Subclonal reconstruction results can vary substantially from algorithm to algorithm," says Adriana Salcedo, PhD, a computational biologist in human genetics at the David Geffen School of Medicine at UCLA. "We want to be able to better understand how experimental and algorithm choices can be optimized for a particular task at hand that can help scientists who are developing these algorithms, as well as people who are just applying these algorithms to their own studies so they can choose the best one for their purpose and then in turn can interpret the results in a more informed way."

To see which algorithms are the most accurate for different tasks, Dr. Salcedo and other UCLA investigators put together a global consortium. This group launched a seven-year effort called the ICGC-TCGA DREAM Somatic Mutation Calling — Tumor Heterogeneity and Evolution Challenge. Groups around the world used cloud computing to benchmark seven different aspects of tumor evolution, with 12,061 total analyses.

Analyzing this data, Dr. Salcedo found that only a few tumor characteristics significantly influenced the accuracy of reconstruction algorithms. While some experimental factors like the quality of sequencing data and tumor purity played a role, the choice of algorithm was more important than the characteristics of the tumor itself in determining accuracy.

They also found no single algorithm performed best on all tasks and standard approaches for combining multiple algorithms didn't improve accuracy significantly.

"We were surprised that the algorithm itself was so important," says Paul

Boutros, PhD, professor of urology and human genetics and director of cancer data science at the UCLA Health Jonsson Comprehensive Cancer Center. "This gives immediate practical insight to researchers on how they translate research, clinical trials and, ultimately, fully predict the complexities of cancer evolution."

Since different algorithms are best at different subtasks of subclonal reconstruction, the team provided online tools to help users choose the most appropriate one for their datasets and question of interest. The team is now working to figure out where current techniques can be improved to better represent the ongoing changes in cancer cells and make better cancer evolution simulators. There is also a need for guidance into where new artificial intelligence efforts are needed to improve the ability to measure cancer evolution.

"By unraveling the complexities of tumor dynamics through innovative computational methods, we can predict where the cancer is going to evolve," Dr. Boutros says. "And by knowing where it will go, we can design treatments that stop the cancer from ever becoming lethal."

- Denise Heady

"Crowd-sourced Benchmarking of Single-sample Tumor Subclonal Reconstruction," *Nature Biotechnology*, June 11, 2024



10 THE CUTTING EDGE U Magazine Fall 2024 1

Al Tool May Identify Previously Undiagnosed Rare Diseases

RESEARCHERS LED BY SCIENTISTS

at UCLA Health say a machine-learning tool can identify many patients with rare, undiagnosed diseases years earlier than is typical, potentially improving outcomes and reducing cost and morbidity. "Patients who have rare diseases may face prolonged delays in diagnosis and treatment, resulting in unnecessary testing, progressive illness, psychological stresses and financial burdens," says Manish Butte, MD, PhD, E. Richard Stiehm Endowed Chair and professor of pediatrics, human genetics and immunology, allergy and rheumatology.

"Machine learning and other artificial intelligence methods are making their way into health care. Using these tools, we developed an approach to speed the diagnosis of undiagnosed patients by identifying patterns in their electronic health records (EHR) that resemble those of patients who are known to have the disorders," he explains.

This study focused on disorders collectively called common variable immunodeficiency (CVID), which often elude diagnosis for years, or even decades, after symptom onset because the disorders are rare, symptoms can vary greatly from person to person and tend to overlap with those of other, more common disorders. Additionally, the disorders in each individual are often driven by changes in only one gene — but not the same gene from one manifestation of the disorder to another — and more than 60 genes have been implicated thus far. Without a single causal mechanism, there are no genetic tests to provide a definitive diagnosis.

CVID is one of the most common human inborn errors of immunity (IEI) — rare diseases that increase a person's susceptibility to infection, autoimmunity and autoinflammation. CVID, estimated to affect one-in-25,000 people, is associated with antibody deficiencies and impaired immune responses.



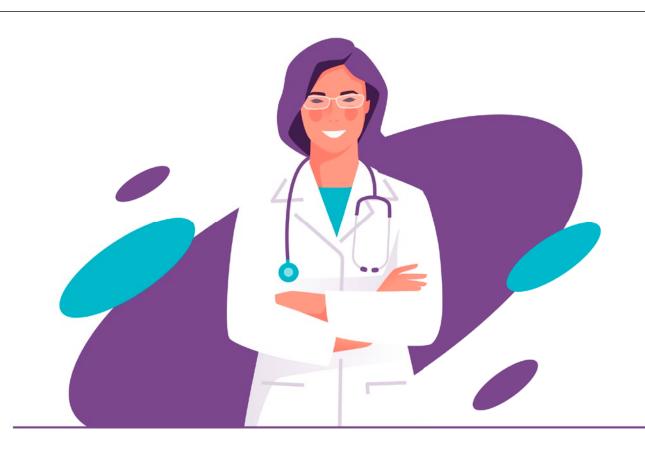
Dr. Butte and Bogdan Pasaniuc, PhD, professor of computational medicine, human genetics and pathology and laboratory medicine, led a team that developed a machine-learning tool called PheNet, borrowing from the term "phenotype," the observable characteristics or traits of a disease as seen in an individual. PheNet learns phenotypic patterns from verified CVID cases and uses this knowledge to rank patients by likelihood of having CVID.

The researchers developed their computational algorithm to infer EHR signatures from the records of patients known to have CVID and from the patterns of illnesses found in the literature. The software then computes a numerical score for each patient that rank orders the patients most likely to have CVID.

Dr. Pasaniuc says that when the research team applied PheNet to the UCLA electronic health record data, comprising millions of patient records, and followed up with a blinded chart review of the top 100 patients ranked by the system, they found that 74% were deemed probable to have CVID. Based on these preliminary data, Drs. Butte and Pasaniuc successfully competed to receive \$4 million of National Institutes of Health funding, which allows them to apply their AI in the real world. They started by validating PheNet with more than 6 million records of patients from disparate medical systems in the University of California Data Warehouse and at Vanderbilt Medical Center in Tennessee. A collaboration led by Dr. Butte to have specialists see the patients identified by the algorithm was launched with the immunology clinics at University of California campuses in San Diego, Irvine, Davis and San Francisco.

- Kevin McClanahan

"Electronic Health Record Signatures Identify Undiagnosed Patients with Common Variable Immunodeficiency Disease," *Science Translational Medicine*. May 1, 2024



Female Physicians Lower Patient Mortality, Readmissions

PATIENTS HAVE LOWER RATES OF

mortality and hospital readmissions when treated by female physicians, with female patients benefitting more than their male counterparts, new research suggests. The mortality rate for female patients was 8.15% when treated by female physicians vs. 8.38% when the physician was male — a clinically significant difference, the researchers found. While the difference for male patients was smaller, female physicians still had the edge, with a 10.15% mortality rate compared with male doctors' 10.23% rate. The researchers found the same pattern for hospital readmission rates.

Patient outcomes should not differ between male and female physicians if they practice medicine the same way, says Yusuke Tsugawa, MD, PhD, associate professor-in-residence of medicine and health services research. "What our findings indicate is that female

and male physicians practice medicine differently, and these differences have a meaningful impact on patients' health outcomes," says Dr. Tsugawa, who is also an associate professor of health policy and management at the UCLA Fielding School of Public Health. "Further research on the underlying mechanisms linking physician gender with patient outcomes, and why the benefit of receiving the treatment from female physicians is larger for female patients, has the potential to improve patient outcomes across the board."

The researchers examined Medicare claims data from 2016 to 2019 for about 458,100 female and nearly 319,800 male patients. Of those, 142,500 and 97,500, respectively, or roughly 31% for both, were treated by female doctors. The primary outcomes were 30-day mortality from the date of hospital admission and 30-day readmission from the date of discharge.

There may be several factors driving these differences, the researchers write. They suggest that male doctors might underestimate the severity of their female patients' illnesses — prior research has noted that male doctors underestimate their female patients' pain levels, gastrointestinal and cardiovascular symptoms and stroke risk — which could lead to delayed or incomplete care. Also, female doctors may communicate better with their female patients, making it likelier that these patients provide important information leading to better diagnoses and treatments. Finally, female patients may be more comfortable with receiving sensitive examinations and engaging in detailed conversations with female physicians.

But more research is needed into how and why male and female physicians practice medicine differently and its impact on patient care. "A better understanding of this topic could lead to the development of interventions that effectively improve patient care," Dr. Tsugawa says.

- Enrique Rivero

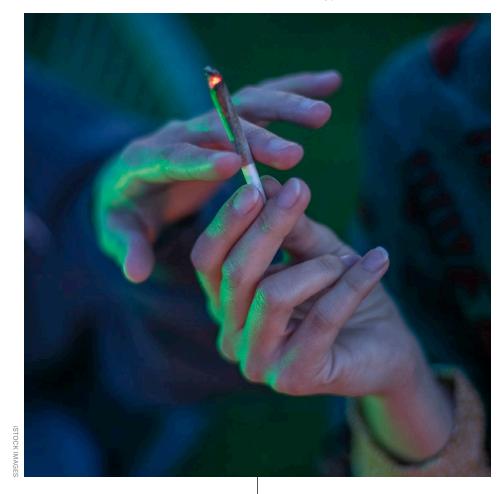
"Comparison of Hospital Mortality and Readmission Rates by Physician and Patient Sex." *Annals of Internal Medicine*. April 23, 2024

12 THE CUTTING EDGE U Magazine Fall 2024 13

Cannabis Use Commonly Reported in Survey of Primary Care Patients

cannabis use in a survey of primary care patients, with 35% of those using at levels indicating moderate-to-high

ONE-IN-SIX PATIENTS REPORTED | professor of family medicine at the David Geffen School of Medicine at UCLA and of health policy and management at the UCLA Fielding School of Public Health. risk for cannabis use disorder, new UCLA | "Not asking patients about their cannabis



research finds. The findings suggest that most patients reported using cannabis for symptom management, despite identifying as recreational users, indicating the need for routine cannabis screening. Currently few health care systems offer this screening in primary care settings.

"Patients may not tell their primary care providers about their cannabis use, and their doctors may not ask about it," says Lillian Gelberg, MD (FEL '86),

use results in a missed opportunity for opening up doctor-patient communication regarding use of cannabis generally and for management of their symptoms.'

Thirty-eight states, three U.S. territories and the District of Columbia allow cannabis for medical use, and 24 of these states also permit recreational use. Stigma over cannabis use has fallen, likely due to these legal moves. While there has been an increased perception

that its use is risk-free, cannabis potency has increased.

The U.S. Preventive Services Task Force recommended in 2020 that primary care physicians screen their adult patients for use of cannabis and other substances. The following year, the investigators implemented the UCLA universal electronic health record-based self-administered survey on cannabis use and medical cannabis use. The researchers used patients' de-identified electronic health records at UCLA collected from January 2021 to May 2023 to determine the prevalence, correlates and reasons for current cannabis use. The UCLA Health system is one of the few to ask patients to voluntarily complete cannabis use surveys during pre-appointment check-ins.

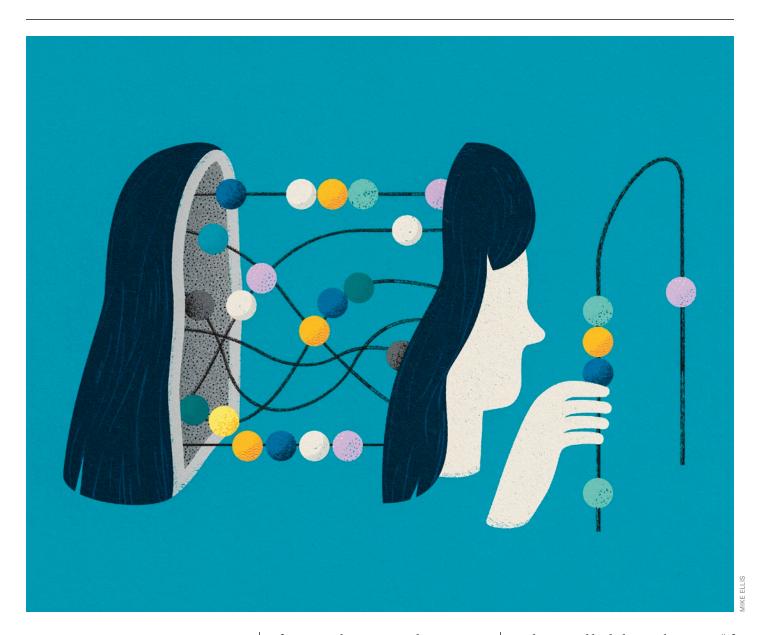
Nearly 176,000 patients completed surveys. Of those, nearly 30,000 (17%) reported cannabis use, among whom 35% gave responses suggesting moderate-to-high risk for a cannabis use disorder, defined as a score of 8 or higher on the screening survey. Among users, 40% used cannabis once or twice in the previous three months, 17% used monthly, 25% used weekly and 19% used it daily or almost daily.

The study has some limitations. The findings are based on patients' self-reported use, and though cannabis is legal in California, some patients may still be reluctant to disclose using it. Much of the data were from screenings taken during the COVID-19 lockdown, during which cannabis use may have been higher than it might have been otherwise. In addition, the findings may not be applicable to other health systems, particularly in states where cannabis use is still illegal.

However, "given the high rates of cannabis use and medical cannabis use that we found in this large urban health care system, it is essential that health care systems implement routine screening of all primary care patients," the researchers write. "Integrating screening efforts to include information regarding cannabis use for symptom management could help enhance the identification and documentation of medical cannabis usage."

- Enrique Rivero

"Cannabis Use Reported by Patients Receiving Primary Care in a Large Health System." JAMA Network Open, June 5, 2024



Practice Changes Brain Memory Pathways

A NEW STUDY LED BY UCLA HEALTH

has shown that repetitive practice not only is helpful in improving skills but also leads to profound changes in the brain's memory pathways.

The research, co-led by Rockefeller University, sought to unravel how the brain's ability to retain and process

information, known as working memory, psychiatry and biobehavioral sciences. "If improves through training.

To test this, researchers tasked mice with identifying and recalling a sequence of odors over the course of two weeks. Researchers then tracked neural activity in the animals as they practiced the task by using a novel, custom-built microscope that can image cellular activity in up to 73,000 neurons simultaneously throughout the cortex.

The study revealed a transformation in the working memory circuits located in the secondary motor cortex as the mice repeated the task through time. As the mice were first learning the task, the memory representations were unstable. However, after repeatedly practicing the task, the memory patterns began to solidify, or "crystalize," says Peyman Golshani, MD (RES 'o6), PhD, professor of neurology and

one imagines that each neuron in the brain is sounding a different note, the melody that the brain is generating when it is doing the task was changing from day to day, but then became more and more refined and similar as animals kept practicing the task," Dr. Golshani says.

These changes give insights into why performance becomes more accurate and automatic following repetitive practice. "This insight not only advances our understanding of learning and memory, but it also has implications for addressing memory-related disorders," Dr. Golshani says.

Will Houston

"Volatile Working Memory Representations Crystallize with Practice," *Nature*, May 15, 2024

STEPS INTO THE U MAGAZINE SPOTLIGHT

When Robert Prins, PhD (FEL '02), came to UCLA as an undergraduate in the 1980s, his goal was to become the next world's-greatest gymnast. That didn't work out as he'd hoped, so Dr. Prins moved on to an alternate plan, pursuing a career in science. Today, as a professor of neurosurgery and molecular and medical pharmacology, he and his lab group are working to understand why some brain tumors are resistant to immune-based therapies that have proven to be effective against other cancers, and how to overcome those barriers to treat patients more effectively.

WHEN DID YOU FIRST START TO THINK ABOUT SCIENCE?

14

It was pretty early on. My dad was, I think, a bit of a frustrated scientist. He wanted to be a physician-scientist, but he ended up mostly as a private-practice OB/GYN. He had lots of colleagues in the research field, and so it was something that was always around. Through one of his colleagues, I worked during high school at the Oregon National Primate Research Center, where Dr. Linda Bradley was doing the early immunology studies on HIV. I continued to correspond with her when I was in college. Science is something I've been around most of my life.

WHAT HAS BEEN YOUR GREATEST CHALLENGE IN YOUR WORK?

Trying to understand the impediments to inducing immune responses to tumors in the brain. They're very immune-suppressive. You can give the same type of immunotherapy to a patient with melanoma or with lung cancer and it works really well. But it just doesn't do the same thing for patients with a brain tumor. Trying to understand why that is has occupied my time for a good 10 years.

WHERE DOES YOUR INSPIRATION COME FROM?

From my wife, Dr. Mayumi Prins (PhD '97, FEL '98), who is director of the Brain Injury Research Center. She is one of those people who loves being in the lab, who loves science. That is inspiring for me.

And from my dad. He really did want to be a physician-scientist, and even though he didn't get to do that, he fostered that desire in me.

WHO IS YOUR SCIENCE HERO?

Ralph Steinman. He discovered the dendritic cell while at Rockefeller University in New York, for which he won, posthumously, the Nobel Prize in Physiology or Medicine in 2011. I got to sit next to him during a National Institutes of Health study section. He had pancreatic cancer, but he still had a glimmer in his eyes, and he was very nice and asked great questions.

WHERE ARE YOU HAPPIEST?

My family has a place in the San Juan Islands in the Pacific Northwest, and we often go there for vacations — and any other time we can manage it. I fish. I cut wood. I get away from cell phones.

WHAT DO YOU CONSIDER TO BE YOUR FINEST ACHIEVEMENT?

Hopefully I haven't had it yet. I'm proud of the work we've done and the strides we've made to induce immune response to brain tumors, but we're hopeful there is more to come.

WHAT CHARACTERISTIC MOST DEFINES YOU?

Perseverance, I think. Things don't always work out the way you hope they will, so you have to be persistent and try to understand why it didn't work, how to get over

the hurdle so that you can move forward. Having been a gymnast was very good training. You have to learn how to lose and to fall and to get back up. Science is very much like that.

WHAT IS YOUR GREATEST VIRTUE?

I am collaborative. I am very proud that we've built this really collegial group of clinical and research faculty and students who all get along and who want to support each other, which enables us to study things in greater depth. It's different from the old days, when everyone was siloed in their lab doing their own thing. Collaboration has been one of the things I'm most proud of.

WHAT IS YOUR GREATEST FAULT?

Sometimes I'm too nice.

WHEN DO YOU NOT THINK ABOUT SCIENCE?

When we are on Lopez Island. I try to go up there and do birdwatching, go fishing, chop some wood and think about other things.

IF NOT A SCIENTIST, WHAT WOULD YOU BE?

A gymnast. That is why I came to UCLA as an undergrad. I could have gone to several other schools on a full scholarship, but UCLA was just the best. I was good, but when you get to a place like UCLA, where the athletes and the drive are at the next level, you really learn to appreciate the work ethic, as well as the talent. I was not in the same league as some of those guys who went on to the Olympics. So, I didn't become an Olympic gymnast, but it was a time that made me learn how to work hard.

WHAT IS YOUR MOST TREASURED POSSESSION?

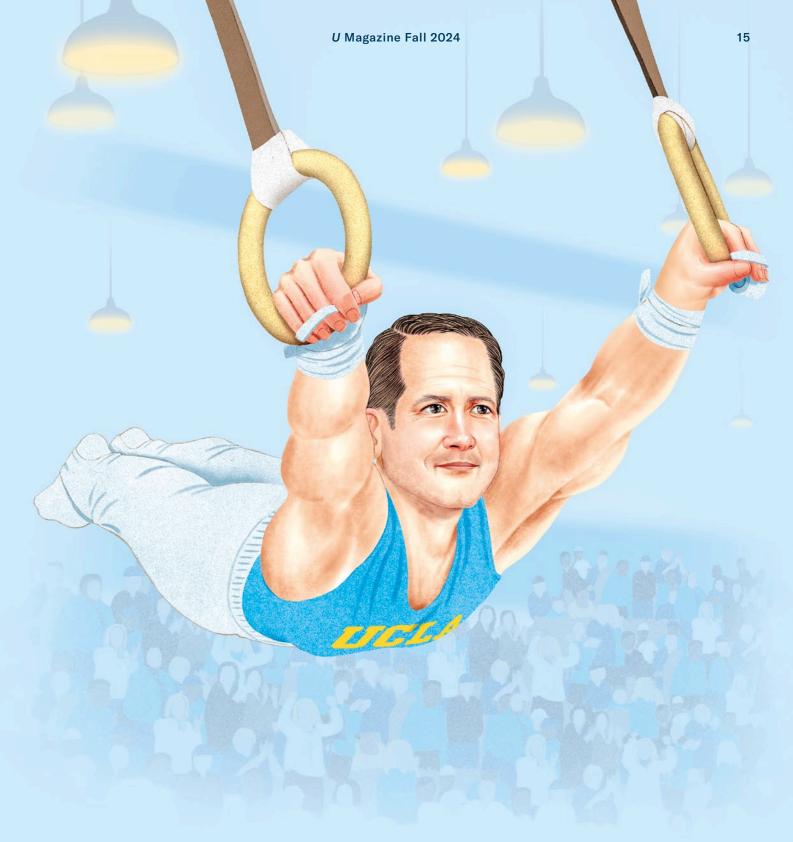
Time with family, friends and colleagues. Enjoying a good single-malt together with colleagues fosters good science.

WHAT ARE YOU MOST COMPULSIVE ABOUT?

My email. I can't go to sleep at night until I've closed out my inbox.

WHAT'S THE BEST MOMENT IN YOUR DAY?

Early morning. I get up at 5:00 and go for a run. I usually try to think about some of the science that we're going to do that day



in the lab, and then I try to write and do my reading early, before I get another hundred emails. Those early-morning hours are the most precious.

WHAT IS YOUR DEFINITION OF HAPPINESS?

Working at the thing that you really enjoy. That is what is so great about being at an academic institution — you can work on whatever is your passion.

WHAT IS YOUR DEFINITION OF MISERY?

Finances. Ugh! I love doing the science, but I don't like having to deal with budgets.

WHAT BOOK HAS INSPIRED YOU?

7 Kinds of Smart. It talks about people who are successful in the world, and they're not always the ones with intellectual smarts. The author came up with seven different pathways to being

smart — verbal, logical, spatial, musical, touch/kinesthetics, interpersonal and intrapersonal. I think one of the things that has made our lab group successful is having not only lots of really bright people, but also people who have a high emotional quotient and who can get along and collaborate. That book reminds me that there is a smarts to getting along with people. In the world of science, that can be very helpful.

16 CONVERSATION

BREAKING THE SILENCE

Rape was a hidden crime. Most victims remained silent. But 50 years ago, a social worker at what was then a small community hospital took it upon herself to advocate for and support victims, and to create what would become the Rape Treatment Center at UCLA Santa Monica Medical Center.

Gail Abarbanel, LCSW Founding Director (emerita), Rape Treatment Center In the 1970s, rape was a crime shrouded in secrecy and shame. Victims had few rights or protections in the criminal justice system. They rarely sought help or reported the crimes committed against them. It was within that milieu 50 years ago that a young social worker at a small community hospital in Santa Monica began to create what would become

a groundbreaking center to serve rape victims. In 1974, Gail Abarbanel, LCSW, founded the Rape Treatment Center (RTC), which today is a program of UCLA Santa Monica Medical Center and an international model for the care and treatment of rape victims. The scope of its influence has been so broad that, in 1991, Abarbanel and the Rape Treatment Center were honored in a White House Rose Garden ceremony, during which President George H.W. Bush presented her with a plaque recognizing the center for "raising the nation's consciousness about the crime of rape and the ways in which rape victims are treated, and for bringing justice and effective care to victims." Abarbanel spoke about the center and its history with Mary-Rose Abraham, senior science writer at UCLA Health. A feature story about the center and its ongoing work follows this conversation.



18 CONVERSATION U Magazine Fall 2024 19

1974 was a very different time. How did the center start?

Gail Abarbanel: I was a new — and at that time, the only social worker at Santa Monica Hospital. I was called to the emergency department to see a young woman who had made a suicide attempt. As we spoke, she disclosed that she had been raped by a stranger while she was walking on the beach on a beautiful Sunday afternoon. I still remember looking into her eyes. She was overwhelmed by shame. She felt she could not tell anyone. I was profoundly moved by her experience. She truly inspired all that followed. At that time, rape was a hidden crime surrounded by shame and silence. The few victims who sought emergency care were treated as low-priority patients. While they endured long waits, evidence on their bodies could deteriorate and/or be lost. Care for the profound emotional trauma they had suffered was often not provided. I started thinking about what we should be doing. I was the only social worker in our hospital. I put myself on call 24 hours a day to respond whenever rape victims sought care in our ER. From that day forward, we have always been inspired and guided by what we have learned from them. In 1999, a few years after UCLA purchased Santa Monica Hospital, a gift from a generous donor made it possible for us to establish a dedicated Rape Treatment Center "ER," an innovative 24-hour emergency care clinic staffed by highly trained nurse practitioners and therapists with state-of-the-art equipment to support expert medical care, forensic services, crisis counseling and advocacy for victims. We later created a specialized clinic to provide their follow-up care. All of the Rape Treatment Center's services have always been free.

Just a few years after you established the center, Norman Lear, the legendary television producer, called you. He was planning a special episode of his groundbreaking sitcom, *All* in the Family. What did he ask you?

Abarbanel: Norman asked: "If you could talk to 40 million people about rape, what would you want to say?" I think I was speechless at first! He invited me to spend time with him and the writers. It was a spectacular opportunity, and truly a great honor. They wrote a brilliant script and produced "Edith's 50th Birthday," a two-part episode in which the beloved Edith Bunker was the victim of an attempted rape. It was the first show of its kind on television to ever address the issue, and when it aired, in 1977, it started conversations about rape in living rooms across the country. As many other TV shows began to include rape in their storylines, we provided consultation. At one of our early Rape Treatment Center events, the studio executive Sherry Lansing stood up at the end of the program and said, "I'm going to do something." She produced *The Accused*, a powerful film about the impact on the victim, and a community, of a brutal gang rape.

You have said that the language used in reporting on rape matters, and that it was very problematic. How so?

Abarbanel: Language matters because it shapes attitudes, beliefs and responses. The issue has been the use of judgmental terminology, often in press coverage, like, "The victim *claims* she was raped" or "The victim *wasn't really hurt.*"

Gail Abarbanel with TV producer and creator of All in the Family Norman Lear during a Rapa Treatment Center functialser in 2012. In 1977, Lear called Abarbanian I and asked ther, if typu could talk to 40 million people about sipe, what would you want to say?"

This language created suspicion of women who reported being raped and minimized the profound, often invisible, trauma these victims suffer. Many victims remained silent and did not seek help because they feared they would be blamed and disbelieved.

When the Rape Treatment Center began, it provided care primarily for adult victims. Now there is Stuart House, to treat children. How did Stuart House originate?

Abarbanel: High-profile multiple-child-victim cases in the 1980s shined a spotlight on child sexual abuse. As we began to see more child victims, we were inspired to create a new model for their care and treatment. In the traditional child-protection system, these children were taken to multiple agencies in separate locations where they would be re-interviewed in cold, institutional settings — police stations, hospital ERs, prosecutors' offices — often by people with little or no training in child development or child sexual abuse. There was little collaboration among the involved agencies. And many abused children did not receive needed treatment and support services. Families often felt their children were being more hurt than helped by this system. We were pioneers in what became a national movement when, in 1988, we created our Stuart House, in partnership and with support for innovation from the Stuart Foundation. Stuart House fosters collaboration by co-locating the involved agencies in a single child-friendly setting. It also provides highly specialized, comprehensive state-of-the-art treatment and advocacy services for child victims and their families. It is located on a residential street, outside of the hospital, and has served as a national model. Programs like Stuart House, now known as child advocacy centers, have proliferated throughout the country. In 2012, The Rape Foundation built a larger building for the Stuart House program, which was given as a gift to UCLA to increase its capacity to serve child victims and their families.

What have you learned from victims the RTC has treated?

Abarbanel: Everything. Since its inception, the experiences of rape victims have inspired and informed our services and advocacy efforts. We have learned from them what has needed to be created and what has needed to be changed. As an example, we began to see an influx of first-year college students coming to the Rape Treatment Center when the fall semester began. On many college campuses, rape victims who reported these crimes had no rights or protections in student-conduct codes. The accused students could have their attorney present during disciplinary hearings. Victims could not. Aileen Adams, who was then our legal counsel, and I wrote a book, Sexual Assault on Campus: What Colleges Should Do. We also produced a film. One of our generous donors funded a national outreach campaign that enabled us to send these resources to every college president in the country. When the Rape Treatment Center was recognized at the White House in 1991, President Bush made special mention of our national campus rape campaign.

How has the work of the Rape Treatment Center influenced the legal system?

Abarbanel: Many laws related to the crime of rape needed to be changed. For example, a UCLA student took a public bus from downtown back to school. She was the only passenger left on the bus when it got to its last stop at the edge of campus. The driver had locked the door. When he came towards her and grabbed her, she froze. She was terrified. He raped her and then let her off the bus. We provided care for her at the Rape Treatment Center. This case was rejected for prosecution because of her "non-resistance." A common response when a person is terrified is "frozen fright." At that time, California rape laws included "resistance standards." Victims had to prove they resisted, and "to the utmost." Another discriminatory standard in California law required mandatory jury instructions in rape cases: "Rape is a charge easily made and hard to defend against, so examine the testimony of this person (the victim) with caution." These standards were not applied to any other crime victims. Aileen, our legal counsel, worked with the California State Bar to draft legislation to remove these standards in rape cases. In 1980, the laws were changed.

When did you start to see an increase in drugs being used as a weapon against women in rape cases?

Abarbanel: We began to see a big increase in drug-facilitated sexual assaults in 1997. What were initially called "date-rape drugs" were being used as a weapon to incapacitate victims. At that time, I served on a national committee formed by Attorney General Janet Reno. She came to the Rape Treatment Center to help us launch a national campaign to educate the public about drug-facilitated sexual assaults. She met privately with victims of these crimes before she spoke. She listened to how they had been treated, or mistreated, and how their cases had been handled by law enforcement and prosecutors. She pledged to take action. She launched a national training initiative for law enforcement agencies throughout the United States to address these crimes.

You have recently left the Rape Treatment Center to begin your next chapter. This is work with which you have been engaged for 50 years. You have witnessed a lot of trauma. How do you handle that for yourself?

Abarbanel: By taking action to effect meaningful social change. I truly feel honored to have had the opportunity to create specialized services and innovative programs and partnerships that have made a difference in the lives of so many rape victims and sexually abused children and their families. For five decades, I have witnessed the strength and profound resilience of the human spirit and experienced the kindness and generosity and commitment to community of so many people who have partnered with us and supported the work of the Rape Treatment Center and Stuart House. There is a saying: "Gratitude is the memory of the heart." My heart is very full. I am profoundly grateful to all of our partners on this journey. They have made the innovations and achievements of the Rape Treatment Center and Stuart House possible. •

FROM TRAUMA TO HEALING

For 50 years, the Rape Treatment Center at UCLA Santa Monica Medical Center has provided comprehensive care, treatment and support for victims of sexual assault as they seek restoration and empowerment.

By Mary-Rose Abraham



Julie Fordyce didn't know anyone in Los Angeles when she moved from Arizona in the fall of 2022 to pursue her acting career. But after just a few days, she landed a job as a background player, and then found steady work in TV and movies. And, like many young actors chasing their dreams in Hollywood, she waitressed at a restaurant.

"I feel at home and happy here," says the 23-year-old Fordyce. "It's not just the weather; it's being able to be more of myself here and no one's really judging you." page 18) the RTC has expanded its 24-hour services to include a child-advocacy center, Stuart House, which opened in 1988 and is dedicated to child victims of sexual abuse. Today, the

In August 2023, nearly a year after she arrived in L.A., Fordyce opened the restaurant on a Sunday morning and worked a full shift. After having dinner with friends, they went to a bar, where she saw a man she recognized from the restaurant. They'd never talked, and she did not know his name, but, uninvited, he joined her group and then followed them to a second bar. Later, when they decided to leave, her friends headed toward the back exit and Fordyce went into the bathroom. She did not notice the man trailing her.

It is there that she says he raped her.

"I was crying and kept saying to my friends, 'I just need my mom," Fordyce recalls. "But I also said I need to go to the hospital. I need someone to help me. I need someone to take care of me."

Years before, one of the friends with Fordyce had also been raped, and she knew where to go. She took Fordyce to UCLA Santa Monica Medical Center, where they were met at the entrance by a counselor. Soon, they stepped into the clinic of the Rape Treatment Center at UCLA Santa Monica Medical Center. Seeing the sign, the full reality of what had happened to her hit, and Fordyce broke down in tears again.

The Rape Treatment Center (RTC) is a world-renowned facility and a model for the comprehensive care of adult and child victims of sexual violence. Its emergency medical care and forensic services are offered 24/7, with follow-up therapy and a growing training and prevention program.

"Everybody needs justice," says Jane Halladay Goldman, PhD, director of the RTC. "Our support for victims of sexual assault in their pursuit of justice is a commitment to standing against silence, providing the best care and evidence collection available, fostering healing and ensuring that every victim's voice is heard and respected."

Founded by a hospital social worker 50 years ago, in 1974 (see "Breaking the Silence,"

page 18) the RTC has expanded its 24-hour services to include a child-advocacy center, Stuart House, which opened in 1988 and is dedicated to child victims of sexual abuse. Today, the center sees an average of three-to-four cases every day, and its nurse practitioners and master's- and doctoral-level therapists spend an average of four hours focused on the care of each patient. "This level of care, unmatched in the country, is available to all, 24 hours a day, seven days a week, at absolutely no cost," Dr. Halladay Goldman notes.

The national statistics are sobering. Every 68 seconds, an American is sexually assaulted, with the highest risk for those ages 12-to-34, according to the Rape, Abuse & Incest National Network. The majority of assaults are committed by someone known to the victim, a fact that continues to astound Sally Wilson, a nurse practitioner and the clinic coordinator, even after more than two decades working at the RTC. "When I first started in this job, I had this conception that rape happened when you get attacked by a stranger," she says. "But 80% of people are assaulted by someone they know. That still resonates with me to this day."

Females comprise 90% of rape victims. But it is a crime that can happen to anyone. "We've seen victims from 3 months to 93 years old, females and males and people who are transgender," Dr. Halladay Goldman says. "It's universal."

FORDYCE CURLED INTO HER CHAIR IN

the clinic's small and cozy waiting room. Her face was puffy and red from crying. The manager from the restaurant where Fordyce worked sat next to her for moral support.

A nurse practitioner and a counselor explained the protocol: There would be a detailed interview by the nurse practitioner and a police report taken by the responding law-enforcement officer; a medical forensic examination would be conducted; preventive medications would be offered, followed by counseling. Every step was her choice. She could refuse any service at any point.



Fordyce felt broken and lost as she thought about what to do, but her fight-or-flight response was tipped toward fight and urging her to do something. She said she wanted to go forward.

23

After she finished giving information necessary to begin an investigation, the counselor who accompanied her throughout the experience led Fordyce to an adjoining examination room. As she undressed for the medical forensic examination, Fordyce began "shaking like a chihuahua."

"They always asked for consent and always made sure I was alright," Fordyce says.

When the exam was over, the nurse gave her a new T-shirt and sweatpants — all of Fordyce's clothes were kept as evidence — and medications to prevent pregnancy and sexually transmitted infections (STIs). The nurse asked her to return in two weeks for a follow-up visit.

It was daybreak when Fordyce got back to her apartment. She had been awake for 24 hours but still was unable to sleep. She took a long, hot shower, and was finally able to reach her parents by phone. Her mother immediately began the six-hour drive from Arizona to Los Angeles.

But even in her home, Fordyce remained uneasy. She wondered what would happen if she saw the man again. She no longer felt safe in the city she had come to love.

OF ALL VIOLENT CRIMES, RAPE IS

among the most challenging to prosecute. Its difficulties begin with underreporting. Only about a tenth of victims come forward, says Beth Cranston, the RTC's legal counsel and a former senior director. The legal process can be fraught with uncertainty due to the high evidentiary bar that must be cleared, which makes rape "one of the hardest crimes to prove."

As in Fordyce's case, victims often sustain no obvious physical injuries, "so you don't always have a lot of evidence of that type," Cranston says. "It's also a crime that is highly recidivist — people

"We talked about goals, and my goal was feeling safe in the city again," says Fordyce, who, during an arts-and-crafts therapy session created a shirt with her new personal slogan.

who rape tend to rape multiple times. If you don't arrest and prosecute people, then they have the opportunity to reoffend."

Cranston oversees forensic services in the RTC clinic, ensuring that evidence collection, including DNA and photo and video documentation, is thorough and meets the exacting standards of the criminal justice system. "A victim's body is a crime scene," she says.

"Time is not our friend," Cranston adds. Almost immediately following a rape, the window for evidence collection begins to close. But advances in DNA technology have helped to keep it open longer, expanding the timeframe from 72 to the current 120 hours. This five-day window is crucial for a medical forensic examination, as well as for most preventive medications. (Post-exposure HIV prevention is only effective within 72 hours.)

"I wish the Rape Treatment Center didn't have to exist," says Lesley Perkins, a Los Angeles Police Department detective with the West Bureau's special-assault section. "But it unfortunately is a necessity, and it provides quality care to victims."

DNA evidence collected during the medical forensic exam is essential to presenting a case to the district attorney's office for prosecution, but the trust that nurses and counselors build with victims often provides additional information that can be critical for her investigations. "Victims sometimes will tell clinic staff something more than they've told the investigating officer," Det. Perkins says. "I know of several cases where that has made a huge difference in the investigation."

Sometimes, however, a victim is not ready to pursue legal action. In that case, the RTC maintains two off-site freezers for evidence storage. That, Dr. Halladay Goldman says, is unique to the RTC. "I don't know of any other place in California that does that. Sometimes a victim might come in and think, 'I'm not ready to report. I just want help preventing STIs.' And we will absolutely do that. But we can also give them the option of having evidence collected and storing it. We won't give it to the police until they decide to release it. And they can make that decision later, rather than immediately following such a traumatic event. Often, they go to therapy for a few weeks, or a few months, and begin to process their trauma, and very often they'll later release it and move forward with the police."

As it has over the past 50 years, the RTC continues to learn — and evolve

— from the people it serves.

Safe Haven

Stuart House is a place for sexually abused children to begin their long journey toward recovery.

By Marina Dundjerski and Mary-Rose Abraham

A COMMITMENT WAS MADE ON the day in May 2014 that ground was broken in Santa Monica for a new, enlarged Stuart House "that those children who have endured the worst imaginable crimes deserve the best care that our society can provide." The philanthropist and children's advocate Cheryl Saban went on: "Nowhere else in the entire country is providing better care for child victims of rape and sexual abuse than Stuart House."

That has been so since Stuart House was established in 1988 as a pioneering, multiagency program and project of the Rape Treatment Center. From the beginning, it has worked relentlessly to improve care of child victims of sexual abuse and remedy problems in the child-protection system that often re-traumatizes the very children it is trying to help, in some cases leaving them vulnerable to subsequent abuse.

system in place at that time was fragmented and ineffective," said Gail Abarbanel, LCSW, who co-founded Stuart House when she was executive director of the Rape Treatment Center, of which she was the founder. "It needed to be changed."

Thirty-six years since its inception, Stuart House continues to be a safe haven for youths who have been sexually abused, offering them a first step on the road to receiving appropriate medical care, justice, therapy and long-term healing. It is a space where every detail has been mindfully chosen to make a child or teen comfortable and at ease. For the future. Harriet Kerr. LCSW. who became director of Stuart House in 2017 after nearly 14 years as director County Sheriff's Department, the

of prevention education for the Rape Treatment Center, would like to see expansion to provide broader preventive services, as well as acute-care services closer to home, to underserved communities in Los Angeles. "We see a lot of children, but we have room to grow and the capacity to see more," she says. "And I would like very much to see us develop a program to establish direct partnerships with youth and families to more effectively meet the ever-evolving needs of the families we serve."

Stuart House arose during an era of increasing awareness of sexual abuse of children. Fueled by news coverage of high-profile cases in the 1980s, reported cases of child sexual abuse mushroomed, and the number of children referred to the Rape Treatment Center increased significantly. "The issue of sexual abuse of children started to emerge more prominently, but there were few resources and no expert care, and families couldn't find out what was happening with their children's "The traditional child-protection cases," Abarbanel said. "We kept hearing the same experiences from victims and their families: Children were being taken to multiple agencies in different locations, where they would be re-interviewed in cold, institutional environments like a police station, often by individuals with no training in child development or in treating traumatized children. So, we decided to develop a different model that would bring all of the involved agencies and professionals together under one roof."

> A first-of-its-kind public/private partnership was created that included staff from the Rape Treatment Center, law-enforcement agencies including the Los Angeles Police Department and the Los Angeles



26 U Magazine Fall 2024 27





Stuart House is a space where every detail has been mindfully chosen to make a child or teen comfortable and at ease.

Los Angeles County District Attorney's Office and the Department of Children and Family Services (DCFS) — all working a single location. It was a revolutionary way of interacting with child victims of sexual abuse. The Stuart Foundation, established by family members of the Carnation Company founder, provided funding for a facility near the hospital. In tribute to the seed funding, the its benefactors.

Such an alignment of separate agencies is "incredibly rare," says Bradley McCartt, the deputy-in-charge of the together as a multidisciplinary team in Stuart House district attorneys, a fiveperson unit of the Los Angeles County District Attorney's Office Sex Crimes Division that is dedicated exclusively to prosecuting cases that originate from Stuart House. (Over the nearly nine years that he has been involved with Stuart House, the unit has reviewed more than program was named Stuart House, after 2,000 cases, McCartt says.) "Often, agencies are not sharing information,"

he says, "and that sharing of information can be the difference between stopping abuse early or not knowing about it at all until the child's either been further traumatized or, in some instances, the child hasn't survived."

In one case of McCartt's, it was such a cooperative effort among agencies within Stuart House that proved instrumental in the conviction of a perpetrator known as the "Mid-City Molester" in 2011. Daniel Merino was sentenced to 83-years-to-life in prison for kidnapping and molesting four girls, ages 8 to 10, over a two-year period in 2008 and 2009. The children were cared for at Stuart House, where therapists counseled them for a year and eased their parents' concerns about re-traumatizing their daughters in the legal system. Each of the girls testified at Merino's trial.

"If it weren't for Stuart House, the case would not have gone to trial," McCartt says.

The team was further bolstered in 2010, when the Los Angeles City Attorney's Office joined the mix, greatly expanding capacity to investigate and prosecute cases "and find justice for families," Kerr says.

Children and adolescents who are brought to Stuart House receive immediate care in a state-of-the-art clinic on site, eliminating the need for a child victim to be referred to local hospital ERs, where they may have to endure long waiting periods that, in addition to being stressful in their own right, contribute to the erosion of DNA and other evidence.

Throughout, they are accompanied by a therapist, and a police detective and DCFS worker are on hand to ensure that the child will be released to a safe environment. The law-enforcement officers and social workers assigned to the child remain on the case for the duration of any criminal or judicial proceedings.

"Child sexual abuse is a uniquely horrific crime, and it is imperative that all of us who work in this field understand the huge, generational impact that it has on the life of a child," Kerr says. "What makes it possible to do this work every day is being able to see the healing and the positive outcomes that we can deliver to these children and their families."

Former Los Angeles Chief of Police Charlie Beck, who during his career had been involved in pursuing more than 1,000 sexual-assault cases involving both children and adults, has been an

ardent supporter of Stuart House, and he recalled the days when he was a first responder. "Invariably, you show up on the scene in the worst moment of their lives, and the desperate hope coming out of the despair when they look at you is palpable," he said during the Stuart House groundbreaking. "You come in as a knight in shining armor, so to speak, and you see that in their eyes. That's the good part. The sad part is that you know that it's not true. You know that the hope that you're going to fix this somehow is false. No matter how successful we are at what we do, it doesn't fix the tragedy," Chief Beck said. "It doesn't restore the soul of the victim. That's what Stuart House does."

That sentiment is heard in the voices of victims who have received care there. As one young woman who survived childhood sexual abuse said of her experience at Stuart House: "It gave me what all children should have: security, love, support and protection. It gives you back the life that you dreamed of, the life that you should have. I learned I can count on people and that I am not alone."

Marina Dundjerski is a freelance writer in Los Angeles. Mary-Rose Abraham is senior science writer for UCLA Health.

This article is adapted and updated from a feature published in the Summer 2015 issue of *U* Magazine. To read the original story, scan the QR code or go to: www.uclahealth.org/news/publication/ safe-haven



Goldman savs.

stuck with me is that everything we do comes from our victims. Every program that has been developed has come out of the experiences of the people

"Now, we are seeing an increase in people who are experiencing homelessness and/or serious mental illness. So, I'm thinking about how we can help them in a more comprehensive way, so that they can eventually process their sexual trauma," she says. "We have great expertise within UCLA, and I'd like to pull together a think tank of experts to examine our model and see if, in collaboration with better help people get connected to resources that lead toward healing and recovery."

And, far too often, there are those victims who are the most vulnerable: An 8-month-old girl. A deaf and mute woman with cerebral palsy. An 84-year-old woman with dementia in a nursing home. "There are victims who can't tell their stories in court," says Gail Abarbanel, LCSW, the RTC's founding director. "The only thing that speaks for them and tells the story of what was done to them is the evidence we old, Adams-Geller was sexually assaulted in collect in the clinic."

graduated in 1996 from Middlebury College in Vermont with a BA in psychology and becoming a receptionist at Stuart House. "I thought, 'Well, until I figure out what my next step is, this seems like a really great place to explore a lot of different career options," she says. But she soon fell in love with the place, and the work, and went on to become the office manager at Stuart House. Over I was nurtured.' the years, she completed her master's and doctorate in social welfare at UCLA. For her dissertation, she studied feminist organizations with values similar to the RTC's.

as a child advocate at Stuart House and an on-call counselor for the RTC, she noted that many victims were not coming to follow-up appointments. She researched why back into the room that they had been in the night I was raped."

"One of the values that has really immediately following their assault, it still feels very connected to the event."

To help address that issue, a follow-up clinic for ongoing therapy was established, in a light-filled, brightly colored building who we are trying to serve," Dr. Halladay across the street. That, in combination with improved communication strategies, helped boost the rate of in-person follow-up visits

That is where Fordyce went two weeks after she was raped. Her drive and ambition were prodding her to "just get back to normal," she says, but it was hard to resume her acting work. Reading and taking care of her pet corgi helped her to maintain a routine. But Fordyce was uneasy and hyperour community and UCLA partners, we can vigilant outside her home, especially with men. Weekly sessions with her therapist helped her to address that.

> "We talked about goals," Fordyce says, "and my goal was feeling safe in the city again."

In later sessions, she created a personal slogan: "Taking Back My Power." She painted the phrase onto a bright red T-shirt, surrounded by glittering stars, during an arts-and-crafts therapy session.

Paige Adams-Geller, too, found her power at the RTC. When she was 29 years her workplace, a clothing company where she was a model. As she hurried out of the AFTER DR. HALLADAY GOLDMAN building after the assault, she felt herself "having a meltdown" and experiencing severe PTSD. She called the RTC and women's studies, she moved to Los Angeles, scheduled a counseling appointment. But where she worked at several jobs before she had never gone to therapy before and was petrified.

She kept the appointment, and "I immediately felt very safe. My therapist's warmth and compassion made me feel like I was talking to a friend," Adams-Geller says. "From the moment I walked in the door, I wasn't judged.

Further sessions helped her uncover why she experienced PTSD immediately after the assault: She had been raped by a family friend at the age of 16 and never told As she continued working at the center, anyone. "I spent 13 years fighting anorexia because physically and mentally I wanted to disappear," Adams-Geller wrote in an essay published in 2018 in British Voque. She, like many other victims, blamed herand found that people with PTSD have a self for being attacked. "I felt empty inside, 50% no-show rate. "The kids were almost never good enough. I suffered horrible, always coming back because their parents recurring nightmares that I was buried were putting them in the car and bringing alive and couldn't get out of the grave. I them here," Dr. Halladay Goldman says. had no voice. No one could hear me, and I "But for adults, when they imagine coming couldn't move my arms or legs — just like



Paige Adams-Geller's journey with the RTC began when she was 19 years old and was assaulted in her workplace. Today a successful businesswoman, she is chair of the RTC board. "There are more people than you realize who share your experience. I don't want someone to go through as much pain as I went through," she says.



"Our support for victims of sexual assault in their pursuit of justice is a commitment to standing against silence, providing the best care and evidence collection available, fostering healing and ensuring that every victim's voice is heard and respected," says Jane Halladay Goldman.

Six months of therapy at the RTC gave her the courage to enter an intensive 30-day residential center to heal from the trauma and self-sabotaging behaviors. "This was the next event that changed my life forever," she wrote in her essay. "The silence lifted. Once my secrets were revealed in a safe place, I let go of all the shame. I didn't ask to be a victim of rape and sexual assault. No one does."

It also gave her the courage to file a civil lawsuit against the man who assaulted her. She then created her own company and clothing brand, PAIGE, with a special focus on creating a safe work environment.

And Adams-Geller stayed connected with the RTC, attending its annual brunch, where she heard other survivors speak about their experiences. Slowly, she felt strong enough to be more open about her own rape and sexual assault. Twelve years ago, she joined the RTC's board of directors, and on July 1, 2024 — 20 years to the day after creating her company — she became chair of the RTC board. It is a role in which she hopes she will be able to help other survivors. "There are more people than you realize who share your experience," Adams-Geller says. "I don't want someone to go through as much pain as I went through for

13 years. You can get on that healing journey faster if you seek help."

DET. PERKINS HAS INVESTIGATED HUN-

dreds of sexual assaults during her 17 years with the LAPD. As she considers all the cases she has handled over the years, one in particular in which the RTC played a crucial role in winning a conviction comes to mind. In Fall 2021, a UCLA student living off-campus awoke at 4 in the morning to a bright light shining in her face and a man standing over her bed, sexually assaulting her. She screamed, and he fled.

Det. Perkins responded to the student's apartment, where the victim told her that several weeks before, her roommate had woken in the middle of the night and seen a man in their apartment. Surveillance video from the apartment building captured images of the man and his vehicle, and Det. Perkins had a hunch that he would return. She requested extra patrols in the area, and two weeks later, an officer with the UCLA Police Department spotted the man and cited him for a traffic violation.

After putting the suspect under surveillance, Det. Perkins and her team arrested him three days later. On his three phones, they found videos of the 10 times he had visited the women's apartment. But the phones revealed even more about the suspect, who was a driver for a rideshare service. "There were multiple videos of him sexually assaulting vulnerable women who are unconscious in the back of his car," she recalls. "It was awful."

It took a month of further investigation to determine the identities of the victims — a month during which Det. Perkins says she barely slept. "Now I have to tell these women who have no idea they have been sexually assaulted what we've learned," she says. "How am I going to do that?"

Her supervisor recommended that Det. Perkins bring a counselor from the RTC when she went to speak with each of the 15 victims. "That was the key," Det. Perkins says. "As soon as I broke the news, the counselor was there for them to talk to," and each of the women ultimately would testify at his trial.

Last November, Javier Gomez Herrera, 42, was convicted of multiple assaults and burglaries and sentenced to up to life in prison.

"The involvement in this case of the counselors from the RTC was invaluable," Det. Perkins says. "Coming with us when we spoke with the women, providing them with support and resources — the victims recognized they had a strong team behind them to help them through the long and arduous court process to obtain justice."

TRAINING IS ESSENTIAL TO THE MISsion of the RTC and Stuart House, and the RTC has worked to expand its education program — based on the pillars of awareness, education and empathy — to a wider audience. It has, for decades, conducted specialized training for law enforcement, and now it is reaching out to parents, schools and colleges as well

On a recent weekday evening, Marisa Faynsod, LCSW, the RTC's community and campus outreach coordinator, hosted a Zoom webinar for volunteers at UCLA UniCamp. The attendees were UCLA students who would be counselors at the summer program for youths ages 10-to-17. In an interactive, hour-long session, Faynsod talked to the future counselors about child sexual abuse and described the services offered at the RTC and Stuart House.

She also stressed the importance of bystanders as the most effective deterrent to sexual violence. Bystander training is incorporated into all RTC high school and college trainings, as well as a recent partnership between the RTC and the City of West Hollywood to train bartenders and servers who work in the city. (The city passed an ordinance in 2021 requiring such training at businesses that serve alcohol.)

"These are people who are in a position to notice when a dangerous situation might be developing," Faynsod says. "But we emphasize that it doesn't have to be putting on a cape and being the hero. It can be as simple as making eye contact or asking, 'Is everything OK here?" Last year, more than 3,000 employees underwent the RTC training.

The RTC is looking to expand the program so it can conduct more such trainings. "We're looking to prevent sexual assault," says Julie Banks, PhD, the RTC's policy and program development director. "But we're also looking to raise awareness. And we want people to know that we're here as a support. We don't want victims to suffer alone, which a lot of people do."

After a half-century of helping victims during the most vulnerable period of their lives, the center has amassed a trove of valuable data that, Dr. Banks believes, is ripe for scientific study and publication. "We have a lot of information that could be very helpful to the community. There are amazing researchers here at UCLA, and we'd like to tap into some of the great research possibilities and partnerships that are available here," she says.

That also is a priority for Dr. Halladay Goldman. "I want to be able to view all this data we've collected through a stronger research lens so that we can really dive into it Julie Fordyce says that her therapy at the Rape Treatment Center has helped her to regain her sense of safety. "I'm me again," she says.

and share the wealth of knowledge we gathered throughout the last 50 years," she says. "This can be invaluable in helping to ensure that we are using evidence-based treatments for our clients that are best suited to their specific needs."

But such an effort, as well as expanding prevention programs, requires significant funding. Though donors help maintain the RTC's operations, the center's major government grants — totaling \$1 million — are in jeopardy. These grants are funded by the federal Victims of Crime Act (VOCA), which has a 45% budget shortfall. The State of California provided a temporary backfill for 2024, but future grants are not assured. The center will rely on fundraising to help fill more staff positions, especially for its prevention and training work.

NO PERPETRATOR IN FORDYCE'S AS-

sault has yet been charged, but the investigation continues. "He may not serve time," Fordyce says through tears. "But if it happens again, my case shows a repeat offense. Even though I suffer the consequences, another girl can get justice."

In June, she completed her final therapy session. Her PTSD symptoms have markedly decreased, and her sense of safety has been restored. She is back to working full-time as an actress and at the restaurant.

"Even though some of us may feel shattered and powerless, the Rape Treatment Center is a place to heal," Fordyce says. "I'm able to laugh and cry — to cry happy tears. I'm able to not feel numb anymore. I'm me again." ●

Mary-Rose Abraham is senior science writer for UCLA Health. Before coming to UCLA Health, she was a multimedia journalist whose stories were featured on ABC News, BBC News, NPR and National Geographic, among other outlets



For information about the Rape Treatment Center at UCLA Santa Monica Medical Center, scan the QR code or go to: uclahealth.org/medical-services/rtc



34 U Magazine Fall 2024 35

Beyond Baby Blues

Postpartum depression is bordering on crisis, affecting three out of every 20 new mothers and contributing to mounting maternal deaths. Now, a new drug treatment could provide critical — even life-saving — relief within days. **By Stephani Sutherland, PhD**



Danielle Achrol and her husband, Achal, were anxious to start a family. But when their daughter, Elakshi, was born, she felt only depression and regret.

Therapy at UCLA, coupled with medication, helped her to reclaim the joy.

36 U Magazine Fall 2024 37

Danielle Achrol always wanted to become a mother. She and her husband wanted to have several children, but after four miscarriages and, at the age of 40, a failed round of in vitro fertilization, she gave up on her dream of motherhood. "I thought, it's just not happening for me," she says. Then, seemingly out of nowhere, Danielle and her husband conceived. She feared losing the pregnancy due to what she describes as PTSD around infertility, but everything was normal. "Once we reached a point in the pregnancy when the fear went away, we thought, 'Finally it's our time to create a family."

Her daughter, Elakshi, had a healthy birth, and the moment that Danielle had waited for with so much anticipation finally arrived as her baby was laid against her chest. She expected to have "that rainbow baby feeling, to melt, to feel so in love, to have so many emotions. But," Danielle says, "I quickly realized that I felt none of that."

That realization created a new type of anxiety: "Why am I not enjoying this? Why is there not an overwhelming happiness?"

Over the next several weeks, Danielle was crippled by feelings of regret. "I felt like I had made a horrible mistake; it was wrong that I had her. It was all too overwhelming." She sometimes avoided even being around her baby; she blamed hormones and sleep deprivation. "This is all going to go away," she thought. But instead, it continued to get worse. Danielle was barely eating or sleeping. And while she wasn't capable of caring for her daughter, she also couldn't stand to be away from her. "It made me feel terrible, ungrateful and completely like a failure as a mother."

Worse, Danielle started to feel hopeless. "That was very scary — to go that long feeling not like myself, and there was no light at the end of the tunnel. I thought, 'I'm trapped and I'm never going to get better."

Danielle's husband, Achal, who is a physician, saw her suffering — crying often, confessing to feeling like a failure, not eating or sleeping nearly enough — and recognized the signs of postpartum depression (PPD). While researching more about the condition he learned about Misty C. Richards, MD (RES'15, FEL '17), MS, a psychiatrist at UCLA Health with a particular interest in perinatal mental health, and reached out to her for help. Following medical treatment and therapy, Danielle did get better. Today, she and her baby are healthy and happy. "I'm 100% myself again," she says.

Dr. Richards runs the Maternal Outpatient Mental Health Services (MOMS) clinic, which she describes as a psychiatric urgent care for perinatal women. The PPD Danielle was experiencing features the classic symptoms of depression — sadness, lack of energy, helplessness — but "with anxiety and agitation layered on. There's a sense of urgency, a fear response when you have a baby," Dr. Richards says.

Postpartum depression is not rare. It affects up to 15% of women who give birth, and, according to the U.S. Centers for Disease Control and Prevention (CDC), the diagnosis of PPD has skyrocketed, increasing seven-fold between 2000 and 2015. Further contributing to the rise in California is a 2019 state law requiring obstetricians to screen pregnant patients

be a result of ascertainment bias — more individuals now are identified because providers are more aware of the diagnosis.

Although Danielle knew about postpartum depression, it never occurred to her that's what she was experiencing. "In my mind, postpartum depression means you want to hurt your baby — which I never, never, ever did!" she says. Nor did she want to harm herself. "I didn't really know what it entails. I thought I was broken, that something was wrong with me."

Danielle's understanding — or misunderstanding — of PPD is not unusual; many people when they hear the term postpartum depression envision a mother bringing harm, or even death, to her child or herself. While such extreme incidents garner headlines, that outcome is rare.

Nevertheless, "there are real dangers, including loss of life," says Catherine Monk, PhD, the Diana Vagelos Professor of Women's Mental Health in the Department of Obstetrics and Gynecology and founder of the Perinatal Pathways Laboratory at Columbia University in New York. Even as maternal mortality across the globe dropped by nearly 40% between 2000 and 2017, that same measure increased by more than 25% in the United States, to the highest rate among developed countries.

Maternal deaths from physical causes such as hemorrhage and sepsis have been well studied, and they are in decline. Research on mental illness around pregnancy, though, is lacking. A 2019 review paper led by Dr. Monk "showed mental health as a leading cause of our very high rate of maternal mortality," she says. Many of those deaths result from "what we call self-harm deaths, where there's clear evidence of suicide or death by overdose, which can be an intentional or unintentional suicide."

for mental health. Indeed, the rising PPD rates may, in part, A study released by the CDC in May 2024 found that mental health conditions were the No. I cause of pregnancy-related deaths in the U.S.

JUST AS FOR MAJOR DEPRESSION, THE FIRST-LINE

treatment for PPD includes psychotherapy and anti-depressant medication, typically a selective serotonin reuptake inhibitor, or SSRI, which is effective for about half of patients and, along with therapy, can take several weeks to work. But getting a diagnosis and a prescription was so validating, "it was like night and day," says Danielle. "It was, 'Now I know why I'm feeling this way, and there's something to make it better."

It did take three weeks for the medication to work and for Danielle to start to feel like herself again, and several months later she is treasuring her time with her daughter. "I feel more and more happy that I have her, and more looking forward to all the things I'm going to do with her," she says.

Danielle wishes she could reclaim those lost weeks with her newborn daughter as her healthy self. Today, women diagnosed with postpartum depression have access to new medications that can deliver that relief more quickly.

In August 2023, the U.S. Food and Drug Administration approved a drug called zuranolone that, taken as a single daily pill for two weeks, works in just days. A study published in the American Journal of Psychiatry found that symptoms can improve after just three days, with positive effects most often seen after nine days of adherence.

That fast action could be a game-changer for treating postpartum depression, Dr. Richards says. Early studies estimate that the new medicine is effective in about 50% of

"We're in a crisis, with rising maternal mortality, morbidity, suicide. A contributing factor is the lack of access to care. It's a huge problem in the field, resting on the shoulders of a broken health care system. But what can we do about it? ... Collaborative care models are the future."

Dr. Misty C. Richards

38 *U* Magazine Fall 2024 39



(From left) Drs. Vivien K. Burt, Misty Richards and Michelle G. Craske are leaders at UCLA Health in the treatment of mothers with postpartum depression.

"Once [postpartum depression is] identified, we want to address and tackle the problem quickly. It makes a difference not just for mom, but also for baby. We know babies do better when they have ongoing good maternal care ... and to establish that, you have to have a mother who is available."

Dr. Vivien K. Burt

patients, giving it a slight edge over SSRIs, but "you have to wait a long time for SSRIs to work, really four-to-six weeks. If someone is in crisis and sees a provider at two weeks postpartum, you can give them an SSRI, but you have to tell them to hang on real tight for the next month. The beauty of this new medication is that it works pretty quickly. It's as effective, if not more effective, as an SSRI, but it's faster," Dr. Richards says.

While zuranolone on its face "looks very interesting and exciting," what's "great" about it, says Vivien K. Burt, MD, PhD, professor emeritus of psychiatry and biobehavioral sciences at UCLA, is that it may, according to the data, have lasting effects. In the study, six weeks after starting treatment (and a month after stopping treatment), participants' symptoms were still improved.

On the flip side, little is known about the medication's longer-term effects. The drug appears safe (its main side effects were sleepiness and dizziness), but further studies will be needed to establish how the drug is transmitted to babies via breastmilk, and whether or not it could be addictive. Biologically, Dr. Richards says, "this is similar, though not identical, to how benzos work," referring to benzodiazepines, an addictive class of anti-anxiety medications. "So, could it [also] have addictive potential?"

Zuranolone is the first pill, but not the first medication, approved specifically for PPD. In a small clinical trial, brexanalone, which works in a similar fashion to zuranolone, dramatically decreased severe PPD symptoms in four women. But that drug has to be delivered intravenously over 60 hours, requires a hospital stay and costs \$34,000. "It was impractical,"

Dr. Richards says. "There was no possible way that we could justify this in our patient population, so it fell flat, frankly."

Zuranolone may turn out to be effective for other types of depression, too. "There are a lot of eyes on this medication," Dr. Richards says. Because it's not an SSRI, "it's working on depression through a completely new mechanism. This is going to be a big deal."

The new drug represents a change in thinking about how depression arises in the brain, says Kimberly A. Yonkers, PhD, a neuroscientist at the University of Massachusetts Chan Medical School. "There's the old serotonin sensitivity-deficit theory, where it was thought that the signaling or amount of serotonin was abnormal." Serotonin is a neurotransmitter in the brain long associated with mood. But decades of research and drug development based on that theory have yielded little progress in new treatments or understanding of depression. "Inflammation is really having a renaissance these days," Dr. Yonkers says, referring to the theory that immune cells and molecules play a role in depression. "And now we have the neurosteroid hypothesis, which is far more complex."

Neurosteroid hormones are fatty molecules that can transmit signals between cells in the body. Zuranolone acts by mimicking a hormone called allopregnanolone, which has a key role in pregnancy. Allopregnanolone protects the fetal brain from dangerous levels of stress hormones circulating in the maternal body. It also prevents secretion of oxytocin, a hormone that stimulates lactation and uterine contractions, which can lead to premature birth. But at birth, that protection is no longer needed. So, after building throughout pregnancy, allopregnanolone levels plummet. "Hormones

40 U Magazine Fall 2024



Following medical treatment and therapy, Danielle got better, and today she and her 1-year-old daughter are healthy and happy. "I'm 100% myself again," she says.

spike in the third trimester, and then within 72 hours of birth, is the lack of access to care." Too many women are faced they fall to pre-pregnancy levels," Dr. Richards says. That drop, which occurs in everyone, combines with stress and exhaustion to cause the baby blues. "Moms are anxious, not sleeping. This is why 80% of moms experience postpartum says. "It's a huge problem in the field, resting on the shoulders blues. It's not mythology."

According to the neurosteroid hypothesis, fluctuations in allopregnanolone may cause depression and anxiety through the hormone's effects not on the body but in the brain. GABA, or gamma-amino butyric acid, is the brain's major inhibitory neurotransmitter. Wherever GABA is released, it puts the brakes on neural activity. Most anxiolytic, or anti-anxiety, medications work by altering GABA activity. Allopregnanolone adjusts the sensitivity of GABA's receptors, tiny proteins found on nerve cells that, when activated, dial down the neuron's activity. Zuranolone works by mimicking allogpregnanolone's effects on GABA receptors.

COLUMBIA'S DR. MONK SAYS "THIS NEW, FAST-ACTING

drug is exciting because it's a new biological target leveraging our knowledge of hormones. And it's very exciting to see a new medication for what is predominantly a women's problem. But the root of the nationwide crisis is not a lack of tools and treatment, she says. "The problem is a lack of care. We have the tools; it's that we can't get people into treatment."

Even with the weeks she lost to her depression, Danielle's is a success story. It is far more common that women have difficulty getting access to treatment for postpartum depression. "We're in a crisis, with rising maternal mortality, morbidity, suicide," Dr. Richards says. "A contributing factor

with scant options, such as weeks-long wait times for private mental health providers that don't take insurance and charge exorbitant rates — and even those are few and far between, she of a broken health care system. But what can we do about it?"

From a policy level, achieving "genuine parity between physical and mental health treatment so that reimbursement rates to mental health providers are reasonable" would be a good place to start, Dr. Monk says. Implementing programs like loan forgiveness for providers who see patients for mental health treatment and thereby broadening acceptance of commercial and Medicaid insurance "would go a long way toward attracting and maintaining more mental health providers in the workforce who take insurance."

At UCLA, Dr. Richards' response was to create the MOMS clinic. Demand has been high since the clinic opened in 2019. "Usually a new clinic will open with a slow ramp-up, but we were never slow," Dr. Richards says. "There's always been a wave of patients in need."

MOMS offers care to women in crisis when other providers are not available. "We're a psychiatric urgent care, a bridge clinic," she explains. "The idea is to see women as quickly as possible," particularly if they're suicidal, and then refer them to a community provider after they're stabilized. The MOMS clinic frequently refers patients to both the UCLA Women's Life Center for ongoing outpatient psychiatric perinatal care, and the partial hospitalization program, an intensive outpatient treatment program for people with severe depression or psychosis that allows moms to stay out of the hospital.

Despite the recent increase in diagnosis of PPD, the problem is not new, says Dr. Burt, who established the Women's Life Center at UCLA 30 years ago for women who need ongoing care. "We really needed something for women going through the psychiatric challenges during reproductive life transitions. It's really a very vulnerable time for all women, even those with no history of anxiety or mood disorders, and certainly for women with a history of mood disorder."

Dr. Burt says prompt medical treatment is key, particularly for women in crisis. "But at the same time, we generally emphasize the importance of psychotherapy." New moms, Dr. Burt says, "are challenged in so many ways, so psychotherapeutic support is incredibly important."

The stakes are high if postpartum depression is left untreated, Dr. Burt says. "Once identified, we want to address and tackle the problem quickly. It makes a difference not just for mom, but also for baby. We know babies do better when they have ongoing good maternal care: bonding, skin to skin connections. And to establish that, you have to have a mother who is available." And while mothers with depression "want to be available, they're not capable."

Research has shown that mothers' dampened responses to their babies may contribute to poor infant emotional development, says Michelle G. Craske, PhD, Distinguished Professor of Psychology and of Psychiatry and Biobehavioral Sciences, Kevin Love Fund Centennial Chair and director of the UCLA Anxiety and Depression Research Center. But that can be difficult to talk about with a depressed mom. "This is a sensitive area," Dr. Craske says. "Women who are depressed and have a baby — the last thing they want to feel is guilt or shame" about any harm they may be causing their child.

Research also has revealed clear risk factors that can help predict who will develop postpartum depression. Women with a prior history of mental illness and depression are at double the risk for PPD compared with women with none. Not surprisingly, a lack of partner or family support and financial insecurity also increase the chances a woman will suffer with postpartum depression. And the risk for PPD also appears to increase with Cesarean section birth.

Could pre-treatment, with either therapy or medication, prevent PPD for those at high risk? "One thing we don't know is, what about prophylaxis?" Dr. Burt says. "We believe it's those vicissitudes, those changes in hormones for vulnerable women who are otherwise predisposed to anxiety or depression," that trigger depression. "If you watch them, you can catch it quite quickly."

That's the goal, says Dr. Monk, who runs a program at Columbia called PREPP, for Practical Resources for Effective Postpartum Parenting, a brief intervention to promote skills and well-being to prevent PPD. Dr. Monk and colleagues are researching the best approaches, she says, "to bring in psychological awareness and support to the whole transition to parenthood experience."

Part of the solution will come from a team-based approach to health care. "Collaborative care models are the future," Dr. Richards says. Obstetricians, she notes, do not have adequate time to treat mental health. "They already have so much on their plate, and we cannot possibly train enough reproductive mental health providers" to meet demand, she says.

WHILE MANY OBSTACLES REMAIN, ACCESS TO CARE

41

has improved in the wake of the COVID-19 pandemic, thanks in large part to the expansion of telehealth. "Having the virtual clinic has been a game changer in the best ways," making it much easier for new moms to be seen at home, Dr. Richards says. As an added bonus, "we get to see them in their home element; it's like a simulation of a home visit, which has been so clinically helpful."

That is an approach that Dr. Craske is exploring further with a program of care called STAND, for Screening and Treatment for Anxiety and Depression. "We are testing a model of care that heavily relies on digital therapy, because that's more accessible to women who are home with a baby," she says. Women in the study with moderate-to-severe depression were randomly assigned to the STAND care model or to standard treatment. In the STAND arm, moderately depressed women met remotely with coaches who supported their understanding and application of cognitive and behavioral skills that were delivered digitally. Women with severe depression received individual psychological therapy from a clinician, whereas all women (moderately or severely depressed) were seen by psychiatrists in the standard treatment condition. "We're testing to see if digital therapy is as effective as in-person care" for moderate depression, Dr. Craske says. The hope is that "digital therapy will work for those who are not in extreme distress, and it's particularly suited for women with newborns, because they can't come into the clinic."

Dr. Craske's STAND study is just one of several research projects on postpartum depression that are part of UCLA's Depression Grand Challenge, a university-wide initiative bringing together the diverse expertise of UCLA with the stated goal "to cut the global burden of depression on health and well-being in half by 2050."

The Depression Grand Challenge stands upon four pillars, explains Dr. Craske, who, with Nelson Freimer, MD, the Maggie G. Gilbert Endowed Chair and Distinguished Professor of Psychiatry and Human Genetics, and Jonathan Flint, MD, the Billy and Audrey Wilder Endowed Chair in Psychiatry and Neuroscience, is co-director of the initiative. "One pillar is looking at the causes and trajectories — the genetic and environmental factors that contribute to depression. Another is neuroscience discovery; one is how to develop new treatments and make them more available. And the fourth pillar is about reducing stigma and raising hope and awareness," she explains.

Ultimately, say Dr. Burt and others, that fourth pillar is key to reducing suffering. A greater awareness of postpartum depression — and less stigma — can help people recognize it, talk about it and get help. Women with postpartum depression, like Danielle, "have internalized all these emotions," Dr. Burt says. "They're feeling completely inadequate. They often can't breastfeed. They feel like they're not good mothers. It is on us to change that."



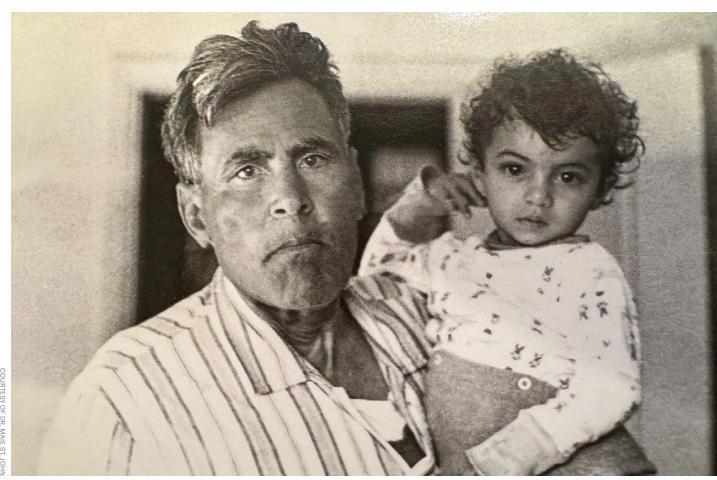
Stephani Sutherland is a neuroscientist and science iournalist whose work has been published in New Scientist, Scientific American, the Los Angeles Times and BrainFacts.org.

For information about the UCLA MOMS clinic, scan the QR code or go to: ucla.in/MOMS-Clinic

42 FACULTY 43

A Grandfather's Healing Touch

By Vanessa Villafuerte



Dr. Maie St. John as a young child with her grandfather in Egypt.

WHEN SHE WAS A YOUNG GIRL, MAIE St. John, MD (RES '05, FEL '06), PhD, spent summer days with family in Egypt, a unique experience that would shape her future. On those visits, the future Dr. St. John was immersed in the world of medicine, under the guidance of her grandfather.

"My mom grew up in a small town about an hour-and-a-half east of Cairo, and my grandpa was the town doctor," says Dr. St. John, who was born and raised in Madison, Wisconsin. "It was an area with lush farmlands along the Nile, and there weren't big hospitals. My grandfather would be called to people's homes to try to help them and would receive a homecooked meal or hospitality in return."

Like an acorn that falls from the tree, Dr. St. John didn't land far from her grandfather — a man she describes as a towering figure with a kind heart. The time she spent with him left a lasting impression. He was a physician who didn't just treat his patients, but also empathized with them. His compassionate care and practice of kneeling to meet his patients at eye level influenced her future career.

One day, when she was just 3 or 4 years old, she accompanied him as he visited a cancer patient, and that moment marked the beginning of Dr. St. John's career journey that has led to her role today as chair of the Department of Head & Neck Surgery and director of the Office of Cancer Training and Education in the

UCLA Health Jonsson Comprehensive Cancer Center.

"There was a young woman who had a very large growth that had disfigured her face," she recalls. "When I asked my grandfather what it was, he told me it was cancer. I had no idea what that meant, but I knew at that moment that, more than anything, I wanted to work toward finding a cure for cancer in my lifetime."

That visceral feeling ignited what she describes as her calling in medicine today. "I often tell people I'm living the dream," Dr. St. John says. "There is nothing more rewarding than to be able to do something selflessly to improve life for another human being."

She becomes reflective as she shares other pivotal moments throughout her life that have contributed to her pursuit of medicine and success as a surgeon. After receiving her BS from Stanford, she earned her MD and PhD degrees from Yale University School of Medicine. "One of my mentors said to me, 'You know, Maie, you might want to check into head and neck surgery," she recalls. "I was absolutely taken by the beauty of the anatomy. This is the anatomy that underlies how people smile, what defines who they are, their face, their personality. These are nerves that allow them to kiss their children goodnight."

committed to seeing the people she treats as more than just patients. She prioritizes seeing them as individuals, with their own unique experiences, fears and hopes for a healthier future. One patient in particular stands out. She was a 32-year-old mother with tongue cancer, and as Dr. St. John prepared for the surgery, "the question weighed heavily on me, how much of her tongue am I going to have to take? It is a question so many of my patients ask." Then, "as I was backing out of my driveway in my hurry to get to the hospital that morning, I started to hear my car go beep, beep, beep, because I was getting close to the hedges."

It was a revelatory moment. "It dawned on me in that moment that my car has a sensor that allows me to know how far I am from other objects — from trees or other cars. Why can't we build a tool like that, one that would allow me to see cancer at the cellular level in the operating room and 'beep' when I am at the margin?" she recalls. With such a tool, "I can tell the patient when she wakes up that I precisely resected the tumor, and that I saved everything down to the last cell that I could."

That inspiration led to the development, in collaboration with colleagues in the UCLA Samueli School of Engineering, of the "dynamic optical contrast imaging system," a machine being used in UCLA Health operating rooms today that delineates the border between malignant and healthy tissue, enabling surgeons to resect tumors more precisely. Thus far, the device has been used to drive precision surgery for more than 150 patients.

But Dr. St. John's pursuit of new technologies and techniques to benefit patients is not over. "For the future, I envision an object the size of the current knife that I use in the operating room that can cut around the tumor and allow me to see where the tumor ends and, therefore, enable me to resect the tumor precisely." Such a device, she says, can be shared with surgeons around the world, "and no matter which part of the body they're operating on, they can preserve as much function as possible."

ce, their personality. These are nerves at allow them to kiss their children odnight."

Considering aspiring physicians today, she wants doctors early in their careers to remember, as she does, what it was that drove them to medicine. "Hold on to that humanity," she says. "Hold on to that humanity," she says. "Hold on to that humanity," she says. "Hold on to that integrity and that personal connection. That is the essence of medicine: giving of your mind and heart selflessly to help others."

Vanessa Villafuerte is a senior public information officer for UCLA Health. Before coming to UCLA Health, she was a broadcast journalist.

AWARDS & HONORS

Dr. Carol Bennett, professor of urology, received the Jean Fourcroy Leadership Award from the Society of Women in Urology.

Dr. Quen Cheng (RES '14, FEL '18, '19), assistant professor of medicine and co-director of the UCLA STAR Physician-Scientist Training Program, received the American Society for Clinical Investigation Young-Physician-Scientist Award.

Dr. Lillian Gelberg (FEL '86), professor of family medicine and a member of the UCLA Health Jonsson Comprehensive Cancer Center, was elected to the Association of American Physicians.

Dr. Anne Hoyt (MD '93, FEL '99), medical director of the UCLA Health Barbara Kort Women's Imaging Center, was named a Fellow of the American College of Radiology.

Dr. Beth Karlan (FEL '89), director of cancer population genetics at the UCLA Health Jonsson Comprehensive Cancer Center, was

name chair of the National Comprehensive Cancer Network Guidelines Steering Committee.

Dr. John Lee (FEL '13), associate professor-in-residence of hematology/oncology and a member of the UCLA Health Jonsson Comprehensive Cancer Center, was elected to the American Society for Clinical Investigation.

Dr. Roger Lo (RES '06), professor of dermatology and molecular & medical pharmacology and a member of the UCLA Health Jonsson Comprehensive Cancer Center, was elected to the Association of American Physicians.

Dr. Anna-Barbara Moscicki, professor of pediatrics and a member of the UCLA Health Jonsson Comprehensive Cancer Center, received the Society for Pediatric Research's 2024 Douglas K. Richardson Award for Perinatal and Pediatric Healthcare Research.

Dr. Antoni Ribas (FEL '98, '01), director of the Parker Institute for Cancer Immunotherapy and director of the tumor immunology program at the UCLA Health Jonsson Comprehensive Cancer Center, received the 2024 Healing Award by the Tower Cancer Research Foundation.

Dr. Amy Rosenman (RES '79), clinical professor of obstetrics and gynecology, received the Jack Robertson Lifetime Achievement Award from the American Urogynecologic Society.

Dr. Jeffrey Saver, director of the UCLA Comprehensive Stroke and Vascular Neurology Program, was elected to the Association of American Physicians.

Dr. Dennis Slamon (FEL '82), director of clinical and translational research in the UCLA Health Jonsson Comprehensive Cancer Center, received the 2024 Szent-Györgyi Prize from the National Foundation for Cancer Research.

Dr. Allan Tobin, professor emeritus of neurology and of integrative biology and physiology and former director of the UCLA Brain Research Institute, was elected to the American Association for the Advancement of Science.

Dr. Elizabeth Volkmann (MD '08, RES '11, FEL '14), associate professor of medicine and director of the UCLA Scleroderma Program, received the American Society for Clinical Investigation Young-Physician-Scientist Award.

Dr. Owen Witte, founding director emeritus of the UCLA Broad Stem Cell Research Center and University of California Presidential Chair in Developmental Immunology and a member of the UCLA Health Jonsson Comprehensive Cancer Center, received the 2024 Award for Outstanding Achievement in Blood Cancer Research from the American Association of Cancer Research.

\$120 million gift given to kick-start new California Institute for Immunology and Immunotherapy



Dr. Gary and Alya Michelson.

CLA has received a \$120 million commitment from surgeon, inventor and philanthropist Dr. Gary Michelson and his wife, Alya, to kick-start the California Institute for Immunology and Immunotherapy, an innovative public/private partnership aimed at spurring breakthrough discoveries that prevent and cure diseases and catalyze economic growth and innovation in Los Angeles.

Dr. Michelson, a spine surgeon and prolific inventor who holds nearly 1,000 individual patents, is co-founder and chair of the board of the institute, which will be housed at UCLA's state-of-the-art research park.

The gift, distributed via the Michelson Medical Research Foundation, designates \$100 million to establish two research entities

within the institute, each funded by \$50 million. One will focus on rapid vaccine development and the other on harnessing the microbiome to advance human health. The microbiome research will be conducted in collaboration with the UCLA Goodman-Luskin Microbiome Center, placing it among the largest microbiome research enterprises in the world.

In addition, the foundation, a part of the Michelson Philanthropies network of foundations co-chaired by the Michelsons, is funding a \$20 million endowment to provide research grants to young scientists using novel processes to advance immunotherapy research, human immunology and vaccine discovery.

"The UCLA community owes Alya and Gary Michelson a debt of gratitude for this transformative gift," said UCLA Interim Chancellor Darnell Hunt. "The Michelsons envisioned an institute that would leverage UCLA's strengths for maximum public good, create new knowledge leading to better medical treatments and reshape the study of immunology. The gift will change countless lives here and across the globe."

"Immunology is the mediator of nearly all human diseases, whether we're talking about cancer or heart disease or Alzheimer's," Dr. Michelson said. "The vision for this institute is to become a 'field of dreams' — the world's leading center for the study of the immune system to develop advanced immunotherapies to prevent, treat and cure all of the diseases that afflict people today and to end these diseases in our lifetime.

"Scientific research is the key to making possible longer and healthier

lives," he added, "That's the reason why Alya and I are making this philanthropic investment. There is no place that we could make an investment that will have a more profound effect on so many. We are deeply grateful to former UCLA Chancellor Gene Block for his steadfast leadership: Interim Chancellor Darnell Hunt for his continued partnership; UCLA Health's Dr. John Mazziotta (RES '81, FEL '83) for his dedication and hard work: California Gov. Gavin Newsom, former Assembly Speaker Anthony Rendon and former Senate President Pro Tempore Toni Atkins for their visionary confidence; the UC Board of Regents: and my fellow founders for their unwavering support of this ambitious endeavor to build the premier institute for scientific research and innovation."

The institute was co-founded by Meyer Luskin, Dr. Eric Esrailian (FEL '06), Dr. Arie Belldegrun, Michael Milken and Sean Parker. At 360,000 square feet, it will be the primary occupant in the 700,000-square-foot UCLA Research Park, which is on the site of the former Westside Pavilion. UCLA's January 2024 acquisition of the property, two miles from the Westwood campus, was made possible, in part, by a \$200 million appropriation from the State of California.

Former Chancellor Block, who stepped down on July 31, 2024, after 17 years leading the university, played a central role in coordinating the acquisition of the Westside Pavilion property and the effort to bring the California Institute for Immunology and Immunotherapy to UCLA. "I am incredibly excited to see the institute taking shape — in large part due to the work and contributions of the Michelsons and our other partners and I believe as strongly as ever that UCLA and Los Angeles will be the perfect home for it," Dr. Block said. "The institute exemplifies UCLA's enduring commitment to harnessing scientific research for the public good, and it will cement our university's position as one of the world's leading centers of medical innovation."

"The California Institute for Immunology and Immunotherapy at UCLA's Research Park is yet another



The Westside Pavilion site is the future home of the UCLA Research Park and the California
Institute of Immunology and Immunotherapy.

proof-point that California remains the epicenter of global innovation — an endeavor that will benefit California, the United States and the world," said Gov. Newsom. "This incredible act of generosity by Alya and Gary Michelson, coupled with Gary's prolific work over the years as a leading innovator in the medical field, perfectly exemplifies the California spirit and will help ensure our state's global economic, scientific and technological dominance for decades to come."

The institute leverages an unprecedented blend of public investment, philanthropic funding and UCLA's strengths in clinical treatment and scientific research. It is designed to be an agile, interdisciplinary, highly collaborative network of research facilities that, in concert with private industry, will accelerate the development and delivery of new pharmaceuticals and treatments for patients.

The institute will recruit leading scientists from around the world, create an integrated ecosystem of biotechnology startups and train the next generation of leading-edge medical researchers. As a hub of biomedical collaboration, the institute and the biomedical companies it gives rise to will be an economic

engine for the region and state.

"I am grateful to Alya and Gary and their fellow co-founders. Their vision for and support of the institute is a vote of confidence in our ability to cure some of the most devastating disorders — together," said Dr. John C. Mazziotta, vice chancellor for health sciences and CEO of UCLA Health.

This gift is the Michelsons' single largest donation over more than 30 years of philanthropy. The couple has contributed hundreds of millions of dollars to fighting social inequities and supporting medical research, education reform, prison reform and animal welfare. Among other projects, they fund the annual Michelson Prizes for immunology and vaccine research.

In 2016, the Michelsons signed The Giving Pledge, a campaign launched by Bill Gates and Warren Buffett that encourages the wealthiest individuals and families to contribute the majority of their fortune to philanthropic causes.



For more information about the California Institute for Immunology and Immunotherapy, scan the QR code or go to: www.calimmunology.org



From left) Honoree Stephen A. Smith, co-chair Dana Walden and host Ryan Seacrest.

UCLA Jonsson Cancer Center Foundation Celebrates 27th Annual Taste for a Cure

he UCLA Jonsson Cancer
Center Foundation (JCCF) held
its premier fundraising event,
Taste for a Cure, on May 10,
2024, at the Beverly Wilshire, a Four
Seasons Hotel in Beverly Hills. Now in
its 27th year, Taste for a Cure unites
the entertainment and epicurean
communities to raise valuable funds
for innovative cancer research at the
UCLA Health Jonsson Comprehensive
Cancer Center (UCLA Health JCCC).

University of California Regent Jay Sures, vice chairman and a managing director of United Talent Agency, opened the evening's program with event co-chair and JCCF board member Dana Walden, co-chairman of Disney Entertainment. Sures introduced Emmy Award-winning television host and radio personality Ryan Seacrest, who hosted the event. Seacrest is known for hosting and producing On Air with Ryan Seacrest, ABC's American Idol, Live with Ryan and Kelly and Wheel of Fortune. He has also produced several series, including E!'s Keeping Up with the Kardashians. Seacrest's philanthropic efforts include serving as founder and chairman of the Ryan Seacrest Foundation.

The special evening honored Stephen A. Smith, executive producer and star of ESPN's First Take, who received the 2024 Gil Nickel Humanitarian Award. In addition to his television work, Smith hosts a podcast, The Stephen A. Smith Show. His book, Straight Shooter: A Memoir of Second Chances and First Takes, became a New York Times Best Seller.

The Gil Nickel Humanitarian Award was created in memory of Gil Nickel, proprietor of Far Niente, Nickel & Nickel and Dolce wineries, who lost a courageous battle against melanoma in October 2003. The award honors key individuals for their humanitarian efforts, community involvement and commitment to philanthropy. "We are honored to continue the memory of Gil Nickel with the Gil Nickel Humanitarian Award," said Erik Nickel, event co-chair, JCCF board member and partner at Far Niente Family of Wines. "We recognize the challenges facing cancer researchers as they pursue untried avenues to discover new methods to treat cancer. Partnering with UCLA on Taste for a Cure means this meaningful contribution will help make life a bit easier for those coping with cancer."

Consistently ranked among the top culinary events in Southern California, Taste for a Cure features tastings from respected chefs and the finest restaurants, with wines from some of the best vineyards. An array of dishes from Angelini, Chinois on Main, Tasting Thyme, The Blvd. at the Beverly Wilshire and more were served, along with wines from Far Niente. Nickel & Nickel and En Route.

Guests were treated to a special performance by musician Seal, who has achieved global success with more than 30 million albums sold, more than one billion streams and multiple awards, including four Grammys. His music catalog includes hits such as "Crazy" and "Kiss from a Rose." Beyond music, Seal has appeared in various films and shows, such as The Lonely Island's Pop Star: Never Stop Never Stopping.

Attendees also enjoyed a stand-up comedy act from Emmy-nominated comedian, Roy Wood Jr. Wood is known for his work on *The Daily Show with Trevor Noah* and his highly rated stand-up specials on Comedy Central. He is also known for his acting roles in series such as *Only Murders in the Building* and *Better Call Saul*, as well as films. Wood is recognized for his philanthropic efforts, raising funds for comedy club staff during the pandemic and supporting community organizations in his hometown of Birmingham, Alabama.

In addition to Dana Walden and Erik Nickel, event co-chairs included Joe Cohen, a managing director and head of television at Creative Artists Agency; E. Brian Dobbins, talent manager/producer at Artists First; Jon Holman, president of The Holman Group; Jake Kasdan, producer, director, writer and filmmaker; Tendo Nagenda, producer and film executive; Gary Newman, executive partner at Attention Capital; Keri Shahidi, producer, 7th Sun Productions; Sandra Stern, vice chairman, LIONSGATE TV Group; and Arthur Wayne, VP of Global Brand Marketing and Communication, Brooks Brothers. The Hollywood Reporter once again served as a media partner.

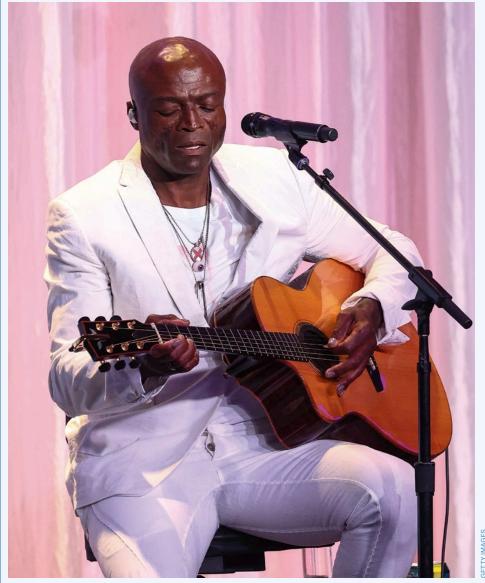
"We are deeply grateful to our co-chairs for their commitment to our cause and belief in this important research," said JCCF board chair Randy Katz. "Philanthropic support is essential to our mission, and over the past 27 years, Taste for a Cure has raised tens of millions of dollars for the highest-priority cancer research at UCLA Health JCCC. Discoveries made in one cancer type speed progress in addressing a variety of malignancies, and the contribution from tonight's event help us to continue advancing cancer studies."

Since 1945, the JCCF has been instrumental in raising private funds for cancer research for UCLA Health JCCC, led by its director, Dr. Michael Teitell (PhD '91, MD '93), president of UCLA JCCF and Lya and Harrison Latta Endowed Chair in Pathology in the David Geffen School of Medicine at UCLA. UCLA Health JCCC

dedicated researchers are recognized as international leaders in the discovery of new and better ways to prevent, detect and treat cancer. Since 2014, UCLA Health JCCC research has led or contributed to a remarkable 24 approvals from the FDA for new cancer treatments or protocols.

For 24 consecutive years, UCLA Health JCCC has also been recognized as one of the best locations in the country to receive cancer care, according to the *U.S. News & World Report* national honor roll. In 2024, its best hospitals specialty rankings once again named UCLA Health JCCC as a Top 10 center in the country.

For more information, contact Jacqueline Farina at: 310-794-7643



Grammy Award-winning singer, songwriter and record producer Seal.

Raising Awareness, Hope and Funds in the Fight to End Brain Cancer



(From left) David Spector, chairman and CEO of Pennymac; Sheila Kurland; Dr. Timothy Cloughesy; and Dr. David Nathanson.

ennymac and the Kurland Family Foundation, strong supporters of brain cancer research at UCLA Health, held the third annual Stanford L. Kurland Memorial Golf Classic June 9-10. 2024. The event raised more than \$2.3 million to benefit brain cancer research at the UCLA Neuro-Oncology Program in the David Geffen School of Medicine at UCLA, bringing the total to more than \$7 million raised since its inception in 2022. Funds directly support the brain cancer research of Dr. Timothy Cloughesy (RES '91, FEL '92), director of the UCLA Neuro-Oncology Program and professor of clinical neurology, and Dr. David Nathanson (PhD '11, FEL '13), associate professor in the UCLA Ahmanson Translational Imaging Division of the Department of Molecular and Medical Pharmacology.

The event honors the late Stan Kurland, founder of Pennymac, a longstanding leader in mortgage lending. In early 2020, Kurland was diagnosed with a non-operable brain tumor and received care at UCLA Health until his passing in January 2021.

"Stan was committed to helping cure an 'incurable' disease and bringing hope to those in treatment," said David Spector, chairman and CEO at Pennymac and a proud UCLA alumnus. "Pennymac is honored to join the Kurland Family Foundation and our co-sponsors in carrying on the legacy and philanthropic work that Stan started."

Glioblastoma multiforme (GBM) is one of the most common types of malignant brain tumors. Given the brain's complexity, these tumors pose unique challenges. The body's bloodbrain barrier protects the brain and spinal cord from harmful chemicals, including many traditionally designed drugs, which limits the access of these therapies to the brain. As a result, conventional cancer medications do not benefit patients with a brain tumor, leaving an unmet need for specific drugs for brain cancer.

"Our UCLA Neuro-Oncology Program is dedicated to discovering novel drug candidates that will enhance the delivery of therapies to GBMs and improve survival," said Dr. Cloughesy. "Private philanthropy is crucial to

advancing our work, and Pennymac and the Kurland family are playing a significant role. We are extremely grateful for their generosity and commitment to finding a cure for brain cancer."

The vital contributions from Pennymac, the Kurland Family Foundation and all of the event's supporters will provide resources to continue work on developing new drugs for GBM and test drug-treatment combinations that build on the current clinical trials. "Through the support of Pennymac and the Kurland family, we have made significant strides in discovering new drug candidates, as well as rational drug combinations to further halt GBM tumor growth," said Dr. Nathanson.

"One promising new GBM medication developed by the team traverses the blood-brain barrier to specifically target a mutation uniquely found in GBM tumor cells," Dr. Nathanson said. "This drug is currently under clinical evaluation and has not displayed any significant side effects. Our goal is that it will provide a complement to existing treatments, including surgery, radiation and chemotherapy."

The unwavering dedication of Pennymac, the Kurland family, UCLA Health and all who contributed to the Stanford L. Kurland Memorial Golf Classic is a testament to the power of coming together to make a meaningful difference. "This year's event exceeded our fundraising goals and expectations, but there is more work to be done," said Spector. "We look forward to raising more awareness, hope and funds in our commitment to the cause for years to come."



For more information about the Stanford L. Kurland Memorial Golf Classic, scan the QR code or go to: slkgolfclassic.org

For more information, contact Jessica Vrazilek at: 310-869-8611

The Marcus Foundation Provides \$2 Million to Advance Stem Cell Therapy for Spinal Cord Injury

he Marcus Foundation has awarded \$2 million to UCLA Health to accelerate a new generation of stem cell therapy that has the potential to regenerate and restore full sensation to patients after severe spinal cord injuries.

The Eli and Edythe Broad Center of Regenerative Medicine and Stem Cell Research at UCLA and the David Geffen School of Medicine at UCLA will work in partnership, along with collaborators across the UCLA campus, to pursue new avenues of discovery.

Under the guidance of Dr. Samantha Butler, professor of neurobiology and a member of the center, the resources from this grant will enable UCLA investigators to continue their work to develop a precision-medicine approach to identify strategies to restore somatosensation — the body's ability to sense

pain, pressure, temperature and joint position — in patients with a spinal cord injury. Spinal-sensory-regeneration research projects by Dr. Butler and her colleagues are already underway, with a focus on sensory circuit formation, stem cell transplantation models and sensory disorders of the spinal cord.

"The nervous system has extraordinarily diverse functions, from cognition to movement," said Dr. Butler. "Our laboratory has a long-term goal of regenerating diseased or damaged spinal sensory circuits in paralyzed patients, and the generosity of The Marcus Foundation is instrumental to our ongoing research."

UCLA has extensive experience in translating basic science research into clinical innovations and will leverage the expertise of its world-renowned spinal surgeons, neurobiologists, neurologists, neurosurgeons, bioengineers and bioinformatics experts. The UCLA Clinical and Translational Science Institute Biomedical Informatics Program, for example, will provide researchers with access to high-quality patient data, facilitate reproducible data-driven science and translate data science and Al methods into practice.

"The Marcus Foundation is committed to finding a cure for spinal cord injury," said Bernie Marcus, founder and chairman of the board of The Marcus Foundation. "We believe regenerative medicine is the path forward to accomplish this goal. Our philanthropic investment will help amplify Dr. Butler and her colleagues' world-leading efforts to bioengineer spinal-cord-sensory stem cells that return patients with a spinal cord injury to the lives they had before they were hospitalized."

Marcus, co-founder of The Home Depot, has a long history of philanthropy. He and his wife, Billi, were among the first to sign the Giving Pledge, a campaign that encourages wealthy individuals to donate the majority of their wealth to charitable causes. The Marcus Foundation provides targeted and impactful philanthropy in the areas of medical research, free enterprise and veterans support, Jewish causes, children and the community.

The funding from the foundation is building an important framework that will propel UCLA Health to the forefront of spinal cord injury research and advanced clinical care. The ultimate goal is to discover methods that will lead to transplantation options and multisite clinical trials for the recovery of sensory function after spinal cord injury.

"UCLA has made significant progress in understanding how the brain and nervous system work in spinal cord injuries," said Dr. Steven M. Dubinett (RES '84), dean of the David Geffen School of Medicine at UCLA and associate vice chancellor for UCLA Health Sciences, "Our preeminent scientists are making pioneering discoveries in stem cell research. and Dr. Butler is one of the few researchers in the world who conducts sensory-regeneration studies. We are grateful to The Marcus Foundation for recognizing Dr. Butler's work, and we look forward to a long-term partnership with the foundation and to taking these studies to the next level."

•



Bernie Marcus

A Race to Conquer Cancer



Jordy Glassner in the hospital.

hen Alex Scranton and Harell Dhari learned their friend, Jordy Glassner, was undergoing treatment for brain cancer at UCLA Health, they rallied their community and, with The UCLA Foundation, started "Team Jordy's Race to Conquer Cancer Crowdfunding Campaign." A young wife and mother living in Los Angeles County, Glassner had been diagnosed with stage 4 glioblastoma, one of the most common and aggressive types of malignant brain tumors.

"It's in moments like these that we realize the power of unity and support," said Scranton. "Despite the diagnosis, Jordy's fun-loving nature has never wavered, and, in fact, has grown stronger. Her fearlessness in battling this disease head-on has inspired us to continue living life to the fullest and to make an impact that matters."

Last fall, Scranton and Dhari participated in Ironman Arizona, their first full Ironman competition that included a 2.4-mile swim, 112-mile bike ride and 26.2-mile run. The two friends dedicated their efforts to Glassner, saying the race was about something bigger than the finish line. "We're not just racing to the finish line," said Dhari. "We're racing to raise awareness about brain cancer and to stand by Jordy. While we were rocked by her diagnosis, Jordy has been our rock. Her courage and optimism have been nothing short of inspirational to everyone who knows her."

With an inherent resistance to

conventional therapy, glioblastoma brain tumors generally do not spread to other organs. Given the brain's complexity, these brain tumors pose special challenges. The body's bloodbrain barrier protects the brain and spinal cord from harmful chemicals, including many traditional drugs, which limits the access of these therapies to the brain. As a result, many medications do not benefit patients with brain tumors, leaving an unmet need for specific drugs for brain cancer.

Every dollar raised from Team Jordy's Race to Conquer Cancer will directly support the vital brain cancer research conducted in the UCLA Neuro-Oncology Program in the David Geffen School of Medicine at UCLA through the Stanford L. Kurland Research Fund, named in memory of the late Stanford Kurland, who was diagnosed with a non-operable brain tumor and received care at UCLA Health until his passing in January 2021. Glassner, who is grateful for the care she is receiving at UCLA, personally selected this fund to benefit from the crowdfunding campaign.

Under the guidance of Dr. Timothy Cloughesy (RES '91, FEL '92), director of the UCLA Neuro-Oncology Program and professor of clinical neurology, and Dr. David Nathanson (PhD '11, FEL '13), associate professor in the UCLA Ahmanson Translational Imaging Division of the Department of Molecular and Medical Pharmacology, resources will help advance ground-breaking clinical trials, increase the understanding of what drives brain tumor growth and harness leading-edge molecular diagnostics for patients.

"This research is the beacon of hope we need to help researchers identify new and more effective treatments for brain cancer," Team Jordy said.

The Ironman finish line was just the beginning for Scranton and Dhari, who have made an impact that will benefit all those affected by this condition. As they crossed the Ironman finish line, the power of collective giving helped Team Jordy surpass the initial fundraising goal of \$31,000 by raising more than \$50,000 to date from 334 donors.

DONATIONS & GIFTS

EMPOWERING HEALING

Eilish and Dan Hathaway will bequeath \$300,000 of their \$2.1 million estate to UCLA Health Operation Mend to support the highest clinical and research priorities under the guidance of Dr. Kodi K. Azari (FEL '04), one of the medical directors of Operation Mend's specialized surgical care program. In addition to supporting Operation Mend. the funds will establish a research endowment at the UCLA Health Jonsson Comprehensive Cancer Center and a medical scholarship endowment at the David Geffen School of Medicine at UCLA. Eilish Hathaway had a career at UCLA spanning more than 30 years, including as manager of the management services organization of the Division of Pulmonary, Critical Care, Sleep Medicine, Clinical Immunology and Allergy. She volunteers once a week at the hospital, distributing snacks and personal care items to staff and patients through the Kindness Cart program. Dan Hathaway, an engineer in the private sector, is also involved with UCLA, and both are extremely thankful for everything UCLA has provided them.

For more information, contact Benjamin Johnson at: 424-467-5012

DEDICATED UCLA DONORS FUND CEREBRAL PALSY STUDIES



Marie and Alexander Shipman.

UCLA Anderson School of Management alumna, Marie Williams Shipman,

and Alexander Shipman, longtime supporters of the UCLA Orthopaedic Hospital Center for Cerebral Palsy (CP), have made a \$1 million pledge to advance cerebral palsy muscle disease research. Under the direction of Dr. Kristen Stearns-Reider, assistant professor in the Department of Orthopaedic Surgery and associate director of the Kameron Gait and Motion Analysis Laboratory at UCLA, the gift will support investigations into the biologic basis of CP muscle dysfunction to develop new treatments. Studies include the analysis of the biochemical and biomechanical properties of CP muscle biopsies, and the isolation of skeletal muscle cells from these biopsies, to understand the interactions that cause fibrosis and failed regeneration of muscle tissue. The team also will study the role of gene expression in disease progression. The muscle biopsies will be cataloged in a biobank of healthy and CP-diseased tissues to represent the affected population of children facing various manifestations of the disease.

For more information, contact Gretchen McGarry at: 310-794-4746

The UCLA Health Center for East-West

ADVANCING INTEGRATIVE ADOLESCENT CARE

Medicine has received a generous donation from Almas and Roland Tellis to support the Integrative Adolescent Program under the guidance of Dr. Katie Hu. The gift will enable Dr. Hu. East-West Medicine Fellowship Program Director; Dr. Ka-Kit Hui, (MD '75, RES '78), founder and director of the center and Wallis Annenberg Endowed Chair in Integrative East-West Medicine; and Dr. Sara Ptasnik, internal medicine/ pediatrics specialist, to collaborate with national and global pain/mental health experts to design curricula targeted to adolescents. It will also provide access to integrative health services for adolescents and their families at UCLA Health and its community health partners. The center blends conventional and traditional Chinese medicine, including acupuncture and integrative medicine, to provide a patient-centered approach with individualized integrative treatment plans. In



(From left) Roland and Almas Tellis and Dr. Katie Hu.

addition to their current contribution, the Tellises will underwrite and chair a fundraising event in December at a restaurant he co-owns in Santa Monica, in honor of the 30th anniversary of the center. Beth Friedman, another Center for East-West Medicine supporter, will serve as co-chair.

For more information, contact Nicholas Middlesworth at: 310-227-5670 $\,$

PROVIDING COMFORT FOR WOUNDED WARRIORS

The Fisher House Foundation has made a donation to UCLA Health Operation Mend that addresses some of its most pressing needs. Operation Mend provides advanced surgical treatment and comprehensive care focused on the physical and psychological wounds of war for post-9/11 service members, veterans and their families. All services, including transportation and lodging while receiving treatment, are offered at no cost. Fisher House Foundation builds comfort homes where military and veteran families can stay free of charge while a loved one is in the hospital. It also operates the Hero Miles program, using donated frequent flyer miles to bring family members to the bedside of injured service members, and the Hotels for Heroes program

that enables family members to stay at hotels near medical centers without charge through donated hotel points. This gift includes Hero Miles for up to 100 flights for patients to travel to UCLA for care and up to \$100,000 toward lodging at The Tiverton, a hotel offering the comfort and warmth of a "home away home" for Ronald Reagan UCLA Medical Center patients and their families. "Fisher House Foundation is pleased to offer this contribution to Operation Mend," said David A. Coker, foundation president. "The UCLA Health program aligns perfectly with our mission to support our nation's veterans and their families."

For more information, contact Benjamin Johnson at: 424-467-5012

TO DONATE VISIT:

For more information, contact Katie Brown at: 310-367-8742

52 EPILOGUE 53



"Finding Dr. Jesse Mills at the Men's Clinic at UCLA changed our story," Anthony Purcell says. "He told us that there was no reason someone with a spinal cord injury couldn't father a child."

My Life Didn't End After a Devastating Spinal Cord Injury

Bv Anthony Purcell

DIVING INTO THE WATERS OF MIAMI BEACH WAS something I had done many times before. I was familiar with the ocean and its power, but I wasn't prepared for how my dive on the morning of February 6, 2010, would radically change my life.

I was in Miami to attend the Super Bowl with my cousin, and we decided to hit the beach the day before

the game. While diving into the choppy waves, I misjudged my landing spot and struck a hidden sandbar, breaking my neck and bruising the C5 and C6 vertebrae in my spine. It was immediately clear that this was a devastatingly serious injury. I was in the water — paralyzed — and unable to resurface on my own.

Thankfully, my cousin, Bernie, pulled me to safety.

He saved my life that day, but I knew things would never be the same.

This is a club no one wants to belong to, and I soon discovered I had a long journey ahead of me, a road filled with potholes brought about by depression, frustration, financial stress and painful physical rehabilitation.

There were dark days — even moments when I considered not continuing with life. My depression led me to have a lot of self-doubt. I believed I would never find someone to love me or that I would get married, and I knew I would never have children. I went from feeling like I had it made to feeling completely hopeless because I was in a wheelchair. However, I focused hard, working on my body and my mind.

Then I found Karen — a high school classmate I had always had a crush on — on Facebook. I was finally in a place where I had the courage to contact her. We rekindled our friendship, which eventually blossomed into romance. In 2017, we married.

I entered married life with the assumption that children were out of the question. Even though I had worked hard to strengthen my body and make strides not even my doctors had thought to be possible, I couldn't see how Karen and I could have our own biological children.

But finding Dr. Jesse Mills at the Men's Clinic at UCLA changed our story. He told us that there was no reason someone with a spinal cord injury couldn't father a child, as long as doctors were able to successfully retrieve sperm to perform in vitro fertilization (IVF). Through a process called percutaneous epididymal sperm aspiration, he was able to retrieve viable sperm directly from my testes.

Though retrieval of the sperm was possible, the IVF process was challenging. It took Karen and me six attempts over two years, and our faith was tested before we finally heard those magic words: "You're pregnant!"

In the Spring of 2023, we welcomed Payton to our family. She is truly a miracle baby. After suffering an

injury that had taken so much from me, I never imagined I would be a father. I don't take it for granted — not one day.

Now I am blessed with a beautiful, loving family. I also am blessed with a greater purpose. Not long after my injury, my mother — who refused to even accept the word "paralyzed" as it applied to me - and I established a non-profit, Walking With Anthony, to support and help others who have suffered devastating spinal cord injuries. It is our mission to educate and raise awareness about the challenges imposed by spinal cord injury and the need to increase the quality of life for all who suffer from it, expand spinal cord injury rehab centers to ensure all who can benefit from dedicated facilities and communities have access to them and provide financial assistance to individuals with spinal cord injuries to help meet the often suffocating, even impossible demands of paying for essential treatment that is not covered by standard insurance. To date, we have been able to help more than 100 people with spinal cord injuries to restart their lives.

For them - as I discovered for myself - the greatest therapy can be hope. \bullet

Anthony Purcell is an executive in the financial services industry in Fort Lauderdale. Florida.



For information about surgical treatments at the Men's Clinic at UCLA, scan the QR code or go to: uclahealth.org/medical-services/urology/mens-clinic-ucla/surgical-treatments/microsurgical-sperm-retrieval



For information about Walking With Anthony, scan the QR code or go to: walkingwithanthony.org



Purcell and his wife, Karen, and daughter, Payton.



405 Hilgard Avenue Box 956923 Los Angeles, CA 90095-6923 NONPROFIT ORGANIZATION U.S. POSTAGE

PAID UCLA







World-class health care, when and where you need it.

Get lifelong care at more than 280 UCLA Health clinics

To learn more or to book an appointment, please visit **uclahealth.org**

