Zlokovic named holder of newly endowed chair; brings total Zilkha giving to $30M

By Amy E. Hamaker

Have you ever felt driven to eat something sweet, even when you didn’t want to? The reason for this drive may be the high levels of sugar, fat and salt in food, which produce a dopamine hit that alters brain chemistry, according to the Alzheimer’s Association.

“My mother and eldest brother suffered from Alzheimer’s, and later my eldest sister from dementia,” said Zilkha. “These are terrible diseases. If we don’t do something about it, by 2050 the number of people in the United States with Alzheimer’s or dementia may nearly triple from 5 million to a projected 13.8 million. We must make every effort to arrest and reverse this progression.”

An owner in Zilkha Biomass Fuels, Zilkha is known for the breadth of his vision both as an innovative and successful entrepreneur and as a medical benefactor.

Zilkha established the Zilkha Neurogenetic Institute (ZNI) at USC with a $20 million gift to the Keck School in 2002. He reaffirmed his commitment to Keck Medicine’s research efforts in 2011 with a $5 million gift for recruitment of senior scientists and investigators to the institute. This latest gift establishes the Mary and Selim Zilkha Chair for Alzheimer’s Disease Research to directly support and advance research efforts into the causes, treatments and understanding of Alzheimer’s disease.

ZNI Director Berislav Z. Zlokovic, MD, PhD, professor and chair of the Department of Physiology and Biophysics at the Keck School, has been named the inaugural holder of the chair. Zlokovic is an eminent scientist-clinician whose research has focused primarily on the relationship of vascular problems to Alzheimer’s disease. He was a pioneer of the concept that brain chemistry, according to the Alzheimer’s Association.

“Weight set points are a natural thing,” he said. “When you are overweight, you eat less food. The body adjusts to your weight. If you get to 180 pounds, you won’t eat that much food. But if you are heavier on average, you would have to eat more food.”

Kessler’s comments came during his lecture on Nov. 12 as part of the Dean’s Distinguished Lecture Series, held in Mayer Auditorium. His focus was from his book, The End of Overeating: Taking Control of the Insatiable American Appetite.

Keck School Dean Carmen A. Puliafito, MD, MBA, introduced Kessler, reminding about their shared time together as classmates at Harvard Medical School. Kessler’s career includes time as the head of the U.S. Food and Drug Administration, and dean of the medical schools at Yale University and the University of California, San Francisco. Kessler became interested in obesity in 2008.
Keck School Cell & Neurobiology chair receives AAMC teaching award

By Amy E. Hamaker

Patricia Domay is a busy woman. At 72 years old, she caters for commercial video shoots, works three days a week, and even ‘works’ on weekends. She’s been a professor for many years as well as a music teacher and无人注意的情况。她在Domay’s left hip has been worn away completely for nearly eight months, and she’s determined to put things back on track. “I work is really strenuous,” she said. “Events are 10-12 hour days, plus an additional two days of prep work — all on my feet.”

Fortunately, Domay is also able to qualify for traditional government-assisted health insurance. Previous treatment for breast cancer initially made Domay ineligible for traditional health insurance. But Domay has received a new hip from Daniel Oakes, MD, associate professor of clinical orthopaedics at the Keck School of Medicine of USC, and Michael Karp, MD, assistant professor of clinical medicine at Keck School of Medicine.

“I feel incredibly honored, even humbled by the magnitude of this award,” said Snow. “As an educator, administrator, and mentor, Dr. Mikel Snow is a nothing short of exemplary,” wrote Carmen A. Puliafito, MD, MBA, dean of the Keck School, in his nomination letter. “Dr. Snow is a pillar of the medical school and integral to students’ success.”

Keck School Cell & Neurobiology chair receives AAMC teaching award

By Sara Reeve

For Mikel Snow, PhD, it’s an honor just to be nominated. The chair of the Keck School of Medicine of USC’s Department of Cell & Neurobiology has received the 2013 Alpha Omega Alpha (AOA) Robert J. Glaser Distinguished Teacher Award from the American Medical Colleges (AMC). “I feel incredibly honored,” said Snow. “Working in the lab allows me to address the needs of individual students, determining what they know and don’t know and filling in the gaps. This is extremely rewarding because I get to see a lot of ‘ah-ha’ moments.”

“Both the most rewarding aspects of my teaching happen to be the incredible people I get to teach,” he continued. “Medical students are not only very bright, highly motivated and eager to learn, they also happen to be altruistic, respectful and very appreciative of our teaching efforts. In short, they are a pure joy.”

The award includes $10,000, as well as $2,500 for teaching activities, and $1,000 to support the activities of USC’s AOA chapter. “As an educator, administrator, and mentor, Dr. Mikel Snow is a nothing short of exemplary,” wrote Carmen A. Puliafito, MD, MBA, dean of the Keck School, in his nomination letter. “Dr. Snow is a pillar of the medical school and integral to students’ success.”

The Alpha Omega Alpha Robert J. Glaser Distinguished Teacher Awards were established by the AOA medical honor society in 1988 to provide national recognition to faculty members who have distinguished themselves in medical student education. Each medical school in the United States and Canada may nominate only one faculty member. In addition to being a professor of cell & neurobiology and chair and medical education at USC, Snow also is the director of anatomy.

“I am fortunate to be teaching a subject that involves small groups, in that six students act as a team to dissect one donor (cadaver),” said Snow. “Working in the lab allows me to address the needs of individual students, determining what they know and don’t know and filling in the gaps. This is extremely rewarding because I get to see a lot of ‘ah-ha’ moments.”

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Did you know...

Fifty years ago, the USC Norris Comprehensive Cancer Center was chosen to be one of the first outposts in the nation’s newly declared war on cancer.

As one of the first eight specially designated comprehensive cancer centers in the country, USC Norris Comprehensive Cancer Center has helped transform cancer care and treatment. It continues to be at the forefront of cancer research and treatment and is poised to make many more significant contributions in the future.

“The future of research and patient care at USC Norris is defined by bringing our discoveries to our patients,” said Stephen Gruber, MD, PhD, MPH, director of USC Norris. “It’s always difficult to project ahead 40 years, but we can say that within the next five to 10 years, we will base our therapeutic decisions on using precision medicine to guide our choices — getting the right drug to the right patient for the right tumor.”

The Weekly

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USC researchers to grow organs to unlock cancer tumor development

By Leslie Ridgeway

Using three-dimensional organ creation, Keck Medicine of USC researchers aim to discover clues to metastatic cancer growth by developing a first-ever integrated bioengineered/computational model of metastatic colon cancer.

David B. Agus, MD, director of the USC Center for Applied Molecular Medicine and professor of medicine at the Keck School of Medicine of USC, is the principal investigator of a $2.3 million, four-year “Provocative Questions” grant awarded recently by the National Cancer Institute (NCI), a division of the National Institutes of Health (NIH). The project title is “An Integrative Computational and Regenerative Tissue Model of Metastasis.”

The goal of the research is to develop functional, bioengineered liver “organoids” in which colon cancer tumors can be grown and studied. Agus said the research team will inject the liver organoids with cancer cells and watch as the cells grow into tumors and function within the organoids. The research combines bioengineering techniques developed at Wake Forest University with computational models of tumor growth developed at USC.

“Studying cancer metastasis in the lab is problematic because of discrepancies between cell culture models and tumor growth in living organisms,” he said. “We need a much better understanding of the way cancer cells and the organ microenvironment interact. Our research merges the methods of physical science, regenerative medicine and tissue engineering to create a tissue model that approximates the actual environment where tumors live.”

The liver models will have value to other cancer researchers seeking to attack tumor growth from different angles, said Shannon Mumenthaler, PhD, assistant professor of research in the Department of Medicine at the Keck School and one of the project leads.

“This exciting and novel reproducible, controllable system we are creating will also enable researchers to test hypotheses and make predictions that can be extrapolated to human cancer,” Mumenthaler said.

The first phase of the project involves calibrating the model with data from bioengineered liver tissue.

Phase two will subject the growing tumors to physical changes likely to affect them in the human body, including alterations to oxygenation and drug treatment. In the third phase, the team will compare simultaneous tumor growth in actual patients with outcome data from these patients.

The Provocative Questions program, launched in 2012, is based on 28 important questions from the research community and is intended to stimulate researchers to seek out especially effective and imaginative ways to study cancer.

ZILKHA: Zlokovic named new chair

Continued from Page 1

linked impaired blood flow and flaws in the blood-brain barrier to the development of diseases such as Alzheimer’s through their impact on neurons. He is currently the principal investigator for numerous grants, including two National Institutes of Health-funded R37 awards to study pathogenesis and new therapeutic targets in Alzheimer’s disease.

“Professor Zlokovic’s translational research in neurodegenerative disorders and the blood-brain relationship is fostering a promising path toward the discovery of cures for debilitating health problems that affect millions of people,” said Elizabeth Garrett, USC provost and senior vice president for academic affairs. “His influential work at the Keck School, and colleagues about his research that shows how developing new treatments and effectively treat Alzheimer’s disease by 2025,” Zlokovic said.

By developing a first-ever computational and regenerative “organoid” model of metastatic cancer, Agus said the research team will inject the liver organoids with cancer cells and watch as the cells grow into tumors and function within the organoids. The research combines bioengineering techniques developed at Wake Forest University with computational models of tumor growth developed at USC.

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The Weekly NEWSMAKERS

An article in the November 2013 issue of Orthopedics Today featured an interview with C. Thomas Vangness, Jr., MD, professor of orthopaedic surgery at the Keck School, about the high cost of conducting clinical trials to ensure the safety and efficacy of using stem cell therapies in orthopedics. “The FDA wants good manufacturing practices with clinical trials showing statistical improvements of any treatment regimen before releasing these treatments to the public,” Vangness said.

An article in the November/December 2013 issue of Le Monde De L’Intelligence (France) featured an interview with Thomas Valente, PhD, professor of preventive medicine at the Keck School, and colleagues about his research that shows teenagers can be influenced to try alcohol or smoke cigarettes by looking at their friend’s online photos. The study was co-authored by Grace Huang, MD, MPH, Jennifer Unger, PhD, Daniel Soto, MPH, and Mary Ann Penta, PhD, all of the Keck School, and Maryalice Jordan-Mash, MSN, PhD, of the USC School of Social Work.

OVEREATING: Responses to food conditioning

Continued from Page 1

are cues to hunger (such as sight, smell and memories) that trigger reward associations — much like Pavlov’s dogs were trained to associate a ringing bell with food. This can cause feelings of loss of control over eating, lack of satiation and obsessive thoughts about food as responses to this conditioning.

“We’re wired to focus attention on the most salient stimuli, and food today is designed to capture our attention,” Kessler explained. “Our behavior in overeating and a poor diet becomes rewarding and self-sustaining. We’re living in a food carnival, what did we expect to happen?”

To combat this “programming,” Kessler recommended changing people’s perception. “We could demonize tobacco, as it isn’t necessary for living, but doing the same to food is the stuff of eating disorders,” he said. “This isn’t about regulations, laws and litigation, but changing how we perceive things like large portion sizes and fast food.”

Year-end IRA charitable rollover opportunity for giving

A special opportunity for giving to USC through the IRA charitable rollover will expire on Dec. 31, 2013. Potential donors age 70 or older who have given at least one gift to USC of any size in the past 10 years and have a minimum lifetime giving to USC of $2,500 qualify.

Learn more by visiting usc.edu/giftplanning.
Call to Cure supports USC Norris through art auctions

Art is supporting science thanks to DreamWorks Animation. Once per month for the next year, DreamWorks artists are donating original works for auction on eBay in support of Call to Cure, an organization supporting colorectal cancer research at USC.

Auctions will be promoted through the Call to Cure website (www.calltocure.org) and through Twitter and Facebook. All proceeds of each auction will be given directly to the USC Norris Comprehensive Cancer Center.

The first auction took place in November, this month’s auction launched on Dec. 9, and will close on Dec. 16 at 6 p.m.

Nate Wragg, visual development artist at DreamWorks Animation, was invited to create an original piece for the December auction based on the theme, “What Makes You Happy.” Wragg gathered his inspiration from a child’s imagination. “A child’s imagination is something that has always inspired me,” he said. “I love the way a child’s imagination can take any situation, any place and transform it into an amazing experience.”

Call to Cure founder and DreamWorks executive producer Nancy Bernstein and Call to Cure organizers hope this effort will reach beyond current supporters to animation and art fans around the world.

To view the December auction, visit http://tinyurl.com/d777s7.

In case of an emergency...

Call the Emergency Information Phone: (213) 740-9233 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.