Stuart House is a refuge where abused children find support and begin their journey toward healing.
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LEADERSHIP

James Cash Penney, the visionary entrepreneur who founded the J.C. Penney stores, said: “The five separate fingers are five independent units. Close them and the fist multiplies [their] strength. This is organization.”

This quote perfectly captures the potential for the collective healthcare enterprises of the University of California. Individually, each campus is excellent and delivers tremendous benefit for the communities it serves. But wrap them together, like a fist, and the strength of our organization is amplified. As UC San Francisco Chancellor Dr. Sam Hawgood said last year at the colloquium of the UC Center for Health Quality and Innovation: “If we truly act as a system, we would be quite a force.”

I couldn’t agree more. If the campuses of the UC health system act as one, our opportunities for clinical and educational innovation, collaboration on translational research, training of the next generations of healthcare providers and researchers and shaping of policy to benefit the future healthcare needs of California, and the nation, would be unique and powerfully influential.

Our six medical schools and five academic medical centers train nearly 50 percent of the medical students and medical residents in California. When you factor in its other healthcare professional schools — 17 in total systemwide, including medicine, nursing, optometry, dentistry, pharmacy, public health and veterinary medicine — UC stands as the largest health-sciences instructional program in the country.

The limitless possibilities of our unification are no better demonstrated today than by the University of California Research eXchange (UC ReX), which was created in 2011 to enhance UC collaborative research capabilities and improve quality outcomes. An extraordinary resource to emerge from UC ReX is Data Explorer, a federation of UC Health clinical data that grants secure access to more than 13.6-million patient records, allowing UC investigators to query and within a matter of seconds obtain counts of potential matching research-study cohorts.

Imagine, also, what we could do if our medical schools engaged in similar collaborations. Rather than each campus trying to be all things to all students, as a system we might aggregate individual programs on campuses where they are strongest. This would convey a tremendous advantage for our trainees, particularly residents and fellows, as they move among different campuses to experience and learn from the best among the best.

When it comes to research, education and clinical care — the essential elements of our mission — it can no longer be business as usual for an expansive academic system like the UC. With the diverse population of California harnessed through our unified health systems, we can be competitive on a national level with even the largest healthcare organizations.

THIS IS LEADERSHIP. Leadership comes in many forms.

I would like to take this opportunity to acknowledge another type of leadership: philanthropist Marion Anderson and her transformative $100-million gift to the UCLA Anderson School of Management. This gift demonstrates how the power of shared vision can propel the mission to which all of us at UCLA are committed: advancing knowledge to benefit society.

John C. Mazziotta, MD (RES ’81, FEL ’83), PhD
Vice Chancellor, UCLA Health Sciences
Dean, David Geffen School of Medicine at UCLA
CEO, UCLA Health

United We Stand

If all the University of California’s healthcare campuses came together as a unified statewide system, we truly would become a force to be reckoned with.
I read Veronica Meade-Kelly’s article, “What the Songbird Tells Us” (Spring 2015, page 23), with a heavy heart. Many species of songbirds are disappearing from around the world — extinct or endangered due to loss of habitat and climate change. For instance, the Rusty Blackbird has seen its numbers decline by 85-to-99 percent over the past 40 years. This is one of the most rapid declines of a population’s health in the world. While such a loss is tragic in its own right, Meade-Kelly’s article demonstrates the effect on the human family as well. The inspiration that Dr. Arthur P. Arnold drew from songbirds helped to usher in medical research from which we can all benefit — whether birder or not. Preserving biological diversity and the health of all animals is good for both us and them.

Benjamin Bechtolsheim
San Francisco, California

What an amazing woman Reenie Harris is (“To Life!” page 48) — skydiving, playing paintball with her grandkids, walking five miles on New Year’s day in the Rose Parade and earning the right to take that walk by giving a kidney to a complete stranger! Reenie’s energy, zest for life and generosity have undoubtedly brought her 70 years filled with rich and rewarding and exhilarating experiences are so nicely shared in her piece in U Magazine. Reenie’s story reminds us that there are no automatic age limits to helping others. And she shares a remarkable facet of the story that her donation in New Jersey was transplanted at UCLA, 3,000 miles away, highlighting a living-kidney cross-country sharing system that was pioneered by UCLA and OneLegacy and has helped make kidney-chain donation the success it is today.

Thomas More
CEO, OneLegacy
Los Angeles, California

Thank you for your Epilogue article by Maureen “Reenie” Harris. It was wonderful to share Reenie and Natasha’s journey as part of “The Never Ending Story” 2015 Donate Life Rose Parade Float Program of the OneLegacy Foundation. Living donation is such a gift to the recipient. And I have heard from altruistic kidney donors — those like Reenie and Natasha who give from their hearts to a complete stranger — that they feel they receive more than they gave and do not regret their decision for a minute.

Anne Grey
Executive Director, OneLegacy Foundation
Los Angeles, California

It was with great joy that we read the article about Maureen Harris and her daughter Natasha Kruse and their altruistic kidney donations. We were blessed to meet these two incredible women as they walked alongside the 2015 Donate Life Rose Parade Float. What an inspiration these women are to offer a kidney to a complete stranger. Their story is one of selfless giving and true love.

Vivian and Larry Lefferts
Normal, Illinois

Your coverage of Reenie Harris and her daughter Natasha’s donation story and participation in the 2015 Donate Life Rose Parade Float Program was inspiring. Donation is one of the greatest gifts that can be given. It is an unforgettable experience that bestows intangible gifts to both recipient and donor. The Donate Life Rose parade program also thanks Reenie and Natasha for the bravery and generosity in sharing their story.

Nicole Olivas Jenkins
Donate Life Rose Parade Float Program Manager
Los Angeles, California

Thank you for publishing the inspiring story of Maureen “Reenie” Harris and her daughter Natasha. Natasha made the decision to altruistically donate a kidney to a stranger. Then her mother saw firsthand the power of this remarkable gift. She, too, decided to donate her kidney to a stranger. Reenie did not simply assume that her age of 70 disqualified her from living donation. She sought out the facts. Reenie’s donation and the connections she made brought her unexpected gifts. Her story shows us all that there is no age to stop giving to others and no age to stop celebrating life.

Carol Harrison
Montclair, New Jersey

As a former editor of many UCLA school of medicine publications, I thought the profile of Dr. Noah Federman (“Surfin’ Safari,” page 38) perfectly captured the soul of UCLA Health — a place where physicians truly want to help people. I’ve seen Dr. Federman interact with teenagers with cancer in the past and have marveled at the ease he has in connecting with them. That he is comfortable donning a wetsuit with these kids is further evidence of his willingness to show a level of caring not often apparent in doctor-patient relationships. Kudos, too, to the photographer; the main picture was as impactful as the story.

Jacqueline Michels
Marina del Rey, California

Share Your Thoughts with Us

Like us or not, we want to hear from you. Your input is important, so please give us your comments and feedback. Include your name, e-mail 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. Don’t be a stranger. Write to us, or post your comments on our social-media pages.

Submit letters to:
editormedicine@mednet.ucla.edu

uclahealth.org/getsocial
Same-day appointments now available

When you, or a loved one, need to see your doctor, the last thing you want to do is wait around. At UCLA Health, we want to ensure all of our patients receive the best care in the timeliest manner possible. That’s why we now offer same-day appointments in 27 specialties.

Call us before noon and we’ll schedule you for that day. Call us in the afternoon and we’ll schedule you for the next day. At UCLA, it begins with you. And now it begins today.
Stories of Recovery from Traumatic Brain Injury

Triathlete Greg Parks never recalled the cause of the accident that left him lying unconscious in the road, still straddling the bicycle he’d been riding in Santa Clarita, California. But he will never forget what followed: four weeks of hospitalization and grueling rehabilitation, followed by another four months before he was able to resume his life as a newlywed husband and rocket-test engineer.

Actor Larry Miller was also able to pick up his life as the father of two after suffering a life-threatening head injury in 2012 and being on life support for a month. Well-known for the memorable characters he has played in more than 100 films and TV shows, Miller also started back to work after his recovery.

Parks and Miller recently shared their experiences of coming back from a life-changing brain injury during a symposium hosted by the neurosurgery department’s Brain Injury Research Center at Ronald Reagan UCLA Medical Center. Both men, as well as those who care for patients with traumatic brain injuries (TBIs), talked about how to advocate for loved ones and how caregivers must also take time to tend to themselves.

“My accident was the best thing that could have happened to me,” said Miller, who has advocated for TBI patients before the California Senate. He opted to see the brighter side of his situation. “A brain injury wakes you up and makes you appreciate all that you have. Everything became funnier in my life.”

From her perspective as the wife of a patient, Parks’s wife Kathleen Pullen-Norris described the challenges she faced in obtaining proper treatment for her husband at the hospital where he was first taken and how she coped during his journey to recovery. “Being the spouse of a TBI patient can be one of the world’s darkest places,” admitted Pullen-Norris, who is a nurse at Ronald Reagan UCLA Medical Center’s neuro-ICU unit, where her husband was eventually hospitalized. “You are not the injured, but you are the aching. Greg describes TBI as a fog. Being a TBI wife is like being a lighthouse — the best and brightest lighthouse I can muster.”

She emphasized the need for personal self-care. “Without the caregiver, the patient is lost,” she stressed. “That means taking time for yourself.”

Parks encourages therapists to push their patients to recapture their mental and physical fitness. “My toughest therapist was my beautiful wife Kathleen,” said Parks, who had married Pullen-Norris less than a year before his accident. “I am grateful to her for making fitness a priority (on their honeymoon, the couple participated in New Zealand’s ironman competition) and am living proof that a good support system is essential for surviving a brain injury,” Parks said.

Each year, an estimated 2.4-million Americans suffer a blow to the head that results in a traumatic brain injury, according to Paul Vespa, MD (FEL ’96), professor of neurosurgery and neurology and director of neurocritical care at Ronald Reagan UCLA Medical Center. “Swift treatment can prevent death and permanent brain damage, but not every hospital offers the trained specialists and sophisticated equipment required to treat TBIs effectively,” Dr. Vespa pointed out. “As a result, tens of thousands of people die needlessly each year, and more than 5.3-million Americans live with a lifelong disability.”

Pullen-Norris echoed Dr. Vespa’s message: “Greg and I are deeply grateful to his UCLA physicians and nurses. Without their expertise and diligence, our work would be for nothing. They saved Greg and, in turn, saved me.”
Brain Abnormalities Similar in People with Anorexia and Body Dysmorphic Disorder

People with anorexia nervosa and those with body dysmorphic disorder (BDD) have similar abnormalities in their brains that affect their ability to process visual information, a UCLA study reveals. The researchers found that both patient populations had abnormal activity in the visual cortex of the brain during the very first instants when the brain processes “global” information, or images as a whole, as opposed to a tiny detail. This finding suggests that perceptual retraining, a behavioral exercise that attempts to adjust or correct the participant’s balance of global and detailed processing, may be an effective therapy for both disorders.

Previous research on BDD has shown the same type of abnormal activity in the visual cortex, but the UCLA study is the first to link the locations of the abnormal brain activity with time periods beginning as early as one-tenth-of-a-second after an image is viewed. Understanding that timing is significant because it may help scientists determine whether the problem is in lower-level perception that takes place in the visual cortex or elsewhere in higher-level brain systems.

People with anorexia nervosa have a distorted sense of their body weight and shape that can lead to social withdrawal or cardiovascular or electrolyte disturbances severe enough to require hospitalization or even result in death. There are few effective treatments, and many symptoms can be lifelong. Individuals with BDD see themselves as disfigured and ugly — often fixating on minute details of their face or body — even though they look normal to others. Their distress over their appearance can result in depression, anxiety, shame and severe functional impairment that can be severe enough to lead to suicide.

Using functional magnetic resonance imaging to detect regional abnormalities in visual processing and electroencephalography, the researchers assessed the timeline for how the brain processes those signals in subjects with anorexia nervosa and BDD and a control group of healthy individuals as they viewed images of faces and houses.

“Previously, we knew where these visual processing abnormalities existed in the brain in BDD but did not know when they were taking place,” says Jamie Feusner, MD ’99 (RES ’03, FEL ’04, ’06), director of the Obsessive-Compulsive Disorder Program at the Jane and Terry Semel Institute for Neuroscience and Human Behavior at UCLA. “Now, knowing the timing, it is clearer that their perceptual distortions are more likely to be rooted early in their visual systems.”

The researchers found that people with anorexia and those with BDD showed less activity in the regions of the brain that convey primarily global information, although the effect appeared in smaller regions in those with anorexia. Further, the researchers found that individuals with BDD exhibited greater activity in the areas of the brain that process detailed information; the more activity they had in these detail-processing regions, the less attractive they perceived the faces to be, suggesting a connection with distorted perceptions of appearance.

“Anorexia Nervosa and Body Dysmorphic Disorder Are Associated with Abnormalities in Processing Visual Information,” Psychological Medicine, February 5, 2015

Brain Abnormalities Similar in People with Anorexia and Body Dysmorphic Disorder

People with anorexia (green areas) and BDD (blue areas) show less activity than healthy people in the brain regions that process “global” information when viewing houses (left) and faces (right).
A UCLA study finds that few doctors prescribe a low-cost drug that has been proven effective in preventing the onset of diabetes. The study found that only 3.7 percent of U.S. adults with pre-diabetes were prescribed metformin during a recent three-year period.

Metformin and lifestyle changes both can prevent the onset of diabetes, but people often struggle to adopt healthier habits, says Tannaz Moin, MD, assistant professor of medicine in the Division of Endocrinology at the David Geffen School of Medicine at UCLA and at the VA Greater Los Angeles Healthcare System. “Diabetes is prevalent, but pre-diabetes is even more prevalent, and we have evidence-based therapies like metformin that are very safe and that work,” Dr. Moin says. “Metformin is rarely being used for diabetes prevention among people at risk for developing the disease. This is something that patients and doctors need to be talking about and thinking about.”

It is estimated that about one-third of adults in the U.S. are pre-diabetic, a condition marked by higher-than-normal blood-sugar levels. In 2008, the American Diabetes Association added metformin to its “Standards for Medical Care in Diabetes” guidelines for use in diabetes prevention for those at very high risk who are under age 60, are severely obese or have a history of gestational diabetes. Under the guidelines, metformin may also be considered for patients whose blood sugar is above normal but not yet in the diabetes range.

The researchers examined data from 2010 to 2012 from UnitedHealthcare, the nation’s largest private insurer, for a national sample of 17,352 adults aged 19 to 58 with pre-diabetes. They also found:

- The prevalence of metformin prescriptions was 7.8 percent for severely obese patients.
- Metformin prescriptions were nearly twice as high for women (4.8 percent) as for men (2.8 percent).
- Among people with pre-diabetes, the prevalence of prescriptions for obese individuals was 6.6 percent, versus 3.5 percent for non-obese people.
- Among people who had pre-diabetes and two other chronic diseases, 4.2 percent received prescriptions for metformin, versus 2.8 percent of people with pre-diabetes and no other chronic diseases.

The reasons for the underuse of metformin are not clear, the researchers write, but they could include a lack of knowledge of the 2002 Diabetes Prevention Program Study, which showed that both lifestyle changes and metformin use can prevent or delay progression to diabetes among those with pre-diabetes; the fact that the drug does not have Food and Drug Administration approval for pre-diabetes; and reluctance by patients and doctors to “medicalize” pre-diabetes.

Potential limitations to the study included a lack of access to data on participation in lifestyle programs; possible misclassification of pre-diabetes and metformin use; the fact that the analysis focused on adults with commercial insurance, which could make the findings inapplicable to uninsured or older adults; and the researchers’ inability to independently verify patients’ eligibility to receive metformin under the American Diabetes Association guidelines.

“Metformin Prescription for Insured Adults with Pre-diabetes from 2010 to 2012: A Retrospective Cohort Study,” Annals of Internal Medicine, April 21, 2015
Characteristic Patterns of Proteins Found in Brains of Retired NFL Players Who Suffered Concussions

Using a new imaging tool, researchers found a strikingly similar pattern of abnormal protein deposits in the brains of retired NFL players who suffered from concussions. The imaging technique uses a chemical marker, called FDDNP, combined with a positron emission tomography (PET) scan and is helping scientists to take another step toward the early understanding of a degenerative brain condition called chronic traumatic encephalopathy (CTE), which affects athletes in contact sports who are exposed to repetitive brain injuries.

Researchers say the findings could help lead to the better identification of brain disorders in athletes and would allow doctors and scientists to test treatments that might help delay the progression of the disease before significant brain damage and the onset of symptoms that can include memory loss, confusion, progressive dementia, depression, suicidal behavior, personality change and abnormal gait and tremor.

Currently, CTE can only be diagnosed definitively following autopsy. To help identify CTE, doctors look for an accumulation of a protein called tau in the regions of the brain that control mood, cognition and motor function. Tau is also one of the abnormal protein deposits found in the brains of people with Alzheimer's disease, although in a distribution pattern that is different from that found in CTE.

“The distribution pattern of the abnormal brain proteins, primarily tau, observed in these PET scans presents a ‘fingerprint’ characteristic of CTE,” says Jorge R. Barrio, PhD, professor of molecular and medical pharmacology.

In its study of 14 retired NFL players who had sustained at least one concussion each, the research team identified four stages of deposits that could signify early-to-advanced levels of CTE. “These different stages reflected by the brain marker may give us more insight into how CTE develops and allow us to track the disease over time,” says Vladimir Kepe, PhD, research pharmacologist in molecular and medical pharmacology.

After the study subjects were injected with the FDDNP marker, which binds to deposits of neurofibrillary tau “tangles” and amyloid beta “plaques,” the PET scans revealed that the imaging patterns of the retired football players showed tau-deposit patterns consistent with those that have been observed in autopsy studies of people with CTE. In addition, the areas in the brain where the patterns occurred were also consistent with the types of symptoms experienced by some of the study participants.

Compared with healthy people and those with Alzheimer’s, the former athletes had higher levels of FDDNP in the amygdala and subcortical regions of the brain, which are areas that control learning, memory, behavior, emotions and other mental and physical functions. People with Alzheimer’s, on the other hand, had higher levels of FDDNP in areas of the cerebral cortex that control memory, thinking, attention and other cognitive abilities. And the athletes who had experienced more concussions also had higher FDDNP levels.

The scans of people with the highest levels of FDDNP binding in areas where tau accumulates in CTE also show binding in areas of the brain affected by amyloid plaques, which is consistent with autopsy findings indicating that this abnormal protein also plays a role in more serious cases of CTE.

Scientists Patent Method for Finding Microscopic Needle in a Haystack

The U.S. Patent and Trademark Office issued a patent to two scientists from UCLA’s Eli & Edythe Broad Center of Regenerative Medicine & Stem Cell Research for a method to identify human-induced pluripotent stem cells in the lab. The method developed by William Lowry, PhD, and Kathrin Plath, PhD, uses a tumor rejection antigen (TRA) to identify stem cells derived from adult skin or blood cells that have successfully been coaxed in the lab back into an embryonic-like pluripotent state.

“Using the TRA method is an important validation step to ensure that the target cells have potentially been reprogrammed to a pluripotent state,” says Dr. Plath, professor of biological chemistry. “This accurate identification of reprogrammed cells is critical, as we conduct research to better understand the viability of pluripotent stem cells for therapeutic treatments for human disease.”

Because these so-called induced pluripotent stem cells (iPSCs) are created from a patient’s own cells — as opposed to human embryonic stem cells, which are created from a donated frozen human embryo — there is little risk of rejection if they are used to treat disease in that patient. Nevertheless, some risks have been identified in the reprogramming process. Since iPSCs do not begin their existence in a pluripotent state, scientists must validate that the donor cells indeed have been reprogrammed into iPSCs to ensure the right kinds of cells are used in research. And as stem-cell science moves from the lab to clinical treatments, validating the cells has become a critical step in ensuring that stem-cell treatments are ready for human clinical trials.

“As we work to understand if iPSCs are safe for human trials, it’s vitally important that we’re working with the right cells,” says Dr. Lowry, associate professor of molecular, cell and developmental biology. “That’s where the TRA method comes in.”

Prior to the use of the TRA method, the process of picking pluripotent stem cells out of other cellular matter in a petri dish was much like trying to find a needle in a haystack. Scientists reprogrammed adult cells with the intent of achieving pluripotency, but to validate the pluripotent state of the cells, they had to be stained in a way that caused them to die. As a result, scientists had to use a complex duplication system to keep a copy of the stem-cell collection they were testing so they would still have living cells once pluripotency was established.

The TRA method makes that step unnecessary. When added to reprogrammed human cells in a petri dish, TRA recognizes and binds to a molecule that only exists on human pluripotent stem cells. Attaching a color to the antibody stains the pluripotent cells without harming them. This method allows for easy viewing and results in the accurate identification and selection of potential pluripotent cells. The TRA staining method is now the standard first step in most research studies involving iPSCs.

Mental-training Exercises Help Mitigate Effects of “Chemo Brain”

UCLA researchers have developed a program that could improve the day-to-day lives of women with breast cancer by addressing post-treatment cognitive difficulties, sometimes known as “chemo brain,” which can affect up to 35 percent of women after their treatments.

An estimated one-in-eight women will develop invasive breast cancer in their lifetimes, and following chemotherapy treatment, a mental fog can prevent them from being able to concentrate, stay organized and complete everyday activities, such as sticking to a schedule or planning a family gathering.

The study builds upon earlier research that found a statistically significant association between neuropsychological test performance and memory complaints among women with early-stage breast cancer following treatment. “We invited the women to participate in a research study that assigned them to early or delayed treatment with a five-week, two-hour group training session, where a psychologist taught them strategies to help them with their...
In Utero Exposure to Extreme Morning Sickness May Harm Offspring

Women who experience extreme morning sickness during pregnancy are three times more likely to have children with developmental deficits — including attention disorders and language and speech delays — than women who have “normal” nausea and vomiting, a UCLA study found. The research was the first to look specifically at the relationship between in utero exposure to extreme morning sickness, also known as hyperemesis gravidarum (HG), and childhood neurologic developmental outcomes.

Marlena Fejzo, PhD, associate researcher at the David Geffen School of Medicine at UCLA, says the correlation was especially apparent in women whose HG symptoms began prior to five-weeks gestation. “These findings show that it is vital to take HG seriously so these pregnant women can get nutritional support right away,” Dr. Fejzo says. “An encouraging result is that we did not find any association with medications to treat this disorder and neurodevelopmental delays, so I speculate that the neurodevelopmental outcomes are more likely caused by nutrient deficiency early in pregnancy rather than medication.”

The cause of HG is unknown, and the symptoms are intense — including continuous nausea and vomiting so violent that it can cause detached retinas, blown eardrums, cracked ribs and torn esophagi. The symptoms can last for a month or two or for the entire pregnancy.

Children born to women with HG in the study had attention and sensory disorders and learning, speech and language delays and were 3.28 times more likely than the others to have neurodevelopmental delays. “There is an urgent need to address whether or not aggressive treatment that includes vitamin and nutrient supplementation in women with early symptoms of severe nausea and vomiting decreases that risk of neurodevelopmental delay,” Dr. Fejzo says.

Previous studies have shown that HG is associated with low-birth-weight babies, small size for gestational age and preterm births. Dr. Fejzo showed previously that children born to mothers who had extreme morning sickness were 3.6 times more likely to have behavioral or emotional disorders as adults.

Dr. Fejzo and her team are investigating the genetic basis of HG, and they hope to determine whether earlier treatment in women with symptoms limits or prevents the adverse outcomes identified in the study. “A significant increase in neurodevelopmental and behavioral disorders in children exposed to HG in utero was demonstrated, which suggests HG may be linked to lifelong effects on the exposed fetus,” the study states. “The cause for this is unknown but may be due to maternal stress, abnormal hormone levels during fetal development and/or maternal-newborn bonding after birth or malnutrition and vitamin deficiency.”

“Cognitive Rehabilitation Group Intervention for Breast Cancer Survivors: Results of a Randomized Clinical Trial,” Psycho-Oncology, March 10, 2015

Illustration: Maja Moden
Scientists at UCLA’s California NanoSystems Institute and Jonsson Comprehensive Cancer Center have combined their nanotechnology expertise to create a new treatment that may solve some of the problems of using chemotherapy to treat pancreatic cancer.

The study describes successful experiments to combine two drugs within a specially designed mesoporous silica nanoparticle that looks like a glass bubble. The drugs work together to shrink human pancreas tumors in mice as successfully as the current standard treatment, but at one-twelfth the dosage. This lower dosage could reduce both the cost of treatment and the side effects that people suffer from the current method.

Pancreatic cancer is difficult to detect early, and symptoms do not usually appear until the disease is advanced. As a result, many people are not diagnosed until their tumors are beyond the effective limits of surgery, leaving chemotherapy as the only viable treatment option. The chemotherapy drug most often used for pancreas cancer is gemcitabine, but its impact is often limited.

Recent research has found that combining gemcitabine with another drug called paclitaxel can improve the overall treatment effect. In the current method, Abraxane, a nano complex containing paclitaxel, and gemcitabine are given separately. Though this works to a degree, the combined beneficial effect is not fully synchronized because the drugs may stay in the body for different lengths of time.

In mice that received the two drugs inside the nanoparticle, pancreas tumors shrank dramatically compared with those in mice that did not receive the combined drugs in the nanoparticle. Similar comparisons were made with mouse models, in which the human tumors were surgically implanted into the mice’s abdomens in order to more closely emulate the natural point of origin of pancreatic tumors and provide a better parallel to the tumors in humans. In these experiments, the tumors in the mice receiving silica nanoparticles shrank more than the comparative controls. Also, metastasis to nearby organs was eradicated in these mice.

“Instead of just a laboratory proof-of-principle study of any cancer, we specifically attacked pancreatic cancer with a custom-designed nanocarrier,” says Andre Nel, MD, distinguished professor of medicine and associate director for research of the California NanoSystems Institute. “In our platform, the drugs are truly synergistic because we have control over drug mixing, allowing us to incorporate optimal ratios in our particles, making the relevance of our models very high and our results very strong.”

Blood-based Test for Diagnosing Alzheimer’s Disease

UCLA researchers have provided the first evidence that a simple blood test could be developed to confirm the presence of beta amyloid proteins in the brain, which is a hallmark of Alzheimer’s disease. Although approximately 5-million Americans are living with Alzheimer’s, no reliable blood-based test currently exists for the neurodegenerative disorder that is the sixth-leading cause of death in the United States. Using blood-based biomarkers to diagnose Alzheimer’s could be a key advance.

“Blood-based biomarkers would have the important advantage of being safe, affordable and easy to administer in large groups or in rural areas and therefore could have an enormous impact on clinical care and clinical trials alike,” says Liana Apostolova, MD (FEL ’05), director of the neuroimaging laboratory at the Mary S. Easton Center for Alzheimer’s Disease Research at UCLA.

Two current methods for determining the beta-amyloid formation characteristic of Alzheimer’s disease both have drawbacks. Cerebrospinal fluid can be obtained from patients, but that requires a spinal tap, an invasive procedure that carries the risk of nerve damage and other serious side effects. Another method, the amyloid positron emission tomography (PET) scan, while effective, exposes subjects to radiation. The PET scan is also expensive and is not typically covered by insurance as a diagnostic test. Also, few medical centers have the technology.

For their study, the UCLA researchers developed a simple signature for predicting the presence of brain amyloidosis — the buildup of amyloid in the brain — including several blood proteins known to be associated with Alzheimer’s disease, along with information routinely obtained in the course of a clinical workup for patients suspected to have the disease, such as results of memory testing and structural magnetic resonance imaging. Using blood samples and other data from patients with mild cognitive impairment from the Alzheimer’s Disease Neuroimaging Initiative – a large public-private partnership that began in 2004 – the UCLA researchers found that their method could be used to predict the presence of amyloid in the brain with modest accuracy.

Although there is no treatment that can halt or reverse the progression of Alzheimer’s disease, a noninvasive, inexpensive and reliable test for diagnosing the disease could spare people with dementia and their families the anxiety associated with uncertainty, direct them to support services earlier and improve their likelihood of benefiting from current and future advances in treatment. Such a test would also have a major impact on research.

“With the advent of the amyloid PET scan, we are learning that as many as 25-to-30 percent of subjects who enroll in Alzheimer’s disease clinical trials turn out not to have the disease,” Dr. Apostolova says. “That makes it difficult to measure the effects of the treatment being tested.”

Electroconvulsive Therapy Changes Key Areas of the Brain That Play Roles in Memory and Emotion

Scientists know that depression affects the brain, but they still don’t know why some people respond to treatment and others do not. Now, UCLA researchers have shown in a large cohort of patients that electroconvulsive therapy (ECT) changes certain areas of the brain that play a role in how people feel, learn and respond to positive and negative environmental factors. The team took three sets of images of 43 patients who were undergoing ECT: before their treatments, after their second session and within one week after they completed treatment. The images were compared to two sets of brain scans from 32 healthy people.

The team imaged the hippocampus and amygdala in the research subjects before, during and after undergoing ECT and compared those images to scans of healthy brains. The scientists also showed that in patients with major depression, as the hippocampus increases in size, mood improves and parts of the hippocampus and amygdala change more with treatment.

The findings provide vital clues that could help doctors identify patients who will respond well to treatment. They would also help spare patients who won’t respond to treatment from taking drugs that ultimately won’t work for them, says Katherine Narr, PhD, associate professor of neurology.

ECT carries a certain stigma, but advances in anesthesia and the technology have improved the safety and reduced the side effects of the procedure. In addition, advances in high-resolution magnetic resonance imaging have allowed a more accurate measurement of the changes to the brain induced by ECT.

“ECT has been shown to be very effective for treating patients with major depression who don’t respond well to other treatments,” says Shantanu Joshi, PhD, assistant professor of neurology. “People with smaller hippocampal size prior to starting treatment are less likely to respond as well to treatment.”

“Structural Plasticity of the Hippocampus and Amygdala Induced by Electroconvulsive Therapy in Major Depression,” Biological Psychiatry, March 2015
ADAPT Program

Tailored Care to Address Special Needs

Approximately 50,000 youth are adopted from foster care each year, with an average age of six years. These older children who have experienced early loss and trauma have special needs as they enter permanent placements. The ADAPT program — a partnership among UCLA’s Health Services and Society Center, UCLA TIES for Adoption and the Center for Adoption Support and Education in the Washington, D.C. area — was created to address these challenges to ensure that adoptive families thrive through child-centered, family-focused and culturally sensitive interventions. While many adoption-focused mental-health treatments are available in the community, none has been validated in scientific trials. The program’s current study aims to establish the effectiveness of the ADAPT intervention for families adopting older children from foster care.

For more information, go to:

hss.semel.ucla.edu/programs/adoption.html

Photos: Getty Images
UCLA pediatrics — the right start for kids

What’s the only thing more important than your health? If you’re like most people, it’s your child’s. At UCLA, we understand. We offer complete pediatric care for infants, children and teens at our hospitals and offices throughout the area. It’s the world-renowned care UCLA is known for, right in your neighborhood — for the ones you care about most.

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- Allergy/Immunology
- Cardiology
- Craniofacial
- Endocrinology
- Gastroenterology
- Genetics
- Hematology/Oncology
- Nephrology
- Neurology/Neurosurgery
- Ophthalmology
- Orthopaedics
- Otolaryngology (ENT)
- Pulmonology
- Urgent Care
- Urology

uclahealth.org/mattel  uclahealth.org/getsocial
Cancer, radiation oncology, genetics and affordable healthcare are all areas of interest for Joanne B. Weidhaas, MD, PhD, who joined the David Geffen School of Medicine at UCLA last year as vice chair of the Division of Molecular and Cellular Oncology in the Department of Radiation Oncology. Dr. Weidhaas is a physician-scientist, the co-founder of a biotech company and founder of a nonprofit research organization. Much of her work centers on a gene mutation known as the KRAS-variant, which she co-discovered in 2006 and which is found in as many as 25 percent of people in America with cancer and among roughly 1-in-20 people within the general population. It is implicated in several types of cancers and alters patients’ responses to treatment.

After Joanne B. Weidhaas, MD, PhD, co-discovered a relatively common but functional gene variant, she began a quest to understand what the mutation does, whom it affects and how to best control it.

On the Trail of a Gene Mutation

Dr. Joanne B. Weidhaas: They are huge. During my residency, I realized pretty quickly that much more cancer was inherited from your family than we’ve been able to account for. Unfortunately, the focus of genetics has really been on what’s broken in your tumor in order to try to target it for treatment. But we know now that in many, many cases, there is a lot that we can learn from your own “personal” genetics, both to help figure out who is at risk for cancer, as well as to define the best treatments for an individual’s cancer.

Why is the KRAS-variant mutation so important?

Dr. Weidhaas: This is one of the first known relatively common genetic differences between people that is functional, and it could help us identify a group of people who have higher cancer risk and have a unique response to cancer treatment. The only other genetic differences that predict cancer risk and that can be targeted by specific drugs are BRCA mutations, which are incredibly rare, occurring in about one-in-400 people. We also have found that there really is an opportunity for minimizing cancer risk for individuals with the KRAS-variant, as lifestyle actually affects this type of mutation. This could be important for a large group of people, as up to 6 percent of the entire population has this genetic difference, and 25 percent of cancer patients have it.

How did the discovery of the KRAS gene mutation come about?

Dr. Weidhaas: This only came about through a fabulous collaboration bringing together fundamental new science and a deep understanding of cancer. My collaborator at Yale, Dr. Frank Slack, had been part of the team that discovered microRNAs, specifically let-7, and had been studying how let-7 interacted with KRAS, a really important cancer gene. I had been studying KRAS for many years, and we joined forces to understand how miscommunication between let-7 and KRAS could lead to cancer. I literally found — with help from a pathologist — a number of tumor samples, from
lung-cancer patients, stored in one of the Yale tissue-bank freezers, and our group then did a “hypothesis-driven investigation” of the areas where let-7 and KRAS communicate. This was not big data, but instead two people with different areas of expertise really putting their heads together to answer an important question. This is how we found the KRAS-variant and learned that this mutation interrupts the communication between the let-7 microRNA family and KRAS, leading to many changes for the people who have it.

What was so unique about the KRAS-variant mutation in lung-cancer patients?

Dr. Weidhaas: We found that about 20 percent of lung-cancer patients have the KRAS-variant, and in the first study, we saw that many of them would later go on to get a second cancer. We also saw that women who had the variant were much more likely to get lung cancer compared to men with the variant. This was the beginning of our mission to really uncover how individuals with the KRAS-variant, especially women, were different.

In what other types of cancers do you tend to see patients with the KRAS-variant mutation?

Dr. Weidhaas: We see the KRAS-variant most commonly in women with cancer — so breast-, ovarian- and lung-cancer patients. But we do see both women and men with cancer of all types with the KRAS-variant.

You recently identified a link between hormone-replacement therapy and breast cancer in patients with the KRAS-variant. What is the significance of that finding?

Dr. Weidhaas: We have a paper that was recently published suggesting that stopping estrogen abruptly appears to increase breast cancer risk in women with the KRAS-variant. This was really an exciting finding for me because I have seen how much we, as doctors, have changed our opinion on estrogen management over the past 15 years. First, it was great for everyone, then it was bad for everyone, and now we know it is good for some, but no one knows whom. Identifying women with...
We have clear data that certain medicines work well and others not at all for cancer patients with the KRAS-variant.”

“I really believe that, ultimately, the test is useful information for all women.”

How has the focus on the development of the KRAS-variant differed from the focus on other gene mutations related to cancer?

Dr. Weidhaas: We really tried to approach the KRAS-variant keeping the patient in mind. We’ve done studies to understand how the KRAS-variant works. We’ve approached it as scientists and doctors and not as pure business people. We’ve collaborated with people around the world to find meaningful answers. We made a conscious decision early on to make every effort to define all the different ways the KRAS-variant could have an impact on human health, and because of that, through research, we know an incredible amount about the biology of the KRAS-variant. We are still doing research and trying to stir up discussions within the prevention and cancer fields to help define the best and safest management for individuals with the KRAS-variant. We’re not trying to force an answer to that question.

You founded a company for KRAS-variant-mutation testing and then went to business school at Stanford. What led you to go to business school?

Dr. Weidhaas: We founded MiraDx because we knew that the KRAS-variant would be important in human health. But as a physician-scientist, I definitely didn’t have a business background. With the support of my wonderful husband, we uprooted our family from the East Coast to come to Stanford Business School to help me define the best path forward to build a company that was sustainable but, most important, patient-centric. From that experience, we also started a nonprofit to continue our research mission and find answers. The nonprofit, MiraKind, is the heart of what we’re doing. It’s a research institute that allows individuals to directly participate in studies to define answers that can directly affect them.

Among healthy people, who should be screened for the KRAS mutation?

Dr. Weidhaas: I really believe that, ultimately, the test is useful information for all women. However, we need to be very careful with how the information is communicated and at what point in a woman’s life it is considered most useful.

Among cancer patients, who should get KRAS testing?

Dr. Weidhaas: We have clear data that certain medicines work well and others not at all for cancer patients with the KRAS-variant. This is a program that we continue to develop to come up with creative ways to bring the findings to people.

Do we need better guidelines on genetic testing for cancer risk in general?

Dr. Weidhaas: My view is prevention always is best. While a cancer drug can work great, nothing is better than avoiding cancer altogether, so knowing that someone is genetically at increased risk is important. The problem is that our healthcare system is not set up that way; insurance doesn’t really pay for prevention. So that is our challenge. In the future, we should do genetic testing to figure
out who really should be screened for cancer, because we can’t screen everyone, and we shouldn’t, but we do need to screen those at higher risk.

**You want to make targeted genetic testing affordable, correct?**

Dr. Weidhaas: I think the future of genetic testing, particularly for people without disease, is for people to take ownership of this personal information and be willing to pay a reasonable price for it, without depending on insurance coverage. Simply put, this information is much more important to you than it will ever be to your insurance carrier. For those who cannot afford it, we hope that foundations like MiraKind will provide the testing on a discounted or free basis.

**What is the future of genetic testing, including whole-genome testing, to determine both cancer risk and response to treatment?**

Dr. Weidhaas: It’s getting less expensive to do whole-genome sequencing, and that is a positive thing. That said, there has been an enormous amount of money spent on new technologies, and not a whole lot has come out of it. The best new technology without incorporating an understanding of biology is not, in my opinion, likely to lead to big advances in human health. I think we need to focus testing on what’s meaningful and not just get more information because we can.

**Now that you are at UCLA, what is the focus of your research?**

Dr. Weidhaas: One of the reasons I came to UCLA is to develop a personalized-genomics program for radiation therapy, which I refer to as radiogenomics. We have had some success in personalized medicine using targeted chemotherapy, but we have not done this for radiation therapy. We need to start to personalize it — there is a pressing need to do so. UCLA is optimally set up to do this because here we have terrific clinical data that are being collected in an ongoing way, and it was very easy to start getting genetic samples to merge with this. It’s an exciting undertaking, and it has great support from the department and from the participating patients.

“I think the future of genetic testing, particularly for people without disease, is for people to take ownership of this personal information and be willing to pay a reasonable price for it, without depending on insurance coverage.”

For reasons of confidentiality, some of the names in this article have been changed.

Michelle steeled herself as she prepared to enter the double doors of a building that looked like nothing more than just another private residence among all the other small apartment complexes on the street. At 15 years old, she was tired, afraid and determined not to talk. “I was done,” she recalls with an unmistakable resoluteness in her voice, even now, six years later. “There was no way I was going to open up. I had never fully talked about it with anyone. I wasn’t going to then, either.”

But as she walked into the lobby, she entered a warm and inviting environment, watched over by a gigantic plush pooch flopped in the corner. Arts and crafts lined the archway over the registration counter, built lower than normal to better accommodate a child’s-eye level. A playroom overflowed with books, games and a Noah’s ark of stuffed animals. A friendly volunteer invited Michelle to color, and, without pause, the teenager began drawing pictures.
This place wasn’t like her home, where Michelle slept in a closet without a blanket and had long felt unsafe. And it wasn’t like the police station to which she had been taken in the back of a patrol car and interviewed repeatedly by at least six different officers in between periods of being left alone for what seemed like endless stretches in a cold, stark interrogation room. Michelle was a victim in search of help. But to her, the officers in uniform wearing guns “were scary and mean-looking.” She thought she might be arrested. In fact, it wasn’t until years later that she realized she hadn’t actually been arrested.

Here, however, she was immersed in a completely different atmosphere, one where every detail was carefully chosen to make a child or teen comfortable and at ease. Michelle’s guard began to lower just enough to move forward. One step. And that first critical impression was enough for the staff of Stuart House to begin guiding her on the road to becoming a survivor.

STUART HOUSE, A PROJECT OF THE RAPE TREATMENT CENTER at UCLA Medical Center, Santa Monica, is a pioneering multi-agency program that was designed to help sexually abused children obtain medical care, justice, therapy and long-term healing.

“When I first went to Stuart House, I was 100 percent sure it wouldn’t help me. I never had anyone I could count on. I thought to myself, ‘I can’t do this.’ But after a month, I thought, ‘I’m not alone anymore. Someone really cares about me.’”

In the mid-to-late 1980s, the issue of child sexual abuse was receiving increased national attention that emanated, in part, from news coverage of the McMartin Preschool trial in Los Angeles and a made-for-TV movie called Something About Amelia that starred Ted Danson as a father who molested his daughter. 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 cases,” says Abarbanel, who, at the time, was the only social worker assigned to Santa Monica Hospital’s Emergency Department. (Santa Monica Hospital became a part of UCLA Health in 1995.) “We kept hearing the same experiences from victims and their families: Children were being taken to different locations where they were interviewed over and over again, sometimes as many as a dozen times, and usually by individuals who were untrained in child development or in treating traumatized children. So we decided to remedy the situation by coming up with a model that would bring all of the involved agencies and professionals together under one roof.”

Abarbanel and co-founder Aileen Adams, who was legal counsel for the Rape Treatment Center, went to the hospital administration and top city and law-enforcement officials to unite them in this cause. “The results were outstanding,” Adams says. “The cultural shift that needed to take place required that everyone in the system had to view the system through the eyes of the child. Once they did that, they knew there had to be a change.”

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 County Sheriff’s Department, the Los Angeles County District Attorney’s Office and the Department of Children and Family Services (DCFS) — all working together as a multidisciplinary team in a single location. It was a revolutionary way of interacting with child victims of sexual abuse. The Stuart Foundation, founded by family members of the Carnation Company, provided funding to establish a facility near the hospital and a 10-year grant for
operating support. “They gave us our roots and our wings. Their commitment freed us to focus on building the program without having to worry about fundraising for the entire operating budget in the beginning years,” Abarbanel says. In tribute to the seed funding, the program was named Stuart House, after the benefactors. Today, The Rape Foundation, an independent nonprofit organization, raises funds and provides financial support for the Rape Treatment Center and its programs, including Stuart House, in part by holding major fundraising events such as the annual John Varvatos Stuart House Benefit.

Since Stuart House’s opening almost three decades ago, more than 400 child-advocacy centers have been created nationwide. “It was a kind of clarion call to the country that when agencies seeing abused children work together, the results are much better — better for the victim and better for the professionals who work as a team,” says Adams, who later served in the Clinton-era U.S. Justice Department as director of the Office for Victims of Crime, which provided funding to support the growth of this model across the country. “There’s a much more holistic view of how to do this now.”

Still, Stuart House — equipped with its own emergency medical/forensic clinic that is open 24/7 and with police detectives, deputy district attorneys and social workers who are assigned to the program — remains the most comprehensive by incorporating services to meet all of a child’s needs. Today, Stuart House is an internationally recognized model program that effectively expedites criminal investigations and child-protection actions, while providing comprehensive, state-of-the-art medical care, forensic services and specialized therapy to child victims and their families. No one is turned away, and all services are free.

**WHILE IT IS WIDELY BELIEVED THAT CASES ARE UNDERREPORTED,** it is estimated that one out of every four girls and one-in-six boys are sexually abused — and 90 percent know their abuser. The children affected represent every racial and ethnic demographic imaginable, in every community, living in poverty or luxury. Stuart House currently treats about 650 sexually abused children under the age of 18 per year; the youngest is a 3-month-old.

Among the children and adolescents who were brought to the Rape Treatment Center’s Verna Harrah Sexual Examination Clinic during one typical weekend were a 3-year-old girl, an 11-year-old girl, an 8-year-old boy, a 12-year-old boy, a 13-year-old girl and her 10-year-old sister and a 15-year-old girl. The reported assailants in these cases included parents, stepparents, classmates and teachers.

Having a state-of-the-art clinic on site that is dedicated exclusively to victims of assault eliminates the need for a child victim to be triaged in 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.

“When a child is sexually abused, the child’s body is a crime scene,” says Beth Cranston, legal
counsel for the Rape Treatment Center and Stuart House. “Time is not your friend.” Local ERs and first responders will, whenever possible, bring child victims to the UCLA clinic, which is equipped with high-tech equipment to perform evidentiary exams in a therapeutic fashion. In cases that cross state lines, the FBI also has used the facilities for interviews and medical care. A child is seen right away and never has to wait among other patients, and a therapist accompanies him or her through the entire process, from intake in a child-friendly room to the forensics examination to counseling. A police detective and DCFS worker are on hand to ensure that the child will be released to a safe environment. And the law-enforcement officers and social workers assigned to the child will remain on the case for the duration of any criminal or judicial proceedings.

Recognizing the need to provide treatment for even more children, The Rape Foundation launched an $18-million capital campaign to build a significantly larger three-story, 19,000-square-foot facility, adjacent to UCLA Medical Center, Santa Monica. The campaign is co-chaired by philanthropist Cheryl Saban, herself a survivor of rape when she was a teenager, and actress Viola Davis, whose sister, at age 8, was a victim of sexual assault.

“I was silent for years,” Saban said at the groundbreaking for the new building in May 2014. “I didn’t have the benefit of psychological help or the comprehensive support that Stuart House provides. ... The very least we can do as a society is provide a safe place where they can tell what happened to them, heal and begin to live again.”

UCLA provided the land for the new building, which is designed by architect Marc Appleton of Appleton Partners LLP and Andy Cohen, co-CEO of Gensler, a global architectural planning and consulting firm. When the building opens in Fall 2015, it will increase the capacity to add additional police, prosecutors, DCFS workers, advocates and therapists at Stuart House, thereby doubling the number of children who can receive comprehensive medical care, forensic-interview services and therapy services.

The new building also will house a training center for first responders such as police, prosecutors, school personnel, agencies that serve at-risk-populations and healthcare providers. First responders can have a significant impact on the outcomes in sexual abuse cases, “yet, despite their crucial roles, they often have minimal training in managing the medical, forensic and psychosocial aspects of these cases,” Abarbanel says. “The expertise and sensitivity required of them, and the challenges they face in these cases, are due, in part, to the diversity they confront in the circumstances of child sexual-abuse crimes, as well as the characteristics of individual victims.” The training will also cover advances in technology, such as medical imaging and DNA-evidence gathering, along with changing crime patterns, such as the increasing use of social media and digital technologies. “These changes pose new challenges and require first responders to have new skills,” Abarbanel says.

In addition, for the first time, Stuart House will have a dedicated play-therapy space to help younger children express their feelings and resolve sexual-abuse trauma in an age-appropriate way. And there will be a mock courtroom that includes an elevated judge’s bench and witness stand to help
After she revealed that her father was physically abusing her, DCFS placed her in a foster home. During mandated therapy sessions, Michelle said her father described what had happened as a misunderstanding. He had not meant to hurt his daughter. A month later, she was sent back to live with her parents.

That’s when she says things escalated. Michelle’s mother had become pregnant, so to protect her and her future sister, Michelle stepped in to shield them from the domestic violence that had been going on for years. The beatings, however, were not the worst of it. What Michelle had never told anyone, she says, including DCFS, was that her father had been raping her almost nightly for two years. And her mother, Michelle says, was in such a traumatic state from years of domestic violence that she did nothing to prevent the sexual abuse. After returning from foster care, Michelle’s father became even more controlling, she says, escorting her to school and even monitoring the frequency of her showers. He became jealous and enraged if he saw her talking to a boy at school. He forced her to act like his girlfriend in public, Michelle said, holding hands and kissing on the lips. If she refused, he hit her. Although school was Michelle’s safe place, she isolated herself, as a protective measure. At home, she withdrew into a make-believe world, pretending to be a heroine from the Twilight movies who was being rescued by Edward, the hero. The fantasy, she says, helped her survive her real-life horrors.

Then, one day, she says, her father hit her so hard across her face that the abuse was visible. Her mother tried to use concealer to hide it. But her cheekbone was noticeably swollen. At school, a teacher noticed and pulled her from class after lunch.

At first, Michelle said she fell down some stairs. “I was afraid that if I got taken away again, it was going to get even worse,” she recalls. Her teacher brought her from noon until 5 pm. By now, Michelle had started crying, harder and harder, she says, until finally she disclosed not only the physical abuse, but also, for the very first time, she told someone about the sexual abuse. The police were called, and Michelle never went home to her parents again.

Michelle was 13 when she first tried to tell. After she revealed that her father was physically abusing her, DCFS placed her in a foster home. During mandated therapy sessions, Michelle said her father described what had happened as a misunderstanding: He had not meant to hurt his daughter. A month later, she was sent back to live with her parents.

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Children aren’t brought up in society to say bad things about adults, particularly those in positions of power like teachers, coaches, parents or caretakers, says social worker and Stuart House expert child-forensic interviewer Nicole Farrell. It’s completely contrary to what makes sense to them, so it’s essential to understand the nuances in children’s communication. There are significant developmental differences that a trained interviewer can draw out without putting words into a child’s mouth. “We are trained to create an environment that supports children emotionally through the pain with recalling and talking about the abuse — facing their darkest and innermost secrets,” Farrell says. “Often they have been living with abuse for years, and they are wondering whether to endure it or let it out, and what will be the consequences of letting it out.”

Children test the waters, Farrell says. They reveal the smallest detail possible and watch an adult’s reactions, gauging whether or not they are safe to disclose more. In some cases, Farrell says, a younger child may say something like, “I don’t like Uncle Joe,” and think that they are telling. An older child, on the other hand, is more likely to be riddled by shame or feel guilt, so they will tell what they believe to be the least embarrassing part, she says, revealing something like, “He comes into my room at night and looks at me.”

Stuart House has Spanish-speaking interviewers, and interviews in other languages are available if needed. Interviewers also work with disabled children. Sometimes a physically disabled child who may not be able to talk is the victim, but he or she can still communicate, and the interviewers know how to elicit the account. One boy with cerebral palsy

WHY I GIVE

Cheryl Saban is a longtime advocate for women and children and a generous philanthropist. She has had a leadership role in many nonprofit organizations and created The Cheryl Saban Self-Worth Foundation for Women and Girls, and she serves on the boards of Girls, Inc., the Clinton Foundation and Children’s Hospital Los Angeles. She is co-chair of The Rape Foundation Capital Campaign for Stuart House.

“We make a commitment that those children who have endured the worst imaginable crimes deserve the best care that our society can provide. Nowhere else in the entire country is providing better care for child victims of rape and sexual abuse than Stuart House.”

– Cheryl Saban, May 2, 2014, Stuart House groundbreaking
palsy, for example, had reported being sexually abused by a family member. The interviewer asked him questions in steps. When asked what the first thing was that happened, the boy locked eyes with the interviewer and made a motion with his fingers to indicate the locking of a door.

At Stuart House, the forensic interviews are conducted in a private room, while detectives, deputy district attorneys and others in an adjoining room observe from behind a one-way mirror. The interviews are recorded, with the child’s knowledge, and become part of the official record. With younger children, the recording may be played in court in lieu of the child’s testimony.

The interviews can provide key evidentiary details. For example, during one interview, a child described a vehicle where she said she was being sexually abused. “The minute we heard that, we picked up the phone (in the observation room) to obtain a warrant and went and seized it, impounding it as evidence,” says Detective Wilfredo Ortiz, from the LAPD’s Abused Child Unit, who is assigned full time to Stuart House. “And DCFS, being at Stuart House, was able to create an immediate action plan in terms of keeping the child safe. We work as a team, and sometimes we are the voices for those kids who can’t ask for help, and we try to help them,” he says.

Los Angeles Chief of Police Charlie Beck, who, during his career, has been involved in pursuing more than 1,000 sexual-assault cases involving both children and adults, is an ardent supporter of the program and recalls 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.”

Because of Stuart House, Chief Beck said, the LAPD is more successful at catching and prosecuting child abusers. “But no matter how successful we are at what we do, it doesn’t fix the tragedy,” he said. “It doesn’t restore the soul of the victim. That’s what Stuart House does.”

When Michelle returned to school two days after she was put in foster care for a second time, a school counselor referred her to Stuart House. “She told me I was in shock and that I couldn’t just cry and cry and cry,” Michelle says. “I needed more specific type of support. But I wasn’t convinced at first because I had this mentality
that therapy was for rich people — that it’s what they did to not face their problems,” Michelle says. “But I thought I would go and get it off my chest and move on.”

That’s when she first crossed the threshold of Stuart House. After drawing in the waiting room, Michelle went to the interview room. By this point, she was tired of repeatedly telling her story, and she wasn’t convinced she needed to be there. But as the interviewer walked her through the room and reassured her that she was safe, Michelle felt relief. She left making an appointment to return for one-on-one therapy. During her first session, she noticed there were dolls and other toys in the room. The therapist asked her if she wanted to play with the dolls. “I told her no, I was too old to play with dolls,” Michelle remembers. The therapist slowly
picked up a doll and said that it was OK, they could play together. Soon Michelle, too, began to play. “I began playing, thinking, ‘So, what’s my doll going to wear for an outing?’ Then, all of a sudden, it brought me back to the moment when I was 4 or 5 or 6 and loved playing dolls with my grandma. I mean, the therapist, she’s not my grandma, but that’s how my grandma made me feel — so safe.”
That was the beginning, Michelle says, of when she fully disclosed to her therapist how she really felt. “It made me open up.”
As Michelle continued with her treatment, she says, she realized how much her past was still affecting her. She would zone out in class. She couldn’t stand being in an elevator with a man. She would flinch when someone would pat her back in school. She thought she was different or not normal, a common thought of child victims of sexual abuse, who often think they’re broken.

Then Michelle also began group therapy. “Before group therapy, I thought it was all my fault,” Michelle says. “I kept blaming myself and believing that maybe if I had put two pajama bottoms on this wouldn’t have happened. But then I started to understand that whatever happened, happened. It wasn’t my fault. And I have the right to not let that stop me from doing what I want to do.”
During the first session, Michelle says, she was in a room with eight girls who had similar experiences. “We all came together in that room, and at the end of the session, we told our individual stories,” Michelle says. “Five of the girls had almost the exact same story, and some had stories that were worse than mine, but we all felt and shared the same pain.”
That acknowledgment that she wasn’t alone gave her strength, she says. “You never know how strong you are until being strong is the only choice you have left.”
Julie Banks, clinical director of the Rape Treatment Center who oversees therapy services and the emergency clinic, says that specialized therapy provides children with the opportunity to process their sexual abuse in a safe environment. “There’s research that shows that trauma-focused therapy is an effective tool for children and adolescents toward healing,” Banks says. “We’ll meet the child or adolescent where they are. Sometimes it’s through talking, sometimes it’s through writing projects or sometimes it’s through art. Together, we’ll figure out the best healing mechanism for each child.”

Sometimes a sexual-abuse victim will experience symptoms of post-traumatic stress like flashbacks to the abuse and anxiety. Others may experience forms of regression, where an older child may revert to a younger self, using baby talk, for example, as a coping mechanism.

Group therapy provides a different therapeutic experience for children and adolescents, Banks adds. The groups are usually organized by age, and that’s where therapists can answer questions that may not otherwise come up, particularly for adolescents. “We get a lot of questions about sex and body image, questions about virginity or about sexual orientation,” Banks says. “We try to provide them a space for addressing their concerns. Sometimes they will come up with medical questions, so we’ll bring in a nurse practitioner.”

It also helps children and adolescents to realize that a person cannot tell from looking at another person whether or not they have been sexually abused, Banks says. “Quite honestly, the power to be able to look at someone who looks similar or different and realize that it isn’t evident in any way is significant for them.”

PART OF STUART HOUSE’S MISSION is to give this too-often hidden form of child maltreatment more visibility. “Our culture tells these children to be silent about something that is painful and destructive and shaming,” says Viola Davis. “Stuart House gives them a place where they can feel safe to tell their truths and find hope and healing.”

Abarbanel has made it her life’s work to make the voices of these children matter. “There are a lot of people who find it too painful, too frightening, too uncomfortable to embrace this issue,” Abarbanel says. “This is at the core of the problem. For decades, the sexual abuse of children has been called ‘an unspeakable act’ — by the press, by professionals, in book titles, by the lay public,” she continues. “Language matters — it sends a message, it shapes and reinforces attitudes and stereotypes and it influences behavior.” These children, Abarbanel says, “need to speak their truths — both to stop the abuse they are enduring and to heal. They must be heard.”

Michelle, now a thriving young adult who is working to support herself while attending college, says that Stuart House gave her back her life. She has her own apartment, is in a healthy relationship with a boyfriend and has plans to pursue a graduate degree in psychology with the thought of someday helping others like herself. “I used to smile to hide from other people that I felt broken inside,” Michelle says. “Now I smile because I have hope — hope in my heart and hope for my future. Stuart House turned my life completely around. 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 regular contributor to U Magazine.

To read more about the new Stuart House and its architects and the Rape Treatment Center, click on the link to this article at: magazine.uclahealth.org
Exploring the brave new world of microbiota — the microorganisms that flourish within our bodies — may one day lead to the development of better ways to manage infections, create new antibiotics and address such pressing health issues as obesity, heart disease and cancer.

This may strike many readers as distasteful, but human stool now is used as a medical therapy against at least one dangerous infection. It is happening at UCLA and at a small number of other major medical centers, where processed stool from healthy donors is being introduced into the gastrointestinal tracts of patients with *Clostridium difficile*, or *C. diff*. The infection is most commonly acquired in the hospital, causing diarrhea, intestinal pain and cramps, fever and potentially worse — 14,000 people die from *C. diff* in the U.S. each year.

While the cure may sound worse than the disease, the therapy, known as fecal microbial transplant (FMT), has been shown to be highly effective; by infusing the patient via colonoscopy with normal gut bacteria, the spectrum of intestinal microbes is dramatically altered, essentially overwhelming and suppressing the pathogen. In 2013, the *New England Journal of Medicine* published results from a randomized controlled trial comparing FMT with *vancomycin*, the standard treatment for patients with recurrent *C. diff*. The study was halted after an interim analysis found FMT to be substantially more beneficial.

Only now are scientists beginning to appreciate the extent to which the 100-trillion (give or take) bacteria and other microbes that reside within our bodies keep us healthy, contribute to disease or, as in the case of FMT, can potentially be manipulated to cure what ails us. At UCLA alone, recent findings in this nascent field of study suggest a role for the microbiota beyond what anyone might have imagined a decade ago. To name just a few discoveries: a product derived from gut bacteria found to be a risk factor for heart disease on par with high cholesterol, hypertension and tobacco use; the first evidence in humans that beneficial bacteria ingested in food — so-called probiotics, in this case through regular consumption of yogurt — can positively affect brain function; and perhaps most tantalizing of all, studies by Elaine Hsiao, PhD, at Caltech, showing that manipulating the microbiota can ameliorate behavioral abnormalities in a mouse model for autism.

Amid an explosion of research into how this universe of invisible cohabitants affects our lives, it has become apparent that microbiota — the collection of microorganisms that populate the intestine, skin, lungs, urinary tract and many other body sites — exerts considerable influence on our health. Some scientists have been led to muse that the human body is merely a vehicle for microbes to pursue their own interests. Heart disease and cancer, diabetes and metabolic disease, obesity and nutrition issues, inflammatory bowel disease, autoimmune disorders, allergies and neurologic disorders ranging from autism to Alzheimer’s — all may be associated in some way with microbes gone awry. A 2013 article in *Science* dubbed microbiomics (the study of the collection of genes represented by the microbiota) “The Germ Theory of Everything.”

“For many years, the thinking was that these organisms were living within us, but they probably didn’t do much,”
says Eric Esrailian, MD (FEL ’06), MPH, co-chief of the Division of Digestive Diseases at the David Geffen School of Medicine at UCLA. “Now there’s an awareness of their significant role in everything from infection to inflammatory diseases and potentially even malignancy. This is a new frontier that is fundamentally altering the direction of research in our field.”

Observes Jeffery F. Miller, PhD, former chair of the Department of Microbiology, Immunology and Molecular Genetics and current director of UCLA’s California NanoSystems Institute, “We’re realizing that from the moment of conception, we develop in a soup of microbial products. We are affected by microbes in profound ways, and we’re at the very beginning of being able to understand what that means for health.”

UCLA is substantially ramping up efforts to better grasp these effects — including actively recruiting leading researchers in the field and
taking the first steps toward establishing a center for the study of microbiota, with bench scientists working alongside clinicians to not only learn how microbes affect human health, but also to use that information to explore new therapeutic strategies. “It’s an exciting time at UCLA and other medical centers,” says Dr. Miller, one of the leaders of the effort. “These disease areas that once seemed so separate now appear to be connected by the profound realization that we are a superorganism — an organism of organisms.”

**THEY ARE THE ORIGINAL INHABITANTS OF THE PLANET,** evolving over the course of some 3.8-billion years and predating humans by several eons. Throughout human history, they have lived in symbiosis with us, both sides getting what they need through an elaborate exchange of signaling molecules. But it’s only within the last decade, thanks to the power of modern research and computational tools, that scientists have begun to acquaint themselves with microbiota in a systematic fashion — and to understand how it can tip the balance between health and disease.

In the past, the study of microbiota was dependent on the ability to grow the organisms in the laboratory, and for the vast majority of bacteria, scientists lacked the know-how to cultivate them. Thus, these culture techniques opened a window just a tiny crack onto a small minority of the microbe community — typically infectious organisms. It’s also difficult, if not impossible, to replicate in the laboratory the complex environment of, for example, the human gut.

As a result, “We had a skewed view of what was there, because we’d see only a subset — and with artificial criteria,” Dr. Miller says. That changed with the advent of modern gene-sequencing technology. “This was a delightful and unexpected outcome of the Human Genome Project,” says Jonathan Braun, MD, PhD, chair of the Department of Pathology and Laboratory Medicine. “The Human Genome Project drove a revolution in DNA sequencing and the computational techniques to understand that genome data. Those tools were then used by researchers to analyze the composition of organisms and metabolic pathways in ways that were never before possible.”

A seminal study published by researchers at Washington University in St. Louis in 2006 showed fundamental differences in the gut microbiomes of lean and obese mice — and found that transplanting the microbial communities of obese and lean mice into germ-free adult mice resulted in the recipients taking on the weight characteristics of their donors. The study triggered a surge of new interest, as the relationship between the microbiome and fundamental aspects of health, such as metabolism, became more apparent.

In 2007, the Human Microbiome Project was launched by the National Institutes of Health to characterize the microbial communities of various body sites, determine the extent to which we share a common microbiome and explore how changes in the human microbiome are related to diseases. The study of 242 healthy individuals, tracked over a two-year period, was eye-opening even to those who had long immersed themselves in the study of human bacteria. Among the conclusions: Our intestinal tract alone hosts an estimated 100-trillion microbes — outnumbering human cells 10-to-1. For every human gene, there are at least 100 microbial genes. But beyond the numbers, the explosion of information resulting from the use of modern techniques to study the microbiome revealed a remarkable level of diversity — at least 2,000 types of bacteria in the gut, along with tens of thousands of types of viruses — and substantial differences in the microbiota from one healthy individual to the next.

“We were aware that there were organisms that colonized different parts of the body, but until a few years ago, we didn’t realize how enormous this population was,” Dr. Braun says. “Now we know that we can think of ourselves as a composite organism with not only human cells, but also these other categories of cells that live with us throughout our lives and shape our biology.”

“This is like a hidden organ, larger than any other in the body in terms of cell numbers,” adds Emeran Mayer, MD, professor of medicine and physiology. “Now we’re seeing the ability to transplant entire phenotypes from one mouse to another, suggesting
that something very profound is going on with what these microbes produce that can affect the host in complex ways — even changing entire behavior patterns. We’re still just scratching at the surface, but the field is moving extremely fast.”

FOR THE MOST PART, EFFORTS TO BETTER UNDERSTAND THE MICROBIOTA have thus far been focused in the laboratory, with few clinical applications. The most prominent exception is the use of FMT. *C. diff*, which affects as many as half-a-million people each year, is more likely to take hold after broad-spectrum antibiotics have disrupted protective gut microbes. “The antibiotics people take to treat an infection kill healthy bacteria in addition to the unhealthy bacteria, creating space for *C. difficile* to come in,” says Daniel Uslan, MD, an infectious-disease specialist who performs FMT at UCLA as part of a partnership between the Division of Infectious Diseases and Division of Digestive Diseases. The problem, Dr. Uslan notes, is that many of the antibiotic drugs used to treat *C. diff* continue to kill healthy bacteria; thus, studies have shown that at least 20 percent of patients experience one or more relapses after treatment — in some cases leading to severe complications.

Rather than perpetuating the vicious circle by continuing to administer antibiotics in patients who aren’t cured by the conventional treatment, FMT takes stool from a healthy, pre-screened donor, prepares it in the laboratory and then transplants it into the afflicted patient. “Instead of giving more antibiotics, this is repopulating the gut with healthy microorganisms,” Dr. Uslan explains. Although the method may sound crude, the science is strong. “Patients who have been suffering with this infection for weeks or months will typically experience relief within 24 hours and are back to normal within two days,” Dr. Uslan says. “It’s pretty remarkable.”

Although FMT has been proven to work only for *C. diff* patients, Dr. Esrailian notes that researchers are exploring its use for other indications, including irritable bowel syndrome and inflammatory bowel disease. Dr. Uslan also expects that as it becomes clearer which bacteria are needed to restore healthy gut function, the procedure will evolve to the point where laboratory-grown bacteria, rather than stool, can be used for the treatment.

As researchers gain a better grasp of the microbiome’s impact, other clinical applications are likely to follow. Dr. Braun notes that for inflammatory diseases of the skin, lung and intestine, it appears likely that microorganisms interact with genetics and environmental triggers to determine susceptibility. His group has made key discoveries showing the link between genes and the microbiome when it comes to inflammatory bowel disease. “Your genetics determines how well you handle the undesirable products of your microbiome,” Dr. Braun says. “People with the disease typically have a distinct set of bacteria that is making these annoying products, and if their genetics interferes with the ability of their intestinal epithelial cells or immune system to cope with the annoying bacteria, it leads to a destructive inflammatory response.”

With more than 200 molecules identified as potential culprits, Dr. Braun’s group is focused on studies to determine which are the most important in driving inflammatory bowel disease and targeting those products for treatment.

Meanwhile, a growing body of evidence suggests a pivotal role for microbiota in obesity — including the possibility that an unhealthy diet can conspire with one’s genetic predisposition and lifestyle to create an imbalance of the microbiota in the gut, setting off a cascade that leads to inflammation, weight gain, insulin resistance and other conditions characteristic of the metabolic syndrome that increase the risk of diabetes, heart disease, stroke and certain cancers. “The transplant experiments in animals suggest that the microbiota may have a causative role in the development of obesity,” Dr. Mayer says. “The question is when we see differences in the microbiota of obese and lean humans, is that secondary to the dietary differences or is it playing a causative role? It’s much easier to test that in animals than in humans, but based on the animal studies, you almost have to assume there’s a causative role.”

The makeup of the microbiota in the intestine, researchers believe, goes a long way in determining how much energy is extracted and the profile of the nutrients as a result of the food we consume — suggesting an important connection between our gut bacteria and malnutrition as well as obesity. “We now know it’s not as simple as how many
calories come in minus what we burn,” says Zhaoping Li, MD (FEL ’94), PhD, director of the UCLA Center for Human Nutrition. “The cluster of bacteria is different in obese vs. lean people.” Studies by her group and others are beginning to identify specific dietary strategies with the potential to alter the microbiota in ways that improve metabolism for obese individuals.

A UCLA group headed by A. “Jake” Lusis, PhD, professor of microbiology, immunology and molecular genetics and vice chair of human genetics, has been exploring how host genetics contributes to gut-microbiota composition. In collaboration with researchers at the Cleveland Clinic, he recently identified a molecular substance that appears to be almost as strongly associated with heart disease as are cholesterol levels. Dr. Lusis and colleagues found that the molecule, trimethylamine N-oxide, is derived entirely through the interaction of gut microbiota and dietary...
products that include choline and carnitine — major components of egg yolk and red meat, respectively. By transplanting the microbiota of a mouse with high levels of the substance to one with low levels, the researchers showed that the composition of the gut bacteria is critical in determining the response to these dietary factors. “The idea that one of the major risk factors for heart disease is produced by gut bacteria is very important,” Dr. Lusis says. “Now we should be able to learn why levels of this molecule vary in the population, as well as how to control it.”

Then there is the intriguing evidence that changes in the microbiota could have an impact on the brain. In a study published in 2013, Dr. Hsiao and her Caltech colleagues and mentors, the late Paul H. Patterson, PhD, and Sarkis Mazmanian, Dr. Emeran Mayer (left, with gut-brain research collaborator Dr. Kirsten Tillisch): “It’s not yet clear to what degree [our research] will ultimately translate into novel treatments, but I think it will definitely contribute to a better understanding of the importance of the gut microbiota in the developing brain, as well as new insights into autism, Alzheimer’s disease and Parkinson’s disease, among others.”

Escherichia coli
Ten years ago, nobody would have believed these
but I think it will definitely contribute to a better
Digestive Diseases, found that healthy women who
vaginal microbiota to the extent that it affects the
during pregnancy, it changes the composition of her
microbiota stimulate host biosynthesis of the
and neurotransmitter serotonin. At UCLA, her
lab will continue to investigate microbiota-
nerve system interactions and their effects on
health and disease.

Other research, also in mice, has found that
if the mother is injected with a stress hormone
during pregnancy, it changes the composition of her
vaginal microbiota to the extent that it affects the
microbiome of the infant as it goes through the birth
canal, ultimately influencing brain development. “It
almost sounds like science fiction,” Dr. Mayer says.
“Ten years ago, nobody would have believed these
kinds of studies, and now they’re coming out of
some of the best investigative groups in the country.”

Dr. Mayer, a leader in research showing
the relationship between the gut and the brain,
contributed in a major way to the intrigue through
the 2013 publication of one of the first studies
showing that changing the bacteria environment
of the gut can affect human brain function. His
study with Kirsten Tillisch, MD ’97 (RES ’99,
FEL ’04), associate professor in the Division of
Digestive Diseases, found that healthy women who
regularly consumed beneficial bacteria, known
as probiotics, through yogurt, showed positive
altered brain function, both while in a resting
state and in response to an emotion-recognition
task. Since that key discovery, Dr. Mayer’s group
has conducted follow-up studies demonstrating a
relationship between changes in the gut microbiota
and either brain function or structure.

“It’s not yet clear to what degree this will ultimately
translate into novel treatments,” Dr. Mayer says,
“but I think it will definitely contribute to a better
understanding of the importance of the gut
microbiota in the developing brain, as well as
new insights into autism, Alzheimer’s disease
“and Parkinson’s disease, among others.”

**IT STILL IS EARLY IN THE SCIENCE, AND THE ENORMOUS POTENTIAL** in mining
the microbiome is for the most part just that —
potential. One of the major challenges for
researchers in the field is how to ascribe causality
given that the microbiota is so diverse and
dynamic. Across a group of healthy people, for
example, there can be substantial differences in
the collection of microorganisms in the gut, both
in terms of the mixture and the relative numbers.
And even when altered bacteria can be captured
and associated with a disease, the question is if
the changes caused the disease or resulted from it.
“*The field is now at the stage where it’s very
easy to collect the data, but a lot is descriptive,”*
says Jeffrey H. Miller, professor of microbiology,
immunology & molecular genetics, who organizes
a biennial international meeting on microbial
genomics, much of which is devoted to advances
in microbiome studies. “*The challenge now is to
do studies that, beyond simply characterizing the
microbiome, are fruitful in advancing health.*

But he and others are optimistic that as
methods for studying microbiota continue to
advance, revolutionary discoveries are inevitable.
“There was a lot of excitement that the Human
Genome Project was going to change medicine
fundamentally, and it turned out to be just the
beginning of a long process,” Dr. Mayer concludes.
“*But learning about these microbes goes way
beyond the human genome. This has the potential
to completely transform our understanding of
human disease.*”

Dan Gordon is a regular contributor to U Magazine.

Martin Oeggerli, PhD, is an award-winning Swiss
science photographer, whose images have been
published in Nature, Cell and National Geographic.
Dr. Oeggerli’s photographs illustrating this article
were created using a scanning electron microscope at
magnifications ranging from 1,000 to 50,000 times.
His work can be found online at micronaut.ch.

**WHY WE GIVE**

Gail and Gerald Oppenheimer are
dedicated UCLA supporters. Through the
Gerald Oppenheimer Family Foundation, they
have made long-term commitments to the
university — in particular
to UCLA’s Division
of Digestive Diseases.
Gerald is a member of the
David Geffen School
of Medicine at UCLA
Board of Visitors and sits
on several other boards.
The Oppenheimers
endowed the Gail and
Gerald Oppenheimer
Family Center for the
Neurobiology of Stress.

“Gail and I could not
be more proud to
support the UCLA
investigators breaking
new ground in science and
developing holistic
treatments at the
leading edge of human
microbiome research.
It is incredibly exciting.”
– Gerald Oppenheimer
Balancing Act
By Robin Keats

When he's at work, Edward J. Zaragoza, MD '87 (RES '92, FEL '01), can be found studying an array of computer screens in an otherwise dimly lit room on the third floor of Ronald Reagan UCLA Medical Center, intently focused on electronic images of human bone, organs and tissue as he looks for any detectable anomaly that signals trouble. When he is not at work, Dr. Zaragoza might just as easily be found 20 feet above the ground at the Cirque School, in West Hollywood, performing balletic acts of aerialist derring-do.

"It’s playful," he says, with a wide grin. "And playfulness is one of the strongest parts of my personality. It’s actually a part of my work ethic."

The sight of Dr. Zaragoza performing, shirtless and in Spandex tights, is riveting: syncopated movement of his limbs, torso and head as he sways and cartwheels in mid-air while hanging onto ribbon-like bands of silk fabric.

This delicate midair dance infuses balance in Dr. Zaragoza’s life and helps to relieve the stress of his work as clinical director of imaging informatics and chief of acute-care imaging. There can, indeed, be a good deal of daily stress that needs to be relieved. Analyzing the most cryptic of imaging details, he observes anomalies that often have life-or-death implications for patients. Such intensity can be exhausting.

"You want to look through the hypotheses of what could be wrong as quickly as possible and do an investigation to determine the one that’s right," he says. "And then, you can set a patient on the path toward treatment."

For Dr. Zaragoza, performing aerial ballets as a means of stress relief is so purposeful and fulfilling that he is at Cirque School several nights a week. "There is risk," he says, "but the reward is great."

Not given to youthful recklessness, Dr. Zaragoza didn’t play sports in school and recalls that the most daring thing he did as a kid was to jump from the low roof of his boyhood home in Buellton, California, into a thick and bouncy bed of ice plants. However, he allows, “If I had discovered Cirque when I was in medical school, I probably would have been attracted to dare-devil stuff.”

But today, risk is a common denominator in his life. It’s as inherent in his up-in-the-air acrobatic routines as it is in medicine. But it is role-modeling a healthy lifestyle, not the thrills intrinsic in taking risks, that motivates him. "One of a physician’s duties is to be a good role model," Dr. Zaragoza says. "In yoga class or at Cirque School, there are people who pay attention to what I do and how I live — how I eat, how I take care of myself. It is important, he says, that physicians not be in a position of telling patients to do something that they wouldn’t do themselves.

Would Dr. Zaragoza, then, advise someone to follow his example and learn to contort their body into an airborne lotus position? "No need," he says. "But people want miracles, in a bottle. They want pills that will regulate their weight, hormones that will make them muscular, injections to shape their faces. I’m not saying any of that is wrong, but there’s an old prescription for overall well-being that’s very simple: diet and exercise."

And they need a means of release, a way to shed the stress that naturally accumulates over the course of the day or week. He certainly had such a need. "If you do radiology, you’re an intrinsically visual person," he points out. "When I first started studying radiology, I would follow these images of..."
chest X-rays and what fibrosis looks like, and I was assimilating all this content so immersively and intensely that I’d have dreams with X-rays in them.”

Obviously, that’s not an efficient way for anyone to get a good night’s sleep, especially a doctor whose focus is such a vital tool. He initially found his release, in his 30s, in physically demanding spinning sessions. “It’s great for the heart, but it’s got this downside of creating bad postural habits that I already had from sitting at the computer all day,” he says.

That’s when he turned to yoga and Cirque School, in 2005. “I had just gotten to a point where I wanted to do a handstand so badly — wanting to put my hands on the ground and feet in the air and achieve balance,” he says. He sounds rhapsodic as he visualizes the sight in his mind’s eye. “It would be tragic if I couldn’t bring that sense of joy and balance into my life and work.”

His efforts to achieve joy and balance are a work in progress. He still hasn’t mastered a back flip. “Not yet,” he says. “Maybe that will come.”

Robin Keats is the author of three nonfiction books, has written for numerous magazines and creates nonfiction TV programming.

“Awards/Honors

Dr. Reza Ardeshahi, assistant professor of cardiology, received the 2015 Douglas P. Zipes Distinguished Young Scientist Award from the American College of Cardiology.

Dr. Judith Baker, adjunct professor of pediatrics in the Division of Pediatric Hematology/Oncology, was a featured guest at the signing of a proclamation declaring March to be Hemophilia Awareness Month in Guam.

Dr. Mario Deng, medical director of the UCLA Advanced Heart Failure, Mechanical Circulatory Support and Heart Transplant Program, published Relational Medicine: Personalizing Modern Healthcare — The Practice of High-Tech Medicine as a Relational Act (World Scientific Publishing Company, 2014), co-written with his wife Dr. Federica Raia, professor in the UCLA Graduate School of Education and Information Studies and the David Geffen School of Medicine at UCLA.

Dr. Rita Effros, professor of pathology and laboratory medicine and co-director of the Aging and HIV Program Area of the UCLA AIDS Institute, has been installed as president of the Gerontological Society of America.

Dr. Gregg C. Fonarow (MD ’87, RES ’90, FEL ’93), Eliot Corday Professor of Cardiovascular Medicine and Science and director of the Ahmanson-UCLA Cardiomyopathy Center, and Dr. Jeffrey Saver, professor of neurology and director of the UCLA Complete Stroke Center, received the Distinguished Clinical Research Achievement Award from the Clinical Research Forum for a study published in JAMA on improving stroke care.

Dr. Patricia Kerrigan, cognitive-intervention specialist in the Division of Pediatric Hematology/Oncology, received the Nan Songer Distinguished Member Award from the Association of Pediatric Hematology Oncology Educational Specialists.

Dr. Helen Lavretsky, professor-in-residence in the Department of Psychiatry and Biobehavioral Sciences, published Resilience and Aging (Johns Hopkins University Press, 2014), which summarizes the most up-to-date research on resilience, neurobiology and the latest approaches in preventive care among older adults.

Dr. Robert Schiestl, professor of pathology and laboratory medicine, radiation oncology and environmental health sciences and director of the UCLA Center for Environmental Genomics, has been named to America’s Registry of Outstanding Professionals for 2015.

Dr. Daniel Siegel (RES ’86, FEL ’89), clinical professor of psychiatry and biobehavioral sciences and co-director of UCLA’s Mindful Awareness Research Center, published No-Drama Discipline: The Whole-Brain Way to Calm the Chaos and Nurture Your Child’s Developing Mind (Bantam, 2014).

Dr. Dennis Slamon (FEL ’82), director of the Revlon/UCLA Women’s Cancer Research Program and clinical and translational research at the Jonsson Comprehensive Cancer Center, was featured in a three-part PBS series, Cancer: The Emperor of All Maladies.

Dr. Owen Witte, founding director of the Eli & Edythe Broad Center of Regenerative Medicine & Stem Cell Research at UCLA, received the G.H.A. Clowes Memorial Award from the American Association for Cancer Research.

Dr. Robert Marder, a leader in the field of hematology research, died January 29, 2015, in Los Angeles, California. He was 80 years old. Dr. Marder was a professor of medicine and a member of the UCLA Jonsson Comprehensive Cancer Center. He wrote numerous books and articles and was best known for his textbook series, Hemostasis and Thrombosis: Basic Principles and Clinical Practice” (LWW, 6th edition 2012). He also played a significant role in the development of the major research journals and educational programs in his area of expertise.

Dr. Marshall T. Morgan, professor of clinical medicine and chief of emergency medicine, died April 16, 2015, in Los Angeles, California. He was 73 years old. Dr. Morgan received his MD from the University of Chicago in 1968. He joined the UCLA faculty as assistant professor of medicine and acting co-director of the UCLA Emergency Medical Center in 1974 and became medical director of the Emergency Medical Center in 1982. He served as chief of staff of the UCLA Medical Center from 2006-08. In 2007, Dr. Morgan received the Sherman M. Mellinkoff Faculty Award, which is considered by the faculty to be the highest honor of the David Geffen School of Medicine at UCLA and recognizes “the ideal of the finest in doctor-patient relationships and medical education.”

Dr. David State, an emeritus professor of surgery and gifted educator who was broadly recognized for his publications and research in gastrointestinal surgery, died April 20, 2015, in San Diego, California. He was 100 years old. After a distinguished career at several other institutions, Dr. State came to UCLA in 1971 as professor of surgery and chair of the Department of Surgery at Los Angeles County Harbor-UCLA Medical Center and vice chair of surgery at UCLA, positions he held until 1981. His prior positions included director of the Cancer Detection Center at the University of Minnesota, director of the Department of Surgery at Cedars of Lebanon Hospital (now Cedars-Sinai Medical Center), faculty member at the University of Southern California School of Medicine and chairman of the Department of Surgery at Albert Einstein College of Medicine in New York.

“One of a physician’s duties is to be a good role model. In yoga class or at Cirque School, there are people who pay attention to what I do and how I live.”
Sky’s the Limit

After graduating from the Charles Drew/UCLA Medical Education Program, Marvin Jackson, MD ’93, worked for a year in the UCLA Cerebral Blood Flow Laboratory of Neil Martin, MD, chair of the Department of Neurosurgery at the David Geffen School of Medicine at UCLA. He then completed a neurosurgery residency in Washington, D.C., and a civilian aerospace-medicine residency in Dayton, Ohio. In 1999, as a volunteer team member for Physicians for Peace: Liberia Mission, he performed neurosurgery and plastic, orthopaedic and oral, facial and maxillary surgeries at John F. Kennedy Medical Center in Monrovia, Liberia, as its civil war abated. During his residency in Ohio, Dr. Jackson rotated to the Lyndon B. Johnson Space Center, in Houston, Texas, where he was part of the U.S. medical-officer team for the International Space Station Medical Standards Working Group and NASA’s internal efforts to revise the astronaut-selection-and-retention requirements. He also spent time at the Civil Aerospace Medical Institute in Oklahoma City, Oklahoma, reviewing neurology and neurosurgery cases, and at Ohio’s Wright-Patterson Air Force Base in the special-projects lab for vestibular issues, along with the flight-medicine clinic and the hyperbaric-medicine chambers.

In 2014, after eight years of service in the Great Lakes regional Office of Aerospace Medicine, I was named Federal Aviation Administration (FAA) Flight Surgeon of the Year. This three-physician office is responsible for the medical issues associated with pilots, air traffic controllers (ATCs) and technical-operations staff working within the eight states of the Upper Midwest, from Michigan through North and South Dakota. In particular, I am responsible for assessing the fitness for duty of 3,500 ATCs, who staff on-board positions at four en-route centers and more than 60 air-traffic-control towers. I also serve as the Medical Review Officer for FAA employees with substance-abuse issues, and I direct their treatment and rehabilitation in conjunction with the Employee Assistance Program/Human Resources Division and Magellan Health Services. I also assist the legal counsel, labor relations and security divisions with medical issues that arise in the various workplaces throughout the National Airspace System.

Many patients face medical challenges and recover with minimal involvement from my office. However, many with serious life-altering conditions find themselves looking for clear answers from not only their treating physicians, but also from the flight surgeons regarding the possible impact on their careers and lifelong passion. In Great Lakes, we have been successful in helping longtime employees addicted to cocaine and alcohol recover and return to operational duty with a good foundation for sustained recovery. Some individuals with benign intracranial tumors have now been allowed to continue their careers, as long as they follow through with frequent reporting and imaging scans. There is the possibility that those who have undergone successful surgical and medical treatment for low-grade gliomas with favorable biomarkers will receive approval to continue, whereas in the past, such employees would most certainly face an end to their careers. In all, we work to use the best medical knowledge to make aeromedical decisions for those who work in the most hostile environments on and off this planet.

Dr. Marvin Jackson in the Space Shuttle Simulator at the Lyndon B. Johnson Space Center in Houston, Texas.

Photo: Dr. Anil Menon
Beyond my regional duties, I serve as the nationwide team lead for the ATC pre-employment medical-screening process, which involves 10 flight surgeons and more than 20 support staff across the U.S. A long-range plan for increases in ATC hiring, pilot certification and changes within medicine as a whole requires an ongoing assessment of business processes and the latest technology and medical informatics. This is the task of the Enterprise Architecture Working Group, which consists of flight surgeons — of which I am one — IT support and FAA leadership in Washington D.C.

Since 2010, the Federal Air Surgeon has supported greater scrutiny of individuals seeking medical clearance or certification following the diagnosis and/or treatment of neurologic conditions. Previously, many such candidates were denied or disqualified for conditions for which the patient had the potential for recovery and full performance. As a result, I am one of several physicians — both within and outside of the FAA — who participate in a quarterly neurology panel, which reviews the merits of such cases. Moreover, I, like many on the neurology panel, are part of the International Aerospace Neurology Consortium.

Upon Mark Sugi, MD ’11, completed a surgical internship at UCLA in 2012. In June 2015, he began his residency in radiology at the Mayo Clinic Scottsdale in Scottsdale, Arizona. Over the last decade, Dr. Sugi has traveled to Cairo, Egypt; Pyongyang, North Korea; Mumbai, India; and Pristina, Kosovo, where he has witnessed the significant healthcare challenges faced by people of different socioeconomic circumstances.

In June 2013, I had the opportunity to travel to Nairobi, Kenya, with Medical Missions Kenya (MMK) and Hunger Relief. The organization has deep roots that spread to the most remote villages in the country, where access to information, healthcare and even food can be severely limited. Our multidisciplinary team included three physicians, six nurses, pharmacists, a researcher and a host of local family and friends. We traveled to villages where a need had been identified, predominantly through the extensive network to which Millicent Manyore, a UCLA nurse and the founder of MMK, has access. Outside of Eldoret, a large town of around 300,000 people in the west of the country, we met with civic leaders and established an ad hoc jigger-treatment clinic. After systematically rearranging the pews of a local church and establishing measures for crowd control, our team commenced a full day of jigger extraction from dozens of children who suffer from this parasitic infection.

We trekked to Shompole, in the south, an isolated conservancy along the Kenya-Tanzania border, where we encountered colorful Maasai who had walked scores of miles to reach the clinic. One mother, whose infant demonstrated advanced manifestations of infectious disease, had traveled for hours for antibiotics that would ultimately spare her baby’s vision. All medications were donated or purchased by MMK.

I left Kenya impressed by a generous and vibrant people who opened their doors to us at every stop on our journey. Though there remain significant barriers to adequate care, the impact of MMK’s leadership and dedication is real. MMK is making a true difference in the health of those the organization serves.

To learn more about MMK, go to: medicalmissionskenya.org
A Home-grown Team Battles Melanoma

The four physicians on the UCLA melanoma medical oncology team completed some part of their medical training at UCLA. John A. Glaspy, MD, MPH, graduated from medical school in 1979, completed his residency in 1982 and his fellowship in 1985; Antoni Ribas, MD, PhD, completed his fellowship in 2001; Bartosz Chmielowski, MD, PhD, completed his fellowship in 2008; and Deborah J.L. Wong, MD, PhD, completed her residency in 2009 and fellowship in 2013. They are at the forefront of the fight against a cancer that has been notorious for its resistance to most therapies. But exciting new advances are leading to improved therapies. (See “Turning the Tables,” UMagazine, Spring 2015.)

The treatment of patients with advanced melanoma, the most aggressive form of skin cancer, has recently undergone one of the most remarkable changes in any field of medicine. In a short period of time, it has gone from anecdotal responses to having an array of effective treatment options. The four physicians in the UCLA melanoma oncology clinic have made major contributions to these advances.

In the 1990s, if anything worked for a patient with advanced melanoma, it was a lucky strike. That is the time when Dr. Glaspy started the UCLA clinic, primarily to care for patients who were referred by melanoma surgeon James S. Economou, MD, PhD, UCLA vice chancellor for research. At that time, few medical oncologists wanted to work in melanoma, a disease that tended to affect patients at the prime of life and for which there were no effective treatments. In the early 2000s, when Dr. Ribas joined Dr. Glaspy, they started testing treatments aimed at turning on the immune system against melanoma. These treatments had low response rates, but they gave the first glimpse at the prospect of having durable tumor responses (lasting years) in patients who otherwise had a life expectancy measured, at best, in months. They built upon these initial observations by developing more active immune-system therapies and also by bringing to the clinic treatments that specifically blocked mutations present in melanomas.

By the early 2010s, the melanoma clinic had expanded with multiple clinical trials, and it attracted patients from all over the world. The research done at UCLA has contributed to the recent approval by the Food and Drug Administration of five new effective treatments for this disease. With the increased demand, Drs. Chmielowski and Wong joined the clinic. During their fellowship training, they had conducted laboratory research in melanoma, and they went on to apply their expertise to patients at a time when the promise of effective treatments became a reality.

Now, when patients with metastatic melanoma are seen at the UCLA melanoma clinic, Drs. Glaspy, Ribas, Chmielowski and Wong can discuss the benefits of treatments based on the BRAF gene and other specific inhibitors that disable prevalent mutations that drive melanoma growth. They also can discuss releasing the brakes of the immune system to enable the body’s own defenses to attack the cancer anywhere in the body. Their work to advance the science, which has led to improved treatments, has been published in leading medical journals, including the New England Journal of Medicine, The Lancet, Nature, Cancer Discovery, Proceedings of the National Academy of Sciences, Journal of Clinical Oncology, Clinical Cancer Research, Molecular Cancer and other prestigious publications.
Scott Lee, MD ’02, MPH, FACS, is an orbit, ophthalmic and oculoplastic surgeon. After graduating from medical school at UCLA, he completed a residency in ophthalmology at the University of California, San Francisco and fellowship training in Australia at the Sydney Eye Hospital. Currently, he is adjunct assistant professor at the Stanford University School of Medicine, where, in 2013, he received the Plager Teaching Award. He also holds a faculty appointment at the University of California, Berkeley School of Public Health, where he teaches global public health and the epidemiology of eye disease.

Dr. Lee is founder and CEO of the nonprofit iCare, which partners with other non-governmental organizations to train local ophthalmologists, while conducting international medical missions in Bolivia, Cambodia, China, Haiti, Honduras, Kenya, the Republic of Macedonia, Myanmar, Morocco, Swaziland and many other countries.

I spent three months of my fourth year in medical school doing an OB/GYN and palliative-care rotation in Bangalore, India. Fortunately, they were separate departments, but what fascinated me was the extraordinary quality of care provided at a very low cost. Even now, I marvel at the adaptation of healthcare systems around the world to provide amazing care with very limited resources. I am often the one being taught, even as I am invited by these governments to share knowledge in new technologies and surgical techniques that often have been available in the developed world for 30 years.

I recently returned from Haiti and the Republic of Macedonia. Both countries have amazing surgeons who have worked through difficult circumstances. In Haiti, I brought several boxes of sutures, some of which were expiring that month. They were thrown out at customs upon arrival at the airport. Customs officials told me that after the earthquake, in 2010, many visiting surgeons did not have good outcomes; this was blamed in part on expired sutures. The government has since implemented a strict policy on any outdated equipment or donations. With the plethora of aid workers and donations, the customs officials felt they could be very picky in what they chose to allow into the country. In exasperation, I explained that the outcomes they described were likely not due to expired sutures but to other factors. This fell on deaf ears, as many of our other donations were thrown out as well. In hindsight, after working with the local surgeons, I felt grateful in many ways that all of the precious donations that I had accrued for weeks were thrown out, as we had to improvise with the equipment and sutures that the local surgeons had. It made me realize that the surgical techniques I was teaching in Haiti were much more sustainable because the supply chain and infrastructure for the surgical materials on hand were in place. As one example, we had to use a mallet and chisel to do a dacryocystorhinostomy (treatment to open blocked tear ducts) because they did not have a rongeur. We had to improvise from the equipment and supplies to which they had access.

In the Republic of Macedonia, I came prepared to give grand rounds and to lecture and teach in my subspecialty, orbit and oculoplastics, but I found that the local surgeons wanted to learn strabismus, glaucoma, pediatric glaucoma, cataract and a variety of other subspecialties outside my typical realm. I find that we in the U.S. have become so subspecialized that we forget what it means to be able to treat a variety of conditions within our own specialties. I thought about some of the old-school mentors I had in medical school and during my residency who did it all. They were inspirational to me in that they did not box themselves into the narrow confines of a subspecialty. I spent much of my time teaching surgeries outside of my immediate specialty because that is what was needed and what the local surgeons wanted.

It is humbling when visiting these countries that, instead of being the one teaching, I often am learning far more than I have to offer. It also is humbling that my efforts often are in vain. Some of the surgical techniques or interventions we bring are not incorporated, even with the technology available. We have begun studying the effect of visiting surgeons in Third World countries and the factors resulting in better standards of care.

To learn more about iCare, go to: compassionvision.wordpress.com
UCLA’s Jonsson Cancer Center Foundation (JCCF) celebrated the 20th anniversary of its Taste for a Cure fundraiser on May 1, 2015, at the Beverly Wilshire Hotel in Beverly Hills. The event raised more than $1 million for cancer research at UCLA. The evening also honored Dr. Judith C. Gasson and her 20-year career as director of UCLA’s Jonsson Comprehensive Cancer Center (JCCC). The JCCF’s signature event benefits the JCCC and featured a VIP pre-reception, fine Italian wine and cuisine from distinguished Los Angeles chefs and an awards program. Longtime UCLA donor Shelley Resnik put up a $150,000 challenge match for “fund-a-grant.” She has donated more than $1 million to the JCCC in memory of her late husband Mark Resnik. The elegant evening included a special musical performance by Jussie Smollett, as well as stand-up comedy from Tom Papa. Actor Matt Bomer presented David Madden, president of entertainment for FOX Broadcasting Company, with the 2015 Gil Nickel Humanitarian Award. Dinner committee co-chairs included CAA’s Joe Cohen, The Holman Group’s Jon Holman, Far Niente Winery’s Larry Maguire, UTA’s Jay Sures and FOX TV Group co-chairs Gary Newman and Dana Walden.

For more information, contact Stephanie Witte at: (310) 206-3878
Great Minds Gala Supports Outstanding Young Researchers

On April 19, 2015, The Friends of the Semel Institute, founded by Vicky Goodman, who also serves as its president, held its Great Minds Gala at the Beverly Wilshire Hotel to raise awareness for illnesses of the mind and brain. UCLA Chancellor Gene D. Block was among the honorees and received the Visionary Award for his influential leadership and his research in neuroscience. Howard Gordon and Alex Gansa, producers of the critically acclaimed Showtime hit Homeland, received the Artistic Award of Courage for highlighting bipolar disorder in their show. The Honorable Patrick J. Kennedy, former representative from Rhode Island who introduced legislation to place mental illness under the umbrella of health insurance, received the Humanitarian Award for his activism on behalf of mental-health causes. Emmy Award-winning comedian Paula Poundstone served as event emcee, and singer Judy Collins and the Wesley Colburn Singers provided entertainment. The event raised more than $1 million and will benefit The Friends’ Scholar Program, which awards grants to young, promising scientists conducting research to better understand and treat mental, developmental and neurological disorders.

For more information, contact Alan Han at:
(310) 825-1546
UCLA Health has formed a partnership with the Sound Body Sound Mind Foundation to offer practical ways to combat childhood obesity and promote healthy lifestyles. The new entity, UCLA Health Sound Body Sound Mind, funded by a $3-million pledge from Sound Body Sound Mind, replicates the foundation’s existing program model that aspires to give students access to fitness resources and education. The joint announcement was made March 6, 2015, at North Hollywood’s East Valley High School during the unveiling of a new, state-of-the-art fitness center provided by UCLA Health Sound Body Sound Mind.

UCLA Health Sound Body Sound Mind provides middle school and high school students in under-resourced schools with commercial-grade fitness equipment and an innovative curriculum designed to build students’ competence and confidence in a range of physical activities. UCLA Health believes that by encouraging students to embrace fitness, it will become an integral part of their lives. “This exciting partnership gives UCLA Health a unique opportunity to actively engage in preventive health,” said Melanie Gideon, executive advisor of UCLA Health Sound Body Sound Mind. “By physically opening new doors to these centers, we hope to nurture healthier lifestyles and ultimately aspire to reduce the likelihood of chronic ailments often associated with inactive adults.”

Founded in 1999 by philanthropists Cindy and Bill Simon, the Sound Body Sound Mind Foundation has donated fitness resources to 89 schools in Los Angeles, reaching more than 92,000 students each year. “Our ultimate goal is to ensure that every student has the opportunity, knowledge and tools to pursue a healthy lifestyle through physical fitness,” said Bill Simon. “Our collaboration with UCLA Health will allow us access to its world-renowned resources and personnel. Ultimately, we believe this partnership will allow us to reach our goals faster and more effectively, as we bring to bear the experiences of both our organizations on this challenge.”
According to the Los Angeles County Department of Public Health, 42 percent of children in Los Angeles County are overweight or obese, placing them at greater risk for serious chronic health problems. UCLA Health Sound Body Sound Mind gives students the tools they need to take charge of their health by ensuring that they have access to fitness resources. The project also exemplifies UCLA Health’s commitment to community engagement.

“This program will help to improve the health of thousands of young Angelenos, and, over the long term, it may drive down healthcare costs and help boost economic productivity,” said Nathan Nambiar, executive director of the Sound Body Sound Mind Foundation.

For more information, contact Courteney Bailey at:
(310) 267-1155

To download the FOCUS on Foster Families app from Apple iTunes or Google Play, go to:
nfrc.ucla.edu/focus-on-foster-families

For more information, contact Alan Han at:
(310) 825-1546

The UCLA Nathanson Family Resilience Center held a special launch of its newest mobile application, FOCUS on Foster Families, on April 28, 2015, at Ronald Reagan UCLA Medical Center. The app provides foster youth and their caregivers with a tool to develop connections, provide information and build resilience skills as they navigate common challenges. Designed in partnership with the Anthony and Jeanne Pritzker Family Foundation, the app was created and developed through a collaboration of family- and youth-resilience experts, foster youth, foster caregivers and community providers and leaders.

The event included a panel discussion, during which the app was introduced to attendees, on the important role of innovative technology for enhancing the well-being of foster youth and their caregivers. Community partners, many of whom were involved with the development of the app, hosted tables during the networking reception that showcased their ongoing work with foster youth. Jeanne Pritzker, Carol Block, other campus leaders and faculty and Bruin Guardian Scholars attended the event.

(From left) Serita Cox, iFoster; Fawnda Sandoval, MSW, Los Angeles County Department of Children and Family Services; Jeanne Pritzker; Dr. William Saltzman, UCLA Nathanson Family Resilience Center; Annika Taber, UCLA Guardian Scholar; Joshua Wilson, UCLA TIES for Families; Maria Colindres, UCLA Guardian Scholar; Dr. Audra Langley, UCLA TIES for Families; Dr. Patricia Lester, Nathanson Family Resilience Center. Winnie Wechsler, Pritzker Foster Care Initiative.

Photo: Samuel Martinez
UCLA celebrated the naming of the Agi Hirshberg Center for Pancreatic Diseases on February 28, 2015, at a gathering of Agi Hirshberg and her family and friends. The naming was made possible by $10 million in gifts from Hirshberg to UCLA. “Agi Hirshberg’s 18-year commitment to finding a cure has placed UCLA at the forefront of cutting-edge research on pancreatic cancer,” said UCLA Chancellor Gene D. Block. “In recognition of her visionary support and a generous new $5-million gift, we are pleased to name the Agi Hirshberg Center for Pancreatic Diseases.”

In addition to the chancellor and his wife Carol, attendees included UCLA faculty from the Agi Hirshberg Center for Pancreatic Diseases and from surgery, gastroenterology, medical oncology, pathology, radiology and human nutrition; members of The UCLA Foundation Board of Directors and directors emeriti; members of Women & Philanthropy, of which Hirshberg is president, and the David Geffen School of Medicine at UCLA Board of Visitors; seed-grant awardees; and members of the Hirshberg Foundation for Pancreatic Cancer Research.

Following opening remarks by Chancellor Block; Dr. Vay Liang W. Go, distinguished professor of medicine and chair of the Hirshberg Foundation Scientific Advisory Board; Dr. O. Joe Hines (RES ’97), chief of the UCLA Division of General Surgery and Robert and Kelly Day Chair in General Surgery; and Dr. Howard A. Reber, distinguished professor of surgery emeritus, spoke about the enormous impact Hirshberg’s support has had on their work to advance discoveries in pancreatic diseases.

After receiving a commemorative crystal plaque from Chancellor Block, Hirshberg, also a director emerita of The UCLA Foundation and a member of the David Geffen School of Medicine at UCLA’s Board of Visitors, spoke about her journey and the importance of raising awareness of and pursuing a cure for pancreatic cancer. She shared that when she and her family formed the Hirshberg Foundation for Pancreatic Cancer Research, in 1997, in memory of her late husband Ronald S. Hirshberg, who died of pancreatic cancer at age 54, they created specific goals. Hirshberg invited her grandchildren to the podium. In a moving tribute to Hirshberg and their family’s commitment to a cure, each child read one of the foundation’s goals. William Mitchell, chair of The UCLA Foundation, closed the celebratory event by presenting Hirshberg with flowers.

For more information, contact Kathryn Carrico at: (310) 825-2558
Turning Sorrow into Laughter

The Ovarian Cancer Circle/Inspired by Robin Babbini held its fifth annual fundraiser, “Happily Ever Laughter,” at The Comedy Store in West Hollywood on April 26, 2015. Proceeds from the event benefit the work of Dr. Sanaz Memarzadeh (RES, ’00, FEL ’03, PhD ’08), a UCLA clinician-scientist who studies endometrial and ovarian cancers. This year’s comedic lineup included Sunda Croonquist, Kira Soltanovich, Tehran, Vargus Mason and Suli McCullough. The evening also included a buffet dinner, courtesy of Whole Foods of West Hollywood.

Inspired by the life and spirit of Robin Babbini, who lost her life to ovarian cancer at the age of 20, The Ovarian Cancer Circle is a nonprofit organization dedicated to funding research that will raise national awareness of ovarian cancer and lead to a cure. The organization is committed to building strong partnerships with physicians, researchers, counselors, families and volunteers in order to create a community that fosters hope and empowerment. To date, the event has raised more than $180,000.

Memorial Golf Tournament Supports Cancer Research

The Jonsson Cancer Center Foundation at UCLA has received proceeds of more than $142,000 from the 2014 One Ball Matt Memorial Golf Tournament, which took place in Dongguan, China. Since its inception, in 2010, this annual event in memory of Callaway Golf employee Matt Christiansen has raised $500,000 to support lung-cancer research under the direction of Dr. Edward Garon (FEL ’06) at the Jonsson Comprehensive Cancer Center.
David and Susan Wilstein have pledged $4 million to the David Geffen School of Medicine at UCLA to support teaching, research and clinical activities in rehabilitation medicine. The gift to UCLA funds endowed chairs for two distinguished faculty members. The Wilsteins also gave $1 million toward the new California Rehabilitation Institute — located on the site of the former Century City Hospital — which is slated to open in 2016. In December 2013, Cedars-Sinai Medical Center, Select Medical and UCLA announced a partnership to create a 138-bed acute inpatient rehabilitation hospital to serve the growing needs of the community for inpatient rehabilitation. The gift from the Wilsteins is the first contribution to benefit the new partnership. In recognition, the lobby of the California Rehabilitation Institute will be named in their honor. On October 30, 2014, the Wilsteins, along with leaders from UCLA Health, Cedars-Sinai Medical Center and Select Medical gathered to celebrate the progress of the new facility.

Maxine and Eugene Rosenfeld have pledged $1 million to establish the Maxine and Eugene Rosenfeld Chair in Medical Education at the David Geffen School of Medicine at UCLA. The Rosenfeld Chair supports the teaching and research activities of outstanding faculty, and it is a significant resource in attracting and retaining the most deserving scholars in the field. Dr. Clarence H. Braddock III, vice dean for education at the David Geffen School of Medicine at UCLA and chief medical education officer of UCLA Health, has been named as the inaugural Rosenfeld Chair holder.

Dr. Braddock is a national leader in medical-education curriculum development and innovation, and he is a recipient of numerous teaching awards and honors. He joined the UCLA faculty in 2013 as the David Geffen School of Medicine at UCLA’s first vice dean for education, overseeing all of the school’s undergraduate, graduate and postgraduate programs. The Rosenfelds are deeply connected to UCLA, and they are tremendous advocates for and philanthropic supporters of students and faculty in the health sciences and campuswide. Their generosity provides vital support for training the next generation of physicians and scientists.
**Gifts**

An anonymous donor has made a significant investment, totaling more than $17.5 million, in UCLA Health Sciences. The gifts were made with the intent of advancing key initiatives at the David Geffen School of Medicine at UCLA and UCLA Health and inspiring others to do so. The contributions include support for innovative research, training and education programs, faculty and hospital care in the Departments of Medicine and Urology and the Division of Digestive Diseases; and the UCLA Leaders of Tomorrow Scholarship — merit-based, full-tuition scholarships that are among the highest honors awarded to entering medical students. The donor is a steadfast UCLA partner whose generosity will touch countless lives and whose commitment to students, the donor is a steadfast UCLA partner whose generosity will touch countless lives and whose commitment to students, faculty and patients continues to be transformative.

**Stacey and Sterling Ball** have contributed $1.35 million through the Casey Lee Ball Foundation to Mattel Children’s Hospital UCLA, bringing their total giving to the hospital to $8 million. The gift will benefit the Pediatric Renal Transplantation Program by funding not only the research work of pediatric nephrologist Dr. Eileen Tsai (FEL ’07), who treats renal failure, kidney stones, chronic kidney disease and other conditions affecting the kidneys, but also fellowship training and clinical programs that assist in the transition from pediatric to adult care.

**Carole Gaba and her daughters** have made a gift of $500,000 in loving memory of Hal Gaba to establish the Hal Gaba Director’s Fund for Cancer Stem Cell Research at UCLA’s El & Edythe Broad Center of Regenerative Medicine & Stem Cell Research. This funding will support the work of the center’s multidisciplinary teams of basic and clinical scientists, under the direction of Dr. Owen Witte, to develop novel stem-cell therapies for prostate cancer and other forms of aggressive small-cell cancers, including breast, ovarian and lung cancers.

**The James and Ada Horwich Family Foundation** made a $250,000 gift to the UCLA Division of Cardiology in support of the new Women’s Cardiovascular Center, under the direction of Dr. Karol E. Watson (RES ’92, FEL ’97). The center’s physician-scientists provide the best possible clinical expertise, conduct cutting-edge research and are involved in the latest clinical trials aimed at improving cardiovascular diagnosis, treatment, management and care for women with, or at risk for, heart disease. The funds will be used for pioneering investigations into the differences of heart disease in men and women.

**Audrey Irmas** has contributed $1 million in memory of her son Rob Irmas and in gratitude to Dr. Nader Pouratian (MD ’03) in the UCLA Department of Neurosurgery. Dr. Pouratian was able to give Rob Irmas precious time to share with his family and friends, to touch the world in his unique way and to marry his fiancée Michelle. The funds will establish the Irmas Family Fund for Neurobiotics Research and will support new developments in brain-function-restoration therapies and technologies.

**Mike and Linda Keston** have made a gift of $1 million to support the research of Drs. John Belperio and Joseph P. Lynch III in the Division of Pulmonary and Critical Care Medicine. The funding will help Drs. Belperio and Lynch in their efforts to understand chronic lung-transplant rejection at the molecular level, with the hope of extending patient survival without the prolonged use of immunosuppressive medications. In addition, the Kestons made a contribution directed to the squamous-cell cancer research of Dr. Teresa Soriano (RES ’99, FEL ’01) in the Division of Dermatology. Squamous-cell cancer frequently affects immunosuppressed individuals.

**For more information, contact Health Sciences Development at: (310) 267-1845**

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**Awards/Honors: HeartRhythm Honors UCLA Cardiologist**

**Dr. Marmar Vaseghi (RES ’05, FEL ’09, ’11)**, a cardiology specialist and clinical instructor in the Department of Medicine of the David Geffen School of Medicine at UCLA, was selected to be the first recipient of the prestigious Joan and Douglas P. Zipes Publication of the Year Award to honor the seminal article published in HeartRhythm that most contributed to major advances in understanding and/or treating cardiac arrhythmias.

**For more information, contact Michelle Jacobson at: (310) 267-1213**
Out of Africa

By Matthew Waxman, MD (RES ’07)

I am under quarantine at home since returning from Sierra Leone, where I spent two months in a rural clinic treating patients with Ebola. For three weeks, I must take and log my temperature up to six times a day. If my temperature stays below 100.4 degrees — the threshold for a suspected case of the disease — I can leave the house for a few hours, but I can’t be among large groups of people, go to work, ride public transit or leave Los Angeles County. Twice a day, I have to check in with public-health officials, once face-to-face and once by phone.

I am fixated on news about the epidemic, and I text often with my colleagues in Africa. One night, I learned that our treatment unit was full of new admissions. The staff lamented the lack of seasoned providers after some of the best nurses and doctors returned home. Only one week back in Los Angeles, and already, like a battle-worn combat veteran, I felt the pull to return to my buddies at the front.

Los Angeles to Chicago to Brussels to Dakar, Senegal, to Conakry, Guinea, to Freetown, Sierra Leone. At 2 am, on the four-hour drive from the airport to the clinic, Mahmood, my driver, hits a dog and kills it. He drives faster, telling me that if the owner comes, a price will be extracted. Mahmood worked as a driver for an iron-mining company, and, he says, Ebola has brought him luck. This job driving medical volunteers from the airport pays three times what he made driving South African miners.

It is pitch black, but I can make out the shape of something off in the distance. It is one of the “centers,” Mahmood tells me. We pass a compound of white canvas tents, generators, crushed gravel, rusting shipping containers, barbed wire, 10,000-liter tanks of water on wooden scaffolding and hundreds of rubber boots drying under the fluorescence of the outdoor lights. This epidemic has brought the brutal complexities of modernity to the Port Loko countryside.
The sun is up when we arrive, and after some peanut butter and toast, Kelly, a volunteer ER nurse from the East Coast, asks if I am ready for training. She was in Liberia at the height of the epidemic. In the world of Ebola, experience is everything. An Ebola expert, Kelly says, is someone who has been taking care of patients for a week. You may be a professor and perhaps have written hundreds of papers about Ebola, but if you’ve never worn the suit that was pictured on the cover of Time magazine or taken care of an Ebola patient in 104-degree heat, then you are not very useful here. Kelly is the expert, and she commands respect.

Inside the treatment unit, we learn how to put on the suit: rubber boots first, then scrubs, chemical suit, hood, gloves, face mask, ski goggles, another pair of gloves. This is called donning, and it is overseen by Sierra Leonean colleagues who are never satisfied with the corners of our masks, the tightness of our goggles or the way our long zipper is taped closed. They are one of a cadre of staff dedicated to preventing an infection and keeping our unit running. There are electrical-generator mechanics, logistical supervisors, welders, cooks, water engineers, nurses, psychosocial-support staff and epidemiologists.

Two days later, Kelly has us running and doing pushups in the suits. We are mastering doffing, the opposite of donning: taking off our suits in a precise order and washing our hands 15 times in the process. Vanessa, the director, watches silently, making sure the “fresh docs” aren’t going to be a liability by not following protocol. Picking up the phone to inform the U.S. Embassy in Freetown of an “exposure event” is not a call she ever wants to make.

Four days since arriving in Africa, I am told by Kelly, “Dr. Matt, you are ready to go inside.” “Inside” is the fenced ward where patients with Ebola are taken care of. Look but don’t touch, Kelly tells me on my first trip beyond the fence. It is quiet inside. After donning, Dr. Joel, an expert at the end of his six-week tour, and I enter the unit and come to the bed of a small child, the same age as my son at home in Los Angeles. Handing Dr. Joel a needle to start an IV, I am apprehensive as all of my considerations of safety and anxiety about contracting Ebola hit me at once. Dr. Joel asks me if I am scared. “Yes,” I tell him. He offers me his own take on the famous quote by World War I flying ace Eddie Rickenbacker: “Courage is doing what you are afraid of because it is the right thing to do.” I feel better.

Three weeks later, almost halfway through my tour, I now am the expert.

There is a new admission, a 5-year-old boy named Ibrahim. Two new nurses I am training and I are told that Ibrahim was playing ball in his village, not far from our treatment center, and then was found unconscious and with a high fever after using the toilet. My experience tells me Ibrahim may not have Ebola. The sudden onset of his symptoms and high fever suggests that his malady is cerebral malaria. Only in the setting of this epidemic would the diagnosis of such a severe disease offer a glimmer of hope.

I thread the IV through his tiny vein, flush, and push antimalarial medication, then move on to the next patient. Three hours later, drinking an orange soda while being hosed off by a colleague, I hear Ibrahim is able to sit up and ask for water. After sharing the courage quote passed on from Dr. Joel with my new nurse colleagues, we savor this rare victory.

Now that I am home, I am asked how many people we saved in Sierra Leone. My answer is that we saved very few. But in saving those we could, I came away from the experience with much more than I expected: deep gratitude to have played a role in helping to curb a historic epidemic, appreciation for the opportunity to live with and learn from such dedicated volunteers at the clinic and thankfulness for the camaraderie of my colleagues, which I shall not ever forget.

To read an interview with Dr. Matthew Waxman and learn more about his experience in Sierra Leone, click on the link to this article at: magazine.uclahealth.org

Dr. Matthew Waxman is associate professor of medicine in the David Geffen School of Medicine at UCLA and attending physician in emergency medicine at Olive View-UCLA Medical Center. He completed a Diploma in Tropical Medicine and Hygiene at the Alabama School of Medicine’s Gorgas Institute of Tropical Medicine in 2014. Dr. Waxman has worked and lectured in Southeast Asia, Africa and South America. He was released from home quarantine on March 14, 2015.

Photos: Courtesy of Dr. Matthew Waxman
Dr. Matthew Waxman (left) and two newly arrived trainees exit the “hot zone,” where patients with confirmed cases of Ebola receive treatment, and walk toward the “doffing” area to remove their protective suits. Dr. Waxman spent two months treating Ebola patients in rural Sierra Leone.