UCLA Health David Geffen School of Medicine

HOME Improvement

Geffen Hall opens as the modern hub of the David Geffen School of Medicine at UCLA, heralding a new era of medical education.

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Photo: Courtesy of the Koch Family

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Cover Illustration: Mark Sojka



A New Era in Biomedical Education Geffen Hall unlocks a gateway to the future of medical training and practice.

Photo: Ann Johansson

The opening of Geffen Hall, which we officially dedicated in the spring, marked an important milestone in the history of our school. No longer in-residence within the sprawling Center for the Health Sciences building, our education program now has, for the first time, its own state-of-the-art home that is focused exclusively on training the next generations of healthcare leaders.

The open, elegant design of Geffen Hall embodies our belief that medicine is deeply collaborative, and its learning spaces underscore the principle that learning to heal is, like healing itself, a thoroughly inclusive and social endeavor. With teaching labs, lecture auditorium and exam rooms that are easily adapted to different learning styles and new advances in teaching tools and curricula, Geffen Hall truly is a building to carry us into a new era.

Within this 110,000-square-foot environment, students will not be passive recipients of information. They will engage the material on a level that compels them to think deeply about the "how" and "why" of medicine, as well as the many critical questions that are raised during clinical practice or in the research setting. That level of engagement did not take place when I was in medical school. Then, medical school was about memorizing and repeating back what you had learned. This new paradigm opens the door to a very exciting academic experience for our students.

It also is important to recognize what a tremendous asset it is for us that the David Geffen School of Medicine at UCLA is embedded within, rather than separated from, a diverse university campus. This gives us opportunities to collaborate across every discipline. And it is notable that Geffen Hall has been located in a part of campus where all the Health Sciences schools — medicine, nursing, dentistry, public health — are in proximity to one another. This situates it as a cornerstone of a new wave of interdisciplinary education. After all, everything that we do — research, education, patient care, community service — is about teamwork. In that context, it makes sense that we engage our students throughout their training with all the essential aspects of healthcare.

I view the location of Geffen Hall as symbolic of our commitment to the community we serve. As a public gateway to the UCLA campus, Geffen Hall represents our goal to be outward looking and to establish greater connections with our neighborhood and our city. In addition, this embracing facility will be another magnet to attract the best and brightest students to UCLA. That effort already has been greatly enhanced by the generosity of David Geffen, whose name graces both this new building and our medical school. Through The David Geffen Medical Scholarships, which to date have provided four years of debt-free education to more than 130 of UCLA's entering medical students, our school is able to give this incredibly high-caliber cadre of trainees the opportunity and space to carve out their own unique and impactful career paths.

Before I decided to pursue a career in medicine and science, I entertained the thought of becoming an architect. I wanted to build great, gleaming structures. Now, my goal is to continue the building of a great medical school. Geffen Hall is a vital component of that project. Winston Churchill famously said: "We shape our buildings; thereafter they shape us." It is our fervent hope that Geffen Hall, as we look forward to a future there, will be the site of extraordinary accomplishment by our faculty and our students.

John C. Mazziotta, MD (RES '81, FEL '83), PhD Vice Chancellor, UCLA Health Sciences CEO, UCLA Health

Minimally Invasive Procedure Puts End to Boy's Rare Form of Seizures



Justin Cho is an engaging 9-year-old. Although he's somewhat shy, he is quick to smile and has an infectious laugh. "Justin has always been a happy child — very energetic and bubbly," says his father Robert Cho. "We assumed that giggling was just part of his personality.

What Robert and his wife So didn't know was that the laughing fits Justin often had before bedtime actually were seizures and signs of a serious medical problem. One morning, as Justin was waking up, the couple saw him go into a full seizure. "We were terrified," Robert Cho says. "Had we not witnessed it ourselves, who knows how long these would have gone on?"

The Chos brought Justin to UCLA Mattel Children's Hospital, where he was treated by pediatric neurosurgeon Aria Fallah, MD. Justin had what's known as gelastic epilepsy, which was caused by a benign mass called a hypothalamic hamartoma deep inside his brain, Dr. Fallah says.





Top: Using virtual-reality technology, Dr. Aria Fallah demonstrates the location of the hypothalamic hamartoma and its anatomical relationship to other critical structures of the brain. Bottom Left: The skin incision through which this surgery is done is invisible. Bottom Right: Dr. Fallah performs a follow-up neurological examination on Justin.

Hypothalamic hamartomas are extremely rare, but if left untreated, they can affect a child's intelligence and ability to learn, and they can cause premature puberty and death. The condition rarely responds to medication, which makes surgery the only treatment option. But the surgery most often used to correct the problem is particularly difficult because the masses are located deep inside the hypothalamus, the part of the brain that regulates hunger, thirst, body temperature and hormones.

"You couldn't find a more challenging spot to treat in the human body," Dr. Fallah says. "The hypothalamus is difficult to access, and it is surrounded by critical nerves, arteries, veins and neurological tissue that are vital to everyday functions."

Removing a hypothalamic hamartoma typically requires openbrain surgery, in which surgeons remove a large section of the skull and slice open the brain to reach the lesion. The surgery leaves a large scar on the patient's head, and, because the procedure is so invasive, patients generally remain in intensive care for up to a week and require months to fully recover. Side effects can include memory loss, hormonal imbalance and vision problems. Up to 10 percent of patients do not survive the surgery — a high figure compared with more common procedures. So Dr. Fallah and his colleagues used a cutting-edge technique designed to minimize the risks and dramatically speed Justin's recovery. The approach uses heat from an optical laser to destroy the mass.

Surgeons made a 2-millimeter incision in Justin's skull and, using GPS-like technology, mapped his brain and pinpointed the location and size of the hamartoma. Then, they fed a thin optical laser deep into the brain and penetrated the lesion. "Essentially, we cook the mass from the inside out," Dr. Fallah says. "Once it's destroyed, the epilepsy is gone."

Although preparing for the surgery and mapping the patient's brain can take several hours, the minimally invasive procedure itself takes only a few seconds, and the results last a lifetime. In Justin's case, that meant getting back to playing soccer with his friends and sharing laughs with his family. "It's a miracle," Robert Cho says. "We're so grateful we learned in time that Justin had this issue and that we found doctors who were able to treat it the way they did."

Implantable Medical Device Draws Energy Directly from Human Body



THE CUTTING EDGE

The supercapacitor invented by researchers from UCLA and the University of Connecticut could lead to pacemakers and other implantable medical devices that last a lifetime.

Image: Dr. Maher El-Kady/UCLA and Dr. Islam Mosa/University of Connecticut

Researchers from UCLA and the University of Connecticut have designed a biofriendly energy-storage system called a biological supercapacitor, which operates using charged particles, or ions, from fluids in the human body. The device is harmless to the body's biological systems, and it could lead to longer-lasting cardiac pacemakers and other implantable medical devices.

Pacemakers — which help regulate abnormal heart rhythms and other implantable devices have saved countless lives. But they're powered by traditional batteries that eventually run out of power and must be replaced, meaning another painful surgery and the accompanying risk of infection. In addition, batteries contain toxic materials that could endanger the patient if they leak. The researchers propose storing energy in those devices without a battery. The supercapacitor researchers invented charges using electrolytes from biological fluids like blood serum and urine, and it would work with another device called an energy harvester, which converts heat and motion from the human body into electricity — in much the same way that self-winding watches are powered by the wearer's body movements. That electricity is then captured by the supercapacitor. "Combining energy harvesters with supercapacitors can provide endless power for lifelong implantable devices that may never need to be replaced," says Maher El-Kady, PhD, postdoctoral researcher in the lab of team leader Richard Kaner, PhD, distinguished professor of chemistry and biochemistry and of materials science and engineering.

Modern pacemakers typically are about 6-to-8 millimeters thick and about the same diameter as a 50-cent coin; about half of that space is usually occupied by the battery. The supercapacitor developed by Dr. Kaner and his team is only 1 micrometer thick much smaller than the thickness of a human hair — meaning that it could improve implantable devices' energy efficiency. It also can maintain its performance for a long time, bend and twist inside the body without any mechanical damage and store more charge than the energy lithium film batteries of comparable size that are currently used in pacemakers.

The new biosupercapacitor comprises a carbon nanomaterial called graphene layered with modified human proteins as an electrode, a conductor through which electricity from the energy harvester can enter or leave. The new platform could also eventually be used to develop next-generation implantable devices to speed up bone growth, promote healing or stimulate the brain, says Dr. Kaner, who is a member of UCLA's California NanoSystems Institute. Although supercapacitors have not yet been widely used in medical devices, the study shows they may be viable for that purpose.

"Ultrathin Graphene-Protein Supercapacitors for Miniaturized Bioelectronics," *Advanced Energy Materials*, May 9, 2017

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Study Illustrates Axon Growth in Developing Nervous System

New research by scientists at the Eli and Edythe Broad Center of Regenerative Medicine and Stem Cell Research at UCLA overturns a long-standing paradigm about how axons — thread-like projections that connect cells in the nervous system — grow during embryonic development. The findings of the study, led by Samantha Butler, PhD, associate professor of neurobiology, could help scientists replicate or control the way axons grow, which may be applicable for diseases that affect the nervous system, such as diabetes, and injuries that sever nerves.

As an embryo grows, neurons — the cells in the nervous system — extend axons into the developing spinal cord. Axons are then guided to reach other areas of the body, such as the brain, to establish a functioning nervous system. It has been generally understood that various guidance cues, which are cellular molecules such as proteins, either attract or repel axon growth as the axons reach out from neurons to find their destination in the nervous system. Previous research suggested that a particular guidance cue, called netrin1, functions over a long distance to attract and organize axon growth, similar to how a lighthouse sends out a signal to orient a ship from afar.

However, previous research also shows that netrin1 is produced in many places in the embryonic spinal cord, raising questions about if it really acts over a long distance. Most notably, netrin1 is

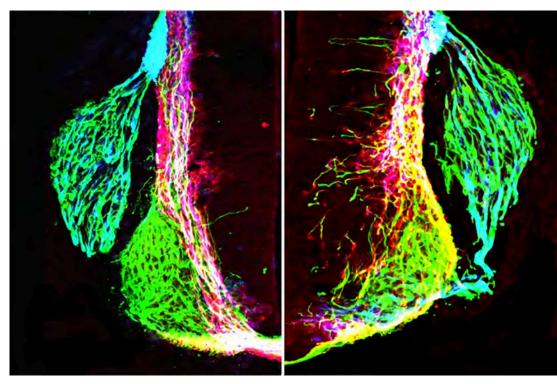
produced by tissue-specific stem cells, called neural progenitors, which can create any cell type in the nervous system. Yet, it was not understood how the netrin1 produced by neural progenitors influences axon growth.

Dr. Butler and her research team removed netrin1 from neural progenitors in different areas in mouse embryonic spinal cords. This manipulation resulted in highly disorganized and abnormal axon growth, giving the researchers a very detailed view of how netrin1 produced by neural progenitors influences axons in the developing nervous system. They found that neural progenitors organize axon growth by producing a pathway of netrin1 that directs axons only in their local environment and not over long distances. This pathway of netrin1 acts as a sticky surface that encourages axon growth in the directions that form a normal, functioning nervous system.

Dr. Butler's study is a significant reinterpretation of the role of netrin1 in nervous system formation. The results further scientists' understanding of the contribution neural progenitors make to neural circuit formation. Determining how netrin1 specifically influences axon growth could help scientists use netrin1 to regenerate axons more effectively in patients whose nerves have been damaged.

For example, because nerves grow in channels, there is much interest in trying to restore nerve channels after an injury that results in severed nerves, which is seen often in patients who have experienced an accident or in veterans with injuries to their arms or legs. One promising approach is to implant artificial nerve channels into a person with a nerve injury to give regenerating axons a conduit to grow through. Dr. Butler believes that coating such nerve channels with netrin1 could further encourage axon regrowth. Her continued research will focus on uncovering more details about how netrin1 functions and how it could be used clinically.

"Netrin1 Produced by Neural Progenitors, Not Floor Plate Cells, Is Required for Axon Guidance in the Spinal Cord," *Neuron*, May 17, 2017



Left: Axons (green, pink, blue) form organized patterns in the normal developing mouse spinal cord. Right: Removing netrin1 results in highly disorganized axon growth. Image: Courtesy of UCLA Broad Stem Cell Research Center/Neuron

Harnessing the Immune System to Control Disease

When the T-cell recognizes an antigen, it gives the cell presenting the antigen a "hug," so to speak, instead of a handshake. This initial interaction causes the T-cell to search nearby to find other cells that are presenting the same antigen to give them "hugs" as well. UCLA researchers have discovered that after the initial hug, T-cells become more gregarious, giving something more like a bear hug to any cell presenting its antigen.

These larger hugs help to activate the T-cell, equipping it to go out into the body and coordinate multi-cellular attacks to fight infections or cancers. The UCLA team learned that how stiff or soft T-cells are controls their response — the cells react slowly when they are stiff and trigger easily when they are soft. "T-cells are like the shy person at the office holiday party who acts stiff until they loosen up a bit and then are all over the dance floor," says Manish Butte, MD, PhD, associate professor of pediatrics and microbiology, immunology and molecular genetics.

Dr. Butte and his colleagues pioneered an approach using an instrument called an atomic-force microscope to make real-time observations about what excites T-cells at the nanoscale. Once they learned that T-cells soften after activation, the UCLA team identified the biochemical pathway that controls the cell's stiffness. Then they identified drugs that can help the T-cells either elicit or subdue a response. The finding provides scientists with a new capability to manipulate the immune system, Dr. Butte says.

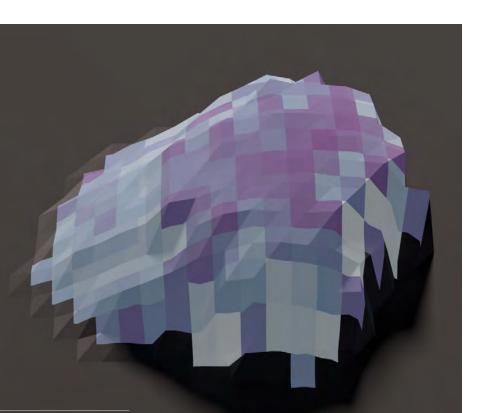
Diseases arise in people and animals when T-cells attack the body's other cells, or when they fail to signal attacks against cancer cells or infectious pathogens. "Until now, we had a limited understanding of what controls T-cell activation," says Dr. Butte, chief of pediatric allergy and immunology at UCLA Mattel Children's Hospital and a member of the UCLA Children's Discovery and Innovation Institute. "Now that we understand the precise steps taking place, our findings suggest that altering T-cell stiffness with drugs could one day help us thwart diseases where T-cells are too active or not active enough."

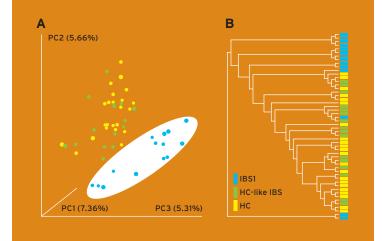
Dr. Butte and his colleagues are beginning to apply these findings to diminish the role T-cells play in triggering type 1 diabetes. "We can't talk about precision medicine and still use a sledgehammer to treat disease," Dr. Butte says. "By exploiting the mechanism we discovered to soften T-cells, we could accelerate vaccine responses so a patient won't need multiple boosters and months of waiting to get full immunity. Or we could stiffen up T-cells to prevent the body from rejecting transplanted organs."

"Cytoskeletal Adaptivity Regulates T-cell Receptor Signaling," *Science Signaling*, March 7, 2017

In atomic-force microscopy image of a T-cell, dark purple indicates stiffer sections and lighter purple represents softer spots.

Image: Courtesy of Dr. Manish Butte





Sequencing analysis of gut microbiota (16s rRNA) revealed two distinct IBS subgroups, one indistinguishable from healthy control subjects (HC-like IBS, green) and one that differed in its microbial composition (IBS1, blue). Clusters were identified by A) principal component analysis based on operational taxonomic units (OTUs) and B) hierarchical clustering based on similarity of microbial units. Image: Courtesy of Dr. Emeran Mayer

Gut-Brain Association in People with IBS

A new study by UCLA researchers has revealed two key findings for people with irritable bowel syndrome (IBS) about the relationship between the microorganisms that live in their gut and their brains. The research has discovered an association between the gut microbiota and the brain regions involved in the processing of sensory information from their bodies. The results suggest that signals generated by the brain can influence the composition of microbes residing in the intestine and that the chemicals in the gut can shape the human brain's structure. Additionally, the researchers gained insight into the connections among childhood trauma, brain development and the composition of the gut microbiome.

The UCLA researchers collected behavioral and clinical measures, stool samples and structural brain images from 29 adults diagnosed with IBS and 23 healthy control subjects. They used DNA sequencing and various mathematical approaches to quantify composition, abundance and diversity of the gut microbiota. They also estimated the microbial gene content and gene products of the stool samples. Then the researchers cross-referenced these gut microbial measures with structural features of the brain.

Based on the composition of the microbes in the gut, the samples from those diagnosed with IBS clustered into two subgroups. One group was indistinguishable from the healthy control subjects, while the other differed. Those in the group with an altered gut microbiota had more history of early-life trauma and longer duration of IBS symptoms. The two groups also displayed differences in brain structure.

A history of early-life trauma has been shown to be associated with structural and functional brain changes and to alter gut microbial composition. It is possible that the signals the gut and its microbes receive from the brain of an individual with a history of childhood trauma may lead to lifelong changes in the gut microbiome.

"Differences in Gut Microbial Composition Correlate with Regional Brain Volumes in Irritable Bowel Syndrome," *Microbiome*, May 1, 2017

Conscious Sedation a Safe Alternative for Heart-valve Procedure

UCLA scientists have found that conscious sedation — a type of anesthesia in which patients remain awake but are sleepy and pain-free — is a safe and viable option to general anesthesia for people undergoing a minimally invasive heart procedure called transcatheter aorticvalve replacement. The study, led by Richard Shemin, MD, Robert and Kelly Day Professor of Surgery and chief of cardiac surgery, found that patients who underwent conscious sedation had a similar rate of adverse events to those who underwent anesthesia. However, those who received conscious sedation

had shorter stays in the intensive care unit and shorter hospital stays. The direct costs for their care were 28 percent lower, and almost all other medical costs were lower as well.

Aortic stenosis is a common disease, particularly among people 75 and older, in which one of the valves of the heart narrows and impedes blood flow to the body.

Previously, treating aortic stenosis required open-heart surgery. In recent years, the use of transcatheter aortic-valve replacement, or TAVR, has made the repair safer.

A UCLA study found that keeping patients awake but sleepy during transcatheter aortic valve replacement is preferable to general anesthesia.

Image: Courtesy of Edwards Lifesciences

Physicians place a new valve in the heart via a catheter inserted through the patient's leg, which results in less injury and an easier recovery than open-heart surgery.

The study was the first to detail the cost differences and outcomes between conscious sedation and general anesthesia during TAVR. Researchers analyzed records of 196 adult patients who underwent TAVR at Ronald Reagan UCLA Medical Center between August 2012 and June 2016. The researchers note that a large-scale, controlled and randomized study should be conducted to validate their findings. Based on the study, patients undergoing TAVR should receive conscious sedation instead of general anesthesia whenever possible.

"Improved Costs and Outcomes with Conscious Sedation vs General Anesthesia in TAVR Patients: Time to Wake Up?" *PLOS ONE*, April 5, 2017

sthesia. However, those who

How Advanced Melanoma Resists Immunotherapy

A new study by scientists at the UCLA Jonsson Comprehensive Cancer Center could be a significant step toward understanding how certain cases of advanced melanoma shield themselves from pembrolizumab, the U.S. Food and Drug Administration (FDA)-approved treatment that harnesses the immune system to attack the disease.

The research, led by Antoni Ribas, MD (FEL '98, '01), PhD, director of the immunotherapy program at the UCLA Jonsson Comprehensive Cancer Center, studied how melanoma cancer cells react to the interferon gamma pathway, which guides cell signaling and can affect the way cancer cells react to pembrolizumab. The team then discovered and mapped out the molecules involved in the signaling pathway. The findings lay the groundwork for developing new and improved combination therapies for patients who are resistant to stand-alone immunotherapy treatments.

Pembrolizumab works by signaling the patient's immune system to recognize and attack cancer cells, with minimal side effects. The FDA approved the drug in 2014 to treat advanced

melanoma and, more recently, to treat people with advanced non-small cell lung cancer. The medication is currently being tested as a treatment for other types of cancer.

In February 2017, a study published by Dr. Ribas and colleagues showed that people with cancers containing genetic mutations JAK1 or JAK2 (which are known to prevent tumors from recognizing or receiving signals from T-cells to stop growing) will receive little or no benefit from pembrolizumab. This discovery enabled the scientists to determine why some people with advanced melanoma or colon cancer will not respond to the drug.

That built on 2016 research by Dr. Ribas and colleagues, in which they analyzed pairs of tumors both before a patient had undergone immunotherapy treatment and after relapse. The results showed that one of the tumors lost a gene called B2M, which resulted in a change in how the cancer is recognized by the immune system. The disruption caused JAK1 and JAK2 to function improperly and prevented the immune system from attacking the cancer.

The new study was conducted over a two-year period; the scientists analyzed dozens of melanoma cell lines and several tumor samples from patients. In the laboratory, researchers also used an advanced technology called a lentivirus shRNA screen to locate which molecules were involved in the interferon-receptor-pathway-signaling process. The research allows further investigations into how the immune systems of patients with advanced cancers can resist anti–PD-1 immunotherapy treatments, the class of treatments that includes pembrolizumab.

"Interferon Receptor Signaling Pathways Regulating PD-L1 and PD-L2 Expression," *Cell Reports*, May 9, 2017

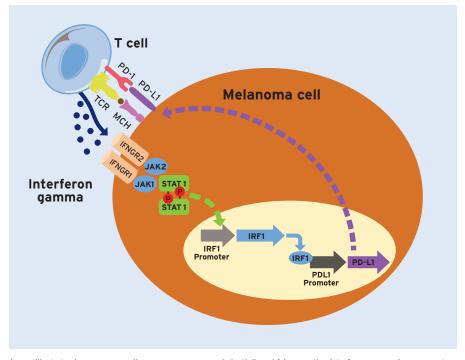


Image illustrates how a cancer cell expresses programmed-death ligand 1 by secreting interferon gamma in response to immune-cell attack.

Image: Courtesy of Dr. Antoni Ribas



In his famous experiment, Russian scientist Ivan Pavlov rang a bell each time he fed his dogs. Soon, the dogs began drooling in anticipation when they heard the bell, even before food appeared. Now a UCLA study has traced the Pavlovian response to a small cluster of brain cells — the same neurons that go awry in Huntington's disease, Parkinson's disease and Tourette's syndrome. The research could eventually help scientists identify new approaches to diagnosing and treating these neurological disorders.

"Species survive because they've learned how to link sensory cues like specific sounds, smells and sights to rewards like food and water," says Sotiris Masmanidis, PhD, assistant professor of neurobiology. "We wanted to uncover the brain circuitry that encodes reward-based learning and behavior."

The UCLA team focused on cellular activity in the striatum, a part of the brain associated with reward, movement and decision-making. In a modern version of Pavlov's experiment, Dr. Masmanidis and colleagues repeatedly exposed mice to the unfamiliar scent of banana or lemon, followed by a drop of condensed milk. Eventually, the mice learned that the fragrances predicted the arrival of a sweet reward and began fervently licking the air in anticipation.

Based on clues from earlier studies, the team zeroed in on a tiny group of cells that support the principal neurons in the striatum. Although these supporting players compose fewer than 2 percent of Illustration: Maja Moden

the cells in the region, the scientists were surprised to discover that they play a disproportionately important role. Using a combination of specialized electrodes and optogenetics — the use of light to control cells — they were able to "turn off" those support cells. "When we switched off the support cells, the mice licked the air in anticipation of the milk only half as often as normal," Dr. Masmanidis says. "We suspect that the support cells enhance the brain circuits that encode Pavlovian response."

The support cells' influence appeared strongest when the mice were first learning to pair the unfamiliar scents with a reward. The change was less dramatic in mice who had already mastered the connection. "These cells were most essential to inexperienced mice who hadn't yet mastered the Pavlovian response," says Dr. Masmanidis, a member of UCLA's California NanoSystems Institute and Brain Research Institute. The findings suggest that neurological disorders could be caused in part by malfunctioning support cells and that restoring the cells' function may eventually help people with these diseases.

"Parvalbumin Interneurons Modulate Striatal Output and Enhance Performance during Associative Learning," *Neuron*, March 22, 2017

Promising Finding for Children after Brain Injury



12 months late

Brain images taken a year apart show different recovery trajectories in children after mild-to-traumatic brain injury. In the top row, the color red signifies ongoing decline. In the middle row, the change in color from red to yellow shows cognitive recovery. The bottom row images come from a healthy control.

UCLA scientists have found that a new biological marker may help doctors identify children at risk of poor outcomes after a traumatic brain injury. The discovery will allow researchers to focus on ways to prevent progressive cognitive decline seen in roughly half of children with moderate-to-severe traumatic brain injuries. "It's really very hopeful. It means there's something we can do about this," says Robert Asarnow, PhD, Della Martin Professor of Psychiatry in the UCLA Department of Psychiatry and Biobehavioral Sciences.

The study involved 21 children with moderate-to-severe traumatic brain injuries who were treated in hospital intensive care units in Los Angeles County. Causes of injuries included auto-pedestrian accidents, motor-vehicle accidents and falls from bikes, scooters and skateboards. The children, ages 8 to 18, were evaluated twice — two-to-five months after injury and again at 13-to-19 months post-injury. The results were compared with children of the same age who had not had a brain injury.

Researchers at UCLA and elsewhere have observed that after children sustain a moderate-to-severe traumatic brain injury, they typically follow one of two trajectories — either steady gains toward normal, pre-injury functioning, or progressive, widespread cognitive decline. However, researchers have been unable to predict the outcomes early on. In fact, studies have shown that brain damage visible on a computed tomography scan does not accurately predict a patient's potential for full recovery. It is only later, often after the child returns to school, that parents start noticing the child is falling behind or has problems with attention, learning or depression.

To detect which individuals might be at risk for ongoing cognitive decline, a team of researchers from different medical specialties used special magnetic resonance images (MRIs) and electroencephalograms to measure the speed of brain signals passing from one hemisphere of the brain to another, a measure of brain function. Previous studies have shown that both children and adults have slow signal transfer times right after a traumatic brain injury.

In the first assessment, the children wore headphones and

watched a movie while the MRI scanner assessed the integrity of the brain's white matter, which connects different brain regions to support cognitive functions. The children also took tests of attention and memory skills. After the first assessment, UCLA researchers found half of the children had brain-signaling speeds within normal range, an indication of healthy white matter. The other half had significantly slower signaling, compared with healthy children, an indication of white matter disorganization or disruption.

At 13-to-19 months after their injuries, the children who had normal signaling at the first assessment still compared favorably with healthy peers. In contrast, the children with slower signaling showed progressive decline in white matter organization and loss of white matter volume. Researchers suspect a prolonged inflammatory process might be causing ongoing damage to the still-maturing brain. Anti-inflammatory agents might alter this course, Dr. Asarnow says, but these agents may have some adverse effects. Researchers noted the study was small, and the results need to be confirmed in larger studies.

"Diverging White Matter Trajectories in Children after Traumatic Brain Injury," *Neurology*, March 15, 2017

Combination Therapy Could Provide New Treatment for Ovarian Cancer

Researchers have been trying to understand why up to 85 percent of women experience recurrence of high-grade serous ovarian cancer — the most common subtype of ovarian cancer — after standard treatment with the chemotherapy-drug carboplatin. Preclinical research from Sanaz Memarzadeh, MD (RES '00, FEL '03), PhD, a member of the Eli and Edythe Broad Center of Regenerative Medicine and Stem Cell Research at UCLA and director of the G.O. Discovery Lab, has potentially solved this mystery and pinpointed a combination therapy that may be effective for up to 50 percent of women with ovarian cancer.

Dr. Memarzadeh's research shows a combination therapy of carboplatin and an experimental drug called birinapant can improve survival in mice with ovarian-cancer tumors. Additional findings reveal that testing for a specific protein could identify ovarian tumors for which the treatment could be effective. The treatment also could target cancers that affect other parts of the body, including the bladder, cervix, colon and lung.

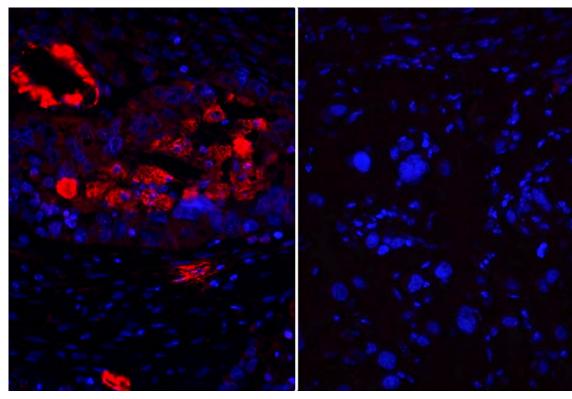
The team first tested if the combination therapy could improve survival in mice. Half of the mice tested had carboplatinresistant human ovarian-cancer tumors and the other half had carboplatin-sensitive tumors. The team administered birinapant or carboplatin as well as the two drugs combined and then monitored the mice over time. While birinapant or carboplatin alone had minimal effect, the combination therapy doubled overall survival in half of the mice, regardless of whether or not they had carboplatin-resistant or carboplatin-sensitive tumors.

To assess the combination therapy's rate of effectiveness in tumors, the team went on to test 23 high-grade serous ovarian-cancer tumors from independent patients. Some were from patients who had never been treated with carboplatin, and some were from patients who had carboplatin-resistant cancer. With these samples, the researchers generated ovarian-cancer tumors utilizing a method called disease-in-a-dish modeling and tested the same treatments previously tested in mice. Once again, carboplatin or birinapant alone had some effect, while the combination of birinapant and carboplatin successfully eliminated the ovarian-cancer tumors in approximately 50 percent of samples. However, the combination therapy worked for both carboplatin-resistant and carboplatin-sensitive tumors.

The researchers also measured cIAPs, which prevent cell death after chemotherapy and are the target for the drug birinapant, in the tumors. They found a strong correlation between cancer stem cells with high levels of cIAP and a positive response to the combination therapy. Since elevated levels of cIAPs have been linked to chemotherapy resistance in other cancers, the researchers wondered if the combination therapy could effectively target those cancers as well.

The team created disease-in-a-dish models using human bladder, cervix-, colon- and lung-cancer cells and tested the combination therapy. Similar to the ovarian-cancer findings, 50 percent of the tumors were effectively targeted, and high cIAP levels correlated with a positive response to the combination therapy. Dr. Memarzadeh believes the research potentially points to a new treatment option. She hopes to initiate a phase 1/2 clinical trial.

"Birinapant Sensitizes Platinum-resistant Carcinomas with High Levels of cIAP to Carboplatin Therapy," *Precision Oncology*, April 3, 2017



Ovarian-cancer tumors with higher percentages of cIAP-expressing cells (red) were more sensitive to a potential combination therapy than tumor cells without cIAP-expressing cells.

Graphic: Courtesy of UCLA Broad Stem Cell Research Center/Precision Oncology

Vision Quest

On the occasion of the 50th anniversary of UCLA Stein Eye Institute, director Bartly J. Mondino, MD, reflects on the advances that have taken place in his specialty over the past half-century.

Bartly J. Mondino, MD

Director, UCLA Stein Eye Institute

Chair, UCLA Department of Ophthalmology

Bradley R. Straatsma, M.D., Endowed Chair in Ophthalmology UCLA Stein Eye Institute, which recently celebrated its 50th anniversary, consistently is ranked among the top centers in the nation for the preservation of sight and prevention of blindness, as well as for its groundbreaking research, training program and outreach to the community locally and globally. The Stein Eye Institute's surgical- and outpatient-treatment volume has grown more than tenfold since its opening. Bartly J. Mondino, MD, director of UCLA Stein Eye Institute, chairman of the UCLA Department of Ophthalmology and the Bradley R. Straatsma, M.D., Endowed Chair in Ophthalmology, spoke with U Magazine contributing writer Dan Gordon about the advances that have occurred in his field over the last 50 years and the impact UCLA Stein Eye Institute continues to have.

How different is the practice of ophthalmology today from when Stein Eye Institute opened its doors 50 years ago?

Dr. Bartly J. Mondino: Over the course of five decades, every aspect of our work here has been refined and redefined. We see developments almost every day: greater precision, smaller incisions, more detailed imagery, better ways to identify problems,

new treatments for the previously untreatable. All of these elements are changing patient care for the better.

What are some of the best examples of these advances?

Dr. Mondino: Cataract surgery is a good example. It is the most common eye surgery. When I started in ophthalmology in the 1970s, large incisions were necessary, and techniques were in use that didn't completely correct vision. Patients stayed for several days in the hospital, after which they still required very thick glasses or contact lenses. Fast forward to the present day, when cataract surgery is an outpatient procedure with a small incision, and the patient goes home with a lens inserted in the eye to correct vision. Instead of the inpatient operating rooms of the Jules Stein building, patients now go to an outpatient surgical center in the new Edie & Lew Wasserman Building, where we have six stateof-the-art operating rooms designed so that every procedure, from the simplest to the most complex, can be done as comfortably and conveniently as possible for patients. So, we've seen an evolution of cataract surgery from a long, intense process to a short, efficient, comfortable process.



Bartly J. Mondino, MD Photography: Ann Johansson

We've also seen important advances in corneal surgery. What often leads to the need for surgery is that the cells in the back of the cornea aren't functioning properly — they aren't pumping fluid out. As a result, the whole cornea becomes thick and swollen, which affects vision. Today, in many cases, rather than replacing the entire central cornea, we have the option of replacing only the back layers, which means less chance of rejection, along with a smaller-size wound and less suturing.

Another dramatic example is in macular degeneration, a leading cause of vision loss among older adults and previously untreatable. Now, with anti-VEGF therapy, we inject medications into the vitreous of the eye to prevent the growth of blood vessels that have the potential to rupture and cause vision loss. If there are blood vessels growing in the macula, you can use these intravitreal agents to suppress them and prevent the bleeding. At the Stein Eye Institute, we were part of the early clinical trials of these agents, some of which also are being used for diabetic retinopathy, which is a growing concern, given the epidemic of diabetes in our society.

What other conditions do you see more today than in the past?

Dr. Mondino: Age is the major risk factor for most of the conditions we see. So when you think about how much longer we're living today than people lived 50 years ago, it's not surprising that we're seeing more cataracts, more macular degeneration and more glaucoma, which have been the three biggest causes of visual disability in the United States. We don't think much about cataracts because they're so easily treated now, but that would be a leading cause of blindness if left untreated. The conditions that are causing the most blindness now are glaucoma and macular degeneration.

You spoke of the advances in treating macular degeneration. Where is the field with glaucoma?

Dr. Mondino: Glaucoma continues to be treated using topical drops and drugs, and if that's not successful, surgery is performed. Today, there are less extensive surgical treatments for glaucoma using smaller devices, which makes for a faster

"We see developments almost every day: greater precision, smaller incisions, more detailed imagery, better ways to identify problems, new treatments for the previously untreatable."

CONVERSATION

"With these sites, plus the Mobile Eye Clinic and the Doheny Eye Center UCLA locations, we are reaching more people than ever before." recovery, but, unfortunately, the vision outcomes are not significantly improved. So glaucoma still is a big challenge and a major research focus. In addition to controlling the intraocular pressure, there is an ongoing focus on finding agents that will protect cells in the retina so they don't degenerate.

What advances will we be talking about in the near future? What are some of the areas of research that you are most excited about?

Dr. Mondino: One is the potential for using stem cells to replace the retinal pigment epithelium in the back of the eye, which is lost in macular degeneration. Just a couple of years ago, the first human embryonic stem cells were injected beneath the retina in our operating rooms. Another exciting area involves the use of gene therapy for patients with certain genetic conditions that are affecting the eye. There are studies looking at that now. And, finally, big data will enable researchers to look for patterns in databases with millions of patients as a way to get clues that can be used to try to solve some of the mysteries associated with certain conditions. There also is interest in the use of bioelectronic chips to restore retinal vision. So far, it's only rudimentary vision, not any kind of detail, but with advances in the technology, this could be beneficial in the future. There also is an interest in robotic surgery. Our scientists here are looking at that, but so far, it doesn't have a place in ophthalmology, given the delicacy of eye surgery.

How is the study and treatment of ophthalmic diseases different from research and treatment involving other parts of the body?

Dr. Mondino: The eye is one of the most sophisticated structures in nature. It captures and absorbs light, it pumps chemicals, it protects from infection. And when the protective parts of the eye — the lids, the tear film, the surface lining break down, it can cause devastating infections. On the other hand, when it comes to treatment, there actually are a lot of advantages. You can see what you're working on, unlike internal organs in the body. I can see the cornea, break all the layers down with the slit lamp, look into the eye with the ophthalmoscope and see the retina, the blood vessels, the nerves and the vitreous. Of course, the eye is very delicate and sensitive, so you don't have room for error. And patients tend to be more nervous when it's their eyes being treated as opposed to other parts of the body.

In December 2013, The UC Regents signed an affiliation agreement with Doheny Eye Institute that has led to the opening of three Doheny Eye Center UCLA locations — in Arcadia, Fountain Valley and Pasadena — along with UCLA Stein Eye Institute facilities in Westwood and Santa Monica. What is the significance of this agreement?

Dr. Mondino: This is an unprecedented affiliation in ophthalmology, combining the tremendous

"We've gone from performing approximately 1,800 surgical procedures in 1967 to 19,000 a year today. We did about 20,000 outpatient visits when Stein first opened; now it's a quarter-million a year."



resources of both institutes with synergies in vision research and education. It expands UCLA's footprint tremendously by providing patients with greater access to the top doctors from both institutes. We are the hub here in Westwood, but we also have integrated programs at Harbor-UCLA Medical Center, Olive View-UCLA Medical Center, the Greater Los Angeles VA Healthcare System at Sepulveda and West Los Angeles and our Stein Eye Center in Santa Monica. With these sites, plus the Mobile Eye Clinic and the Doheny Eye Center UCLA locations, we are reaching more people than ever before. It means we're doing a lot more eye care for Los Angeles, whether it's for those who can afford it or those who can't. We've gone from performing approximately 1,800 surgical procedures in 1967 to 19,000 a year today. We did about 20,000 outpatient visits when Stein first opened; now it's a quartermillion a year. Then there's the research and the training for all the ophthalmologists of the future the residents, as well as fellows, who come from all over the world to train here.

You alluded to doing eye care for those who are not able to afford it. Expand on that.

Dr. Mondino: Community outreach is one of our missions, along with research, education and patient care. The Mobile Eye Clinic, which the UCLA Stein Eye Institute has operated for more than 40 of its 50 years, travels to schools, senior centers, health fairs, homeless shelters and low-income community clinics to provide screening and care. To date, more than 300,000 children and adults have been reached. These efforts have been intensified; in just the last few years, we have screened nearly 100,000 children. It's wonderful to say Stein Eye Institute is helping patients who come to us from all over the world, but

if people in our own backyard are struggling with vision problems, we have work to do, and often that means we need to go to them.

Obviously everyone wants to see well, but what's the larger impact Stein Institute makes by addressing vision problems?

Dr. Mondino: Just as an example, a member of our faculty conducted a study showing that cataract surgery reduced the risk of fall-related hip fractures among the elderly. So these advances have a publichealth impact beyond the quality of life that comes with better vision. When older adults fall, it can lead to fractures and serious health declines.

On the other side of the age spectrum, we know that vision problems can affect school performance, and, too often, children in underserved communities are just living with those problems. If they can't see, they won't do well in school. Through our Mobile Eye Clinic, we are doing outreach in these communities to provide eye care and glasses, as well as to screen children so they are ready when they go to school. Many people can't afford eye examinations for their children. Even when the child gets an exam, the family might not be able to afford glasses, and even when the child gets glasses, stigma may prevent the child from wearing them. To address that, we have a comprehensive program to examine, treat, provide glasses and make sure parents and teachers understand that if these glasses sit in a drawer, they aren't providing any benefit. Not only that, but for every 100 kids who are screened, we also will find some with a pathology that the family hadn't known about, and it's important to be able to diagnose and treat those children as well.

"Many people can't afford eye examinations for their children. Even when the child gets an exam, the family might not be able to afford glasses, and even when the child gets glasses, stigma may prevent the child from wearing them. To address that, we have a comprehensive program to examine, treat, provide glasses and make sure parents and teachers understand that if these glasses sit in a drawer, they aren't providing any benefit."

COMMUNITY ENGAGEMENT

Healing Body, Mind and Spirit

Operation Mend was established in 2007, based on the vision of Ronald Reagan UCLA Medical Center Board and Executive Committee member Ronald A. Katz and his wife Maddie. The original mission was to give returning service members with severe facial injuries access to the Army's best burn center, in Texas, and the nation's best plastic and reconstructive surgeries, at UCLA. The program has since expanded to mental-health support for military men and women and their families, orthopaedic reconstruction for severely damaged limbs, the design of prosthetic ears, otolaryngological care, the repair of airways and urologic and reproductive-system treatment.



For more information, go to: operationmend.ucla.edu









Since its inception, Operation Mend has treated more than 100 men and women from all branches of the military. The program is available at no cost to eligible warriors injured during post-9/11 combat operations or while training for service.

U inspire us every day



UCLA Health ranked #1 in Los Angeles and #7 in the Nation

U.S. News & World Report

Here's to you, the patients, families, volunteers and communities who inspire us to be our best in all that we do. For 28 consecutive years, *U.S. News & World Report* has ranked UCLA Health at the top of its Best Hospitals rankings. And while we are honored by that recognition, the greatest honor for our extraordinary healthcare team is delivering world-class, compassionate care to you and your family.

To learn more about the staff and patient stories pictured above and the many others that inspire us, go to connect.uclahealth.org



it begins with U



1-800-UCLA-MD1 or visit uclahealth.org



HOME IMPROVEMENT

BY DAN GORDON • PHOTOGRAPHY BY GREGG SEGAL

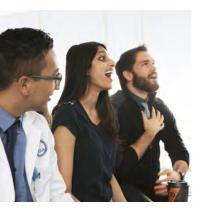
The opening of Geffen Hall as the ultramodern and high-tech hub of the David Geffen School of Medicine at UCLA heralds a new era of education that promises to be at the forefront of medicine in the future.

Practically speaking, Geffen Hall, the new student-education building that opened in winter 2017, gives the David Geffen School of Medicine at UCLA a distinct and recognizable home after more than 60 years of being tucked away within the vast expanse of the Center for the Health Sciences (CHS). There, the school was folded into a facility of 3.1-million square feet and with more than 28 miles of corridors.

But the six-level, 110,000-square-foot Geffen Hall, near the intersection of Le Conte Avenue and Tiverton Drive, is much

more than just a first-ever physical hub for the medical school and a new southern entryway to the UCLA campus. It is viewed by the school's leadership as a gateway of another sort — ushering the Geffen School into a new era of medical and biomedical education that is in step with a rapidly changing healthcare environment.

The architecture of Geffen Hall embodies the medical school's evolving mission. The building's





Top: Students like (from left) Hiro Sparks, Nirali Patel and Jonathan Warren gather and interact in the spacious student lounge. **Bottom:** The lounge offers quiet study spaces and scenic views. glass exterior and open layout signal transparency, its large windows providing sweeping views of a community the school is determined to actively engage. Provisions for advanced multimedia technology reflect the school's desire to connect to the broader world — both to Ronald Reagan UCLA Medical Center nearby and to partners around the globe. And, at a time when teamwork is increasingly emphasized in biomedical science and healthcare, a host of interconnected spaces surrounding a central courtyard ensures that students and faculty will frequently cross paths as they move between teaching and learning activities, while comfortable common areas are designed to foster a collaborative learning community.

Indeed, notes Clarence H. Braddock III, MD, vice dean for education and Maxine and Eugene Rosenfeld Endowed Chair in Medical Education, Geffen Hall represents much more than a simple change of address. "With the new space, there is a certain excitement for students and faculty to begin to catalyze a period of innovation around content and methods of teaching," he says. "We are entering a time of curriculum renewal."

MUCH HAS CHANGED IN THE MORE THAN

60 YEARS SINCE CHS, which heretofore housed the medical school's classrooms and labs, was built. "Back then, if you were a first- or second-year medical student, you spent most of your time listening passively in lecture halls and then studying and taking tests," Dr. Braddock says. "With advances in technology and a better understanding of the science of teaching and learning, we now know that there are much more effective approaches for which the traditional lecture hall isn't the right kind of space."

Those approaches include small-group settings, where students are more accountable for their learning and can more easily interact with their instructors and other students. For example, problem-based learning workshops assign groups of eight-to-12 students a clinical case on a Monday morning and have them work toward a solution by Friday, as they are concurrently attending lectures and labs. In addition, Dr. Braddock notes, teaching increasingly has moved to simulated environments, where students can practice conducting physical exams and performing procedures prior to seeing live patients. These, too, can be incorporated into problem-solving exercises in small-group settings.

Dramatic changes in medical science and healthcare delivery demand both a rethinking of and new approaches to training tomorrow's physician leaders, Dr. Braddock says. With the explosion of genomic and other basic-science information on health and disease, along with the technological tools to access it, the focus has shifted away from asking students to memorize facts and toward giving them the skills to quickly mobilize knowledge at the point of care. "It's much more important that today's students learn how to learn and that they have the opportunity to take those foundational concepts and apply them in realistic kinds of scenarios, as well as to be able to toggle back and forth between basic-science concepts and clinical applications so that they're bringing those concepts to life," Dr. Braddock explains.

The ever-growing volume of data now available in healthcare — electronic medical records with patient histories, lab tests, imaging studies and genomic information — is fueling a move toward precision medicine. "Physicians of the future will need to understand disease at both the population level and in a personalized way for each individual," says Kelsey C. Martin, MD, PhD, dean of the medical school. "The scholarship on how best to utilize all of this information is still being developed, but it will clearly involve a quantitative approach to large data sets and the use of technology."

At the same time, healthcare leaders now are placing more emphasis on patient- and familycentered care, underscoring the importance of preparing future doctors who will be effective and empathic listeners who can skillfully work with patients and their families to navigate difficult decisions. And, as the nation grapples with how to improve the health of the population as a whole, there is a need for physicians who understand the social determinants of health, including the impact of factors such as education, employment, housing and the physical environment within which people live.

Far more than in the past, physicians are working in teams — both with other doctors and with other healthcare professionals such as nurses, pharmacists, dietitians and physical and respiratory therapists in order to meet higher standards for quality care. "Along with most other medical schools in the country, we are recognizing the need for more interprofessional education," Dr. Martin says. "Physicians work alongside nurses in most settings, and we need to partner with our colleagues in public health when we are thinking about population health. As we examine how to transform health in the future, understanding how to apply important basic-science discoveries is going to be critical. So creating more opportunities for our medical students to interact with nursing, dental, public health and biomedicalresearch students is something that we value."

BY PROVIDING A VASTLY DIFFERENT

ENVIRONMENT for teaching, learning and informal interactions, Drs. Martin and Braddock say, Geffen Hall makes it considerably easier for the medical school to train students toward these and other goals.

Conceived through a year of intensive planning among medical-school faculty and students and architects, Geffen Hall features a modern exterior design that incorporates the UCLA motif of brick and aluminum, along with landscaping that integrates the adjacent Mildred E. Mathias Botanical Garden. Geffen Hall's liberal use of glass and large windows is intended to promote interaction as much as to draw in the outside light. "It's a huge contrast to where we were before, where everything was internal, and the only real daylight we saw was when we sat outside for lunch," says Orly Bell, a secondyear student. "As medical students, we spend most of our time indoors studying, and now, within this space, we always have lots of natural light."

The centerpiece of Geffen Hall is the open-air central courtyard — described by its architects as the "social heart" around which the building is constructed. The ground level includes benches and plantings, but it is made up mostly of a stone-paved surface that encourages people to congregate. The two levels surrounding the courtyard feature openair balconies with seats and counters where students can mingle and study. Exterior stairways rising from the courtyard, also in the open air, are intended to draw attention to the life of the facility. "We've used the Los Angeles climate as an important part of the experience of the building," says Craig Hartman, the partner in charge of design for Skidmore, Owings & Merrill, LLP, the project's architects. "We have walkway spaces protected from rain, but we've brought most of the circulation for the building to the open-air exterior, which takes people out of their closed environment and makes them a much more lively part of the building's social experience."

Inside Geffen Hall, the designers aimed for flexibility, with open spaces and the ability to reconfigure rooms to tailor educational activities for small, mid-size and larger groups. "This building was designed with a recognition that the way we teach medicine now is different from how it used to be and that we will continue to undergo changes in the future," Dr. Martin says. Similarly, classrooms are equipped for leading-edge learning technologies, such as multimedia teleconferencing, virtual reality and simulation activities, while remaining suitable for small roundtable discussions that promote critical thinking and active engagement of learners.

THE BUILDING FEATURES A NUMBER OF SIGNIFICANT SPACES. Among them:

Auditorium Suite. Gravitas is how Dr. Braddock describes this technology-optimized space, which will be a centerpiece for renowned speakers and thought leaders on the south end of the UCLA campus. The 223-seat room includes outlets and microphones at every seat to encourage dialogue, multiple screens with high-speed internet and videoand teleconferencing that seamlessly connect with remote institutions.

Studio Classroom. This large multipurpose room on the building's ground level can hold up to 400 people with flexible seating. It opens directly to the central courtyard and the entry plaza, making it ideally suited for health fairs, community forums and other events. The room is designed to leverage the latest technologies and dynamic teaching methods, its flat floor drawing a sharp contrast with the traditional sloped topography of a typical lecture hall — a signal that the audience will be actively engaged in the discussions. Increasingly, Dr. Braddock notes, straight lectures are giving way to team-based learning, with presentations interspersed with smallgroup work, during which the instructor wanders the classroom to guide students.

Teaching Laboratory. A "classroom of the future" that can accommodate a 200-student lecture or be divided into two sections, the third-floor room is particularly suited to evolve with curricula and technology. It incorporates interactive digital-learning programs, virtual microscopy and

"The architecture of Geffen Hall embodies the medical school's evolving mission. The building's glass exterior and open layout signal transparency, its large windows providing sweeping views of a community the school is determined to actively engage."



Outdoor passageways also provide opportunities for students to meet and collaborate.

"We need to think about medicine beyond the walls of the hospital and the clinic — and in our case beyond the walls of the medical school and focus more on enhancing health through working with communities."



The open spaces of Geffen Hall increase the opportunities for interaction among students like third-year Gabriela Gonzalez and second-year Michael Lor.

treatment-simulation programs. A technology workstation projects between the student stations and the instructor station. Small groups of students can collaborate as teams with flat-panel displays, speakers and cameras with which they can use computer-based technology to create simulations. A case study of congestive heart failure, for example, might display the vital signs of a patient in a cardiac-care unit, then allow students to see the real-time impact of their interventions on the patient's physiology.

Clinical Skills Lab. An extension of the existing stateof-the-art UCLA Simulation Center, the lab provides a place for students to prepare for real-world settings by practicing clinical skills such as heart, ear, breast, prostate and gynecology exams, as well as ultrasound and CPR, on simulators and manikins in an accurate re-creation of a clinical setting.

Problem-based Learning (PBL) Rooms. To enhance the student-centered teaching and learning approach that was pioneered at UCLA and is a distinguishing feature of the David Geffen School of Medicine at UCLA curriculum, Geffen Hall's PBL classrooms are designed to fit the small groups of students who work together to formulate the questions that will become their learning objectives. Larger seminar rooms accommodate up to 30 learners for broader PBL analyses and small conferences.

Case Study Rooms. Inspired by business- and law-school instruction models, these semi-circular classrooms have a "well" in the middle for the instructor — a configuration that allows for more intimate group instruction and communication than the traditional lecture setting.

"This building has the types of spaces that don't exist anywhere else on the campus, which will allow us to do things we weren't able to do before," Dr. Braddock says. "But equally important, it provides us with the flexibility to step back at times and actively explore innovative new ways of teaching and learning that are best aligned with our goals."

GEFFEN HALL'S VERY LOCATION SENDS

ANOTHER IMPORTANT SIGNAL, accentuated by the design of the building and the surrounding site. Facing Le Conte Avenue, it serves as a portal between Westwood Village and the UCLA campus, which the school's leadership expects will accelerate efforts to engage with the broader community, as well as with other parts of the university. In addition to serving medical students and trainees, the space will provide a venue for UCLA-hosted public lectures, health fairs and seminars. "We need to think about medicine beyond the walls of the hospital and the clinic — and in our case beyond the walls of the medical school — and focus more on enhancing health through working with communities," Dr. Braddock says.

Hartman, the architect, describes this new interface as "stepping out from behind the hedges. Most of the university is behind landscapes and more internally focused. Given the site location, this was an opportunity to embrace the community," he says.

To enhance the portal effect, the building's designers sought to convert what Hartman calls a "spaghetti bowl" of service roads accessing the parking structures and Tiverton Drive into a cohesive site that is primarily accessed by pedestrians and bicyclists. The design also is intended to ensure that Geffen Hall will be used as the gateway to CHS and other parts of the UCLA campus from the south. In addition to the pedestrian-friendly courtyard on the first level, the second level, which connects with the Irma and Norman Switzer Plaza, features a café plaza where students, faculty and staff from nearby parts of campus, as well as from the medical school, can congregate.

LIKE NEVER BEFORE, GEFFEN HALL GIVES THE MEDICAL SCHOOL A CENTRAL FOCUS

for all of its educational activities. It is a visible home with ample spaces for sitting, working and interacting; where administrative offices and student services are conveniently located on the ground level; and where classrooms are situated so that they open onto the courtyard, turning it into a "town square" of sorts. "It's a very collaborative environment," medical student Bell says. "You can be standing at the bottom level and see someone you know on the top floor of the opposite side. It gives you a sense of community."

For second-year student Jonathan Warren, the biggest benefit to come from the new building is the increased contact he now has with students from his class, as well as from the classes above his. "We bump into each other a lot more now and can stop and communicate, seeing what other people are up to and how they're doing," he says. "That's been really nice."

The increased social interaction and bonding with peers helps to relieve the stress that can be part of medical school, but Warren notes that it also serves a more concrete purpose. "You get a better sense of where the class is as a whole," he says. In January, when, as first-year students, members of his class began their preceptorships (mentored experiences with practicing physicians), Warren used the chance encounters at Geffen Hall to share stories about the experiences. "I ended up talking to students who started at an oncology practice, which helped me learn more about that specialty," he says. "And now that I'm crossing paths more with students who are farther along, I'm able to get advice on what it's been like to participate in certain interest groups and how to find the right balance of my time."

"We look to our older students as role models and people we can count on for advice and insights about the upcoming years," adds Molly Sprague, a third-year student. "They can tell you stories about how they've dealt with the difficult cases and the trauma of being exposed to certain things, how they've handled the long hours and what it's like to be acting as a doctor on the wards. Those are valuable exchanges, and having common areas where you are more likely to have those conversations is really helpful."

Sprague served on the advisory committee for the design of Geffen Hall's student lounge, a spacious room with scenic views of the healthsciences complex and Los Angeles. Equipped with a kitchen, billiard and ping-pong tables and flexible furnishings, the lounge is meant to serve as a respite from the rigors of the day, where students can eat their lunch, comfortably study and talk with peers.

Sprague traces her interest in medicine to a moment in her childhood, when she watched her father, an orthopaedic surgeon who began his career at UCLA, stride onto the soccer field and attend to her teammate's broken leg. "He was so strong and capable, and he charmed my teammate with his kindness and compassion," Sprague recalls. "I want to become a doctor like my dad — a doctor who helps people when they are vulnerable and most in need."

At Geffen Hall, Sprague says, "We won't study the mechanism by which insulin-binding receptors

on cells lead to increased glucose uptake just as a mental exercise or to pass a test. We will learn about it to think of ways we can approach new, affordable drug development, improve quality of life for those living with diabetes and reach more patients in need."

Sprague is emblematic of the exceptional students who are drawn to UCLA. Many of those students, like Orly Bell, are attracted, in part, to The David Geffen Medical

Scholarships, which cover the entire four-year cost of attending medical school for nearly 20 percent of students in each medical-school class. The school is now receiving more than 12,000 applicants for the 175 places in each class. "David Geffen's support has transformed our medical school," Dr. Martin says of the philanthropist, who has given hundreds of millions of dollars to the medical school since 2002. "It's more than just the building; it's the impact his support has had on the entire institution."

Dr. Braddock notes that in addition to becoming outstanding clinicians, today's UCLA medical students are encouraged to develop a second area of passion that they can integrate into their future career. The number of students pursuing a second degree — such as public health, public policy or business administration — has nearly doubled in the last several years as a result. Nearly one-third of incoming students already have a master's degree, or bring experiences such as teaching, research or Peace Corps service to the program. "We want to train leaders who, beyond their practice, will make an impact on the broader landscape of health and healthcare delivery," Dr. Braddock says.

Geffen Hall will bolster recruiting efforts even further, he adds, "But our hope is that more than just a shiny new building, Geffen Hall makes a statement about our commitment to medical education and the forward-thinking way in which we are preparing our students for their careers."

Dan Gordon is a regular contributor to U Magazine.



Geffen Hall was designed with input and planning among medical-school faculty and students and architects. The building features a modern exterior design that incorporates the UCLA motif of brick and aluminum.



NURTURE RX

BY SHARI ROAN • PHOTOGRAPHY BY ANN JOHANSSON

In an age of high-tech medicine, low-tech strategies are getting hospitalized newborns off to the best possible start in life. Preceding Pages: The advent of family-centered care in neonatal settings, such as at UCLA Medical Center, Santa Monica, is encouraging parents like Brinda Ghiya to take a greater role in the direct care of their hospitalized infants and to spend more time in physical contact with them. **Below:** "At first, we were afraid to touch her, but the nurses helped give us the confidence that we could do it," Ghiya says. n a spring morning, Brinda Ghiya cradles her 4-month-old daughter Ameya in the neonatal intensive care unit (NICU) at UCLA Medical Center, Santa Monica. The infant was born in December, and she weighed 1.9 pounds and measured just under 13 inches. Ghiya has been reading to Ameya, who watches her mother's face intently. Now an old hand in the NICU, Ghiya calmly and carefully adjusts her baby's feeding and oxygen tubes and places her back into her isolette, swaddling her as the baby drifts to sleep. Throughout the day, Ghiya will feed her daughter, take her temperature, change diapers, provide breathing treatments and assist with other caregiving duties.

"From pretty early on, we got the sense that we were part of the team here," Ghiya says. "A few days after she was born, I was still in the postpartum unit, and my husband came into my room and said, 'I changed her diaper.' I thought, wow, they let him do that! It's been incredibly gratifying to be so involved in her care. I can't imagine being here all these months and sitting on the sidelines." It wasn't always this way for new parents with babies in a neonatal unit. While lifesaving technology still girds childbirth and neonatal services, medical professionals are taking a step back, when possible, to foster a decidedly more natural and nurturing atmosphere for babies, mothers and families. One example is in the NICU at UCLA Medical Center, Santa Monica, where a program and study are underway to evaluate the benefit of encouraging parents, like Ghiya and Akash Ghiya, to provide more of their babies' care during the hospitalization.

That program is part of a larger movement, called family-centered care, which is flourishing in maternity and neonatal settings. Family-centered care invites parents to be part of the decisionmaking process throughout the hospital stay. Whenever medically possible, new mothers are encouraged to spend the first hour after childbirth holding their newborns, cuddling skin-to-skin and bonding. Breastfeeding is promoted and supported with old-school strategies that are likely to foster



success. The opinions and abilities of dads or partners are respected and encouraged.

This softer touch holds the promise of enhancing both clinical outcomes and patients' experiences during a monumental life event, says Lydia Kyung-Min Lee, MD, PhD, a UCLA maternal-fetal medicine physician. "As an academic tertiary-care center, UCLA has all of these resources. So when something goes wrong, we have everything that is needed," she says "But we are also asking: Can we make the environment more adaptable and more personalized?"

Parents are their children's first and most important caretakers — a philosophy on full display at UCLA. "Over the past few decades, there have been so many technological advances," says Animesh Sabnis, MD, assistant clinical professor of pediatrics and neonatalogy. "But we also have seen the emergence of the patients' point of view, which has rebalanced the authority of the physician and transferred it to the patients."

The desire to include more touching, cuddling, conversation and quiet moments into the whirlwind of hospital care is not a repudiation of medical technology, Dr. Sabnis adds. "One doesn't have to come at the expense of the other."

DESPITE DOCTORS' BEST EFFORTS TO

FORESTALL BIRTH, Ameya Ghiya came into the world at 25 weeks gestation, a perilous time in fetal development. She was on a ventilator for a month, but gradually she began to grow and thrive. "At first, we didn't know how we'd get through each week," Ghiya says. "There were alarms going off at her bedside all the time. There was a huge learning curve just knowing what to worry about and what not to worry about."

The Ghiyas asked questions, and they received answers. They were encouraged to help with the baby's care as much as possible, even when it might have been easier for the professionals to handle things. "We took comfort from understanding things," Ghiya says. "At first, we were afraid to touch her, but the nurses helped give us the confidence that we could do it."

Over the next year, more parents with infants in the NICU will be encouraged to assume some of the infants' care. UCLA Medical Center, Santa Monica is part of a multi-center clinical trial, headed by the neonatal team at UC San Francisco Benioff Children's Hospital, to assess a protocol called Family Integrated Care. The program, which was created in Canada, advances the idea that parents of infants in the NICU can become the primary caretakers of their babies during hospitalization. Studies suggest infants cared for by their parents grow quicker, recover better and go home with parents who are more confident, says Heather Hackett, RN, RNC-NIC, who is a co-investigator of the study. The UCLA Health Auxiliary Board of Directors is funding UCLA's arm of the study.

"Even when the babies are small, fragile and sick in the NICU, we want the parents to be true partners in their care and engaged in their care," Hackett says. "Ultimately, we think it will be better for them and better for the baby."

Nurses will begin to teach caregiving tasks to parents of babies born at less than 33 weeks' gestation. These will include preparing and administering gavage feedings, taking the baby's temperature and changing diapers. Parents will use a mobile app to record their own feelings regarding stress as well as data on the baby, including the baby's weight, time spent breastfeeding, pumping milk or holding the baby skin-to-skin. Parents can keep a journal that includes a daily photo.

In addition, parents will be offered daily education sessions in a classroom on topics such as infant development, respiratory care, ventilator use and breastfeeding. "Parents will have an opportunity to sit down with other parents and ask questions," Hackett says. "Nurses and physicians will do the same things they do now. But we want parents to be more involved where they can be."

INVITING PARENTS TO CARE FOR AND BOND WITH THEIR BABIES already is a

big hit in the maternity units throughout UCLA Health. In recent years, maternity staffs have endorsed numerous changes to make childbirth feel less medicalized and to promote breastfeeding, which has a lengthy list of benefits for both mother and baby.

While many women today may spurn the idea of "natural childbirth" and instead opt for pain medication and the easiest childbirth experience possible, once the baby is born, many maternity bedsides today look more like 1917 than 2017. "From pretty early on, we got the sense that we were part of the team here. ... It's been incredibly gratifying to be so involved in her care. I can't imagine being here all these months and sitting on the sidelines." As long as there is no medical crisis, a newborn is quickly placed on the mother's bare chest and stays there until breastfeeding occurs, Dr. Lee says.

"The first hour after birth is what we call the golden hour," she says. "The golden hour is for mom and baby. There is no reason for baby to be off mom's chest. Baby will try to find the nipple. Mom and nurse will help position the baby's head near the nipple, and baby is programmed to open his or her mouth and find the nipple. It's amazing."

Once the baby starts latching on, the maternal brain releases the hormone oxytocin to breast tissue to start milk production and release. Moms are encouraged to breastfeed eight times in the first 24 hours, which, research shows, helps to establish the practice. "If you provide that good start, it will prevent breastfeeding problems later," says Georgann Abraham, RN, UCLA Health BirthPlace coordinator.

Scores of studies have attested to the benefits of breastfeeding, for both babies and mothers. A study published recently by Grace Aldrovandi, MD (FEL '92, '94), professor of pediatrics and infectious disease, found that 30 percent of the beneficial bacteria in a baby's intestinal tract comes directly from breast milk, and another 10 percent comes from the skin on the mother's breast. Intestinal bacteria help a baby digest food and strengthens the immune system. "We know from animal-model systems that if you get good bacteria in your gut early in life, you're more likely to be healthy," Dr. Aldrovandi says.

The American Academy of Pediatrics recommends that infants be breastfed exclusively for about the first six months, followed by continued breastfeeding as complementary foods are introduced, with continuation of breastfeeding for one year or longer as mutually desired by the mother and infant. But only about half of U.S. infants are still breastfed at six months of age, according to the national 2016 Breastfeeding Report Card. "As a society, breastfeeding is almost something we need to relearn," Abraham says. "We want to go back to basics and show women that it does not have to be that hard."

Studies show that placing the baby skin-toskin on the mother's chest immediately after birth increases breastfeeding rates, as well as boosts parent-child bonding, Dr. Lee says. "Traditionally, the baby comes out and is taken across the room. The mother can't see the baby and wonders what's going on," she says. "But if you put the baby on mom's chest, mom starts talking to the baby. The baby cries for a shorter time, grimaces less, the heart rate slows down."

Skin-to-skin contact, also known as kangaroo care, first began as a strategy to help premature or low-birth-weight babies grow and thrive. The concept is now being applied to normal, healthy babies, and parents — including spouses or partners — are taking to it.

"Patients look pleasantly surprised that we openly talk about it and offer it as an option," Dr. Lee says. "We tell moms to do skin-to-skin contact as much as they can. Dads can do it, too."

OTHER CHANGES ARE ALSO AIMED AT HELPING MATERNITY PATIENTS AND

NEW PARENTS feel less like bystanders during a hospital stay. One new idea involves allowing a mother to see her infant born during a Cesarean section, if she wishes. A clear drape is positioned between her chest and abdomen so she can observe the baby when the newborn is taken from the uterus. If mother and baby are medically stable, immediate skin-to-skin contact is also encouraged during a C-section birth.

"The first thing we ask when we bring in something new is whether or not it's safe for the mother and baby. If no one has any objections, and there is no medical reason not to do it, and if mom says she wants it, we do it," Dr. Lee says.

Since some patients have expressed a desire to use midwives or doulas, those requests also are honored. In fact, maternity and neonatal care has been reconfigured as team-based services that put the mother at the center of decisions, Dr. Lee says. The team can include obstetricians, pediatricians, nurses, midwives, lactation consultants, social workers, the patient and family members.

"In childbirth, the mother is the most important person," Dr. Lee says. "She is the center of the team. I tell mothers: Tell us what you want to do, and we'll let you know what the options are. It's a shift from the old model that one doctor was available for everything and made all of the decisions."

Parents' opinions are increasingly valued throughout maternity and neonatal units. As part

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of the Family Integrated Care program, for example, NICU parents will be invited to lead the daily rounds, the daily conference when caregivers gather at the bedside to discuss the patient's progress. Parents will kick off the meeting by providing information on how old the baby is, the baby's weight, feeding information and anything else they've observed. "Difficult and complex decisions are made in the NICU," Dr. Sabnis says. "I hope to understand better what the flaws are in those conversations in order to improve their overall quality. Not only will this help babies, but it also will help parents."

Dr. Sabnis is specifically studying NICU conversations between parents and healthcare providers to learn how those conversations can be improved for families who are under exceptional stress. "Clinical measures of care — such as how many patients we cure — are obviously important," Dr. Sabnis says. "But the experience of being ill or the experience of having a baby, even a healthy baby, can have its own burden. Alleviating those burdens has health benefits for babies and parents. Familycentered care is hearing the voices of the people we are taking care of."

When Ameya Ghiya goes home, she still will require supplemental oxygen. That will be no problem, her mother Ghiya says. The ability to help care for their daughter in the hospital has made the parents confident they can handle her care without the professional safety net. "During that first week of her life, I didn't know how we were going to get through it," Ghiya says. "Without a doubt, we will be comfortable caring for her when she goes home. If I hadn't had this experience caring for her in the hospital, I think I would be terrified."

Shari Roan is a freelance writer specializing in healthcare.

Ameya Ghiya came into the world at 25 weeks' gestation and was on a ventilator for her first month of life. After more than six months in the NICU, Ameya's parents brought her home in June. NEWS + NOTES *faculty*

Promise Keeper

By David Geffner



Dr. Eric Esrailian made a vow to his longtime mentor and friend Kirk Kerkorian to bring a story of the Armenian genocide to the big screen.

Photo: Ann Johansson

It began with deep friendship. Then a promise. "In 2010, my dear friend Kirk Kerkorian said to me, 'No studio is ever going to make this story. We have to do it ourselves,'" recalls UCLA gastroenterologist Eric Esrailian, MD (FEL '06), MPH. The story that Kerkorian, a prominent businessman, former studio head and philanthropist, wanted to tell was centered on the Armenian Genocide of the early 20th century, during which some 1.5-million Armenians were killed as the Ottoman Empire crumbled. Hollywood had attempted before to portray the genocide on the big screen, but, for often-political reasons, the projects always collapsed.

This time, Kerkorian was determined to see it done. At this late stage in his life, he no longer was concerned about the political fire that such a project might draw nor its financial viability. "Mr. Kerkorian wanted the project to be a beacon that would shine a light and generate more awareness, not only about the Armenian Genocide, but also about all humanrights violations, past and present," Dr. Esrailian says. "He wanted to create a living document — a visual museum — that would teach future generations.

"When someone who is designated a National Hero of Armenia tells you to do something for your heritage and your culture, you need to listen carefully and work hard," says Dr. Esrailian, Lincy Foundation Chair in Clinical Gastroenterology and co-chief of the Vatche and Tamar Manoukian Division of Digestive Diseases at UCLA. "He was, in effect, entrusting me with his lifelong passion to see the truth told on screen. Needless to say, I was honored."

While Dr. Esrailian had overseen many significant projects for UCLA and for non-profit organizations, he'd never undertaken something as meaningful for his own patrimony. He spent the next two years delving into the history of the Armenian Genocide, which the government of Turkey has never acknowledged. He studied source materials and learned about the true events at the core of Franz Werfel's 1933 novel The Forty Days of Musa Dagh. Several efforts to adapt Werfel's book as a movie — by MGM in 1934 and again in 1968, with stabs at the project by Sylvester Stallone in 2006 and Mel Gibson in 2009 — foundered following pressure from Turkey and Turkish support groups. The greatgrandson of survivors of the genocide, Dr. Esrailian also drew from his own family stories.

Kerkorian dreamed of making a sweeping historical love story that would portray the events of the genocide without excessive brutality. Not only would the film harken back to romantic epics like Dr. Zhivago, but every dollar it earned would be donated to charitable organizations and human-rights education, an unprecedented gesture. Kerkorian would finance the entire project with his own money, and in 2012, Dr. Esrailian and Anthony Mandekic, CEO and president of Tracinda Corp., a private investment firm owned by Kerkorian, launched Survival Pictures for Kerkorian to make that dream come true. Dr. Esrailian and Mandekic reached out to another friend, the film producer and studio executive Mike Medavoy, to work with them. "Mike is the son of Russian-Jewish refugees, and he was born in China and lived in Chile as a child," Dr. Esrailian continues. "He made hundreds of movies but nothing that directly addressed the subject of genocide." Oscar-nominated screenwriter Robin Swicord (whose Greek father-in-law, Elia Kazan, fled the Ottoman Empire) and Terry George, who directed the Academy Award-nominated feature Hotel Rwanda, came on board.

Some five years later, *The Promise*, with Dr. Esrailian credited as a lead producer, opened nationwide in April 2017. The story centers on Mikael (Oscar Isaac), a medical student who leaves his village in Anatolia for Constantinople (modernday Istanbul) on the cusp of World War I. Although Mikael is "promised" to a woman in his village whose dowry pays for his studies, he falls in love with an Armenian woman from Paris (Charlotte Le Bon) who is traveling with a muckraking journalist (Christian Bale) determined to rouse the U.S. government to stop the Turkish slaughter of Armenians.

While the story of *The Promise* is driven by a fictional love triangle, it is woven within a fabric of historical detail. In one scene, Talaat Pasha, one of the triumvirate of Ottoman rulers during World War I known as The Young Turks and a primary architect of the genocide, issues a demand to U.S. Ambassador Henry Morgenthau (James Cromwell) to make good on U.S.-backed insurance policies for dead Armenians. There is a vivid portrayal of the siege at Musa Dagh, where Armenian resistance fighters held off annihilation for 53 days until a French warship was able to evacuate some 4,200 men, women and children from local villages.

Mikael's altruistic nature and chosen profession connect the character to Dr. Esrailian, but the UCLA physician says he cannot imagine the challenges that the actual victims and survivors of the genocide had to endure. He sees dramatic parallels between the story that unfolds in *The Promise* and the human-rights crises of today. "People still are fleeing their homes because of ethnic or religious persecution," he says.

Kerkorian did not live to see the film released; he died, at age 98, in June 2015, as *The Promise* was beginning production. But, Dr. Esrailian notes, Kerkorian's legacy already continues at UCLA, where support from his estate has helped to establish the Promise Institute for Human Rights at the UCLA School of Law.

"The Promise means so much personally," Dr. Esrailian says. *"The promise was from* Mr. Kerkorian and from us to complete the film. The promise is for us to never forget. And the promise is for all of us to vow to do something so that it never happens again."

David Geffner writes extensively about film. He is the executive editor of ICG Magazine.





Top: Dr. Esrailian (second from left) on the set of *The Promise* with (from left) director Terry George and actors Oscar Isaac and Christian Bale. **Bottom:** The filmmakers were invited to the Vatican for a special screening of the movie.

Photos: (on set) Jose Haro; (Vatican) Giambalvo & Napolitano

Awards/Honors

Dr. Abbas Ardehali, William E. Connor Chair in Cardiothoracic Transplantation and director of the UCLA Heart, Lung and Heart-Lung Transplant Program, received the Ellis Island Medal of Honor from the National Ethnic Coalition of Organizations.

Dr. Anne Coleman, Fran and Ray Stark Foundation Chair in Ophthalmology; Dr. Sophie Deng, assistant professor of ophthalmology; Dr. Colin McCannel, professor of clinical ophthalmology; Dr. Stacy Pineles, associate professor of ophthalmology; and Dr. SriniVas Sadda, professor of ophthalmology, received honors from the American Academy of Ophthalmology.

Dr. Jack Feldman,

Distinguished Professor of Neurobiology, received an R35 Outstanding Investigator Award from the National Heart, Lung and Blood Institute.

Dr. Samuel W. French,

professor-in-residence of pathology and laboratory medicine, received the 2017 Lifetime Achievement Award from the Research Society on Alcoholism.

Dr. Weizhe Hong, assistant professor of biological chemistry and neurobiology, was named a 2017 Searle Scholar.

Dr. John C. Mazziotta, vice chancellor of UCLA Health Sciences and CEO of UCLA Health, and Johnese Spisso, president of UCLA Health and CEO of UCLA Health and CEO of UCLA Hospital System, were named among the nation's top-100 healthcare leaders by *Beckers Hospital Review*. In addition, Spisso was honored as

Woman of the Year by Women in Health Administration of Southern California. Dr. Janet Pregler, director of the Iris Cantor-UCLA Women's Health Center, was named among 2017's "Women of the Year" honorees by the Los Angeles County Commission for Women and the Los Angeles County Board of Supervisors.

Dr. Michael Steinberg, chair of the Department of Radiation Oncology, received the 2017 ASTRO Gold Medal from the American Society for Radiation Oncology.

Dr. Harry V. Vinters, Emeritus Distinguished Professor of Pathology and Laboratory Medicine and Neurology, received the Alfred Meyer Medal from the British Neuropathology Society and the American Association of Neuropathologists Award for Meritorious Contributions to Neuropathology.

In Memoriam

Dr. James E. Hansen, professor emeritus of medicine, died on May 7, 2017. He was 91 years old. Dr. Hansen was on faculty for more than 30 years at Harbor-UCLA Medical Center, where he directed the clinical pulmonology physiology services.

Dr. Thomas Minor, professor of psychiatry and biobehavioral sciences, died March 27, 2017. He was 64 years old. Dr. Minor explored the metabolic challenges resulting from behavior adversely affected by stress, and he was working on how to build resilience to stressors to prevent the development of post-traumatic stress.

Dr. Arnold "Arne" B. Scheibel,

Emeritus Distinguished Professor of Neurology and Psychiatry and Biobehavioral Sciences, died April 3, 2017. He was 94 years old. Dr. Scheibel was a founder of the UCLA Brain Research Institute, and he served as director from 1987 to 1995. His research used neuroanatomical approaches to study the structural and functional bases of cognition and brain disease.

Dr. Raymond G. Schultze,

director of UCLA Medical Center from 1980 through 1995, died April 14, 2017. He was 83 years old. Dr. Schultze completed his internship and residency in medicine at UCLA, and he joined the faculty in 1969 as chief of the Division of Nephrology, executive vice chairman of the Department of Medicine and associate dean for admissions for the UCLA School of Medicine.

Memory Lane

In June 2016, members of the UCLA School of Medicine Class of 1966 met to celebrate their 50th reunion. One of the activities was at the home of Steve Berens, MD '66, and his wife Rita. Dr. Berens recorded stories of his classmates that occurred during their four years of medical school but were not generally known by all. The following is a selection of some of those recollections. They have been edited for length and clarity.



Bill Fulhorst, MD Photo: Courtesy of Dr. Bill Fulhorst

Told by Bill Fulhorst, MD

We were doing our first obstetricsrotation deliveries at Harbor General Hospital, and it was my turn. I put on the drapes, and I went to put it on the patient's stirrups, and I hit the lamp. The nurse says, "Got to do it again." I got another drape, and hit the other lamp. "Oh, no, you got to do it again," she said. Ok, third drape, third lamp. I still hadn't draped the patient.

Fourth drape, fourth lamp. The nurse

says to me, "That's it, guy. We have one left." So I finally got that one, and I was so excited when the baby came out that I dropped it. Luckily, the umbilical cord stopped it. It went *boing*.



Ralph Armstrong, MD Photo: Courtesy of Dr. Ralph Armstrong

Told by Ralph Armstrong, MD

Will Chamberlain and I met over the cadaver table in gross anatomy on our first day of medical school. We became good friends. Do you remember biochemistry our first semester? It was sort of a marathon writing contest to get all the notes and formulas and stuff down. So Will and I were sitting next to each other in this lecture. I'm writing like a fury trying to keep everything going, page after page

after page. And I could tell Will is just as busy as I am. We get to the end of this, and I'm kind of catching my breath, "Oh my God." So I look over to see how Will's doing, only to discover that the whole time he's been working on a really nice, eight-and-ahalf-by-eleven drawing of a giraffe. And the professor asks, "Are there any questions?" Will raises his hand and asks a perfectly intelligent, cogent question that suggested he actually understood the material that I've been trying to write down the whole time. And that's when I realized that he's not only really a bright guy, but a completely different kind of cat.



Leonard Kutnik, MD Photo: Courtesy of Dr. Leonard Kutnik

Told by Leonard Kutnik, MD

It was our first clinical rotation at Harbor when we were on obstetrics, and Barry Swerdloff and I were on one evening. A Latina woman gave birth, and as you recall, if the mother is not going to breastfeed, it's important to give an injection right at that time to dry up the milk production. The delivery nurse comes to the nurse's station and says, "I don't know what to do. This lady just

gave birth, and she doesn't speak any English, and I need to figure out whether to give her the shot or not." Ordinarily, there was at least one Spanish-speaking nurse or aide or somebody on the floor that could handle this, but not this night. So Barry stands up, and he says, "I took some Spanish. I can probably handle this." Off we go to the delivery room, and we go in, and he speaks Spanish to the woman. And she totally goes into hysterics and begins thrashing and yelling, "No, no, no, no." Barry speaks to her again, and she has the same hysterical reaction. The deliveryroom nurse is smart enough to get us out of there, and we go back to the nurse's station, and Barry sits there, and then says, "Oh, I think I know what happened. I think I got my verbs mixed up. I think I asked her if she wanted to eat the baby."



Stephen Steinfeldt, MD Photo: Courtesy of Dr. Stephen Steinfeldt

Told by Stephen Steinfeldt, MD

We were in the anatomy lab, and we were doing the epiploic foramen. I took a penny and I stuck it down deep in the epiploic foramen. I said to Stewart Chapman, who was reading *Time* magazine or something like that, "Stewart, I feel something down there. Why don't you see what it is. It feels kind of hard." He says, "There's nothing down there." I say, "Look, I'm telling you." He says, "It's the middle of the belly. There's nothing down there." I say, "Stewart, there's something down there." So he finally goes in there, and he kind of touches on it, and he starts going after it, and he finds this penny. "Stewart, what have you got?" "It's a penny." "Stewart, that's amazing. How did it get there?" Well, he has this theory on how it could get into the epiploic foramen. He got it out of the stomach. He went running down to the front of the room saying, "I found a penny! I found a penny!" He showed it to one of the attending surgeons, and the surgeon looks at him, comes back to the table, and says, "All right, who did it?" The surgeon nailed me.



Will Chamberlain, MD Photo: Courtesy of Dr. Will Chamberlain

Told by Will Chamberlain, MD

During surgical rotation, we were listening to a lecture by Dr. Ronald Thompson, and I was sitting in the back of the room. Dr. Thompson was a very good lecturer, and he gave a very good lecture on ulcerative colitis, but it was a long lecture, and I hadn't had anything to eat all morning. The clock was ticking, and we were supposed to be dismissed exactly at noon to go for a half-hour lunch, and I kept

looking at that clock, and the hand kept creeping by the middle of the 12, it went on to five minutes later, 10 minutes later, and almost 60 minutes later. And I just couldn't stand it. He was describing factors at the time that contributed to ulcerative colitis. I stuck up my hand at the back row, and I said, "Dr. Thompson." He said, "Yes, Will?" I said, "Does extreme hunger ever contribute to getting ulcerative colitis?" He turned red in the face. He grabbed his chalk, slammed down the chalk, said, "Class dismissed," and he stomped out. After that, we went to lunch. All I remember about lunch was that the other students inched away from me, so I kind of sat by myself at the end of the table, but I could hear their conversation, and they were talking about me in the past tense: "Will, he was a promising medical student. He showed some signs of promise in the medical profession. Too bad about Will."



John Buster, MD Photo: Courtesy of Dr. John Buster

Told by John Buster, MD

We never saw our transcripts. I know I never saw mine. Then I moved back to Houston, and I had to submit my transcript to get a new license. So the transcript shows that I got a bad grade in a little two-unit biophysics course. I had no idea, but I heard my secretary talking about how I got a bad grade. She told everybody!



Harold Coons, MD Photo: Courtesy of Dr. Harold Coons



Roger Delwiche, MD Photo: Courtesy of Dr. Roger Delwiche

Told by Harold Coons, MD

Do you remember Walter Dishell? He was a surgical resident. One day, Vibul Vadakan is in the ER, and he's sewing up a laceration. One of the ER techs was a real avid scuba diver, and he had his mask and his fins and everything there. So Dishell comes down, puts on the fins, puts on the mask, takes a sheet, and draws a big A on it, and walks in and says to Vibul, "You're doing a fine job. Aquaman is proud of you."

Told by Roger Delwiche, MD

After our first big anatomy exams, a lot of people went out to celebrate. It seemed that most everyone was married, so they went home afterward to their wives, but there were some of us who weren't. My roommate, Robert Lawrence, and I said, "Geez, the night is still young. We got to find something to do." It was the night of the California gubernatorial election, Pat Brown's second election. So we

thought we'd go down there, they might have parties or something like that we could go to. But then we thought they'd have so much security, we'd never get in. So instead, we decided to go the Beverly Hilton, and that's where the Republican was-Nixon. And they didn't have the security that they would have these days. We put on our suits, and we made these nametags that said Student American Medical Association for Nixon, and we went to the hotel. We couldn't get in the front door, so we went around the back. The candidate was up on the 13th floor. We waited until no one was looking, and went in and went up to the 13th floor, and, sure enough, they were having all these parties. We met all the people who ended up being big deals in the Nixon administration — H.R. Haldeman, and I think John Ehrlichman was there. We were in one room, and I remember Pat Nixon crying. We were there most of the night. At the end of the night, that's when Nixon gave his famous, "You won't have Nixon to kick around anymore" speech.

David Geffen, UCLA Leaders Dedicate Geffen Hall



Left: (From left) Dr. Caroline Gross (MD '17), recipient of a David Geffen Medical Scholarship, with philanthropist David Geffen. Center: (From left) Meyer Luskin, Renee Luskin and Chancellor Gene D. Block. Right: (From left) Jessica Sprague (MD '13, RES '17), Marianne Sprague, Katrina Sprague, and current UCLA medical student Marina (Molly) Sprague.

Entertainment executive and philanthropist **David Geffen** joined UCLA leaders, medical students and fellow supporters of UCLA Health Sciences on May 11 to dedicate Geffen Hall, the new home of medical education at UCLA (see "Home Improvement," page 18). During the ribbon-cutting ceremony, Geffen shared the platform with UCLA Chancellor Gene D. Block; Dr. John C. Mazziotta (RES '81, FEL '83), vice chancellor of UCLA Health Sciences and CEO of UCLA Health; and Dr. Kelsey C. Martin, dean of the David Geffen School of Medicine at UCLA and Gerald S. Levey, M.D., Endowed Chair.

The medical school took Geffen's name following a \$200-million gift in 2002. Ten years later, through another transformative \$100-million gift, he created the merit-based David Geffen Medical Scholarships, which cover the entire cost of a medical education for hundreds of students. Nine of the first recipients of The David Geffen Medical Scholarships are among the students who graduated in June 2017.

"I am pleased to continue my support of medical education and research at UCLA," Geffen said. "It's a world-class institution. This new facility continues the university's tradition of excellence and will attract some of the country's brightest and most promising faculty and students. I am proud to have played a part in helping the university move this remarkable building from a vision to a reality."

Dr. Martin talked about the effect of debt-free medical education provided by Geffen's scholarship program. "This not only propels us to attract the best and brightest, but it also allows these students to carve unique, impactful career paths and to make a difference in the world," she said. "David Geffen understands the power and potential of having a world-class research university in an extraordinary city," Chancellor Block said. "His unparalleled support has provided the resources to ensure that our campus remains among the best for many years to come."

The new facility was named in recognition of the extraordinary generosity and impact of Geffen's gifts to the David Geffen School of Medicine at UCLA, widely regarded to be among the nation's leading medical schools. According to Dr. Clarence H. Braddock III, vice dean for education and Maxine and Eugene Rosenfeld Endowed Chair in Medical Education, Geffen Hall is, "emblematic of a new, more collaborative era of healthcare, which is transforming the ways we prepare medical students for success in their future careers."

Dr. Mazziotta noted that Geffen's career in entertainment relies in part on identifying and investing in talent and said,

"We are grateful that he is now investing in our talented medical students."

Dr. Caroline Gross (MD '17), a graduating scholarship recipient selected to represent medical students during the ceremony, presented Geffen with a miniature replica of a photo and inscription on a Geffen Hall pillar reflecting the scope of his philanthropy. "Through his diverse and far-reaching philanthropy," the inscription reads in part, "he has created countless opportunities for others to succeed and has contributed to community and culture in myriad ways—supporting education, arts, discovery, and improved health."

Geffen Hall construction was funded through a combination of philanthropic gifts and UCLA Health reserves.

For more information, contact Laura Pescatore at: (310) 825-1288



Top Left: (From left) John Lamonica, Cesar Medina and Angela Lamonica. **Top Center:** (From left) Dr. Kelsey C. Martin, dean of the David Geffen School of Medicine at UCLA; Henry Gluck and Rhea Turteltaub, vice chancellor of UCLA External Affairs. **Top Right:** (From left) Laurie and Steven Gordon. **Bottom Left:** Dr. Caroline Gross (MD '17) (second from right) with her parents Dr. Robert Gross (RES '75, FEL '77) and Marjorie Gross and Dr. John C. Mazziotta (right). **Bottom Right:** Medical students and recipients of The David Geffen Medical Scholarships. Photos: (top left, top right and bottom left) William Short; (top center and bottom right) Reed Hutchinson

NEWS + NOTES

Mattel, Inc. Commits \$50 million to UCLA Mattel Children's Hospital

Mattel, Inc. made a \$50-million contribution to UCLA Health that will fund the expansion of UCLA Mattel Children's Hospital and pave the way to help establish a premier clinical and research hub focused on improving children's health. UCLA and Mattel leadership gathered at the hospital on March 13, 2017, to mark their long-standing partnership and the historic gift.

"Today, we're beginning a new and exciting chapter. The gift represents Mattel's resolve to continue improving the lives of the most vulnerable among us, our children," said UCLA Chancellor Gene D. Block. "This partnership extends our impact far beyond what either of us could achieve on our own, and, together, UCLA and Mattel will build on our commitment to establish the best children's hospital in the world."

During the celebration, Dr. John C. Mazziotta (RES '81, FEL '83), vice chancellor of UCLA Health Sciences and CEO of UCLA Health, presented Richard Dickson, president and chief operating officer of Mattel, with framed drawings made by some of UCLA Mattel Children's Hospital's youngest artists that represented UCLA's immense gratitude for the gift and highlighted the power of play in the healthcare of children. Following the presentation, children in the hospital enjoyed time on the Chase Child Life terrace, playing with toys and blowing bubbles with Barbie.

"Mattel has always been committed to serving our communities in meaningful and impactful ways," Dickson said. "Today's gift is an extension of that legacy and, more important, it will help ensure that even more children and families will benefit from exceptional healthcare at UCLA Mattel Children's Hospital."

"This visionary gift from Mattel, Inc. is transformative in bringing discoveries and innovation, while invigorating our dedication to healing children and providing hope to their families," said Dr. Sherin U. Devaskar, physician-in-chief of UCLA Mattel Children's Hospital, executive director of UCLA Children's Discovery and Innovation Institute, Mattel Executive Endowed Chair in Pediatrics and assistant vice chancellor of Children's Health, UCLA Health.

Top: (From left) Drs. Kelsev C. Martin, dean of the David Geffen School of Medicine at UCLA, and Sherin U. Devaskar; Richard Dickson; Chancellor Gene D. Block; Margo Georgiadis, CEO of Mattel, Inc.; Dr. John C. Mazziotta; Johnese Spisso, president of UCLA Health and CEO of the UCLA Hospital System; and Robert Goodwin, executive director of Mattel Children's Foundation. Middle: Barbie visits with patients at UCLA Mattel Children's Hospital. Bottom: Dr. Mazziotta (left) presents Mattel's Richard Dickson with the gift of art created by some of UCLA's most talented young patients. Photos: (top, bottom) Reed Hutchinson; (middle) Chalkshot by Kasey Jones Ink

The Mattel donation represents the largest ever made to UCLA Mattel Children's Hospital and will enable the hospital to bring more of a child-centric experience to patients through facilities designed with children and families in mind. In addition, the gift will help the hospital continually improve care and outcomes, ensure that all staff is specialized in treating children and better integrate play and health during treatment to comfort children when they need it most. The funding also will support global children's health through programs, including physician exchanges and research partnerships in China, India and Indonesia.

"The best practices and insights from research available at UCLA Mattel Children's Hospital are a model for pediatric care worldwide," said Dr. Mazziotta. "With Mattel, we look forward to an enhanced ability to expand that care."

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For more information, contact Molly Moursi at:
(310) 267-1826
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UCLA (MTE) Children's Hospital

UCLA Stein Eye Institute Celebrates 50th Anniversary and Reopening of Jules Stein Building

UCLA Stein Eye Institute celebrated its 50th anniversary and the grand reopening of the renovated Jules Stein Building on April 20, 2017. "Today, the institute really is a vision-science campus," UCLA Chancellor Gene D. Block said at the ceremony. "It's an interconnected community with the new Jules Stein Building, the Doris Stein Building and the Edie & Lew Wasserman Building."

The expanded facilities enable UCLA to broaden research and provide exemplary care for patients in the treatment of eye disease and injury. The renovated Jules Stein Building features two floors of new modular laboratories that can expand and contract for researchers as funding needs change. The comprehensive ophthalmology and glaucoma areas have been redesigned, as has the Center for Community Outreach and Policy. Urgent Care is now a separate unit.

The renovation will help the institute continue to deliver leading-edge clinical care. "More space allows us to create revolutionary programs in treating eye disease, using techniques such as stem cells, gene therapy and even big data to help us gain a 360-degree view of a patient's health problems, leading to new findings, novel treatment plans and more accurate diagnoses," said Dr. Bartly J. Mondino, director of UCLA Stein Eye Institute, chairman of the Department of Ophthalmology and the Bradley R. Straatsma, M.D., Endowed Chair in Ophthalmology.

The renovated Jules Stein Building, designed by architect Jeffrey Stenfors, features a spacious atrium entrance that illuminates the first three floors. Like the Edie & Lew Wasserman Building, the Jules Stein Building utilizes more glass and light. The redesigned building, which is LEED-certified, also was seismically upgraded. The approximately \$65-million, 108,000-square-foot project was funded in large part by private philanthropy.

"I am constantly moved by the deep and really visionary generosity of Stein Eye supporters," said Dr. Kelsey C. Martin, dean of the David Geffen School of Medicine at UCLA and Gerald S. Levey, M.D., Endowed Chair, at the ceremony. "Their philanthropy has been so important in enabling Stein ophthalmologists and vision scientists to devote their careers to creating a future that's free of eye disease and blindness."

UCLA's research and clinical work in the field of ophthalmology have grown rapidly during the past five decades, as has its outreach. Over the course of 40 years, the UCLA Mobile Eye Clinic has provided free care to more than 300,000 underserved children and adults.

"In these remarkable 50 years, we've had many changes, but only one goal: superb patient care, research, community outreach and education for ophthalmological disorders," said Dr. John C. Mazziotta (RES '81, FEL '83), vice chancellor of UCLA Health Sciences and CEO of UCLA Health. "That goal has been delivered year in and year out."



For more information, contact Gail Summers at: (310) 206-9701



Top: (From left) Drs. Bartly J. Mondino and Kelsey C. Martin, Chancellor Gene D. Block and Dr. John C. Mazziotta. **Middle Left:** UCLA Stein Eye Insitute donors Robert Drabkin (left) and Dr. J. Bronwyn Bateman, former faculty and an alumna of the UCLA Department of Ophthalmology. **Middle Right:** Tony Oppenheimer (left) and his wife Marti Oppenheimer (right) and Gerald Oppenheimer (center), son of Doris Stein and stepson of Jules Stein. **Bottom Left:** Dr. Mondino addresses guests gathered at the ceremony. **Bottom Right:** The reading room of the Jules Stein Building traces the history of UCLA Stein Eye Institute and features a portrait of Doris Stein.

Photos: Reed Hutchinson

Kaleidoscope 5 Sheds Light on Pediatric Research

"Light: A Celebration of Discovery and Innovation" was the theme for the fifth annual Kaleidoscope 5, held on May 6, 2017, at 3LABS in Culver City, California. Benefiting UCLA Mattel Children's Hospital and the UCLA Children's Discovery and Innovation Institute, the event raised \$1.36 million for pediatric research and care. Internet entrepreneur Sean Parker, who served as the first president of Facebook and founded the Parker Institute for Cancer Immunotherapy, in which UCLA is a collaborator, and his wife Alexandra received the Philanthropic Leadership Award. It is the hospital's highest honor for supporting scientific research that is advancing immunotherapy and cancer treatments for patients.



Top Left: (From left) Honorees Gwyneth Paltrow and Sean Parker. **Top Right:** (From left) Johnese Spisso, president of UCLA Health and CEO of the UCLA Hospital System; honoree Kaiis Davis Jarrahy and his parents Golden Globe Awardee Geena Davis and Dr. Reza Jarrahy (FEL '06). **Bottom Left:** (From left) Carl Schuster, CEO of Wolfgang Puck Catering; event co-chairs Hillary Milken and Stephanie Shafran; Mike Cavallaro, Beverly Hills Salon Director of Harry Winston, Inc.; and event co-chairs Beth Friedman and Natasha Croxall. **Bottom Right:** (From left) Michelle Peranteau, director of U.S. Marketing and Public Relations for Harry Winston, Inc.; Richard Dickson, COO of Mattel, Inc.; Johnese Spisso; and Dr. Sherin U. Devaskar; Dr. Kelsey C. Martin, dean of the David Geffen School of Medicine at UCLA; Dr. John C. Mazziotta, vice chancellor of UCLA Health Sciences and CEO of UCLA Health.

Photos: (top row and bottom left) Stefanie Keenan; (bottom right) Vince Bucci

The hospital also recognized actress Gwyneth Paltrow with the Kaleidoscope Award for advocating healthy living. Former UCLA Mattel Children's Hospital patient Kaiis David Jarrahy, 12, received the Extraordinary Children's Award for his enthusiastic spirit and courage.

Beth Friedman, Hillary Milken, Stephanie Booth Shafran and Natasha Croxall served as co-chairs for the event, which included a cocktail reception, dinner by Wolfgang Puck Catering and a surprise musical performance by Grammy Award-winning artist Chris Martin and violinist Davide Grossi.

Presenting-sponsor Harry Winston made a pledge to the UCLA Children's Discovery and Innovation Institute toward the Harry Winston Fellowships program that supports young physician-scientists in their work to prevent, treat and cure pediatric disease and illness.

"Over the past five years, funds raised from the benefit have led to advancements in treatment and care for pediatric patients around the world and have provided support for high-priority clinical programs and multidisciplinary research in children's health," said Dr. Sherin U. Devaskar, Mattel Executive Endowed Chair in Pediatrics, physician-in-chief of UCLA Mattel Children's Hospital, assistant vice chancellor of Children's Health and executive director of the UCLA Children's Discovery and Innovation Institute.



For more information, contact Molly Moursi at: (310) 267-1826

Tour De Pier Breaks Its Fundraising Record for Cancer Research



Top Left: (From left) Agi Hirshberg, Hirshberg Foundation president and founder; Jon Hirshberg, Tour de Pier co-founder and Hirshberg Foundation trustee; Heath Gregory, Tour de Pier co-founder and Uncle Kory Foundation founder; and Lisa Manheim, Hirshberg Foundation director and trustee. **Top Center:** (From left) Ric McGill, Drs. Tom Carmichael and Tim Cloughesy, UCLA donor Faramarz Yousefzadeh and daughter Michelle. **Top Right:** UCLA football coach Jim Mora. **Bottom Left:** UCLA Cheer Squad with Michelle Yousefzadeh (center) and UCLA Radiology Gold Team members. **Bottom Right:** Agi Hirshberg (left) and Joe Bruin cheer on the riders.

The **5th Annual Skechers Tour de Pier** has broken its record by raising \$1.25 million for cancer research and services. The fundraiser was held May 21, 2017, on The Strand overlooking the Manhattan Beach Pier and benefited three cancer charities, two of which provide significant support for cancer studies at UCLA: the Hirshberg Foundation for Pancreatic Cancer Research and the Uncle Kory Foundation for brain-cancer investigations.

The event, sponsored in part by UCLA, featured approximately 2,000 stationary cyclists who rode for one-to-five hours individually or as part of a team, spurred on by energizing music and encouragement from fitness instructors from the South Bay.

"We are humbled and proud to share that together we raised \$1.25 million, bringing our five-year total to more than \$4 million," said Hirshberg Foundation founder Agi Hirshberg. "We are filled with gratitude for all those who shared their talents, time, treasure and passion to make Tour de Pier 2017 the best one yet."

UCLA brought along Joe and Josie Bruin and the UCLA cheer squad. UCLA Bruins football coach Jim Mora led riders from the

main stage, along with South Bay fitness trainer Angela Bennett in the "Rally" session.

UCLA radiology staff members rode in shifts at the event on the UCLA Radiology Gold team and were joined by Ric McGill, director of UCLA Radiology, for the UCLA Health partnership with the Los Angeles Lakers; Dr. Tom Carmichael (FEL '01), chair of the UCLA Department of Neurology and Frances Stark Chair in Neurology; and Dr. Tim Cloughesy (RES '91, FEL '92), director of the UCLA Neuro-Oncology Program.

In addition to the cycling, Tour de Pier guests enjoyed a free Health and Fitness Expo with interactive booths, music and entertainment and samplings of healthy food and beverages. The Cardio Kids Zone welcomed children with tot-sized stationary bikes, games and moon bounces.



For more information, contact Liz Naito at: (310) 206-6749

Longtime UCLA Supporter Honors Wife's Memory



Wing K. Chung and his late wife Alice Lee-Tsing Chung. Photo: Courtesy of the Chung family

Wing K. Chung has continued his philanthropic involvement with UCLA by funding the UCLA Wing-Kwai and Alice Lee-Tsing Chung Transfusion Service in support of the Transfusion Safety and Blood Management Initiative. In 2006, Chung, a retired, accomplished structural engineer, made a contribution in recognition of his late wife's lifelong passion for horticulture to provide the Wing-Kwai and Alice Lee-Tsing Chung Garden outside Ronald Reagan UCLA Medical Center. The garden offers patients, their family members and others a comfortable and tranquil environment to relax. Chung said he hopes his efforts dedicated to the memory of Lee-Tsing will make the world a more beautiful place for all. His latest gift is another loving tribute to his late wife and her extensive service in the UCLA blood bank and unique ties to UCLA. "I have been inspired by the hard work, the vision of and the encouragement from Dr. Jonathan Braun, chair of the Department of Pathology and Laboratory Medicine; Dr. Alyssa Ziman, chief of the Division of Clinical Laboratory Medicine, medical director of clinical laboratories and medical director of transfusion medicine; and others at UCLA," Chung said. "I am honored to be able to partner with transfusion medicine and

to contribute to this innovative effort to improve transfusion safety, reduce transfusion-related adverse events and further enhance the overall quality of the transfusion service at UCLA. Ultimately, I believe patients and their families will benefit."

"Patients come to UCLA with complex and life-threatening diseases," Dr. Ziman said. "A crucial part of their care is the preparation and administration of blood products tailored to each patient's unique needs. This gift allows us to launch and sustain a pioneering program linking transfusion-medicine experts with UCLA doctors and nurses to improve transfusion safety and optimize transfusion practices for our sickest patients." Chung's gift enabled the UCLA Transfusion Medicine Service to purchase the Intercept Blood System, which reduces pathogens in donated blood and decreases the risk of transfusion-transmitted infections, including septic transfusion reactions. The system represents a breakthrough in transfusion safety for patients. UCLA is the first hospital-based donor center to implement this service in California. During the system's implementation week, UCLA

was the highest producer of pathogen-reduction platelets in the United States.

Chung said that in making the gift, he had a number of goals beyond advancing patient safety at UCLA. He hopes his contribution will help to garner wider support and greater philanthropic interest from the Asian American community and that the gift will make UCLA a model in transfusion service for other medical centers in the University of



With his latest gift, Wing K. Chung is helping make blood transfusion safer. Photo: Samantha Chron

California system. "It gives me great satisfaction to know that I am playing a vital role in advancing the UCLA Health Sciences mission of research, education, patient care and public service," Chung said.

Friends Gather to Support Mental Health

Nearly 500 community members came together for the **Open Mind Gala** at the Beverly Hilton hotel on March 22, 2017. The Friends of the Jane and Terry Semel Institute for Neuroscience and Human Behavior at UCLA, together with the Board of Advisors of the Stewart and Lynda Resnick Neuropsychiatric Hospital (RNPH) at UCLA, hosted the event, which raised more than \$700,000 to support mental-health research, education and clinical-care programs at UCLA.

UCLA Chancellor Gene D. Block presented the Visionary Award to Dr. Kelsey C. Martin, dean of the David Geffen School of Medicine at UCLA and Gerald S. Levey, M.D., Endowed Chair, for extraordinary leadership, research in neuroscience and work with the UCLA Depression Grand Challenge. Dr. Peter Whybrow, director of the Semel Institute and Judson Braun Chair in Biological Psychiatry, presented Julia Gouw, the former president and COO of East West Bank who established the Julia S. Gouw Chair in Mood Disorders (now named the Lori Altshuler Endowed Chair for Mood Disorders), with the Humanitarian Award for her philanthropic leadership, which she accepted in memory of Dr. Lori Altshuler. Mike Bayer, CEO of Cast Centers, a wellness treatment center, presented the Artistic Award of Courage to performer Demi Lovato in recognition of her mental-health advocacy.

Actress and RNPH board member Lisa Kudrow served as the evening's host, and recording star Chord Overstreet performed his latest singles. Also in attendance were Vicky Goodman, president and founder of the Friends of the Semel Institute, and Dr. Nancy Glaser, founding chair of the RNPH Board of Advisors.

For more information, contact Dorin Esfahani at: (310) 267-1838

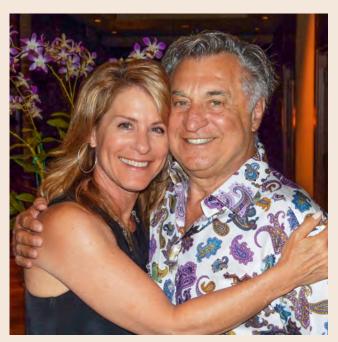


Row 1: (From left) Dr. Peter Whybrow, Chancellor Gene D. Block, Dr. Andrew Leuchter (RES '84, FEL '86), Vicky Goodman, Jane Semel, Honoree Demi Lovato, Dr. Michael Gitlin (RES '79), Dr. Nancy Glaser, Dr. Thomas Strouse (RES '91) and Mike Bayer. **Row 2 Left:** Awardee Dr. Kelsey C. Martin (left) with Chancellor Block. **Row 2 Right:** Ken Gouw (left) and honoree Julia Gouw. **Row 3:** (From left) The Friends of the Semel Institute Board of Advisors Mia Silverman, Open Mind Gala co-chair Beth Karmin, Robyn Goodman Mandelberg, Debra Matsumoto, Mary Burgoyne Snyder, Mary Ridings Herman, Carol Halperin, Vicky Goodman, Shelley Singer, Stacy Dalgleish, Teri Fournier, Sharon Steiglitz and Open Mind Gala co-chair Margot Calabrese. **Row 4 Left:** Actresses Courteney Cox (left) and RNPH Board Member Lisa Kudrow. **Row 4 Right:** Open Mind Gala co-chairs and RNPH board members Alexandra Dwek (left) and Dana Pachulski.

Photos: (rows 1, 2, 3 and row 4 right) Thomas Neerken; (row 4 left) Alberto E. Rodriguez/Getty Images for UCLA Semel Institute

NEWS + NOTES *friends*

Generations Join Together to Defeat Cancer



Lisa Sapiro and Fred Miller. Photo: Courtesy of the Miller family

For Lisa Sapiro, raising money for cancer research has always been a family affair. Her father Fred Miller served on the UCLA Jonsson Cancer Center Foundation (JCCF) Board of Directors for more than 15 years, and both her father and mother Barbara are founding members of **STOP CANCER**, a Los Angeles-based nonprofit organization. Sapiro now serves on the JCCF board and is an active member of STOP CANCER, serving as liaison between both organizations, which share the goal of raising crucial seed funding for early-stage discovery research.

"Stepping onto the board at Jonsson, where my father left off, is a way that we can keep our family legacy of helping to fund cancer research alive," said Sapiro. "There are many multigeneration families who are now involved at STOP CANCER. Unfortunately, a cure has not yet been discovered, so we all just continue to help raise the necessary money to fund the vital research. The work won't stop until a cure has been found."

According to Bette Bergsman, executive director of STOP CANCER, technology and new fundraising methods help bring young members into the organization. For example, a crowdfunding model allows members with a shared interest in a specific type of cancer to join together to fund a seed grant in that area. STOP CANCER was launched in 1988 by the late Dr. Armand Hammer, founder of Occidental Petroleum Corp., and Sherry Lansing, former chairman and CEO of Paramount Pictures and a current regent of the University of California. Since the early 1990s, the organization has awarded approximately \$9 million in research funding to UCLA scientists. Past recipients include Dr. Dennis J. Slamon (FEL '82), who developed the groundbreaking breast-cancer drug trastuzumab, and Dr. Antoni Ribas (FEL '98, '01), who led the clinical trial that resulted in the U.S. Food and Drug Administration's approval of the immunotherapy drug pembrolizumab.

"STOP CANCER has a history of funding research that ultimately has led to the development of new cancer treatments," said Dr. Kenneth Dorshkind, interim director of the UCLA Jonsson Comprehensive Cancer Center. "Often, this support has come at the early stages of a project, when it would be unlikely to receive funding from the National Institutes of Health or other organizations."

In 2017, STOP CANCER grants totaling \$450,000 are advancing UCLA research in areas that include prostate and lung cancer, leukemia and lymphoma. "Helping to fund this important work is a very rewarding experience," said Sapiro. "I hope that we will continue to see steps toward finding a cure for all types of cancer and that our children and grandchildren will know of cancer as a disease from the past."



For more information, contact Margaret Steele at: (310) 794-5244



(From left) 2017 UCLA STOP CANCER award recipients Drs. Nicholas Nickols, John Kyung Lee, Brigitte Gomperts and Tonye Jones; Dr. Kenneth Dorshkind, interim director of the Jonsson Comprehensive Cancer Center; and award recipients Drs. Dinesh Rao, Maie St. John, Gottfried Konecny and Andrew Goldstein.

Photo: TJ Reeves

A Life Dedicated to Pediatric Ophthalmology

The late **Dr. Leonard Apt**, an eye surgeon and founding member of UCLA Stein Eye Institute, was one of the first physicians in the world to become board-certified in both pediatrics and ophthalmology. He devoted his career to preventing blindness in children and was among the country's first specialists in the field of vision care for children. Dr. Apt pioneered the creation of pediatric ophthalmology as a new subspecialty, and he established at UCLA the first pediatric ophthalmology service at a United States medical school.

Dr. Apt initiated his financial commitment to UCLA Stein Eye during his lifetime with the Leonard Apt Endowed Fellowship in Pediatric Ophthalmology, in 2002, and later the Leonard Apt Endowed Chair in Pediatric Ophthalmology, making him the first active faculty member to endow both a fellowship and a chair at UCLA. Upon his passing in 2013, Dr. Apt left a transformative estate gift of more than \$15 million to support the UCLA Division of Pediatric Ophthalmology. The Leonard Apt, M.D. Pediatric Fellowship Fund, The Leonard Apt M.D. Pediatric EyeSTAR Residency Training Fund and The Leonard Apt, M.D. Pediatric Ophthalmology Fund were established by the Leonard Apt Trust, memorializing his legacy. "This funding is an important resource for pediatric ophthalmology, and we are humbled by Leonard's generosity," said Dr. Bartly J. Mondino, director of UCLA Stein Eye Institute, chairman of the Department of Ophthalmology and the Bradley R. Straatsma, M.D., Endowed Chair in Ophthalmology.

Dr. Apt received countless honors, including UCLA's prestigious Dickson Emeritus Professorship Award, which honors outstanding research, teaching and service at the university. He also received the first Distinguished Achievement Award from the American Association of Pediatric Ophthalmology and Strabismus.

"Not only did Dr. Apt found the Pediatric Ophthalmology and Strabismus Division at UCLA and lead it in its formative years, but



Dr. Leonard Apt. Photo: Courtesy of UCLA Stein Eye Institute

the generosity of his estate also will elevate fellowship training and research at UCLA Stein Eye Institute to the highest levels of international prominence," said Dr. Joseph Demer, chief of the division and Arthur L. Rosenbaum, M.D. Chair in Pediatric Ophthalmology. "Dr. Apt's philanthropy will create a living and enduring monument in the form of vast numbers of children who will enjoy the gift of sight in California and throughout the world."

For more information, contact Gail Summers at: (310) 206-9701

Semel Institute Introduces the 2016-2017 Max Gray Fellows

Laurie Davis Gordon and the Jane and Terry Semel Institute for Neuroscience and Human Behavior at UCLA hosted the second Max Gray Fellows in Mood Disorders Salon on April 26, 2017, at the Dr. S. Jerome and Judith Tamkin Auditorium in Ronald Reagan UCLA Medical Center. Gordon established the Max Gray Fund for Depression Research in 2014 in memory of her son Max Gray. The fund has raised more than \$445,000, enabling the Semel Institute to recruit a total of six postdoctoral Max Gray Fellows.

Gordon and Dr. Peter C. Whybrow, director of the Semel Institute and Judson Braun Chair in Biological Psychiatry, welcomed the attendees and introduced the 2016-2017 Max Gray Fellows, Drs. Alaina Burns (RES '16), Adult Mood Disorders Clinic, and Elizabeth Horstmann (FEL '16), Child and Adolescent Mood Disorders Clinic.

Dr. Thomas B. Strouse (RES '91), medical director of the Stewart and Lynda Resnick Neuropsychiatric Hospital at UCLA and Maddie Katz Endowed Chair in Palliative Care Research and Education, moderated a panel discussion among the Max Gray Fellows and their supervising



Steven Gordon and Laurie Davis Gordon, vice chair of the Resnick Neuropsychiatric Hospital Board of Advisors. Photo: Todd Cheney/UCLA Photography

faculty. In addition, supervising faculty members Drs. Michael Gitlin (RES '79) and David Miklowitz (PhD '85) discussed the progress in mooddisorders fellowship training, made possible through the Max Gray Fund.

For more information, contact Dorin Esfahani at: (310) 267-1838 NEWS + NOTES *friends*

Stars Step Out for Cancer Research at Taste for a Cure

The UCLA Jonsson Cancer Center Foundation honored entertainment luminaries and philanthropists Yael and Scooter Braun at its signature fundraising event, which was held at the Beverly Wilshire Hotel on April 28, 2017. Academy Awardnominated actress Angela Bassett hosted the evening, and James Corden, host of the *The Late Late Show With James Corden*, presented the Brauns with the 2017 Gil Nickel Humanitarian Award. Attendees were treated to a special performance by four-time Grammy nominee Ariana Grande and the comedy of Jerrod Carmichael. The live auction featured a MINI Clubman automobile from the MINI of Santa Monica dealership. Co-chairing the festivities were Joe Cohen of Creative Artists Agency, Jon Holman of the Holman Group, Larry Maguire of Far Niente Winery, Gary Newman of



Top Left: Honorees Yael (left) and Scooter Braun. Top Right: (From left) Actress Yara Shahidi, host Angela Bassett and co-chair Dana Walden. Bottom Left: Actor Fred Savage. Bottom Right: (From left) Event co-chairs Joe Cohen, Gary Newman, Dana Walden and Jon Holman. Photos: Getty Images

Fox Television Group, Jay Sures of United Talent Agency and Dana Walden of Fox Television Group. Since its inception, Taste for a Cure has raised approximately \$12 million to support highest-priority research at the UCLA Jonsson Comprehensive Cancer Center.

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For more information, contact Margaret Steele at: (310) 794-5244

Lunch with the Scientists Highlights Women's Research and Philanthropy

The Iris Cantor-UCLA Women's Health Center Executive Advisory Board held its 11th Annual Lunch with the Scientists on February 16, 2017, at the UCLA Faculty Center. Over the past 13



Top Left: (From left) Executive Advisory Board chair Mary Ann Cloyd, board member Patricia Grey, Dr. Janet Pregler and Carol Block. **Top Right:** Board member Lauren Leichtman. **Bottom:** (From left) Judith Sobol, board member Judith Nelson, Eileen Ogle and board member Jason Kogan.

Photos: Todd Cheney/UCLA Photography

vears, the Executive

Advisory Board and private philanthropy have provided more than \$4 million to help underwrite UCLA research and community projects in women's health and gender-based studies. In turn, investigators have leveraged their research results to obtain more than \$20 million in government funding for women's-health research.

Mary Ann Cloyd, Executive Advisory Board chair of the Iris Cantor-UCLA Women's Health Center, welcomed guests, and board member Lauren Leichtman spoke of her commitment to supporting the center. The event recognized board member Linda Griego for her advocacy work with the David and Lucile Packard Foundation that resulted in a new \$680,000 grant to further UCLA's community outreach and Julie Friedman, director of the Iris Cantor-UCLA Women's Health Education & Research Center, for her work in leading the center's community-outreach efforts.

Dr. Janet Pregler, director of the Iris Cantor-UCLA Women's Health Center and professor of clinical medicine in the David Geffen School of Medicine at UCLA, provided the latest updates on the UCLA pilot research program funded by the Executive Advisory Board and the UCLA Clinical Translational Science Institute. Projects include groundbreaking studies in understanding why some types of breast cancer are more prone to metastasize and the differences in the intestinal microbiome between men and women, research on how addiction works differently in the brains of women and men, how aging fallopian tubes may predispose a woman to ovarian cancer and how hormones may affect this, and studies into making safe female stem cells.

For more information, contact Silviya Aleksiyenko at: (310) 206-9235

UCLA Women & Philanthropy Hosts Heart Health Seminar

According to the American Heart Association, only 55 percent of women know that cardiovascular disease is the No. 1 cause of death among women, and an even smaller percentage of women know the symptoms of heart disease or stroke. To promote awareness, UCLA Women & Philanthropy hosted an educational seminar on cardiovascular health at the Center Club Orange County in Costa Mesa on March 9, 2017. Fourth in a series of conversations with cardiologists from the UCLA Women's Cardiovascular Center and the UCLA Barbra Streisand Women's Heart Health Program, the event featured presentations about the need for cardiovascular screenings, the relationship of stress and lifestyle on heart disease and current research in women's cardiovascular disease. Cardiologists from the UCLA Women's Cardiovascular Center in Westwood, Drs. Karol E. Watson (RES '92, FEL '97, PHD '98), Tamara B. Horwich (RES '02, FEL '06) and Marcella Calfon Press, partnered with UCLA Health Drs. Reena Patel of Redondo Beach Primary and Specialty Care Center and Sheila Sahni, who completed a cardiovascular-diseases fellowship at UCLA in 2016 and currently is an interventional-cardiology fellow at the David Geffen School of Medicine at UCLA.



(From left) Ann Meyers Drysdale; Drs. Reena Patel, Tamara B. Horwich and Sheila Sahni; volunteers Melissa Pugash and Tracy Isenberg; and Drs. Marcella Calfon Press and Karol E. Watson. Photo: Gina Weitzel

Special guest Ann Meyers Drysdale, a 1978 UCLA graduate, Bruin athlete and inductee into the Naismith Memorial Basketball Hall of Fame, who was ranked as one of the 10 greatest female athletes of all time by Time magazine, spoke about how heart disease has affected her family. The presentation was followed by a reception with heart-healthy refreshments.



For more information, contact Michelle Jacobson at: (310) 267-1213



(From left) Drs. Rose Marie Robertson, Yibin Wang and Ravi Dave, professor of medicine and president of the Los Angeles Division of the AHA.

Photo: Todd Cheney/UCLA Photography

Heart Heroes

On February 8, 2017, UCLA and the American Heart Association (AHA) presented a joint scientific evening titled, "Heart Heroes: Advancements in Cardiovascular Research." Held at the UCLA Center for the Health Sciences (CHS), the event included presentations by Dr. Rose Marie Robertson, AHA chief science and medical officer; Dr. Kalyanam Shivkumar (FEL '99), professor of medicine and radiology and director of the UCLA Cardiac Arrhythmia Center in the David Geffen School of Medicine at UCLA; and Dr. Yibin Wang, UCLA Cardiovascular Theme Chair. Guests also enjoyed a tour of the state-of-the-art lab space in CHS.

Demonstrating the strong partnership between the AHA and UCLA, the AHA presented members of the UCLA Cardiovascular Theme with a check representing the total funding in peer-reviewed grant dollars from the AHA to UCLA cardiovascular investigators in 2016. The AHA has a longstanding commitment to supporting the most meritorious cardiovascular science with grants and fellowships. UCLA, a national leader in cardiovascular medicine and research, has benefited from AHA funding since 1957.

For more information, contact Michelle Jacobson at: (310) 267-1213



Cam and Peter Starrett Establish a Term Chair in Urology

Cam and Peter Starrett have established the Peter Starrett Term Chair in Medical Education in the Department of Urology at the David Geffen School of Medicine at UCLA. Dr. Jennifer Singer (MD '96, RES '02, FEL '03), associate clinical professor in the department, has been selected as the inaugural chair holder. This important philanthropic commitment from the Starretts will provide vital resources to promote and improve the teaching efforts of the Department of Urology and create a centralized role to oversee the educational needs of the department's residents and fellows.

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



Inaugural Starrett chair holder Dr. Jennifer Singer (left) with Peter Starrett. Photo: Dr. Mark Litwin (FEL '93)

Community Conversations Open the Dialogue about Mental Health

The Board of Advisors of the Stewart and Lynda Resnick Neuropsychiatric Hospital at UCLA hosted its third **Community Conversations** symposium on May 15, 2017, in the UCLA Neuroscience Research Building. Held in collaboration with the nonprofit Bring Change 2 Mind, the topic of the symposium, *Stigma — Lead the Change*, focused on the stigma that often surrounds issues of mental health, which can create negative feelings and present significant barriers to care.

The event was moderated by Dr. Thomas B. Strouse (RES '91), medical director of the Resnick Neuropsychiatric Hospital and Maddie Katz Endowed Chair in Palliative Care Research and Education. It featured presentations by UCLA faculty member Dr. Kenneth B. Wells, professor-in-residence in the Department of Psychiatry and Biobehavioral Sciences and David Weil Chair in Psychiatry and Biobehavioral Sciences in the David Geffen School of Medicine at UCLA, and Bring Change 2 Mind Advisory Board members Drs. Bernice Pescosolido and Bennett Leventhal. They highlighted current research and programs underway on school campuses and in underrepresented communities that are designed to foster positive attitudes, change the conversation and reduce stigma.

Bring Change 2 Mind was co-founded by actress Glenn Close and her sister Jessie Close and is dedicated to encouraging dialogue about mental health.

For more information, contact Dorin Esfahani at: (310) 267-1838

Gifts

The UCLA Institute of Urologic Oncology (IUO) has received a contribution from **Richard C. Blum** and **Senator Dianne Feinstein**. The IUO, under the leadership of Dr. Arie Belldegrun, brings together a multidisciplinary team of scientists and physicians to develop leading-edge therapies for the treatment of prostate, kidney, bladder and testicular cancers. **Florence** and **Harry Sloan** also have made a \$3.195-million contribution to the IUO. Both gifts will provide unrestricted support for the IUO at Dr. Belldegrun's discretion.

Laurie and Steven Gordon have made a pledge to support the UCLA Depression Grand Challenge, which has a goal to cut the burden of depression in half by 2050. This gift was instrumental in helping launch the Innovative Treatment Network, which uses groundbreaking methodologies and technology to detect and treat patients with varying levels of depression. The Gordons' contribution also named the Max Gray Lobby, located in the east elevator lobby in the Stewart and Lynda Resnick Neuropsychiatric Hospital at UCLA.

William (Bill) E. Heyler, a dedicated and longtime donor to the Jane and Terry Semel Institute for Neuroscience and Human Behavior at UCLA, made a bequest of \$432,000 to the existing Heyler Family Fund through the William E. Heyler Charitable Remainder Trust. This visionary gift has endowed the Heyler Family Fund as a lasting tribute to Heyler and the Heyler family's generosity. The endowment will support leading-edge research, education and treatment for the co-morbidity of autism and schizophrenia, under the guidance of the director of the Division of Child and Adolescent Psychiatry in the Semel Institute.

Dr. Ray and Mrs. Ghada Irani have made a new commitment that will benefit the UCLA Department of Urology and the UCLA Division of Nephrology. Distribution of the gift will be at the discretion of the UCLA Kidney Transplant Program's medical director, Dr. Gabriel Danovitch, and its surgical director, Dr. H. Albin Gritsch (RES '91). Funds will be used in part to develop an innovative program designed to assist living kidney donors in navigating the healthcare system and ensuring that they can easily access follow-up care.

The UCLA Pediatric AIDS Coalition (PAC), a student organization, held its Annual UCLA Pediatric AIDS Coalition's Dance Marathon on the UCLA campus in April 2017. The 26-hour event draws more than 3,000 participants, who commit to staying on their feet through the night to support the fight against pediatric AIDS. Since 2011, PAC has contributed more than \$174,000 to the UCLA AIDS Institute, which has been instrumental in funding seed grants for studies focusing on pediatric and adolescent research projects. This year, the event raised more than \$434,000 overall, with 12 percent of the proceeds going directly to the UCLA AIDS Institute. In addition to supporting UCLA, PAC also contributes proceeds to the Elizabeth Glaser Pediatric AIDS Foundation and Project Kindle, a children's camp.



Dance Marathon participants celebrate the funds raised. Photo: Kevin Moore

A longtime philanthropic partner of the UCLA AIDS Institute, the **James B. Pendleton Charitable Trust** has made a \$350,000 contribution to support HIV/AIDS research at the institute, under the direction of Dr. Irvin S.Y. Chen. The Pendleton Trust's gift will enable the purchase and upgrade of essential instruments and allow the institute's team of researchers to increase the speed and efficacy of data analysis on novel prevention and treatment efforts. The UCLA AIDS Institute was established in 1992 and is committed to eradicating HIV/ AIDS worldwide through research and clinical care.

The **Walking Strong Foundation**, founded by Valerie and Jorge Llauro, made a gift of \$100,000 to the Center for Duchenne Muscular Dystrophy (DMD) at UCLA. Their son Alexander was diagnosed with DMD at age 5. DMD is one of the most common fatal genetic diseases of childhood; it is characterized by progressive muscle degeneration that leads to loss of ambulation. It affects approximately 1-in-5,000 boys, and there currently is no cure. The UCLA center leads the nation in translational science focused on DMD and is the first comprehensive Duchenne clinic in the Western United States. The contribution will support the center's efforts to find treatments and extend lives.



(From left) Directors of the Center for Duchenne Muscular Dystrophy at UCLA Drs. Stan Nelson, Melissa Spencer and Carrie Miceli; Valerie Pappas Llauro; Jorge Llauro; Dr. Nancy Halnon; Amy Martin; and Alexander Llauro (front). Photo: Florian Barthelemy



For more information, contact Health Sciences Development at: (844) 474-4387

In Memoriam



Dr. Fonkalsrud Photo: John Swede

Dr. Eric W. Fonkalsrud, (RES '63), died on April 6, 2017, at the age of 84. A native of Baltimore who grew up in Seattle, Dr. Fonkalsrud completed his medical degree, an internship and a year of residency at Johns Hopkins University. He then completed a surgical residency at UCLA, followed by training in pediatric surgery at Children's Hospital of Ohio State University. He returned to UCLA

in 1965 as founding chief of pediatric surgery. He became professor of surgery in 1971, served as executive vice chair of the Department of Surgery from 1982-88 and became emeritus professor in 2001. He was a consummate educator and mentor to thousands of UCLA students and residents and established the Eric W. Fonkalsrud, M.D. and Margaret Z. Fonkalsrud Endowed Scholarship in 2002. He was a world-renowned figure in his field and performed more than 15,000 operations during his career. He also initiated liver transplantation at UCLA in 1968. He received numerous awards and served as president of multiple surgical associations, including the American Pediatric Surgical Association. Dr. Fonkalsrud is survived by his wife Peggy, their four children Eric Jr., Lynn, David and Robb, and six grandchildren.

My Left Hand

By Jonathan Koch



It wasn't long after his transplant surgery that Jonathan Koch was able to move the fingers on his new left hand. Phote: Jennifer Koch

IT'S A PRETTY COOL HAND. WE WORK

WELL TOGETHER. That's what I think when I look at my left hand, when I flex the fingers, hold the hand of my wife Jennifer or work out with my daughter.

It is miraculous, really. Until last October, my left hand had been a blackened, wasted paw — the result of a sudden and mysterious septic infection that nearly killed me. My once-strong hand (along

with most of my right hand and both of my feet) had transmuted into something that might have belonged to a mummy. Now, it is soft and warm, with limber fingers that can grasp a tennis racket, throw a ball or hold a glass of water.

I received my new left hand on Jennifer's birthday. This was not the first hand-transplant operation — there have been 80-plus worldwide to date — but the surgery at Ronald Reagan UCLA Medical Center was, in its way, a landmark procedure. Dr. Kodi Azari, the surgical director of the UCLA Hand Transplantation Program and a pioneer in the field, had been on the lookout for a patient like me, one with an irredeemably damaged limb that had not yet been amputated. His aim was to remove the hand before there even was a donor, taking measures to preserve the vessels, nerves and tendons. By leaving them long, but tucked neatly away within the stump, he believed that attaching a donor limb would be easier and recovery faster.

Dr. Azari amputated my left hand, as well as all but about an inch of each of the dead fingers on my right hand, on June 23, 2015. I was ready for it to come off. It had caused me so much pain; I didn't even feel that it was mine anymore. And I knew that removing it

> set the stage for its restoration. Almost two months later, Jennifer and I were married. The next day, UCLA orthopaedic surgeon Dr. Francis Cyran amputated my right leg and the necrotic toes on my left foot. I spent the next months rehabilitating from the loss of my leg and learning to walk with a prosthesis.

The day of my transplant surgery arrived

on October 25, 2016. The operation took nearly 18 hours and involved a large team of specialists that Dr. Azari had assembled from a variety of medical centers throughout Southern California. When I was in recovery after the surgery, Jennifer said to me, "I just want one thing for my birthday. I want you to move one of your fingers." I didn't think there was any chance



I could do it, but I thought about it, and it moved. First my thumb, and then in a day or two my other fingers. I haven't stopped moving them since. Sensation is returning as the nerves regrow. It is like a humming inside *my* hand.



Jonathan Koch meets with Dr. Kodi Azari (top), the surgeon who performed his hand transplant, during regular rehab at UCLA (bottom).

Photos: Reed Hutchinsor

I recognize that there is more to my new hand that goes beyond the physical gift I have been given. When I think about the donor of this hand, I reflect on the enormous responsibility I now have and on the belief that there is a larger purpose to this. I had such a feeling once before in my life, when I was 17 and my best friend Brian was killed. It was so sudden and so devastating, I couldn't process the grief. We had been best friends my whole life. I decided that I would take the life that he lost into mine, and I would live a more courageous life for the both of us. I feel exactly that way now toward my donor. It makes me feel strong and energized rather than sad and confused that someone's life had to end for me to receive this gift.

Though I work in entertainment, I always have preferred to remain in the background, happy to fly under the radar. I rarely did any press. Until this happened to me. Now I am compelled to step forward and to talk about my experience in the hope that other people might take from it some inspiration and strength and to recognize what is possible within themselves. I have been doing some meaningful speaking engagements, which is something I never imagined but now love. As long as people are inspired by my story and want to hear what I have to say, I'll keep talking.

My hero as a boy growing up in central Pennsylvania was Rocky Balboa. I learned so much from *Rocky* — that the goal is not necessarily to win but to persevere, to put everything you have into something and to get back up when you are knocked down and keep on going no matter what. It was a helpful ethos for me to adopt as a high-school wrestler of middling talent, going through hell to get ready for seven minutes on the mat. So, I learned those lessons early, and they have helped to prepare me for this fight. It has been my toughest *Rocky* moment.

I can't undo what

happened. It is what it is. All that I can do now is try to find the greatest good in it. Sometimes I am asked if I would rewrite this story if I could. I don't think that at this point I would. It may sound strange, but I've made peace with it. Yes, it has been very painful. But, I won't be crushed by it, and I won't go through the rest of my life feeling disappointed and full of regret. I have a life to live — for



Jonathan Koch is a television realityshow and documentary producer, and the second patient to receive a hand transplant at UCLA. Photo: Jennifer Koch

my wife, for my daughter, for my friends and family, and for others who might draw strength from my experience. There is so much to do, and there is greatness to be found in the face of life's most painful and difficult challenges.

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To view a video about Jonathan Koch and his hand transplant, go to: uclahealth.org/kochhandtransplant

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o see more photographs of Jonathan Koch, click on the link to his article at: magazine.uclahealth.org





Left: Since his transplant surgery, Jonathan Koch has given a number of public talks, including a TEDx presentation in March 2017. Above: Jonathan and his wife Jennifer hand-in-hand share a quiet moment together.
Photos: (TEDx) Blanca Schnobrich; (Jennifer and Jonathan) Courtesy of Jonathan Koch



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U.S. News & World Report's Best Hospital Survey ranks UCLA No. 1 in Los Angeles and No. 7 in the nation.







While lifesaving technology still girds childbirth and neonatal services, premature infants such as Ameya Ghiya are benefiting from a more natural and nurturing approach that invites parents to be part of the decision-making process and have a more direct role in the hospital care of their child.