A CAT scan helped William Mack, MD, Center of USC for evaluation by their com surgeon told my family I would be lucky to of the bleed.

The bleed was so severe that the neurosurgeon told me my family would be lucky to wake up.” Nguyen recounted.

Nguyen was transferred to Keck Medical Center of USC for evaluation by their comprehensive cerebrovascular stroke team. A CAT scan helped William Mack, MD, associate professor of neurological surgery, find the aneurysm causing the bleed. He quickly recognized the complexity of the problem. “There was a ruptured aneurysm that involved the entire left vertebral artery, including the posterior inferior cerebellar artery (PICA), which provides blood to part of the patient’s brainstem,” said Jonathan Russin, MD, associate surgical director at the USC Neurorestoration Center. “Cutting off the blood supply to the artery would also cut off blood to the brainstem, causing brain damage or even death.”

Russin performed a PICA-PICA by-pass, which involves suturing the right and left PICAs together to ensure proper blood flow to the brainstem while preventing additional bleeding from the aneurysm. The USC Stroke Center is one of a handful in the country that can perform this rare procedure. Immediately following the by-pass, Mack and his team blocked the vertebral artery and the aneurysm through endovascular coiling.

On Friday, March 13, Nguyen woke up. “Friday the 13th has always been my lucky day,” she said. “My twins were born on that day.”

Nguyen made a remarkable recovery with strong support from her treatment team. “Kathy’s motivation and commitment to physical fitness enabled her to engage in high-intensity activities soon after her surgery,” said Cherise Lathan, PT, DPT.
Finding her calling: a love for medicine
By Amanda Buick

Congresswoman receives Alzheimer advocacy award
By Amanda Buick

Congresswoman Linda Sánchez was recognized for her work as an advocate for Alzheimer’s research and care at the Feb. 12 conference, "Marathon: The Congreswoman Receives Alzheimer Advocacy Award." It was the first marathon for her in 2016. The Congresswoman has been a supporter of the National Alzheimer’s Project Act, which was signed into law by President Obama in 2011. The law ensures that ethnic and racial populations who are at higher risk from Alzheimer’s be included in the government’s efforts on research, care, and home and community-based programs. The award also supported a government funding measure that increased funding for Alzheimer’s research by $5 million.

The Congresswoman has been a supporter of the NIH-supported USC Alzheimer Disease Research Center for many years. Sánchez pointed out that this funding will directly affect the Keck School.

"With the recent increases in federal funding for Alzheimer’s research, programs like the New Stephens Neuroimaging and Informatics programs are becoming a necessity," said Dr. Pamela Schaff, Chief of the Department of Medical Education.

"The most rewarding things I spend so much time being inspired by my students and colleagues as we ‘grow and develop’ future doctors."
Diversity has deep roots at Keck School

By Amanda Busick

Building and supporting a diverse campus community is a cornerstone principle of the Keck School of Medicine of USC. The school has a multi-pronged plan to support that principle — building a pipeline of interested and qualified students, supporting those students when they come to the Keck School, and attracting and retaining an outstanding and diverse faculty.

The school’s Office of Diversity and Inclusion promotes inclusion among aspiring medical professionals with programs like Med600K, Bridging the Gaps, the PA Pipeline Program and many student groups. The Keck School continues to strive to be the most diverse, most inclusive medical school possible, recently establishing Dean Carmen A. Puliafito’s Diversity Cabinet, which gathers staff and faculty to address the Keck School’s needs and acknowledge its accomplishments in diversity.

Not only is the Office of Diversity and Inclusion one of the medical school’s oldest programs, it began nearly 50 years ago in response to student requests to highlight the issue of diversity on campus.

“In 1968, five white, male medical students went to the dean and said that they were tired of going to school with people who looked like them,” Assistant Dean of Diversity Althea Alexander said. “They said, ‘we are in the heart of the Spanish-speaking community, not far from the black and Asian communities, and we have a small Native American community. We need to be doing more.’”

Because, they concluded, it was the right thing to do.

The Keck School has graduated 756 black and Latino physicians since 1968, with another 31 to be added this year. The Office of Diversity and Inclusion not only is responsible to black and Latino students, but also Asian and Native American aspiring health care professionals and LGBTQ students.

This is one of many ways the Keck School continues to encourage its very important underrepresented student population.

Groups help students feel at home on campus

By Hope Hamashige

Conducting hepatitis B screenings at local health fairs is one way that members of the Keck School of Medicine’s Asian Pacific American Medical Student Association (APAMSA) give back. The students joined forces with the Asian Pacific Liver Center to check for the disease, which touches the lives of Asians and Asian-Americans disproportionately.

“We find that APAMSA provides great opportunities for us to actively help and give back to the community through mentorship and networking,” said Laurie Song, co-chair of the Keck School’s APAMSA chapter. “This allows for students in the club to feel at home on campus and makes us more well-rounded as medical students.”

APAMSA is one of several diverse student organizations at the Keck School, which has long felt that having such groups was a critical piece of its longstanding effort to enroll and retain a diverse student body.

“Diversity has always been part of the intrinsic fabric of the Keck School of Medicine of USC; it is a vital core of our DNA and that of the entire Trojan family,” said Henri Ford, MD, MHA, vice dean of medical education. Many of these groups have grown by leaps and bounds, a commitment to ensuring diversity among future generations of medical students and doctors. For example, members of the Student National Medical Association, an organization for medical students of color, make monthly visits to the nearby Tom Bradley Elementary School to give a science lesson, while the Latino Medical Student Association hosted a mentorship day in the fall for students from nearby community colleges, offering guidance about the application process to aspiring medical students.

And in addition to providing a source of fun and community, these groups provide a forum to tackle serious issues facing both minority students and the populations of patients they represent. The Keck School’s chapter of MedGLO, a national organization of gay, lesbian, bisexual and transgender medical students, organized a lunch talk on gender confirmation surgery and hosted a workshop for first-year students about talking to their patients about sexual orientation.

Being part of MedGLO has provided me with the opportunity to work to enhance awareness and understanding regarding the way in which diverse cultural, psychosocial, economic, political, and historical factors come together to impact LGBTQ health,” said Justin Trop, a co-chair of the Keck School’s MedGLO chapter.

PA program recognized for community outreach

By Amanda Busick

Once a month, up to 60 local high school students join volunteers from the Primary Care Physician Assistant (PA) Program at Keck School of Medicine of USC for the Pipeline Program, which teaches these students knowledge and skills that could transform their future careers.

This program was one of the reasons cited by the Physician Assistant Education Association Forum for recognizing the Keck School’s program with the Excellence Through Diversity Award. The Pipeline Program was established almost four years ago under the guidance of Maria G. Maldonado, MPH, MPAP PA-C, faculty instructor of clinical medicine and pipeline recruitment director. The program is one of the ways the Keck School reaches out to the community, sparking interest in medical fields among a diverse base of qualified students.

Maldonado is quick to point out that she’s not the only influencer of the program.

“It’s a team effort on every level, and that’s one of the things that really makes this program successful,” she said. “I really think that’s one of the strong foundational pieces for this to continue to be in action and to be sustainable.”

The teenagers who participate in the program are almost all from underserved schools in the area and are considering careers in a variety of medical positions. Topics at these events range from neurology, anatomy and physiology to nutrition and basic first aid, and the students are introduced to a wide range of health care careers.

The enthusiasm for the program and the subject matter is clear when Mariah Ginez, a 17-year-old senior from Montebello High School, shares her experiences.

“I love this program,” she said with a smile. “I never knew about PAs before I came and now it’s pretty much the career path I am going to take.”

Maldonado’s vision for the future includes expanding the program to include parental support workshops, information about financial aid options and academic support once the students make it to graduate school.

“There are unique barriers and challenges that extend beyond the high school and college years to graduate school,” Maldonado said. “So that’s where we need to help any student who may be in academic risk.”
Bringing patient care issues out of the closet

By John Hobbs

For patients in the lesbian, gay, bisexual and transgender (LGBT) community, routine check-ups can bring up topics out of the norm for practicing physicians. As a result, students from the Keck School of Medicine of USC are taking strides to improve health care workers’ understanding of the issues.

“The students are ahead of us on this and driving change,” acknowledged Suzanne Palmer, MD, professor of clinical radiology and medicine and president of the Keck School of Medicine of USC Faculty Council. “They were instrumental in establishing LGBT Drive, a group on USC’s Health Sciences Campus that includes staff, students and faculty from across the hospitals and medical school, that is helping to integrate LGBT-friendly policies into education and clinical practice.”

Recently, Keck School administrators approved a lecture on LGBT health thanks to the advocacy work of McGLo, an LGBT organization with more than 70 members at the Keck School.

Two Keck School students also joined aspiring health care professionals from local universities to organize the second annual Southern California LGBT Health Conference.

The event, which was held Feb. 20 at the University of California, Irvine, was intended to foster conversations about LGBT health and wellness in the context of individual lives and stories. The nearly 200 attendees included currently practicing and future health care professionals as well as LGBT community members.

“As members of the conference’s executive committee, second-year Keck School students Justin Trop and Jennifer Franks said they would like to see LGBTQ patient care issues better represented in health care curricula. LGBTQ cultural literacy takes on a new level of importance with a practicing doctor, who focuses on the entire patient.

“If your patient is a trans man in need of a pap smear or is intersex and has retained testes, if you don’t ask your patient about it, you will never know, and they could be in danger,” Trop said.

Expert: Inclusion is important factor in fostering diversity

By Melissa Masatani

As the chief diversity officer for the American Association of Medical Colleges, Marc Nivet has a message you’d never expect: Diversity is not good.

“There is nothing inherently good about diversity; there’s nothing magical about diversity,” Nivet said during a Feb. 17 lecture at Mayer Auditorium.

“What is required to make diversity useful and positive and good is this concept of inclusion. Inclusion is the fuel that animates the diversity. It is what makes use of all of our different experiences, attributes, talents and inherent diverse characteristics.”

Nivet, EdD, MBA, was on the Health Sciences campus to present “Diversity 3.0: From Fairness to Excellence,” a discussion about the direction of diversity on medical campuses across the country presented by the Office of Educational Affairs and Office of Diversity and Inclusion.

“We have been thrilled to have him with us (on campus), where he has met with a number of us, including members of the Dean’s Diversity Cabinet as well as some of our student leaders,” said Educational Affairs Vice Dean Henri Ford, MD, MBA.

“The message coming from him has been quite insightful and should help Keck on its path to promote diversity and also allow us to embrace what has been the fabric of USC: the importance of diversity through all of the various faculties throughout the university.”

Diversity just means differences, Nivet said, and administrators must focus on how to make sure students and faculty flourish in a diverse campus community.

“In the simple-minded way of thinking about diversity, what we do is we count people,” Nivet said. “But we don’t make sure people count. We need to make sure that people are bringing their full selves to the institution and are being harnessed to make more of the institution.”

First-year student Nana Bonsu agreed.

“I think the idea of inclusion is important because, just because you have these numbers of minority people, it doesn’t necessarily mean that you’re doing something,” he said. “It’s a step, but if you’re not actually doing something with the minorities to make sure they feel included, then I think it’s futile.”

Nivet also emphasized that diversity is not just an important conversation — it must be an urgent priority, which resonated with several of the students in attendance.

“The school knows diversity is important,” second-year student Vanessa Arientyl said.

“We’re talking about diversity, but how do we go about it? Right now, diversity is just important, but I think people recognize that it is becoming urgent. We have the potential to be frontrunners in this, so why not?”

Faculty diversity among administration’s priorities

By Amanda Busick

Even the most diverse student body can feel alienated and underrepresented if there isn’t a diverse faculty to match it. The Keck School of Medicine of USC has a proud heritage of diversity, and is taking steps to further develop and maintain a diverse faculty and staff.

Jeffrey Upperman, MD, associate dean for faculty diversity, was appointed to this position in November of 2015. He is making sure that this important task is something he and his team are tackling in a thoughtful way.

Upperman’s plans include a “listening tour” of various departments and teams at the school, getting different perspectives on the issues and gathering information on what the current climate offers staff and students.

He is well aware of the national attention this very important issue has received.

“Obviously major universities are taking this fairly seriously,” he said, “and I think as we begin to craft what our five-year strategy is for the Keck School, we need to make sure that we have all of the appropriate information so that we make a strong investment in our future.”

Upperman is a member of Dean Carmen A. Puliafito’s Diversity Cabinet, one of the ways the Keck School is focused on enhancing recruitment and retention of students, faculty, residents and staff.

The community surrounding the Keck School always has been an important part of the makeup of the institution as well. This is something that Upperman wants to continue to foster.

“As you are trying to figure things out within various communities that are ethnically and socio-economically diverse, it is important to reflect those communities,” he said.

“I think that the Keck School has a long history of being part of the community and this is an ongoing extension of really trying to step it up and continue to do great things.”

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Students tackle global health crises

By Larissa Puro

For the fifth year, nearly 100 USC students from 10 schools faced current-day issues of global health during the USC Global Health Case Competition on Feb. 11.

Teams were mock consultants “hired” by the American Cancer Society and had to work with patients, NGOs and regulatory agencies to create realistic, cost-effective solutions to help communities in lower-income countries.

The annual cross-campus challenge, which began in 2012, is coordinated by the USC Institute for Global Health and a partnering organization — this year, it was American Cancer Society.

Previous competitions have featured partnerships with organizations including TOMS, the World Health Organization, Centers for Disease Control and International Medical Corps.

Master of Public Health candidates Danielle Pappas, Evan Pye and Jessica Frankenberg, psychology undergraduate Jennifer Bailey and dual-degree pharmacy and PharmD/MPH student Amy Nham are members of the winning team.

They will represent USC at the International Emory University Global Health Case Competition in Atlanta this April.

By contending for first place with their peers, the students learned to collaborate with others under pressure. Instead of handpicking a team to go to Emory University — which some universities, in fact, do — USC leaves it up to the students, which motivates them to think creatively and competitively.

On competition day, students presented to judges comprising USC faculty and American Cancer Society representatives. Each team had to analyze research related to health promotion and cancer prevention in low- and middle-income countries and develop a five-year sustainable, realistically financed strategic plan to further cancer prevention through healthy environments and lifestyles.

Teams included students from the Marshall School of Business, Viterbi School of Engineering, Keck School of Medicine, College of Letters, Arts and Sciences, Annenberg School for Communication, Price School of Public Policy, School of Social Work, Leventhal School of Accounting, School of Pharmacy and the Jimmy Irvine and Andre Young Academy.

Mexican researcher tapped for fellowship at stem cell lab

By Cristy Lytal

We can learn a lot from fly brains, according to Ismael Fernández-Hernández, PhD, a postdoctoral fellow in the USC Stem Cell laboratory of Michael Bonaguidi, PhD.

Fernández-Hernández is an accomplished researcher who showed that adult fruit flies have the potential for replenishing brain cells lost to disease, injury or aging. He is also one of 11 new Mexican postdoctoral fellows at USC jointly funded by the university and the Consejo Nacional de Ciencia y Tecnología (CONACYT) — Mexico’s equivalent of the National Science Foundation.

“This arrangement between the USC and CONACYT is great, because it allows Mexican researchers to come here to a distinguished university with state-of-the-art facilities to increase their knowledge and experience, which eventually benefits people in both countries,” he said. “This has been a very important opportunity for me.”

As a USC-CONACYT Prouvo Fellow, Fernández-Hernández will receive funding for up to two years of postdoctoral research at the Eli and Edythe Broad Center for Regenerative Medicine and Stem Cell Research at USC, part of the Keck School of Medicine of USC.

After his two-year postdoctoral fellowship at USC, Fernández-Hernández and his wife are open to opportunities anywhere in the world. Eventually, however, he hopes to start his own laboratory in Mexico, while maintaining collaborations with his USC colleagues.

He began using fruit flies to study cancer during his master’s degree at the Spanish National Cancer Research Centre (CNIO) and the Autonomous University of Madrid in Spain. Then his PhD work at the University of Bern in Switzerland showed, for the first time, that fruit flies have a remarkable regenerative capacity to produce new neurons after brain injury. He continued to work with fruit flies while studying brain tumors during his first postdoc at the Institute for Research in Biomedicine (IRB) in Barcelona, Spain.

In the Bonaguidi Lab, Fernández-Hernández is using these soring swarms of flies to identify genetic factors and test drug-like compounds that may help the brain counteract degeneration from disease, aging or injury.

“Flies are, genetically speaking, quite related to humans,” Fernández-Hernández said. “Ninety percent of the genes causing diseases in humans are shared with flies. Along with several technical advantages, that’s why it is a very suitable model organism to study the genetic causes of diseases.”

Urology leaders gather for inaugural conference

More than 150 medical professionals watched simultaneous open and robotic radical cystectomies recently, as a group of global leaders in the urology field gathered for an inaugural conference at the Keck School of Medicine of USC.

The First Annual Conference: Practical Urology, held Feb. 4-6 at the Health Sciences Campus, offered a state-of-the-art showcase of practices in urology from national and international leaders in the fields of urology, oncology and surgery. Organized by Inderbir Gill, MD, the founding executive director of the USC Institute of Urology and chair and professor, Catherine and Joseph Aresty Department of Urology, the course included hands-on labs, live surgeries, interactive discussions and more.

The next conference will be held Feb. 2-4, 2017.

Industry partnership to help research in immune diseases

By Zen Yeung

Investigators at Keck Medicine of USC are tackling immune-mediated diseases in a whole new way with the creation of a joint postdoctoral program.

Omrid Akbari, PhD, a professor in the Department of Molecular Microbiology and Immunology at the Keck School of Medicine of USC, said a combined postdoctoral effort with Janssen Research & Development, a unit of Johnson & Johnson, will give his lab’s researchers the ability to practice translational research that could flow from bench to bedside. Akbari will be a principal investigator of the new Janssen Immunology Postdoctoral Program.

USC has a three-year contract with Janssen. During that time, USC will own 50 percent of any intellectual property that results from the collaborative postdoctoral program, Akbari said.

“It is very uncommon for a company to give intellectual property rights away,” Akbari said. “This is a novel approach to finding solutions for patients’ maladies.”
A USC clinical trials office announces new director

A fre assuming oversight of the USC Clinical Trials Office (CTO) in January, the Keck School of Medicine of USC has announced the appointment of Melissa Archer, JD, as the new director of the CTO. Archer, who has a background in law, was identified through a comprehensive national search and comes to USC from leadership positions in clinical trials operations in the private sector and academia.

“I feel very fortunate to have the opportunity to work with the talented and diverse faculty and staff in the USC research community,” Archer stated. “I look forward to bringing my experience to collaborate, and to support the school’s efforts to expand our clinical trial programs.”

Archer will lead the CTO through a transition that is designed to enhance the efficiency, user-friendliness and transparency of services available to support clinical trials at USC.

The transition coincides with other major advances in USC’s research environment, including a new clinical trials management system, a clinical data warehouse for research, and a one-stop Clinical Research Support Office to assist research teams in the design and conduct of clinical studies.

USC Clinical Trials Office

Melissa Archer

USC Norris to mark second anniversary of Survivor Art Series

For two years, cancer survivors have been able to showcase their artwork in a rotating show at the Jennifer Diamond Cancer Resource Library in the USC Norris Comprehensive Cancer Center. The library will host a reception to mark the second anniversary of the ongoing program at 2 p.m. March 9, featuring its eighth cancer survivor/artist. Lisa Chakrabarti will talk about her life as an artist, her experience as a patient at USC Norris and how her cancer diagnosis has informed her creative process.

“Another reason to celebrate is that all seven of our previous artists are still survivors,” said Mary Audo, volunteer library coordinator for the Jennifer Diamond Cancer Resource Library. Refreshments will be served, no RSVP is necessary. The library is located in the Harlyn J. Norris Research Tower, G501. For more information, call (323) 442-7805.

Residential traffic reduces child’s genetic protection from asthma

Too much residential traffic removes the protective effect a specific gene has on lowering asthma risk, according to a new USC study. Children could have zero, one or two copies of a common gene variant. “Environmental exposures such as traffic-related air pollution can trigger lung inflammation, but the effects depend on genetic background,” said Frank Gilliland, MD, PhD, MPH, senior author, preventive medicine professor and director of the division of environmental health at the Keck School of Medicine of USC. “Some people have a genetic background that reduces their risk for lung inflammation, but if they are highly exposed, then that protection goes away.”

The study, published in the journal PLOS One, examined exhaled nitric oxide levels in 2,457 white and Hispanic children in Southern California. Exhaled nitric oxide is a biomarker of airway inflammation; higher levels of it in exhaled breath indicate a child’s risk of developing asthma. Children with a genetic predisposition to lung inflammation, but the effects depend on genetic background.

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“We want to investigate whether that protection is lost when children are exposed to traffic-related air pollution,” said Gilliland. “It’s likely that if children spend more time outdoors, they’ll be exposed to lower levels of traffic-related air pollution.”

The study found that children with two copies of the protective gene variant had lower levels of exhaled nitric oxide than children with one or no copies of the variant. Children with two copies of the protective gene variant had lower levels of exhaled nitric oxide than children with one or no copies of the variant. Children with two copies of the protective gene variant had lower levels of exhaled nitric oxide than children with one or no copies of the variant. Children with two copies of the protective gene variant had lower levels of exhaled nitric oxide than children with one or no copies of the variant. Children with two copies of the protective gene variant had lower levels of exhaled nitric oxide than children with one or no copies of the variant. Children with two copies of the protective gene variant had lower levels of exhaled nitric oxide than children with one or no copies of the variant.