$20 million Chan family gift endows OT program

Gift is largest ever to an occupational therapy school in the U.S.

By Jessica Raymond

USC Trustee Ronnie C. Chan, MBA, and his wife, Barbara, have dedicated $20 million to USC's pioneering occupational science and occupational therapy program. Given in honor of Chan's mother, the gift endows and names the division, which will be known as the USC Mrs. T.H. Chan Division of Occupational Science and Occupational Therapy.

This is the first naming gift and the largest gift ever made to any occupational therapy program in the history of the field, according to the American Occupational Therapy Association.

The gift also extends the international reach of the division through the USC Mrs. T.H. Chan Occupational Therapy China Initiative, which will establish a partnership with a top Chinese university to develop a graduate program in occupational therapy in China.

In addition, the gift endows the Mrs. T.H. Chan Professorship in Occupation-al Science and Occupational Therapy. Florence Clark, PhD, associate dean of the division, will be installed as the first holder of the professorship.

By the past several decades, Ronnie and Barbara Chan have been stellar ambassadors for USC, particularly in the Pacific Rim, and their most recent gift reflects their longstanding commitment to the university,” said USC President C. L. Max Nikias, PhD. “This historic endowment gift ensures the USC Mrs. T.H. Chan Division’s prominence among the most elite programs in occupational science and occupational therapy, not just in the United States but throughout the world.” Ronnie Chan is the chair of Hang Lang Group Limited and its subsidiary, Hang Lang Properties Limited, which stands

NIH awards Keck School researcher $2 million to study air pollution-autism link

By Hope Hamashige

Keck School of Medicine of USC researcher Heather Volk, PhD, MPH, has received a $2 million grant from the National Institutes of Health to continue her research on the relationship between prenatal air pollution exposure and the risk of developing autistic traits or having cognitive developmental delays.

Volk, assistant professor of research in the Department of Preventive Medicine, has designed a study that will examine different types of air pollution exposure and compare it to different biomarkers for freeway-based exhaust, regional particulate matter and nitro-polycyclic aromatic hydrocarbon pollutants.

The study will evaluate the effect of such exposures on the cognitive development and autistic traits of several hundred children over the first three years of life.

Earlier studies have linked early exposure to air pollution with disturbances in children's cognitive and emotional development. Volk's research team will examine whether the cognitive effects of air pollution are similar to those found in children with autism.

“Children who are exposed to air pollution in the womb are more likely to have lower IQs, and the results of this study can help us better understand the connections between air pollution and autism,” Volk said.

The 2014 Good Neighbors Campaign kicks off on Oct. 1 and runs through the end of the month. Programs funded by the campaigns — including USC Neighborhood Mobile Dental Clinic, HSC Health and Science Expo, USC Physical Therapy Fit Families Program, the USC Med-COR program, and the HSC Community Health and Wellness Fair — serve more than 60 funded programs are those that serve the Health Sciences Campus community.

Castillo emphasized that 100% of contributions go to community organizations that promote better health and educational opportunities in the areas surrounding the Health Sciences and University Park campuses.

“By Civic Engagement, is celebrating its 20th anniversary with a $2 million fundraising effort to support key university-community partnership programs. Carolina Castillo, executive director of development for USC Civic Engagement, said the campaign encourages staff, faculty and friends to support community organizations that promote better health and educational opportunities in the areas surrounding the Health Sciences and University Park campuses.

It is an exciting time at USC as we celebrate the 20th anniversary of being a Good Neighbor to our local communities,” she said. “The Good Neighbors Campaign brings the Trojan family together to support efforts that are life-changing for students, staff, faculty, and community members.”

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Keck School physician assistant is the face of an AAPA national campaign

By Hope Hamashige

Bindi Patel had no idea when she opened the journal of the American Association of Physician Assistants (AAPA) that she would see her own smiling visage on the AAPA's ad for PA Week. PA Week is an annual effort by the AAPA to promote a better understanding of the growing role of physician assistants in the medical profession.

Patel, a 2012 graduate of the physician assistant program at the Keck School of Medicine of USC, said she had no idea her face was going to be the one on the posters that the AAPA used to advertise PA week. Patel’s involvement in the campaigns dates back to her time as a student at the Keck School of Medicine of USC. While in her final year of the physician assistant program, she traveled with classmates and Kevin Lohrney, PhD, PA-C, director of the physician assistant program at the Keck School of Medicine of USC, to Washington DC. There, they met with the faculty and staff of the AAPA to learn more about the organization’s mission of raising the profile and understanding of physician assistants. They also met with several members of the US Congress to discuss the importance of helping physician assistant students receive funding for their education and assistance with loan repayment.

Many months after that trip, the AAPA got in touch with several Keck School of Medicine of USC former PA patients, including Patel, to see if they could photograph them at work. Six months ago, they visited Patel at her office and took the photo that has made Patel this year’s poster child of PA Week.

“I was surprised as anyone,” said Patel. “But I’m happy if it helps raise awareness about our profession.”

USC stem cell researchers discover the healing power of “rib-tickling”

By Cristy Lytal

Unlike salamanders, mammals can’t regenerate lost limbs, but they can repair large sections of their ribs. In a new study in the Journal of Bone and Mineral Research, a team directed by USC Stem Cell researcher Francesca Mariani, PhD, takes a closer look at rib regeneration in both humans and mice. The first author of the paper, USC medical student Marissa K. Stour, was a USC undergraduate when she started the project, which earned a 2011 USC Discovery Scholar Prize, recognizing exceptional new scholarship.

Using CT imaging, Stour, Mariani and their colleague Janice Lee, MD, DDS, from the University of California, San Francisco, monitored the healing of a human rib that had been partially removed by a surgeon. The missing bone and cartilage partially repaired after six months. To better understand this repair process, they removed sections of rib cartilage from a related mammal, mice. When they removed both rib cartilage and its surrounding sheath of tissue — called the “perichondrium,” the missing sections failed to repair even after nine months. However, when they removed rib cartilage but left its perichondrium, the missing sections entirely repaired.

“A more effective stem cell treatment could avoid the need to remove bone grafts,” said Mariani. “We believe that the development of this model in the mouse is important for making progress in the field of skeletal repair,” said Mariani, assistant professor of Cell and Neurobiology and principal investigator in the Eli and Edythe Broad Center for Regenerative Medicine and Stem Cell Research at Keck Medicine of USC.

AUTISM: Research may help explain rise in numbers of children diagnosed with autism

Continued from Page 1

air pollution and either autism risk and children’s cognitive ability over time and identify opportunities for broader public health interventions,” said Volk, who is also a principal investigator in the Sahar Research Institute at Children’s Hospital Los Angeles.

Keck students honored for excellence

A trio of students from the Keck School of Medicine of USC recently received awards for excellence in research and academics. Fourth-year student Matrya Kalashnikova received a $10,000 Physicians of Tomorrow scholarship from the American Medical Association Foundation. The scholarship recognizes outstanding medical students nationally and Kalashnikova was one of only 21 students so honored.

Third-year student Connor Corcoran received a national research award in August at the National Medical Student and Residents Conference in Kansas, MO, for his family medicine poster “Health Literacy is Associated with Patients’ Adherence-Related Knowledge and Motivation, but not Adherence or Glycemic Control.” Second-year student Pooja Jael received a research award from the California Academy of Family Physicians for her family medicine research on “Diabetic Group Visits to Improve Exercise and Diet Adherence and Increase Glycemic Control.”

HSC News

Next Issue: Oct. 17

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OCTOBER 3 • 2014
Researchers find how single genetic change causes cancerous tumors in young children’s eyes

By Debra Kain/CHLA
Researchers at the Vision Center at Children’s Hospital Los Angeles (CHLA), together with colleagues at Memorial Sloan-Kettering Cancer Center, have answered the long pending question of why mutations to a particular gene primarily cause tumors of the retina and not of other cell types. Led by David E. Cobrinik, MD, PhD, who is also associate professor of ophthalmology at the USC Eye Institute, Keck School of Medicine of USC, the study — which could reverse the way scientists think about the formation of retinal structures — is published in this week’s early online issue of the journal Nature.

“These findings significantly advance our understanding of cancer, not only because they solve the RB riddle, but also because they more generally imply that cancers can develop through the collaboration between a cancer-causing mutation — in this case, inactivation of the RB1 gene — and cell type-specific circuitry,” said Cobrinik, also an investigator with The NIH Research Institute of CHLA.

Retinoblastoma is a childhood retinal tumor usually affecting children one to two years of age. Although rare, it is the most common malignant tumor of the eye in children. Left untreated, retinoblastomas can be fatal or result in blindness. It has also played a special role in understanding cancer, because retinoblastomas have been found to develop in response to the mutation of a single gene — the RB1 gene — demonstrating that some cells are only a step away from developing into a life-threatening malignancy.

The RB1 gene encodes a tumor suppressor protein, referred to as Rb, which prevents excessive cell growth by inhibiting cell cycle progression until a cell is ready to divide. If both alleles of the RB1 gene are mutated early in life, the Rb protein is inactivated, resulting in development of retinoblastoma cancer. While the Rb protein regulates proliferation in many cell types, only cells in the retina routinely form cancers when the function of the RB1 gene is lost.

Cobrinik and colleagues discovered that retinoblastomas originate in cone photoreceptor precursors, and their study explains why retinoblastomas originate in these precursor cells. Cone cells, or cones, are one of the two types of photoreceptor cells in the retina, and are responsible for color vision. A cone precursor is an immature cone cell which is not yet fully differentiated.

The study indicates that cone precursors prominently express key, cancer-related proteins that enable proliferation and suppress apoptosis, or programmed cell death. Meanwhile, the role of the Rb protein is to hold back such proliferation — which means that the loss of Rb alone is sufficient to allow unchecked cell proliferation, causing retinoblastomas to form.

Upperman joins U.S. advisory committee on children, disasters

By Lorenzo Benet/CHLA
Jeffrey S. Upperman, MD, associate professor of pediatric surgery at the Keck School of Medicine of USC, and director of the Trauma Program and Pediatric Disaster Resource and Training Center at Children’s Hospital Los Angeles, has been selected to serve on the newly established National Advisory Committee on Children and Disasters (NACCD).

The NACCD was established to provide expert advice and consultation to the secretary of the U.S. Department of Health and Human Services (HHS) on comprehensive planning and policies to meet the unique health needs of children before, during and after a disaster or other public health emergency.

During the four-year term, Upperman and 14 other experts from the nation’s preeminent scientific, public health and medical fields will help evaluate and provide input on the needs of preparation for children in emergencies. He will also provide advice and consultation on state emergency preparedness and response activities for children, including related drills and exercises.

The HHS secretary approved Upperman’s membership. He was selected from 82 nominations.

“This appointment reflects the fact that Upperman is recognized as one of the leading authorities in pediatric trauma and disaster preparedness in the nation,” said Henri R. Ford, MD, MHA, vice president and surgeon-in-chief at Children’s Hospital Los Angeles. “We are fortunate to have such a talented individual lead the trauma program at CHLA and on the faculty of the Keck School of Medicine of the University of Southern California.

“This is the best effort yet on the federal level to focus on children and disasters,” says Upperman. “I look forward to contributing the knowledge and experience I’ve gained in my career, especially in my role at CHLA, to better prepare children and families across the country for disaster emergencies.”
Calendar of Events

Monday, Oct. 6

Noon, R503 Research Seminar “Molecular Mechanisms Underlying Body Fat Distribution,” Steven R. Smith, Sanford-Burnham Medical Research Institute. Aretsy Auditorium. Info: Mary June Chua, (323) 442-7732, maryjchua@med.usc.edu

Tuesday, Oct. 7


1 p.m. - 3 p.m. CTSi Workshop. “Crowdfunding: How to Obtain Funding Online,” Tommy Luan. USC, Harlanos Auditorium. Info: Francis Ukpolo, (323) 442-1996, francis.ukpolo@med.usc.edu, tinyurl.com/ljmnlxx

5:30 p.m. Ophthalmology Grand Rounds HG4 Conference Room, Third Floor. Info: Ty Christopher, (213) 409-5233, tyjohnson@usc.edu

Wednesday, Oct. 8

7:30 a.m. USC Institute for Integrative Health Seminar. “The Integration of Acupuncture and Oriental Medicine with Western Health Care,” Don Lec, Yu Sun University. Harlanos Auditorium. Info and RSVP. Quintiliana Atila, (323) 442-2638, qvirlav@usc.edu, integrativehealth@usc.edu

8:30 a.m. Day of Pulmonary, Critical Care and Sleep Medicine Lecture. “Mycobacterial Infection,” Almeter Baydar, USC. BLD 732/34. Info: Elva Rubio, (323) 226-7923, elvarubi@usc.edu

Thursday, Oct. 9

7:30 a.m. USC Special Address “The Future of the Medical and Health Enterprise at USC,” C.L. Max Nikias, USC, Moller Auditorium. Info and RSVP. (213) 749-1744, usc.edu/esvp (code: HSV2014)


Friday, Oct. 10

8:30 a.m. USC Center for Lung Biology Research Seminar. “A Novel Strategy for the Suppression of Lung Diseases, from Lung Cancer to Airway Inflammation and Hypo-reactivity,” Ren Wu, USC. BLD 732/34. Info: Elva Rubio, (323) 226-7923, elvarubi@usc.edu

USC and CIRM to elbrate Stem Cell Awareness Day Oct. 8

Continued from page 1

A member of the USC Board of Trustees since 1995, Chan established the USC Hong Kong Alumni Association and supported construction of the USC International Residential College, a center for global education and interaction. A leader in the effort to raise funds for the International Plaza at the Ronald Tutor Campus Center, Chan ranked USC alumni in Asia and donated toward the plaza’s building fund.

The university honored Chan’s extensive contributions and dedication with the 2009 Asa V. Call Achievement Award, USC’s most prestigious alumni award.

With two sons who graduated from USC, the Chans are also proud Trojan parents. Adley received his bachelor’s degree in sociology, as well as bachelor’s, master’s and doctorate degrees in occupational therapy. He recently joined the division as a clinical faculty member.

“My family and I are pleased to provide a third major gift to USC — in this case to support the cutting-edge work of the most influential division of occupational science and occupational therapy in the world and to honor my mother who worked for many years as a nurse,” said Chan. “I am grateful for the opportunities that USC afforded me and my sons, and our gift to the division is one of several ways we intend to continue supporting USC in the future.”

USC and the California Institute for Regenerative Medicine will host a 2nd Cell Awareness Day celebration on Oct. 8 from 4 to 6 p.m. in the lobby of the Eli and Edythe Broad CIRM Center for Regenerative Medicine and Stem Cell Research at USC.

All are welcome to attend, view research posters and mingle with USC Stem Cell researchers and affiliated faculty from across the university. Light refreshments will be served, and parking will be available.

For more information, contact Kelli-Ann Nakayama at knakayama@med.usc.edu.

Upstairs, upstairs — Keck Medicine of USC sponsored the Stair Climb supporting the Kitchum-Downtown YMCA on Sept. 13, and a team from Keck Medicine of USC participated in the event, in which climbers scaled 75 flights of stairs inside the U.S. Bank building, the tallest building on the West Coast. Above, Kelli-Ann Nakayama, Keck School of Medicine of USC development office, emerges at the top of the stairs. A video of the event is online at tinyurl.com/klrrj42

3rd Annual BBQ Bash at the USC Campus Center. Info: Communications@uscctsi.org, usccctsi.org. RSVP: Donna Spruill-Metz, dmetz@usc.edu

In case of an emergency...

Call the Emergency Information Phone: (213) 740-3123. The emergency telephone system can handle 1,400 simultaneous calls. It also has a backup system on the East Coast.

Visit the USC Web: http://emergency.usc.edu. This page will be activated in case of an emergency. Backup Web servers on the East Coast will function if the USC servers are incapacitated.

OCTOBER 3 • 2014

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.