

Scholarship Gala to honor faculty physician and 2 KSOM alumni

By Sharon Brock

Emeritus Professor Shaul G. Massry, MD, will be awarded the Distinguished Faculty Award and two graduates of the Keck School of Medicine of USC will be awarded alumni awards at the second Keck Scholarship Gala on Saturday, March 7, at Town & Gown on the University Park Campus.

The annual celebration of donors and students who have received medical scholarships in 2014 and 2015 also serves as a fund-raiser to support medical scholarships. Last year, more than 250 people attended and almost \$325,000 was raised.

“We are pleased to honor our generous supporters with this event,” said Carmen A. Puliafito, MD, MBA, dean of the Keck School. “Having the ability to offer medical scholarships helps the Keck School attract the most promising future physicians and researchers, and launch them on careers to save lives and advance medicine as tomorrow’s health care leaders.”

See **GALA**, page 3

Feeding a need for healthier eating



Dietmar Quistorf

Young participants in Fit Families learn to prepare healthy foods such as vegetables during the nutritional training portion of a recent Saturday session for East L.A.

By Yasmine Pezeshkpour

When it comes to fresh fruit and veggies, East Los Angeles can be a desert of unhealthiness.

That’s why USC’s Fit Families program is an oasis of sorts in places like Boyle Heights, El Sereno and Lincoln Heights, where fast-food outlets far outnumber grocery stores.

The free health-and-wellness program every Saturday at Hazard Park educates residents — especially children — about diet and exercise. Each session ends with nutritional training nearby in the cafeteria at Keck Hospital of USC.

People who live in so-called food deserts have higher rates and risks of obesity-related chronic diseases such as heart disease, diabetes, hypertension and stroke, according to the L.A. County Department of Public Health. To support neighborhood residents, the USC Division of Biokinesiology and Physical Therapy, located in the Center for the Health Professions Building on Alcazar Street, began Fit Families in 2006.

“When we first began the program, we targeted children ages 10 to 17,” said Cheryl Resnik, DPT, associate chair and associate professor of clinical physical therapy and director of community outreach. “Since then, we extended our program to children as young as 7 to promote healthy lifestyles at an even earlier age.”

Participants range from age 7 to 54. Youngsters must be accompanied by an adult.

Each Saturday, volunteer USC physical therapists and students first record the participants’ vital signs. An exercise portion with a group warm-up is followed by circuit training and

See **EATING**, page 2

New app shares heart rate with a photo

By Meg Aldrich

Heart health goes mobile and social with the release of BioGram, a new mobile app that is the first to allow heart rates to be shared with a photo.

Created by the cardiologist experts at the USC Center for Body Computing (CBC) along with collaborators at the USC Viterbi School of Engineering and private companies AliveCor and Medable, the free app is available now for download on iTunes.

BioGram works by stamping heart rates onto photos that can be posted to Facebook and other social media. The user’s heart rate is recorded from AliveCor’s Heart Monitor, a portable heart rate monitor built into a smartphone case that records, displays, stores and transfers electrocardiogram (ECG) rhythms wirelessly. For those without an ECG reader, heart rates can be input manually or from another sensor.

“The convergence of



health, technology and mobile digital devices is allowing us all to become smart patients,” said Leslie A. Saxon, MD, executive director of the USC CBC and the co-inventor of Biogram. “Now millions of people can add biostatistical information to existing photo-sharing social media activities. And while it provides insightful data that is emotional, aesthetic and informative, it also makes health education more entertaining.”

Students from USC Viterbi School of Engineering provided coding for the app under the direction of faculty member Trina Gregory. CBC was responsible for development and design on

the project. Medical-based app-development company Medable provided HIPAA-compliant services, and AliveCor hardware records the actual heart rates.

“The BioGram app was especially inspiring for USC engineering students because of the greater purpose and value it brings to the consumer. We enjoy collaborating on cross-disciplinary projects with Dr. Saxon and the CBC, and have for many years. The fact that BioGram is available on iTunes shows the students how classroom knowledge translates into real-life projects quickly,” Gregory explained.

Michelle Longmire, MD and CEO of Medable, said, “Our platform allows patients using BioGram to securely share their biostats with whom they want — either widely on social media or directly with their doctor. It’s exciting to work with USC on a big data project where we can learn so much about the human body.”



Douglas Morino

Environmental Services Director Gordon Taylor, nurse Leslie Dalaly Infection Preventionist Angie Ghanem and Chief Medical Officer Stephanie Hall with a new Xenex ultraviolet robot.

UV light from robots is being used to disinfect hospital rooms

By Douglas Morino

It sounds like something straight out of science fiction: Robots zap danger surrounding them.

But for Keck Medical Center of USC, the new devices are powerful tools in the fight against the spread of disease and infection.

Xenex ultraviolet robots, which stand about five feet tall and emit pulses of ultraviolet light to render bacteria and viruses inactive, were recently deployed in Keck Hospital of USC and USC Norris Comprehensive

Cancer Center.

Medical center officials said the new technology is an important tool to provide safe, sterile environments for patients and staff members.

“My interest was in reducing infection rates, especially for bacteria that are hard to manage,” said Chief Medical Officer Stephanie Hall, MD. “This provides a new level of disinfection that we could not normally achieve.”

Manufactured by San Antonio-based Xenex Disinfection Services, the robots

See **UV**, page 3

Mindful meditation improves sleep in older adults, study finds

By Leslie Ridgeway

Older people who have sleep problems found more relief from a mindful meditation program than from a conventional sleep education program, Keck Medicine of USC researchers have found.

In a clinical trial of 49 people in Los Angeles 55 and older, scientists from USC and UCLA discovered that participants in a group meditation program reported better results than those given behavioral sleep education. The research indicates that focusing attention and awareness on the present moment without judgment or reacting to thoughts — as taught through mindfulness meditation — has positive effects not just on sleep but on conditions that often result from poor sleep.

“We were surprised to find that the effect of mindfulness meditation on sleep quality was large and above and beyond the effect of the sleep hygiene education program,” said David S. Black, PhD, MPH, corresponding author of the study and assistant professor of preventive medicine at Keck School of Medicine of USC.

Black, director of the American Mindfulness Research Association, concludes that “mindfulness meditation appears to have clinical importance by serving to reduce sleep problems among the growing population of older adults.”

This effect on sleep appears to carry over into reducing daytime fatigue and lessening symptoms of depression. It is estimated that 50 percent of adults over age 55 will experience sleep disturbances, which include trouble falling asleep and waking in the middle of the night. According to the National Sleep Foundation,



David S. Black

the sleep needs of older adults do not diminish with age, and many report dissatisfaction with their sleep and tiredness during the day.

Black’s team compared the Mindful Awareness Practice (MAPs) program at UCLA, a six-week, two-hour-a-week program introducing mindfulness meditation to participants, to a so-called sleep hygiene program that provided strategies such as relaxation before bedtime, monitoring of sleep behavior and not eating before sleeping. The research was conducted via self-reported surveys.

Black’s future research will focus on combining the two methods as a means of improving sleep.

The research team includes Gillian O’Reilly, a doctoral student in the Department of Preventive Medicine at the Keck School, and Richard Olmstead, PhD, Elizabeth Breen, PhD, and Michael R. Irwin, MD, all of UCLA.

The research was published online Feb. 16 in the *Journal of the American Medical Association Internal Medicine*. Funding was provided by the National Institutes of Health (NIH), National Institutes of Mental Health (NIMH), the UCLA Older Americans Independence Center, the Cousins Center for Psychimmunotherapy at UCLA, the Pettit Family Foundation and the Furlotti Family Foundation.



Tracy C. Grikscheit, a pediatric surgeon, aims to use the tissue-engineered small intestine to benefit her most-vulnerable young patients, including premature babies.

Researchers grow functional intestine from human cells

By Debra Kain

A new study by researchers at Children’s Hospital Los Angeles (CHLA) has shown that small intestine grown from human cells replicates key aspects of a functioning human intestine.

The small intestine they developed contains important elements of the mucosal lining and support structures, including the ability to absorb sugars, and even tiny or ultra-structural components like cellular connections.

The research was led by Tracy C. Grikscheit, MD, an assistant professor of surgery at the Keck School of Medicine of USC and a principal investigator for the Saban Research Institute of CHLA and its developmental biology and regenerative medicine program. Grikscheit is also a pediatric surgeon at Children’s Hospital Los Angeles and a principal investigator with USC Stem Cell.

Published online Jan. 8 by the *American Journal of Physiology: GI & Liver*, the work brings surgeons a step closer to helping human patients via this regenerative medicine technique.

Tissue-engineered small intestine, known as TESI,

grows from stem cells contained in the intestine and offers a promising treatment for short bowel syndrome (SBS), a major cause of intestinal failure, particularly in premature babies and newborns with congenital intestinal anomalies. TESI may one day offer a therapeutic alternative to the current standard treatment, which is intestinal transplantation, and could solve its largest challenges — donor shortage and the need for lifelong immunosuppression.

Grikscheit aims to help her most-vulnerable young patients, including premature babies who develop a devastating disease called necrotizing enterocolitis (NEC) in which life-threatening intestinal damage requires removal of large portions of the small intestine. Without enough intestinal length, the babies are dependent on intravenous feeding, which is costly and may cause liver damage.

NEC and other contributors to intestinal failure occur in 24.5 out of 100,000 live births, and the incidence of SBS is increasing. Nearly a third of patients die within five years.

CHLA scientists had previously shown that TESI could be generated from

human small intestine donor tissue implanted into immunocompromised mice.

The new study determined that mouse TESI is highly similar to the TESI derived from human cells, and that both contain important building blocks, such as the stem and progenitor cells that will continue to regenerate the intestine as a living tissue replacement. And these cells are found within the engineered tissue in specific locations and in close proximity to other specialized cells that are known to be necessary for a fully functioning organ.

“We have shown that we can grow tissue-engineered small intestine that is more complex than other stem cell or progenitor cell models that are currently used to study intestinal regeneration and disease, and proven it to be fully functional as it develops from human cells,” Grikscheit said.

Additional contributors from Children’s Hospital and Keck Medicine of USC include Christa N. Grant, Garcia Salvador, Frederic Sala, Ryan J. Hill, Daniel E. Levin, Allison L. Speer, Erik R. Barthel, and Hiroyuki Shimada, as well as Nicholas C. Zachos of Johns Hopkins University’s School of Medicine.

HSC News

Next Issue: March 13

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

Editor: Les Dunseith

Contributors: Sharon Brock, Tania Chatila, Cristy Lytal, Douglas Morino, Sara Reeve, Leslie Ridgeway, Talar Shahinian, Sherri Snelling and Alison Trinidad

Director, Internal Communications: Virginia Baca

Executive Director, Creative Services: Tom DeSanto

Associate Vice President, Health Sciences Public Relations and Marketing: Deborah S. Fullerton

Phone: (323) 442-2830 Fax: (323) 442-2832
Email: hscnews@usc.edu Web: hscnews.usc.edu

EATING: Fit Families in East L.A.

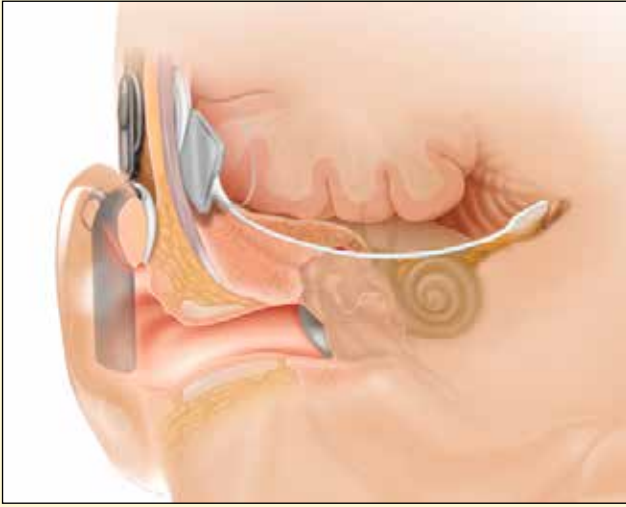
Continued from page 1
breakout activities that may include Zumba, yoga and games.

The nutritional program at the end is taught by nutritionist and health educator Sara Jean Train, who plans each week’s lesson thoughtfully to meet the needs of people living in a food desert like East L.A. Typical lessons include learning to read food labels or adding fruits and vegetables to meals. Creating a healthy diet for individuals with diabetes is also important. Afterward, the group

cooks a healthy recipe using seasonal ingredients.

“My goal is to inspire people to think creatively about their food and feel empowered to make changes,” Train said. All the recipes include ingredients that can be purchased with Supplemental Nutrition Assistance Program (SNAP) cards that help low-income families afford groceries.

“The most rewarding part of all is seeing families achieve their health goals and get excited about being healthy,” Train said.



Cochlear Inc.

The ABI stimulates neurons directly at the human brain stem.

Keck experts break sound barrier for children born without hearing nerve

By Alison Trinidad

A multi-institutional team of hearing and communication experts led by the Keck School of Medicine of USC is breaking sound barriers for children born without a hearing nerve in a clinical trial backed by the National Institutes of Health (NIH).

Launched in March 2014, the three-year study has enrolled five of 10 participants and successfully implanted an auditory brainstem implant (ABI) device in four children who previously could not hear. The research team presented preliminary findings Feb. 14. at the American Association for the Advancement of Sciences (AAAS) 2015 annual meeting in San Jose, CA.

“Initial activation of the ABI is like a newborn entering the world and hearing for the first time, which means these children will need time to learn to interpret what they are sensing through the device as ‘sound,’” said audiologist Laurie Eisenberg, PhD, a Keck School otolaryngology professor and study co-leader. “All of our study participants whose ABIs have been activated are progressing at expected or better rates. We are hopeful that, with intensive training and family support, some of these children may eventually be able to communicate on the phone.”

Hearing loss manifests in various forms, most of which can be partially restored through hearing aids and cochlear implants. Those devices cannot help a small population of individuals who do not have a cochlear, or hearing, nerve — these people are unable to perceive sound, no matter how loud, outside of feeling vibration. The ABI is considered revolutionary because it stimulates neurons directly at the human brainstem, bypassing the inner ear entirely.

Surgeons outside the United States have been doing ABI surgeries in children for more than 10 years, but there was never a formal safety or feasibility study under regulatory oversight. In the United States, the ABI is approved for use only in patients 12 years or older with neurofibromatosis type II, an inherited disease that causes a non-malignant brain tumor on the hearing nerve, but it has shown limited effectiveness in adults.

Scientists believe that the ABI would be more effective in younger children, when their brains are more adaptable. The clinical trial will attempt to prove that the surgery is safe in young children and allow researchers to study how the brain develops over time and how it learns to hear sound and develop speech.

“Hearing loss can be devastating to a child’s social development, and for some children, the ABI is their last viable chance to hear,” said Keck School Professor Robert V. Shannon, PhD, an investigator for the trial and a leading scientist in the development of ABI technology since 1989. “Several of the young children who had ABIs implanted outside the United States have sought help at the USC-CHLA Center for Childhood Communication and we know that they now have the potential to understand speech. This really shows how powerful and flexible the brain is. By studying how the brain and the hearing system work together through this device, our team will set the gold standard for use of this technology.”

The NIH clinical trial grant U01DC013031 covers the costs of the device, procedure and subsequent testing. To qualify for participation, patients aged 2 to 5 years old must show that standard treatment such as hearing aids and cochlear implants have been ineffective.

UV: New robots help disinfect hospital areas

Continued from page 1
are used by more than 300 U.S. hospitals.

Pathogens can pose significant health risks, and disinfection of hospital surfaces is crucial for patient safety. About 1 in 25 U.S. hospital patients have had a healthcare-associated infection, according to the Centers for Disease Control and Prevention.

Xenex robots use powerful pulses of Xenon-based ultraviolet light that penetrate cell walls of bacteria and viruses, making them no longer infectious. The UV-C light can kill pathogens such as Ebola, measles, VRE, *C. difficile*, MRSA and mold.

Purchase of a Xenex robot for Keck Hospital and USC Norris was made possible by gifts from Paula Hsu and her family in appreciation for the extraordinary care that her mother received.

“Our family is forever grateful to Dr. Stephanie Hall and especially Dr. Glen Ault for the care rendered to my mother at the hospital a few years ago,” Hsu said. “Today, at 94, she is well and sound. When Dr. Hall mentioned this new disinfecting equipment to us, we felt privileged to be able to show our gratitude by contributing.”

Staff members underwent training with the Xenex robot after it arrived Feb. 17 at Keck Hospital of USC.

“This enhances the level of disinfection we’re able to

The ongoing battle against bacteria

Recent reports of the spread of infection of CRE through the use of endoscopic retrograde cholangiopancreatography (ERCP) duodenoscopes at centers around the country, and most recently at Ronald Reagan UCLA Medical Center, are a sobering reminder that bacteria are ever-present and constantly evolving to resist efforts to eliminate them, said Chief Medical Officer Stephanie Hall, MD.

“We are dedicated to delivering exceptional health care in a safe patient environment,” Hall said. “We regularly review our infection control processes. Keck Medicine of USC has not identified any case of transmission of CRE or other multidrug resistant organisms related to the use of duodenoscopes.”

A duodenoscope is a different instrument than what is used in a routine upper endoscopy or a colonoscopy.

In order to ensure the ongoing safety and quality of care for patients, staff members have been conducting an intensive assessment of equipment inventory and the disinfection process of these instruments, Hall added.

provide,” said Infection Preventionist Angie Ghanem.

A Xenex robot has been in use since December at the Center for Cystic Fibrosis. It was purchased with financial gifts from the Webb Foundation and Steven Tyre, CPA, trustee of the Bob and Margrit Gold Trust.

Although brief exposure to the light is considered safe, the robots are used in unoccupied rooms and are equipped with a motion detector capable of shutting down the system if motion is detected. The UV light cannot penetrate glass, doors or plastic, nor will it damage supplies or equipment in the room being disinfected.

The robots have a simple user interface, are WiFi compatible and dispatch

real-time data. They will be used in addition to regular cleaning and will provide enhanced cleaning in targeted areas of patient units and procedure rooms. A Xenex robot takes about 15 minutes to disinfect a typical patient room.

Each device costs about \$90,000.

A Xenex robot is used 18 times a day in the Cystic Fibrosis Clinic, and patients have been curious about the new machine roaming the halls with staff members.

“It has increased the sense of comfort in our patients,” said Center for Advanced Lung Disease Nurse Manager Debbie Benitez, RN. “They feel we are going above and beyond what we need to do for their safety.”

GALA: Annual Scholarship event to be March 7

Continued from page 1

Massry is the former chair of nephrology at Keck School of Medicine of USC and president of the Meira and Shaul G. Massry Foundation, which awards the Massry Prize to recognize outstanding contributions to the biomedical sciences and the advancement of health. Twelve recipients have gone on to receive Nobel Prizes.

Antonio T. Alamo, MD, a 1991 graduate of Keck School of Medicine of USC, will receive the Alumni Service Award.

He runs a private internal medicine practice in Las Vegas and is chairman of Nevada’s gaming commission. Alamo has served as chief of staff of two Las Vegas hospitals and founded Alamo Medical Clinic. His award will recognize 16 years as a volunteer physician for the Las Vegas Metropolitan Police Department. Alamo’s service during a hostage barricade situation in 2006 previously earned the police Medal of Unit Valor.



Sara Reeve

Emeritus Professor Shaul G. Massry recently presented a check to Dean Carmen A. Puliafito of the Keck School to fund medical scholarships.



Alamo



Molina

The recipient of the Distinguished Alumni Merit Award is J. Mario Molina, MD, who earned his USC medical degree in 1984. He is president and CEO of the Fortune 500 company Molina Healthcare, Inc., which

serves more than 6.6 million beneficiaries of Medicaid and Medicare in 17 states and two U.S. territories.

Molina previously received the E&Y Greater Los Angeles Entrepreneur of the Year Award and was featured in *Time* magazine as one of the 25 most influential Hispanics in America in 2005.

For details about the gala, contact Connie Wagner at (213) 821-7080 or cwagner@usc.edu. Tickets may be purchased at keck.usc.edu/ScholarshipGala.

Calendar of Events

Monday, March 2

Noon. KSOM Research Seminar Series Seminar. “Exploring Contributions Made by Anatomically Distributed Neurons and Circuits to the Neural Control of Feeding,” Harvey J. Grill, PhD, University of Pennsylvania. Aresty Auditorium. Info: Mary Jane Chua, (323) 442-7732, maryjane.chua@med.usc.edu

Tuesday, March 3

3 – 5 p.m. SC CTSI Workshop. “Data-Driven Workshop on Social Media and Infographics,” Katja Reuter, PhD. Harkness Auditorium. Info: Francis Ukpolo, (323) 442-1996, francis.ukpolo@med.usc.edu, RSVP: <http://bit.ly/1DKtrrN>

5:30 p.m. Ophthalmology Grand Rounds. Philip Storey, MD, MPH, USC. HC4, Conference Room, 3rd Floor. Info: Tyaisha Christopher (323) 409-5233, Tyaisha.Christopher@med.usc.edu

Thursday, March 5

Noon. Southern California Research Center for ALPD and Cirrhosis Lecture. “Control of Immune Responses by Activation of Nutritional Sensing Pathways in Dendritic Cells,” Bali Pulendran, PhD, Emory University. McKibben Lecture Hall 156. Info: Julie Lee, (323) 442-4844, julie.lee@med.usc.edu

Thursday, March 5, and Monday, March 9, plus March 12, 16, 19, 23 and 30

Noon or 11 p.m. Office of Emergency Management & Business Continuity Lecture. Bring Your Lunch and Learn Seminar — “Active Shooter, Remaining Prepared in a Run, Hide, Fight World,” Robert C Vance III, USC. March 5 and 19 for night shift, 11 p.m., and March 9, 30 at noon: Keck Hospital Cardinal Room; March 16, 23: Norris Hospital first floor conference room; March 12, 19: Soto II second floor conference room. Info: Bob Vance, (323) 442-9915, robert.vance@med.usc.edu.

Saturday, March 7

6 p.m. Office of the Dean, Keck School of Medicine. “2015 Keck Scholarship Gala.” Town and Goown, University Park Campus. Info & RSVP: Molly Gervais, (323) 442-1700, mgervais@usc.edu <http://keck.usc.edu/ScholarshipGala>. Honoring Antonio T. Alamo, MD '91, Shaul G. Massry, MD, J. Mario Molina, MD '84 and the 2014-15 Scholarship Recipients.

Tuesday, March 10

9 a.m. – 2 p.m. Brain and Behavior Research Foundation. “Discovery to Recovery: A Path to Healthy Minds.” Features Michele Pato, MD, and Carlos Pato, MD, USC. Luxe Sunset Boulevard Hotel, Los Angeles. Info & Register: www.bbrfoundation.org/LA, or call (800) 829-8289

Wednesday, March 11

10 a.m. Department of Biochemistry & Molecular Biology/Zilkha Neurogenetic Institute Seminar. “Impact of Antenatal Glucocorticoids on the Developing Brain,” Donald DeFranco, PhD, University of Pittsburgh. Herklotz Seminar Room, ZNI 112. Info: Julie Carl, (323) 442-3219, jcarl@usc.edu

Noon. Zilkha Neurogenetic Institute Seminar. “ON-OFF Cells of the Auditory System,” Laurence Trussell, PhD, Oregon Health and Science University. Herklotz Seminar Room, ZNI 112. Info: Julie Carl, (323) 442-3219, jcarl@usc.edu

Thursday, March 12

Noon. Southern California Research Center for ALPD and Cirrhosis Lecture. “Traditional and Non-Traditional Roles of Angiotensin Converting Enzyme,” Kenneth Bernstein, Cedars Sinai Medical Center. McKibben Lecture Hall, 156. Info: Julie Lee, (323) 442-4844, julie.lee@med.usc.edu

Friday, March 13

11 a.m. MMI Presents: The Delphine & James Fahringer Seminar Series Seminar. “Epigenetic Control of Gammaherpesvirus Latency,” Paul M. Lieberman, PhD, The Wistar Institute. Harlyne Norris Research Tower, LG 503/4. Info: Aileen Calimlim, (323) 442-1710,

Thursday, March 26

Noon. Southern California Research Center for ALPD & Cirrhosis Lecture. “Mitochondria and Metabolic Regulation of Human Pluripotent Stem Cell Differentiation,” Michael Teitell, UCLA. McKibben Lecture Hall, 156. Info: Julie Lee, (323) 442-4844, julie.lee@med.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.



DIOS SYMPOSIUM — Sebastien G. Bouret of the Saban Research Institute was among more than a dozen speakers during the Diabetes and Obesity Research Symposium held Feb. 17-18 on the HSC campus.

Physicians investigate use of ultrasound to screen liver patients for possible disease

By Douglas Morino

Keck Medicine of USC physicians have been awarded funding to explore the effectiveness of new non-invasive ultrasound-based techniques to screen liver transplant patients for potentially deadly disease.

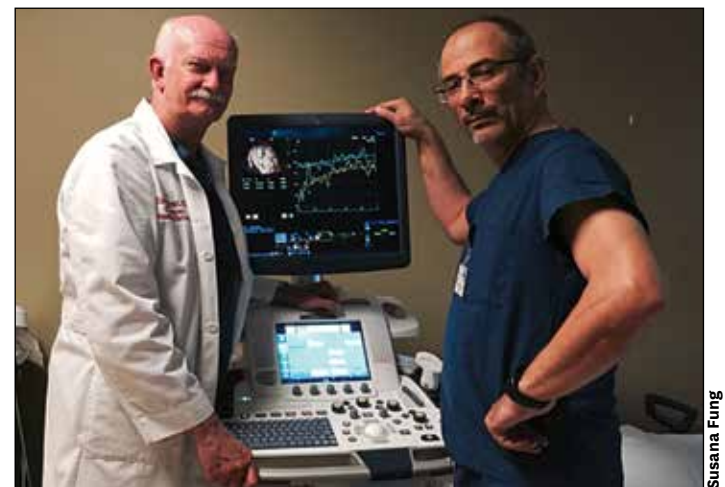
This is one of the several investigator-initiated research grants secured recently by the Department of Radiology.

Edward Grant, MD, chair of the Department of Radiology, and Hisham Tchelepi, MD, chief of the ultrasound division, have received \$300,000 from GE Healthcare Inc. to investigate non-invasive and quantitative ultrasound-based techniques — shear wave elastography and parametric imaging with contrast enhanced ultrasound — for assessment of liver fibrosis in liver transplant recipients with hepatitis C, which can continue to cause damage even after a patient receives a new liver.

The Department of Radiology is the first in the region to introduce these ultrasound technologies. “This adds to our spectrum of diagnostic imaging services in ultrasound,” Grant said.

New shear wave elastography technology developed by GE Healthcare received approval from the FDA in November and measures organ tissue stiffness to help identify any potential underlying fibrosis. Liver fibrosis is associated with cirrhosis and is currently assessed using needle biopsy, which is invasive and expensive.

Parametric imaging using contrast-enhanced ultrasound helps map blood flow and is another new diagnos-



Edward Grant and Hisham Tchelepi of the Department of Radiology.

tic aid to examine the liver.

The new non-invasive techniques could allow patients to be better screened and evaluated so they can more quickly receive appropriate treatment. The three-year grant will allow 100 patients to be screened and treated.

“We will use these two new tools for evaluating patients and providing them, ultimately, with better treatment,” Grant said.

Grant was one of the pioneers in developing the clinical use of neonatal cranial sonography. Considered an international authority in ultrasound, Grant has been the chairman of the Department of Radiology since 2002. Tchelepi was recently recruited from Wake Forrest to lead radiology’s ultrasound division. Grant and Tchelepi often speak about ultrasound at national and international venues.

USC Health Sciences
Public Relations and Marketing
2011 N Soto Street - SST-2830
Los Angeles, CA 90032

Non-Profit Organization
U.S. POSTAGE PAID
Industry CA
Permit 4029



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.