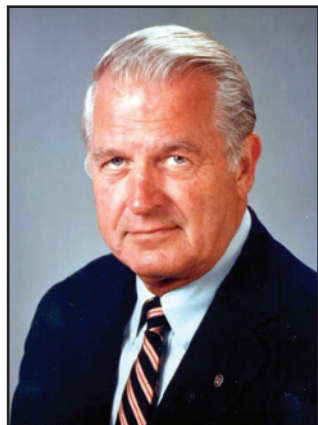


Gail Anderson, emergency medicine pioneer, 88

Gail Victor Anderson, MD, founding faculty member of the Keck School of Medicine of USC's Department of Emergency Medicine and a pioneer in the field, died of complications from pneumonia on Sept. 6 in Pasadena, Calif. He was 88.

"The world of medicine has suffered a great loss," said Carmen A. Puliafito, MD, MBA, dean of the Keck School. "The USC Department of Emergency Medicine residency program is one of the country's most highly regarded, and that was very much due to Gail's stewardship."

Best known as the "father of emergency medicine," Anderson became the first professor and chair of an academic department of emergency medicine in the United States when the dean of USC's medical school and the medical director of the county hospital asked him to take the position in 1971. Upon his retirement as chairman of the department in 2002, his faculty at LAC+USC Medical Center had trained



Gail Anderson

more emergency physicians than any other residency program in the country.

"Not many people can say that they launched a new medical specialty, but Gail was one of the few individuals who launched a highly successful specialty in emergency medicine," said Ed Newton, MD, interim chair of the USC Department of Emergency Medicine. "In fact, people now can hardly imagine a hospital without emergency medicine. Gail was an astute leader who was highly concerned with the welfare of the individual patients. He set that tone for the entire department for many years to come."

Born on Oct. 3, 1925, in Pensacola, Florida, Dr. Anderson served in the United States Navy during World War II before attending college and

See **ANDERSON**, page 3

Keck Medicine launches data warehouses to store key clinical, research metrics

By Tania Chatila

Keck Medicine of USC is taking data to new heights.

The medical enterprise is launching two initiatives to house comprehensive clinical and research data in an effort to better serve its patients and the community.

"The compilation of electronic health data helps providers and administrators design interventions that are safer, more effective and patient-centric," said Tom Jackiewicz, senior vice president and CEO for USC Health. "At Keck Medicine of USC, it is critical that we look at all our data holistically to create an enterprise view."

Keck Medicine of USC has come up with two solutions to do so.

First, it has launched a clinical data warehouse to collect, categorize and store data — in real time — from all its system entities and affiliates, including Keck Hospital of USC, USC Norris Cancer Hospital, USC Verdugo Hills Hospital and its ambulatory satellites. This data includes demographics, quality outcomes, length of stay, billing information, patient satisfaction scores and more.

"The use of this data boils down to one simple goal: better options and solutions for our patients and the community."

— Tom Jackiewicz, senior vice president, CEO, USC Health

"Data integration has many advantages," said Joshua Lee, MD, chief information officer for Keck Medicine of USC. "It allows all of our metrics to be kept in one place, making it easier and faster to analyze — a win for our patients because we can serve them even better."

For example, measuring patient demographics

against specific test results to provide more enhanced, personalized care for patients who demonstrate similar circumstances.

The enterprise is also working to create a research data warehouse initiative, which will partner Keck Medicine of USC with LAC+USC Medical Center, Children's Hospital Los Angeles and the Los Angeles County Department of Health Services. The joint effort — still in its beginning stages — would leverage data across the Los Angeles region to provide a comprehensive view of health care in the community.

Keck School scientists named among world's 'most influential'

Five Keck School researchers have been named by Thomson Reuters as having "The World's Most Influential Scientific Minds" for 2014. The New York City-based multinational media and information firm assessed papers indexed between 2002 and 2012 in 21 fields of study. It tracked authors who published numerous articles ranking among the top 1 percent of the most cited in their fields in the year of publication. The documents represent research that the scientific community has judged to be the most significant and useful.

The Keck School researchers named are:

- Inderbir Gill, MD, MCh, founding executive director of the USC Institute of Urology and professor and chair of the Department of Urology;
- Paul Thomas, PhD, associate professor of preventive medicine;
- Paul Thompson, PhD, professor of neurology, psychiatry, radiology, engineering and ophthalmology;
- Arthur Toga, PhD, professor of neurology; and
- Berislav Zlokovic, MD, PhD, director of the Zilkha Neurogenetic Institute.

UKRO honors USC provost for excellence in academic leadership

University Kidney Research Organization (UKRO) honored USC Provost and Senior Vice President for Academic Affairs Elizabeth Garrett at its fifth gala dinner on Sept. 12 held at The Beverly Hilton. The evening raised funds for the USC/UKRO Kidney Research Center at the Keck School of Medicine of USC.

The USC/UKRO Kidney Research Center will be part of the Keck School of Medicine at USC and will focus on both basic and applied research to identify the causes of, improve upon existing treatments for, and — ultimately — find a cure for all forms of kidney disease.

At the gala, UKRO presented its award for Extraordinary Achievement in Academic Leadership to Garrett. As the university's second-ranking officer, Garrett is responsible for a sustained effort to hire cutting-edge faculty members, particularly in the fields of the neurosciences, the humanities and the social sciences. She has shown great commitment to invigorating the research capabilities and environment of the university.

At right, Keck School of Medicine Dean Carmen A. Puliafito and Garrett display her award at the gala.



Bryan Beasley

USC welcomes its inaugural class of stem cell master’s students

By Cristy Lytal
USC welcomed its inaugural class of master’s students in stem cell biology and regenerative medicine to one of the first programs of its kind in the United States.
To celebrate the launch of this unique master’s program, the 30 students gathered for an orientation and ice cream social at the Eli and Edythe Broad CIRM Center for Regenerative Medicine and Stem Cell Research at USC on Aug. 21.

“Stem cell biology is and continues to be the hot subject in biomedical science,” said master’s program director Henry Sucov. “Stem cell biology is a field that came with its own technology that gives the opportunity to ask and answer scientific questions that couldn’t be asked and answered before, as well as to address medical problems that couldn’t be addressed before.”
The opportunities at

this biomedical frontier attracted an accomplished inaugural class from all reaches of the globe — with two-thirds of the students from the United States and one-third from abroad. Many students have earned previous master’s or medical degrees, and have gained prior research experience in the labs of top stem cell scientists.
At USC, these students are venturing into cutting-edge territory through course work in developmental and stem cell biology, human embryology, regenerative medicine and the translational and therapeutic aspects of stem cell technology. They are also donning lab coats and gaining hands-on experience with stem cells. During an optional second year, selected students will be invited to further develop these lab experiences into independent research projects.
Throughout the program, students will benefit



Cristy Lytal

The inaugural class of master’s students in stem cell biology and regenerative medicine gather for orientation on Aug. 21 at the Eli and Edythe Broad CIRM Center for Regenerative Medicine and Stem Cell Research at USC.

from the resources of the university-wide USC Stem Cell initiative, which brings together more than 100 faculty members from all disciplines.
The regenerative medicine and stem cell research program at USC will prepare graduates applying for subsequent

studies, such as MD or PhD programs, or those entering stem cell pharmaceutical or regulatory domains.
“What we really want to do is to connect you with the medicine of the future to talk not only about the science that’s behind that, but also about the bigger picture that underlies the

application of regenerative medicine,” said Andy McMahon, director of the new Department of Stem Cell Biology and Regenerative Medicine. “There’s a great group of people that you’re going to meet and great opportunities here, and we really hope you make the most of it.”

Keck School professor and researcher Zea Borok elected to American Association of Physicians

By Hope Hamashige
Zea Borok, MD, professor of medicine and of biochemistry and molecular biology at the Keck School of Medicine of USC, has been elected to membership in the American Association of Physicians (AAP). The AAP is a professional organization that promotes basic and clinical research that can be applied to clinical medicine.
Each year the council of the AAP extends membership to individuals who have attained excellence in achieving these goals.
“It is a very prestigious society and I am honored to be a member,” said Borok, who is also chief of the division of pulmonary critical care and

sleep medicine.
Borok’s body of research has significantly advanced the understanding of alveolar epithelial cell biology. In particular, her research has shed light on the interactions that occur on a cellular level that lead to the development of idiopathic pulmonary fibrosis.
Idiopathic pulmonary fibrosis is a progressive disease characterized by scarring of the lungs. There has never been an effective treatment for the disease, which ultimately robs patients of their



Zea Borok

ability to breathe.
That grim prognosis may be about to change in large part because of Borok’s research. Among her most recent findings was the discovery that inhibiting certain proteins blocks the interaction between two cellular pathways thought to contribute to pulmonary fibrosis.
“Pulmonary fibrosis is the most common of the interstitial lung diseases, with a fatality rate in line with cancer,” Borok said. “These findings have the potential to provide an alternative treatment for

patients afflicted by this debilitating disease.”
Specifically, Borok’s team has shown that an experimental drug developed by Michael Kahn, PhD, Professor of Biochemistry and Molecular Biology, dampens the interaction of the two pathways, suggesting that this drug has promise as a novel therapy for pulmonary fibrosis.
“Dr. Borok has made, and continues to make, major contributions to advances

in pulmonary research,” said Edward Crandall, PhD, MD, the Kenneth T. Norris Jr. Chair in Medicine and Hastings Professor of Medicine at the Keck School of Medicine of USC. “The importance of her work has already been recognized with an NIH MERIT Award and a special award from the American Thoracic Society for career research accomplishments. Her recent election to AAP is another well-deserved honor.”



Jon Nalick

Welcome aboard — Keck Medicine of USC is now hosting physician on-boarding sessions to help new physicians better transition to working in the organization. The first physician on-boarding day (above) was held on July 21 with 37 physicians participating. Keck leaders spoke to the physicians on many topics including: quality, current initiatives and culture. Physicians also received KeckCare training and general information to orient them to the health system. The on-boarding sessions continue on a regular basis, with the most recent one concluding earlier today. Current physicians are also encouraged to participate. The next physician on-boarding day is scheduled for Oct. 24. If you are a physician wishing to participate, please email lorena.vasquez@med.usc.edu.

HSC News Next Issue: Oct. 3

HSC News is published for the faculty, staff, students, volunteers and visitors in the University of Southern California’s Health Sciences Campus community. It is written and produced by the Health Sciences Public Relations and Marketing staff. Permission to reprint articles is available upon request. No artwork may be reproduced without the artist’s consent

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Lisa Miranda

Above are members of the Keck School of Medicine Family Medicine Interest Group: (front row, from left): Maxine Inocencio, Angela Hsu, Kate Peterson and (back row, from left): Marie Lee, Erica Patel, CeCe Sun, Yohan de Zoysa and Connor Corcoran.

Keck School Family Medicine Interest Group garners national recognition

The American Academy of Family Physicians has named the Keck School of Medicine Family Medicine Interest Group among the winners of its 2013 Program of Excellence Awards. The Keck School group was among 10 recipients nationally that were honored for outstanding activities in generating interest in family medicine.

Jo Marie Reilly, MD, associate professor of clinical family medicine and faculty advisor to the group, noted it was the only ‘overall’ program in the state to be recognized nationally — and was specifically noted for its community service. FMIGs are medical school-sponsored, student and faculty-run organizations that give medical students a chance to learn more about family medicine through regular meetings, workshops, leadership development opportunities, and community and clinical experiences. The Program of Excellence Awards recognize FMIGs for their outstanding performance in organizational operation, community service, promoting the value of family medicine as primary care, promoting the scope of family medicine, exposing residents to family medicine and family physicians, professional development and measures of success.

Keck School study shows tai chi eases stress, changes inflammation signal among older adults

By Hope Hamashige
Loneliness and chronic stress are a way of life for some older adults, who are often increasingly isolated as they age. They also often have increased levels of inflammation, which has been linked with chronic psychological stress and social isolation.

A new research study by David Black, PhD, an assistant professor of preventive medicine at the Keck School of Medicine of USC, shows that tai chi, a mind-body exercise using slow and focused movements, helps to control stress among the elderly participants and dampens the activity of a complex of proteins that play a role in regulating responses to stress.

Black along with collaborators at UCLA put 26 elderly people who scored high on loneliness through a 12-week course where they either attended tai chi classes for two hours a week or received health education. Before and after their visits, participants underwent psychological stress assessments and gave blood samples, which were analyzed for the presence of nuclear factor kappa beta (NF-kB), a mediator in the translation of stress into inflammation.

The group that participated in tai chi showed significantly lower levels of psychological stress and the level of NF-kB in their blood samples remained constant. The stress level of the control group increased, on the other hand, as did their level of activated NF-kB. This is the first study

to show that tai chi can reduce stress among socially isolated older adults as well as to attenuate the rate of increase of NF-kB. “Tai chi is a relatively simple, mind-body practice that may help older people better cope with stressors as they encounter feelings of loneliness in older adulthood,” said Black.



Steve Cohn

Congressman Becerra addresses health-care challenges — Xavier Becerra, representative for California’s 34th congressional district since 1993, addressed a capacity crowd at the Dean’s Distinguished Lecturer Series on Sept. 3. He provided a behind-the-scenes look at the Affordable Care Act, discussed national security concerns and responded to difficult questions from a well-informed audience. He likened the Affordable Care Act to a “clinical trial that needs more work.” Other topics included abuse of tax dollars in health care and the effect of sequestration on research funding. In the Congressional tradition of declaring resolutions for special occasions, Dean Puliafito presented Becerra with a formal certificate of appreciation for his role as a Dean’s Distinguished Lecturer. Another highlight of the evening was when Becerra played the voicemail message he received from President Obama on the evening of March 10, 2010, when the U.S. House of Representatives passed the Affordable Care Act.

ANDERSON: Pioneered a new specialty

Continued from page 1
graduating from medical school at Loma Linda University. Following residency training in obstetrics and gynecology in Washington, D.C., he became the director of the ob-gyn service at Los Angeles County General Hospital in 1958. Recognized as an extremely accomplished gynecological surgeon and teacher of gynecological surgery, Anderson became a noted researcher of diabetic pregnancy and rose to become professor and acting chair of the obstetrics and gynecology department at USC.

After the USC emergency medicine training program began in 1971, Anderson and others continued to push for formal recognition of the specialty during the next two decades. He travelled internationally to meet with physicians also interested in the advancement of emergency medicine. In the early 1970s, he founded the first physician assistant emergency medicine

program at LAC+USC. In 1976, he and 11 other representatives formed the American Board of Emergency Medicine and served as its president from 1987 to 1988. Emergency medicine was designated as an independent freestanding specialty the following year. In 1996, the American College of Emergency Physicians presented the James D. Mills Award for Outstanding Contribution to Emergency Medicine to Anderson. On the occasion of his retirement, the Board of Supervisors of the County of Los Angeles renamed the emergency department at LAC+USC “The Gail Anderson, MD Department of Emergency Medicine.” In lieu of flowers, the family requests donations to Gail V. Anderson, Sr. MD Memorial Fund at the Keck School of Medicine of USC, 1975 Zonal Avenue, KAM 300, Los Angeles, CA 90033-9034. Please contact Stephanie Cypert at (323) 442-2352 for information about donations.

HSC NEWSMAKERS

An Aug. 28 story on KSCI-LA18 quoted **Collins Liu**, MD, assistant professor of neurology, about how families can help loved ones with Alzheimer’s disease.

An Aug. 25 story in Physicians News Network featured **Jeffrey Hagen**, MD, chief of thoracic surgery, and **Daniel Oh**, MD, assistant professor of surgery, Keck Medicine of USC, stating that Keck Medicine of USC is using the daVinci Xi Surgical System for thoracic procedures.

An Aug. 25 story in the *Wall Street Journal* quoted **David Skaggs**, MD, professor of orthopedic surgery at Keck Medicine of USC-affiliated Children’s Hospital Los Angeles, as co-author of a study showing that adolescent athletes who got less than an average of eight hours

of sleep a night had a 70 percent higher chance of sports-related injuries.

An Aug. 23 story on KABC TV cited research by **Rohit Varma**, MD, director of the USC Eye Institute, demonstrating that Latinos with more than 50 percent Native American ancestry had an 87 percent higher risk of diabetic retinopathy.

An Aug. 15 article in *Medscape* quoted **Rohit Varma**, MD, director of the USC Eye Institute, in an article about research demonstrating that African-Americans are at higher risk for diabetic macular edema. Varma was first author on the research.

An Aug. 12 article in *International Business Times* on studies on cancer research using honeybee and snake venom cited research by

Frank Markland, MD, professor of biochemistry and molecular biology, indicating that snake venom could block cancer cell invasion.

An Aug. 5 ABC.com story on neurological research into wireless solutions for people with Lou Gehrig’s disease and other paralyzing conditions included a quote from **Charles Liu**, MD, professor of neurological surgery and neurology and director of the USC Neurorestoration Center.

A Sept. 10 article in *The Hollywood Reporter* offered a firsthand account by **Steven Giannotta**, MD, chair and professor of the Department of Neurology at the Keck School, of his involvement in the development of the TV medical drama “Grey’s Anatomy.”

Calendar of Events

Monday, Sept. 22

Noon. KSOM Research Seminar. “Elicitation of Broadly Reactive Immune Responses against Influenza and Other Emerging Pathogens,” Ted M. Ross, Vaccine & Gene Therapy Institute of Florida. Aresty Auditorium. Info: Mary Jane Chua, (323) 442-7732, maryjane.chua@med.usc.edu

Tuesday, Sept. 23

1 p.m. – 3 p.m. CTSI Workshop. “How to Become a Successful Digital Scholar,” Katja Reuter, USC. Harkness Auditorium. Info: Francis Ukpolo (323) 442-1996 francis.ukpolo@med.usc.edu, tinyurl.com/krowbea

5:30 p.m. Ophthalmology Grand Rounds. HC4 Conference Room, Third Floor. Info: Joseph Yim, (213) 446-4684, josephyi@usc.edu

Wednesday, Sept. 24

Noon. Zilkha Neurogenetic Institute Seminar. “Attentional Neurons and Circuits,” J. Julius Zhu, University of Virginia. Herklotz Seminar Room, ZNI 112. Info: Julie Carl, (323) 442-3219, jearl@usc.edu

Thursday, Sept. 25

Noon. USC Research Center for Liver Diseases Seminar. “Role of Mixed-Lineage Kinase 3 in Cellular Stress Responses,” Anja Jaeschke, USC. Hastings Auditorium. Info: Dolores Mendoza, (323) 442-1283, dmmendoz@usc.edu

4 p.m. Diabetes and Obesity Research Institute Seminar. “Insight into Metabolic Dysregulation Contributing to Insulin Resistance: Role of Phenotype and Muscle Lipid Content,” William T. Cefalu, USC. Harkness Auditorium. Info: Christina Ayala, (323) 442-2500, trujille@usc.edu, dori.usc.edu

Friday, Sept. 26

8 a.m. Dept. of Pathology Grand Rounds. “Updates on Pathology Milestones & Pathology Fellowship Milestones,” Wesley Naritoku, USC. HMR 202. Info: Leslie Wauke, (323) 442-1180, lwauke@usc.edu

Saturday, Sept. 27

7 a.m. – 4:30 p.m. 2014 Annual Cerebrovascular Disease Symposium “Medical Versus Surgical Management of Cerebrovascular Disease,” Arun Amar and Gene Sung, USC. Aresty Auditorium. Info: Teresa Ball, (323) 442-2555, teresa.ball@med.usc.edu, www.usc.edu/cme

Monday, Sept. 29

Noon. Dept. of Medical Education Lecture. ““Faculty Development: Write Smart Objectives,” Chachi Fung and Julie Nyquist, USC. Norris Medical Library West Conference Room. Info and RSVP: Cris Argosino, (323) 442-2746, meded@med.usc.edu, keckdev1.usc.edu/index.cfm

Noon. KSOM Research Seminar. “Remodeling Health Care Delivery in the ACA Era,” Jerry A. Krishnan, University of Illinois at Chicago. Aresty Auditorium. Info: Mary Jane Chua, (323) 442-7732, maryjane.chua@med.usc.edu

Tuesday, Sept. 30

Noon. Dept. of Medical Education Lecture. “Faculty Development: Milestones & Assessment,” Win May & Julie Nyquist, USC. Norris Medical Library West Conference Room. Info and RSVP: Cris Argosino, (323) 442-2746, meded@med.usc.edu, keckdev1.usc.edu/meded/index.cfm

Noon. Psychiatry and the Behavioral Sciences Grand Rounds. “Welcome to DSM 5.0: Development and Overview,” Lawrence Gross, USC. Herklotz Seminar Room, ZNI 112. Info: Gracie Vargas, (323) 442-4065, gvargas@usc.edu

5:30 p.m. Ophthalmology Grand Rounds. HC4 Conference Room, Third Floor. Info: Joseph Yim, (213) 446-4684, josephyi@usc.edu

Notice: Calendar submissions must be received at least 10 days before an issue’s publication date to be considered. Please note that timely submission does not guarantee an item will be printed. Entries must include day, date, time, title of talk, first and last name of speaker, affiliation of speaker, location and a phone number or email address for information.

Submit calendar items at tinyurl.com/calendar-hsc.

Keck Medicine of USC becomes first medical center in Los Angeles to offer newly FDA-approved sleep apnea implant

By Alison Trinidad
Keck Medicine of USC is the first medical center in Los Angeles to offer a unique implantable treatment for sleep apnea, a chronic disorder that affects more than 18 million sleep-deprived Americans.

Keck Medical Center of USC patients who qualify as candidates now may consider the Inspire Upper Airway Stimulation system, approved by the Food and Drug Administration (FDA) on April 30 for moderate to severe obstructive sleep apnea. Often characterized by chronic snoring, sleep apnea is a common disorder that occurs when breathing is repeatedly interrupted during sleep, leading to daytime sleepiness as well as possible health problems. The tongue is a major contributor to sleep apnea for many patients. The Upper Airway Stimulation system monitors a patient’s breathing patterns and sends an electrical pulse to the nerve that controls the tongue to keep the airway open.

“The implant truly is a breakthrough for people who are unable to tolerate the standard treatment for sleep apnea,” said Keck Medicine of USC surgeon Eric J. Kezirian, MD, MPH, professor of clinical otolaryngology at the Keck School of Medicine of USC. Kezirian, an international leader in the surgical evaluation and treatment of snoring and sleep apnea recruited to USC from the University of California, San Francisco, has conducted key research studies regarding nerve stimulation for sleep apnea. Keck Medical Center of USC this year ranked among the top 25 percent of U.S. hospitals that provide specialized ear, nose and throat care.

The standard treatment for sleep apnea includes use of a continuous positive airway pressure device (CPAP), which is a mask that fits over the nose or mouth and blows air into the airway to help keep it open during sleep.

Approximately half of apnea patients, however, are unable to sleep comfortably while wearing positive

airway pressure and should consider other options, Kezirian said.

Other treatments include lifestyle changes such as weight loss, surgery and oral appliances. Left untreated, the combination

of disturbed sleep and oxygen starvation may lead to escalating health risks such as hypertension, heart disease and mood and memory problems, according to the National Sleep Foundation.



Hope Hamashige

Family says new leads suggest missing USC student still alive —

The family and friends of Derek Seehausen, a Keck School of Medicine of USC student who has been missing since Aug. 5, gathered on the Health Sciences Campus for a press conference on Sept. 12 to publicize the search and discuss recent leads. At the event, Seehausen’s mother, Jean Godra, and private investigator Thomas Martin, announced two promising leads in the investigation into Seehausen’s disappearance. The Los Angeles Police Dept. released a photo taken on a metro bus on Sept. 5 that bears a striking resemblance to Seehausen. They added that there was a sighting in a San Diego suburb a few days later, which seemed credible because the person described his gait as a “shuffle,” which Seehausen sometimes did because of a chronic foot problem. Martin noted that Seehausen often visited San Diego to surf and, before his disappearance, shared with friends that he planned to be in San Diego around the time of the sighting. For more information, visit www.HelpFindDerek.com. Anyone with information regarding Seehausen is asked to contact the LAPD Adult Missing Person Unit at (213) 996-1800. Above, Shuhan He, a fourth-year student at the Keck School of Medicine of USC, flanked by Godra and Marin, fields a question from a reporter about Seehausen, his classmate and close friend.

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