Study finds all sugars are not equally desirable

By Les Dunseith

When it comes to sweeteners, one indulgence makes our brains predisposed to do it again, according to a new study by researchers at Keck Medicine of USC.

In a paper published in the Proceedings of the National Academy of Sciences’ Early Edition, Kathleen Page, MD, assistant professor of Medicine at the Keck School of Medicine of USC, details the results of a study that sought to better understand how sugar affects brain reward pathways and the motivation to eat.

“The American diet is loaded with sugar,” Page said. “Sugar is added to foods and drinks to make them taste better, and we often seek out sweet foods because they are pleasurable to eat.”

In this study, researchers focused on how the brain and body respond to two types of sugar, glucose and fructose. Glucose, which is found in nearly all carbohydrate-containing foods, such as bread and fruit, fuels all of the cells in the human body, including the brain. Fructose is a simple sugar found in fruits and vegetables that is mainly metabolized in the liver. Foods with high levels of fructose include most soft drinks, honey and many salad dressings. Although tasty, foods with lots of fructose and fructose, which is found in nearly all carbohydrate-containing foods, such as bread and fruit, fuels all of the cells in the human body, including the brain. Fructose is a simple sugar found in fruits and vegetables that is mainly metabolized in the liver. Foods with high levels of fructose include most soft drinks, honey and many salad dressings. Although tasty, foods with lots of fructose and

Medical response team aids Nepal earthquake victims

By Leslie Ridgeway

A six-person medical response team from the Keck School of Medicine of USC departed May 4 to deliver supplies and assist with critical care of victims of the catastrophic April 25 earthquake in Nepal.

The response was spearheaded by Keck School of Medicine Dean Carmen A. Puliafito, MD, MBA, and Demetrius Demetriades, MD, chief, division of trauma and surgical critical care. Both the Keck School of Medicine and LaCrosse Medical Center provided medical supplies.

All members of the Nepal team were part of a similar effort in 2010 after an earthquake in Haiti. The Nepal group includes two critical care/trajama surgeons, an emergency department physician, an anesthesiologist, a

Radiology grant to fund lung cancer screenings in parts of L.A. County

By Douglas Morino

The Keck Medicine of USC Department of Radiology has been awarded a grant of more than half a million dollars to provide free lung cancer screening via low-dose CT scans for residents of some of the poorest communities in Los Angeles County. The $503,560 in funding from the California Community Foundation will finance two years of low-dose CTs for people at high risk of lung cancer living in the Centinela Valley, which includes Inglewood, parts of Hawthorne, Lennox, Los Angeles, Watts, Compton and Lawndale.

Recent research indicates that residents in the Centinela Valley area tend to smoke and develop lung cancer at higher rates than in other Southern California communities.

“We are targeting a very high-risk population that happens to be faced with a lot of barriers to health care access,” said Christopher Lee, MD.
**Calendar of Events**

Saturday, May 9
8 a.m. – 4 p.m. The Office of CME & the Department of Medicine: Division of Endocrinology, Neurology & Neuromuscular Medicine. The Department of Radiology plans to enroll residents for lung cancer screening. The Department of Radiology has partnered with the Watts Health Foundation, as well as the Keck School of Medicine of USC. “Lung cancer is the leading cause of cancer death for both men and women in this country, but it particularly afflicts those living within underserved communities. This is a great opportunity to be able to reach out to this population and educate them on the importance of early detection of lung cancer, as well as smoking cessation for the prevention of lung cancer. Hopefully, we can save lives in the process.”

The Department of Radiology has partnered with USC’s Health Sciences Campus Community Partnerships Office and the USC Norris Comprehensive Cancer Center, as well as the Watts Health Foundation, to create a lung cancer screening program. As a part of the grant, starting in May, the Department of Radiology plans to screen about 400 Centinela Valley residents over the two years. To facilitate the screening process, transportation to and from Keck Medical Center of USC will be provided.

Residents will also have access to local smoking cessation resources. If an abnormality is detected on the low-dose CT, patients will be linked to appropriate follow-up and treatment resources.

“Our goal is to eliminate barriers as much as possible, especially financial barriers,” Lee said. “It’s really important to reach out to this population because they are the population at highest risk for developing lung cancer.”

One of the largest randomized controlled clinical trials in National Cancer Institute history showed that low-dose CT screening could reduce lung cancer mortality rates by at least 20 percent, a significant improvement for a cancer that currently has a five-year overall survival rate of only 17 percent.

A CT scan is an imaging procedure that creates a series of detailed cross-sectional X-ray images of the lungs. A low-dose CT does not require intravenous contrast, takes less than five minutes to perform and is performed with about one-fifth of the radiation dose of a conventional CT scan.

The grant will allow the FDA-approved modality to be accessible to a large underserved population, said Zul Surani, executive director for community partnerships for USC’s Health Sciences Campus.

“How do you test a technology that’s proven effective and underutilized to people who need it the most? To me, that’s a matter of justice,” Surani said. “People who are uninsured and underserved are in need of this new screening modality, yet they don’t have access to it. How do we bridge that gap? This grant will help us do exactly that.”

The California Community Foundation is a public charity focused on philanthropy and civic engagement across L.A. County.

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**KIDNEY: Paired surgery success**
Continued from page 1

**John R. Hubanks**

**Demeter Otologyngy Practice joins with Keck Medicine of USC**

By Hog Aldrich

Keck Medicine of USC is joining with the Demeter, Hubanks and Stoneman Otologyngy Practice to form USC Oto- laryngology Associates in the communities of La Cañada Flintridge and Glendale. As part of the USC Department of Otolaryngology–Head & Neck Surgery, the practice becomes part of a world-class team that offers medical and surgical care to patients of all ages, from neonate to adult and related structures of the head and neck.

The practice was founded by John R. Hubanks, MD, in 1971. Milin J. Deemer, MD, joined in 1979 and currently serves as chief physician. George B. Stoneman, MD, joined in 2010. Now, all three esteemed physicians will be part of Keck Medici- ne’s USC medical group, allowing the practice to expand services to its existing locations in both communities.

One of the Keck Medici- ne of USC physicians and audiologists who will help deliver patient care is Karla O’Dell, MD, a laryngologist specializing in voice, airway and swallowing disorders. She will perform office- based laryngeal procedures such as Botox injections and laser procedures at both locations.

Keck Medicine of USC is becoming the practice of choice for physicians in Southern California who want to align their practices with the research and clinical expertise that a leading university- based teaching hospital offers, says Amar A. Desai, MD, MPH and CEO of USC Care and Specialty Services, part of Keck Medici- ne of USC. “We partner with working physicians who are already well-established in their communities and work collaboratively with these excellent physician practices to make advanced care accessible within their communities.”

In 2014, the Department of Otolaryngology–Head & Neck Surgery at the Keck School of Medicine of USC was No. 10 in funding from the National Institutes of Health, surpassing the likes of Harvard University and New York University.

“My colleagues and I are thrilled to join forces with USC because it means our patients have access to the most advanced care and cutting-edge expertise that Keck Medicine of USC has to offer,” said Deemer. “Everything we do is about enhancing the care we deliver, whether that’s expanded access to patients, and this partnership is a big advantage for those we serve.”

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**COMMUNITY ENGAGEMENT:** Longtime community outreach services providers and stakeholders have been convened by HSC Community Partnerships in Civic Engagement to HSC at regular meetings and exchange ideas, discuss best practices and form collaborations. Represented are the USC School of Pharmacy, Keck Medicine of USC, USC Norris Comprehensive Cancer Center, USC CME, Endocrinology and the Division of Biokinesiology and Physical Therapy. From left are Vera Kula, Cheryl Resnick, Isabel Duens, Executive Director Zul Surani, Melissa Acoba, Elena Nevins and Lourdes Ortega.

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**GRANT: Funds for lung cancer screening**

Continued from page 1

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which exhibit the disease’s signature. To accomplish this, Ichida directly reprograms the most common form of ALS. To prescreen drug-like compounds in the Family Therapeutic Screening Facility, Medicine and the director of the Choi of Stem Cell Biology and Regenerative Development Awards each year. The research is based on the source of the three-year grant. Ichida has pioneered a way to discover drugs at a pharmaceutical scale. With the new grant, Ichida will scale up efforts starting in September 2015, screening 2,000 FDA-approved drugs in his laboratory. Sanofi will screen an additional 40,000 drug-like compounds. The other industry partner, DRiVision Technologies, is designing software to analyze the resulting microscopic images for signs of improved motor neuron survival. If the funded study reveals viable hits, chemists at Sanofi may develop these compounds into safe, effective drugs to test in a human clinical trial. Sanofi officials were introduced to Ichida’s research by USC Stem Cell Program Director Qiu Ling, PhD, who is managing the project. Ichida said the partnership is one of the first examples of taking a patient-specific disease model from stem cells and using it to discover drugs at a pharmaceutical scale.

**HANNERS: New COO starts June 15**

Continued from page 1

Ridin the absolute best care to our patients,” Jackiewicz said. “I have a very impressive background in improving quality, managing costs, and leveraging resources in a complex health care environment.”

Jackiewicz, to whom Hanners will report, continued: “Having worked at two of the largest medical centers in California, he understands the unique challenges we face in the rapidly changing health care landscape and has demonstrated the ability to develop successful strategies and processes for optimal growth and stability.”

At CHLA, Hanners is the senior administrative officer in charge of 10 departments, including radiology, patient care services, information services and human resources. At Kaiser, Hanners was responsible for hospital operations and support services across the LAMC campus and medical office buildings.

Hanners will work to establish strong and effective working relationships with key constitutes across the USC enterprise, including department chairs, faculty and medical staff members, as well as leadership at the hospital and system levels. He will also engage stake-holders in the communities served by Keck Medicine of USC.

Preceding his health care career, Hanners served in the United States Navy as a nuclear engineer and submarinae officer. He holds a bachelor’s degree in electrical engineering from California State University, Long Beach and a master’s equivalent in nuclear engineering from the Naval Nuclear Power School in Orlando, FL.

**NEPAL: Medical response team joins quake effort**

Continued from page 1

A nurse anesthetist and a registrar. The team will be in Nepal for nine days. Members of the medical response team are Lynda Lam, MD, trauma surgeon and assistant professor, Department of Surgery; Sanjay Nanda, RN, assistant professor, Department of Anesthesiology; Epidemic Edward Newton, MD, interim chief and professor, Department of Emergency Medicine; team leader Kenji Inaba, MD, trauma surgeon and associate professor, Department of Surgery; and Shihab Sugr, MD, OUSC team makes a final check of bags filed with medical supplies headed to Nepal.

Medicine; team leader Kenji Inaba, MD, trauma surgeon and associate professor, Department of Surgery; and Shihab Sugr, MD, asis- tant professor, Department of Anesthesiology.

**Medical School commencements**

**WEDNESDAY, MAY 13**

**MS, PhD & MPH — Medicine**

4 p.m. at the Harry and Celeste Pippin Quad, Health Sciences Campus. Approximately one hour. A reception will immediately follow at the same location. Tickets are required. Info: (323) 442-1607.

**Wednesday, May 13**

**FRIDAY, MAY 15**

**Occupational Science and Oc- cupational Therapy**

11 a.m. at Leavy Library, west lawn, University Park Campus. Tickets not required. Info: (323) 442-2811.

**Physician Assistant Program**

10:45 a.m. at Allan Hancock Foundation Building, southwest lawn, University Park Campus. A reception will follow at the same location. Tickets not required. Info: (626) 442-2863.

**Biology and Pathology**

11 a.m. at Robertson Auditorium, University Park Campus. Tickets required. Info: (323) 442-1153.

**Therapy**

1.30 p.m. at LAC+USC Medical Center, downtown Los Angeles. Tickets required. Info: (323) 282-2849.

**Internal Medicine**

11 a.m. at Thursday, May 14, 4 p.m. at the Harry and Celeste Pippin Quad, Health Sciences Campus. A reception will follow at 1 p.m. at the Galen Center, USC. A reception will follow at 5 p.m. Tickets required. Info: (323) 282-2849.

**Neurology**

11 a.m. at the Healthcare Program, 3 p.m. at the Harry and Celeste Pippin Quad, Health Sciences Campus. A reception will follow at 5 p.m. Tickets required. Info: (323) 282-2849.

**Physical Medicine and Rehabilitation**

11 a.m. at the Harry and Celeste Pippin Quad, Health Sciences Campus. A reception will follow at the same location. Tickets are required. Info: (323) 442-1607.

**Spinal Cord Injury Program**

11 a.m. at the Harry and Celeste Pippin Quad, Health Sciences Campus. A reception will follow at 5 p.m. Tickets required. Info: (323) 282-2849.

**Health Promotion and Prevention**

11 a.m. at the Harry and Celeste Pippin Quad, Health Sciences Campus. A reception will follow at 5 p.m. Tickets required. Info: (323) 282-2849.

**School of Pharmacy**

11 a.m. at the Harry and Celeste Pippin Quad, Health Sciences Campus. A reception will follow at 5 p.m. Tickets required. Info: (323) 282-2849.

**School of Health Professions**

11 a.m. at the Harry and Celeste Pippin Quad, Health Sciences Campus. A reception will follow at 5 p.m. Tickets required. Info: (323) 282-2849.

**School of Nursing**

11 a.m. at the Harry and Celeste Pippin Quad, Health Sciences Campus. A reception will follow at 5 p.m. Tickets required. Info: (323) 282-2849.

**School of Social Work**

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**School of the Arts**

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Genetic link found in noise-induced hearing loss

By Alysson Trindade

A new genome-wide association study, an international team led by Keck Medicine of USC neurocientists has found evidence that some people may be more genetically susceptible to noise-induced hearing loss than others.

Noise-induced hearing loss is one of the most common work-related illnesses in the United States, according to the National Institute for Occupational Safety and Health. Especially high risk are troops in the Armed Forces. In 2013, the Department of Veterans Affairs reported hearing loss as one of the most common disabilities among veterans receiving disability compensation.

People at higher genetic risk for hearing loss may decide to take additional precautionary measures to protect their hearing prior to hazardous noise exposure, study authors say.

“Understanding the biological processes that affect susceptibility to hearing loss due to loud noise exposure is an important factor in reducing the risk,” said co-senior author Timo Karp, MD, the interim chief of geriatrics, hospital, palliative and general internal medicine at Keck Medicine of USC.

“This fellowship not only allows for medical training at an outstanding institution, but it is crafted in a way that allows our fellows to learn key concepts regarding the delivery of health care, including quality, safety, cost-effectiveness and resource management. This will likely become a model that others will follow in order to prepare the future leaders in the field of hospital medicine,” said Karp.

County supervisor speaks at Master of Public Health symposium

Mark Ridley Thomas, a Los Angeles County Supervisor, was the keynote speaker April 30 when the Master of Public Health Program at the Keck School of Medicine of USC hosted its 3rd annual Cooperative Health Policy Symposium. The event explored the path to political consensus regarding health topics.

In addition to the presentation by Ridley Thomas, public health policy students presented a series of short talks on current issues.

One step closer to natural tooth restorations

By John Hobbs

A student’s incisors never keep growing.

It’s one of the reasons that mice grow through cupboards, hamsters chop mindlessly on metal cage bars, and rats will chew through, well, just about anything. They need to wear down those ever-growing incisors, which, if left unchecked, could grow so long that the animal might starve. As unappealing as it all might sound, a rodent’s dental anatomy gives researchers powerful insight into how to regenerate human teeth, which could change the way dental restorations — crowns, bridges and “fillings” — are handled in the dental office.

In an article published in the May 2015 issue of [josephine]eJOE, USC researchers studied the mechanisms underlying the continuously growing rodent incisor. In the study, the research team — led by Yang Chai, DDS, PhD, associate dean of research, holder of the George and Mary Lou Deeghman Distinguished Chair in Craniofacial Molecular Biology at the Keck School of Medicine of USC and director of the Center for Craniofacial and Molecular Biology — compared the cells that become mouse incisors with those of human permanent molars, which, as in humans, stop developing after crown formation.

“The major idea of the paper focused on how incisors and molars start with similar developmental processes but differ in tissue homeostasis due to the differing fates of their dental epithelial stem cells,” said Weston Grimes, one of two dental students involved in the study. The other student was Hoang Anh Hao.

It’s these different stem cell fates that leave incisors with a bustling population of epithelial and ameloblast-like dental stem cells to keep them growing throughout life, while the stem-cell population of molars lies dormant, the article explained.

“If we can someday use this knowledge to reactivate those stem cells, then we could regenerate to the root of the idea,” Chai said. The discovery means that, in time, a dentist might do for a living tooth regenerat...