

Renowned breast surgeon Stephen Sener joins USC

By Katie Neith

Stephen Sener has been named Professor of Clinical Surgery at the Keck School of Medicine of USC, effective Sept. 1. A renowned breast surgeon, he joins the Trojan Family to serve as chief of the division of surgical oncology and as a part of the USC Norris Comprehensive Cancer Center and Hospital.

Sener comes to USC from Northwestern University in Chicago, where he serves as professor of surgery at Northwestern University Feinberg School of Medicine and vice-chair of the Department of Surgery at NorthShore University HealthSystem.

He also served as national president of the American Cancer Society (ACS) in 2004-2005. Sener's service as volunteer chairman of the ACS's Cancer Incidence and End Results Committee

facilitated evolution of the concepts of quality care and health care access. The work also led to the development of the National Cancer Database.

"Dr. Sener has a strong background in administrative leadership, surgical oncology and the ability to facilitate cross-functional program development," said Carmen A. Puliafito, dean of the Keck School of Medicine. "I think he will be an outstanding addition to the Department of Surgery."

As chief of the Division of Surgical Oncology in the Department of Surgery, Sener has several priorities, including incorporation of the new division into the administrative structure of the Department of Surgery.

He also hopes to augment the breast cancer screening and clinical care program at USC, both on the main medi-



Stephen Sener

cal campus and in the greater Los Angeles community.

"I want to strengthen a clinical and basic research program that will be integrated with breast cancer clinical care, and develop multidisciplinary programs that are designed to screen general and high-risk populations for cancer and to facilitate care of newly diagnosed patients with USC physicians," said Sener.

A nationally known breast cancer surgeon, Sener has been a volunteer with the American Cancer Society

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"I want to strengthen a clinical and basic research program that will be integrated with breast cancer clinical care."

—Stephen Sener, professor of clinical surgery at the Keck School of Medicine

USC transplant program boasts top survival rates in nation

By Sara Reeve

When it comes to heart transplants, patient survival rates are at the "heart" of a program's success. A recent national report has shown that the USC Heart Transplant Program at USC University Hospital has a statistically higher three-year survival rate than the national average.

In a July 2009 report, the U.S. Transplant Scientific Registry of Transplant Recipients compiled risk-adjusted survival rates for the 125 heart transplant centers across the country. USC was one of only three centers to achieve a statistically higher survival rating. This report marked the second year in a row that USC achieved a statistically higher survival rating.

"Having patient survival rates statistically higher than the national average over multiple years speaks to our consistency of quality care," said Mark Barr, associate professor of cardiothoracic surgery at the Keck School of Medicine. "Any program can have a good year, or even a bad year, once in a while. But year over year? That speaks to the fact that we are doing a lot of things right."

The program performed 24 heart transplants in 2008, while the typical heart program performed between nine and 22.

According to Barr, knowing when not to perform transplant surgery adds to the program's success. "We are able to utilize the state-of-the-art MRI scanning capability here at USC, allowing us to accurately assess which patients need bypass surgery and which really need transplant surgery," he said. "This combined approach has allowed us to avoid the need for transplant surgery for hundreds of patients."

The USC Heart Transplantation program provides transplant services for patients with end-stage cardiac disease for whom other medical or surgical therapies are not advisable. Most transplant patients are otherwise healthy, are under the age of 70 and usually carry the diagnosis of cardiomyopathy or coronary disease.



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BBQ party kicks off new football season

Almost 2,400 employees of USC's hospitals and the Keck School of Medicine flocked to an Aug. 20 barbecue to kick off the USC Trojan football season. The event included food and entertainment by USC song girls and the Trojan Marching Band (at right) who performed for the crowd. USC football team members, including Taylor Mays (above) also made an appearance to sign autographs. Mitch Creem, CEO of the USC hospitals, hosted the event at the Norris Inpatient Tower Parking Terrace.



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Facing terminal cancer, doctoral student battled to complete degree

By Katie Neith

When Paul Roybal began his Ph.D. work at the Keck School of Medicine of USC in 2003, he had the world at his fingertips. An incredibly smart student from a middle-class family in Los Angeles, he cared deeply about science and was dedicated to his research of pattern formation in the skull.

But shortly after joining the lab of Robert Maxson, professor of biochemistry and molecular biology at the Keck School, Roybal was diagnosed with a low-grade brain tumor. For five years he battled the disease while continuing to work on his degree. Roybal passed away on July 26, just weeks after graduating with a doctorate in biochemistry and molecular biology.

“Paul inspired so many of us with the person that he was and his unrelenting passion for science,” said Deborah Johnson, professor of biochemistry and molecular biology and associate dean for graduate affairs. “He did so many things, for so many people, and with such grace. He was one in a million.”

Roybal’s thesis work focused on how patterns are established in the skull. He identified the molecular mechanisms that underlie cranial facial development and pattern formation in the skull.

“Everyone thought they understood how this happens, but Paul showed that the mechanism was different from what people thought,” said Maxson, who served as his mentor.

According to Johnson, Roybal added to the knowledge of how these patterns develop in a particular way in the skull. These findings will allow scientists to understand how certain mutated genes play a role in a number of birth defects, such as parietal foramina and craniosynostosis.

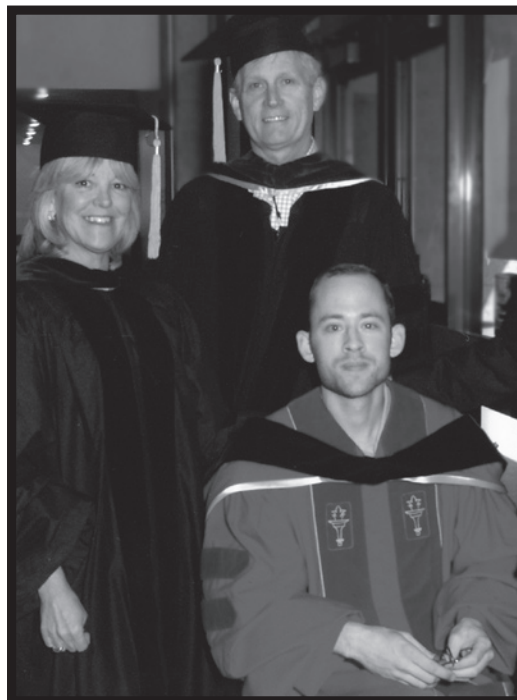
“Paul’s work has helped us understand how these birth defects actually develop, which may lead us toward a cure,” said Maxson, who pointed out that Roybal’s research will be continued in his lab.

Throughout his Ph.D. studies, Roybal battled harsh side effects during nearly three years of chemotherapy treatment.

“It’s amazing how he managed to do what he did given how unbelievably sick he was,” said Johnson.

In March of this year, Roybal found out that his tumor had spread from one lobe to another and that there was no point in continuing chemotherapy.

“Paul told me he intended



Paul Roybal (seated) appears at graduation with (from left) Deborah Johnson and Robert Maxson.

“To be able to come in and work through the illness and care sincerely about the science... We should all be so fortunate to have something we really know is what we want to focus on for the last months of our life.”

When he wasn’t busy with his research, Roybal volunteered for a program that offered assistance to wounded soldiers and gave communion to the sick—even though he was much more ill than many of those he served.

“It’s a treasure to be able to find what drives you and your passion in life,” said Johnson.

“This is what made him happy—helping people and feeling like he was helping move science.”

USC has established a Ph.D. award in his name, which will honor a graduating student who embodies the passion and intellect that Paul possessed and a devotion to basic science. Donations can be made to the USC Norris Comprehensive Cancer Center at 1441 Eastlake Avenue, NOR 8302, Los Angeles, CA 90033. Individuals can also call the Norris Cancer Center at (323) 865-0700 and indicate their gift is being made in memory of Paul Roybal.

to work as long as he could,” said Maxson. “And he literally worked until he couldn’t walk.”

Despite finishing the work to complete his thesis, Roybal wanted to ensure that his work would be published. Most, but not all, of the work was done for publication when he passed away, and other students in lab rallied to finish the work for him. His paper has been submitted, and Maxson feels confident it will be published.

“We get a lot of smart students, but what was unique about Paul is that he had so much heart,” said Maxson.

“Paul inspired so many of us with the person that he was and his unrelenting passion for science.”

—Deborah Johnson, professor of biochemistry and molecular biology and associate dean for graduate affairs

Pharmacy School’s Pharm.D. program gets six-year accreditation; cited as model for others

By Kukla Vera

School of Pharmacy Dean R. Pete Vanderveen recently announced that the Accreditation Council for Pharmacy Education has awarded the full six-year term of accreditation to the School’s Pharm.D. program.

This award was based on a formal review of the school after an exhaustive self-study and a three-day site visit in January.

“These results are excellent

and attest to the exemplary quality of our program,” Vanderveen said.

The Accreditation Council for Pharmacy Education is the accrediting body for pharmacy schools nationwide.

The USC School of Pharmacy received full accreditation through June 2015. In preparation for the review by the council, Fred Weissman, associate dean of student affairs and curriculum, prepared

thousands of pages of materials to address each of the 30 rigorous standards that were reviewed by the accreditation team.

Input for the self-study was collected from faculty, students, staff, alumni, preceptors, school boards and other groups.

“We are very grateful to the leadership and tireless work that Associate Dean Weissman provided for this review,” Vanderveen said.

“And, of course, his efforts and the efforts of the entire faculty were critical factors in the exemplary ranking.”

The school successfully met all 30 standards that the evaluation team uses to review Pharm.D. programs.

The standards focus on school mission, planning, evaluation procedures,

organization, curriculum, student issues, faculty and staff, and facilities and resources. Of note, the Accreditation Council for Pharmacy Education has cited the school’s curricular design as a model of best practices in pharmacy education and will use it as an example for schools nationwide.

SENER: Known as prolific writer, researcher

Continued from page 1

since 1984. A prolific writer and researcher, he has published over 80 peer-reviewed journal articles and numerous books and book chapters. In addition, Sener serves as deputy editor of the *Journal of Surgical Oncology* and on the editorial board of the *American Journal of Surgery* and the *Journal of Clinical Oncology*.

“As we continue to grow the Department of Surgery, I believe Dr. Sener will help us build on our commitment to excellence in clinical care, along with excellence in surgical teaching, with an important focus on surgical oncology,” said Vaughn A. Starnes, chair of the Department of Surgery at the Keck School and surgeon-in-chief at USC Norris Cancer Hospital and USC University Hospital.

Sener earned his medical degree from Northwestern University in Chicago, where he also completed an internship and residency in general surgery.

He went on to finish American Cancer Society clinical fellowships in the Department of Surgery at Evanston Hospital and in the Department of Surgery at Memorial Sloan-Kettering Cancer Center, New York.

“I am excited to be a new member of the Trojan family because I am joining a great core group of dedicated, excellent physicians and caregivers, and to facilitate the enhancement of integrated clinical and research programs within the medical school,” said Sener.

The Weekly

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Keck School department chairs envision a bright future with hospitals

The clinical chairs of the Keck School of Medicine distributed an open e-mail to the practicing faculty on Aug. 12 concerning the future of the School. We reprint the message here in its entirety.

Dear Keck School of Medicine Faculty:

We, as the chairs of the clinical departments of the Keck School of Medicine of USC, are writing to express our optimism about the outstanding future we anticipate for our Medical School, University Hospitals and Health Sciences Campus.

Since the clinical enterprise has been reorganized with acquisition of the hospitals and integration of the clinical practices, our Academic Medical Center is on the threshold of major growth.

We are positioned for a successful outcome over the next decade equal to or greater than any other medical school in the United States. We

recognize that the University's timely acquisition of USC University Hospital and USC Norris Cancer Hospital is the foundation upon which we will build, and for that we are especially appreciative. Although much remains to be done, we are convinced that success is certain as long as we work together in a collegial and committed fashion.

We have no doubt that this promise of success in clinical care, research and education will be fulfilled. We will be working closely and collaboratively with Dean Carmen Puliafito, Hospitals' CEO Mitch Creem and USC Care CEO Minor Anderson to help accomplish our goals.

However, the full scope and greatness of our future depends upon you, the faculty. Already your hard work, thoughtful input and indispensable contributions are evident in the immediate challenges and progress over the past year.

We are grateful for your

commitment and support and look forward to working together, faculty and administration alike, to forge our future—a future full of pride, promise and reward for all of us who are part of USC Medicine.

Sincerely,

Keck School of Medicine clinical chairs:

Helena Chui, M.D.
Ed Crandall, Ph.D., M.D.
Jerry Gates, Ph.D.
Steve Giannotta, M.D.
Inderbir Gill, M.D.
Edward Grant, M.D.
Parvesh Kumar, M.D.
Philip Lumb, M.D.
Laila Muderspach, M.D.
Edward Newton, M.D.
Carlos Pato, M.D.
Mike Patzakis, M.D.
Dale Rice, M.D.
Michael Selsted, M.D.
Ron Smith, M.D.
Vaughn Starnes, M.D.
David Woodley, M.D.

“We are positioned for a successful outcome over the next decade equal to or greater than any other medical school in the United States.”

Zilkha researchers awarded \$2.4 million to study gene mutation and pollution links to autism

By Leslie Ridgeway

Researchers at the Zilkha Neurogenetic Institute (ZNI) at the Keck School of Medicine have been awarded a \$2.4 million grant to conduct research on the effects of gene mutation and pollution on autism spectrum disorder (ASD).

The grant, which will be awarded by the Simons Foundation Autism Research Initiative (SFARI) over three years, will fund a study of how a variant of a gene called MET controls the

development of brain synapse architecture in circuits that control social, emotional and cognitive behaviors.

Studies in model systems show that altering MET expression leads to problems in the formation of synapses, the structure that enables neurons to communicate with each other. Using genetically engineered mice that carry a mutation in the MET gene, researchers at USC will study complex cognitive and social-emotional behaviors, as well as the function of synapses in

the circuits that control these behaviors.

“Our research will test the popular hypothesis that local and long-range connections in the brain are disrupted differently in ASD, leading to the core behavioral features of the disorder,” said Pat Levitt, director of ZNI and principal investigator on the study.

“The research will expand on a previous study that showed that a pollutant present in automobile and truck exhaust negatively impacted MET expression. Our team will

investigate the impact of a double hit—a genetic mutation and pollutant exposure—on developing brain architecture and behavior.”

The research is another step in efforts to translate genetic findings of increased genetic risk for ASD into an understanding of how that risk, combined with environmental factors such as exposure to pollutants, affects brain development. Information gleaned from this study also will help identify risk factors for ASD.

This is the second grant awarded to USC by the Simons Foundation. The foundation advances research through grant making that encourages collaborations, makes connections, and builds bridges. The foundation seeks to fund studies that will heighten interchanges between institutions, across fields, and among scientists to facilitate the exchange of new ideas. For information on the SFARI, go to: www.sfari.org.

Other investigators and sites collaborating on the research include: Lawrence Rothblat, George Washington University/The Columbian College of Arts and Sciences; Gordon Shepherd, Northwestern University; and Darryl B. Hood, Meharry Medical College.

Established in 2003, ZNI is home to a broader Keck School initiative promoting collaborations among researchers from diverse disciplines who are working to identify new approaches for examining the nervous system.



Janet Morgan

HEAD AND NECK SYMPOSIUM—The Health Sciences Campus hosted the fifth annual Head and Neck Symposium on July 18 focusing on the topic, “Beyond Survivorship: Emerging Technology and Surgical Techniques in the Management and Rehabilitation of Head and Neck Cancer.” Keck School of Medicine Dean Carmen A. Puliafito and USC Norris Comprehensive Cancer Center Director Peter Jones opened the symposium, which was followed by a reception at the end of the day at the Institute of Genetic Medicine Art Gallery and was co-hosted by the Head and Neck Cancer Patient Survivor Group. More than 100 people attended the symposium, which was a collaboration of the Department of Otolaryngology-Head and Neck Surgery, the Department of Radiation Oncology, the Keck School of Medicine, the USC School of Dentistry and the USC Norris Comprehensive Cancer Center. At left, on a break from the program, are: (from left) Parvesh Kumar, professor and chair of Radiation Oncology; Puliafito; Jones; and Uttam Sinha, assistant professor and vice chair of Otolaryngology.

The Weekly NEWSMAKERS

An August 24 widely carried Associated Press Television story featured anesthesiologist **Philip Lumb** discussing the powerful anesthetic Propofol, which was found to have caused Michael Jackson's death.

An August 23 *Atlanta Journal Constitution* article quoted emergency medicine expert **Marc Eckstein** about CPR techniques.

On August 21, CNN interviewed USC Norris oncologist **Debu Tripathy** about alternative cancer treatments.

An August 18 Bloomberg News article featured research on sleep apnea by preventive medicine expert **Jonathan Samet** and colleagues at several other institutions. The researchers found that sleep apnea, which is rising as a result of increasing obesity rates, increases a person's risk of death.

An August 17 *Los Angeles Times* article highlighted the USC School of Dentistry's services in a story about affordable dental care. KABC-TV also reported on the school's services.

An August 13 *Los Angeles Times* article quoted surgeons **Shahin Ayazi** and **Peter Crookes** about a study they led showing that obesity greatly contributes to severe heartburn.

An August 12 *Los Angeles Times* article quoted otolaryngologist **Paul Toffel** about his idea for a health care reform plan. He noted that every teaching hospital in the country should have one mission: treating the uninsured residents of its own community, as Los Angeles County+USC Medical Center has done.

On August 9, cancer researcher **Martin Kast** was featured in the TLC channel documentary “Treeman Meets Treeman.” The show chronicles people suffering from “the treeman” condition, which causes root-like growths all over the body.

On August 8, “NBC Nightly News” interviewed vascular surgeon **Fred Weaver** and nephrologist **Mitra Nadim** and featured research on an experimental pacemaker that controls patients' blood pressure without the need for drugs.

Calendar of Events

This Calendar of events is also online at www.usc.edu/hscalendar for the Health Sciences Campus community

Tuesday, Sept. 1

9 a.m. Neurology Grand Rounds. “Adult Glioblastoma,” Marc Chamberlain, Seattle Cancer Care Alliance. ZNI 112. Info: (323) 442-7686

Wednesday, Sept. 2

Noon. Renal Grand Rounds. “Heparin-induced Thrombocytopenia,” Ilene Weitz, USC. GNH 4420. Info: (323) 226-7337

Wednesday, Sept. 9

Noon. ZNI Seminar. “Axonal-Glial Interactions in Myelinated Nerves,” James Salzer, New York Univ. ZNI 112. Info: (323) 442-2144

Noon. Renal Grand Rounds. “Immune Mechanism of Glomerular Disease,” Richard Glasscock, UCLA. GNH 4420. Info: (323) 226-7337

Friday, Sept. 11

Noon. Pharmacology and Pharmaceutical Sciences Seminar. “Transporter-mediated Drug Interactions: Prediction of Clinical Outcome from In Vitro Data,” Mitchell Taub, Boehringer-Ingelheim Pharmaceuticals Inc. PSC 104. Info: (323) 442-1902

Tuesday, Sept. 15

11:30 a.m. Psychiatry Grand Rounds. “Neuropsychiatry on Death Row,” James Merikangas, Georgetown Univ. ZNI 112. Info: (323) 442-4065

5 p.m. Global Health Lecture Series: Visions for Change. “Global Health: Back to the Future,” Al Sommer, Johns Hopkins Bloomberg School of Public Health. NRT Aresty Aud. Info: (323) 865-0419

Wednesday, Sept. 16

Noon. Renal Grand Rounds. “Indications for and Interpretation of Radiological Tests of the Kidney and Urinary Tract,” Philip Ralls, USC. Info: (323) 226-7337

Thursday, Sept. 17

8 a.m. Urology Live Symposium. “Seeing...Believing...Doing: A Day at USC Urology,” Inderbir Gill, USC. UNH and NOR Operating Rooms. Info: (323) 865-3708

Noon. “To Stress or Not—New Insights into JNK Signaling,” Ze’ev Ronai, La Jolla, CA. HMR 100. Info: (323) 442-1283

Saturday, Sept. 19

10 a.m. – 5 p.m. The 4th Annual Medical Student Leadership Conference. “Your Future in Medicine Awaits. Shouldn’t You Help Shape It?” Various speakers. KAM Mayer Auditorium. Info: www.emanet.org/studentleadership

Wednesday, Sept. 23

Noon. ZNI Seminar. “Paving the Axonal Highway: Molecular Control of CNS Myelination,” Q. Richard Lu, Univ. of Texas Southwestern Medical Ctr. ZNI 112. Info: (323) 442-2144

Noon. Renal Grand Rounds. “Renal Imaging: Cases,” Vinay Duddalwar, USC. GNH 4420. Info: (323) 226-7337

Thursday, Sept. 24

Noon. “Metabolism of Vitamin D and Bone Density,” Vicente Gilsanz, USC/CHLA. HMR 100. Info: (323) 442-1283

Wednesday, Sept. 30

Noon. Renal Grand Rounds. “Renal Biopsy,” Michael Koss and Vito Campese, USC. GNH 4420. Info: (323) 226-7337

Notice: Deadline for calendar submission is 4 p.m. Monday to be considered for that week’s issue—although three weeks’ advance notice of events is recommended. Please note that timely submission does not guarantee an item will be printed. Send calendar items to HSC Weekly, KAM 400 or fax to (323) 442-2832, or e-mail to eblaauw@usc.edu. Entries must include day, date, time, title of talk, first and last name of speaker, affiliation of speaker, location, and a phone number for information.



Jon Nalick



FRESH OFF THE FARM—The Health Sciences Campus hosted the first in a regular series of farmers markets (left) on Aug. 12, featuring fresh fruit, vegetables and baked goods sold from booths on Harry and Celesta Pappas Quad. Above, first-year medical student Kiersten Riedler purchases some pluots—something she said she is pleased to be able to do in the quad: “I think it’s good to be able to get such healthy produce, especially if you don’t have to go off campus to get it.” The next farmers market will be Wednesday, Sept. 16.

Genetic mechanism may affect prostate cancer risk

By Leslie Ridgeway

Researchers at the Keck School of Medicine have identified a novel genetic mechanism that may govern an individual’s risk of developing prostate cancer.

The findings, published Aug. 14 in the *Public Library of Science (PLOS) Genetics* journal, found mechanisms involved in cancer-associated sites in areas where no genes are present (gene “deserts”) at a chromosomal region called 8q24.

The new findings show that some of these sites have embedded regulatory sequences that act as enhancers of gene expression, modulated by genetic variation, or single nucleotide polymorphisms (SNPs).

The two-year study, con-

ducted by researchers from USC, Harvard University and the Weizmann Institute of Tel Aviv, Israel, found novel functions of SNPs in areas where no genes were present.

They found how the SNPs are able to modulate genetic expression even while they were near no genes. SNPs denote a modest increase in risk for certain diseases; in this particular chromosomal area, the SNPs appear to be influencing gene expression for prostate (and other) cancer “at a genetic distance.”

“The real contribution of this discovery is that we get a feel for a previously unappreciated mechanism that may be a predisposition to this disease,” said Gerhard (Gerry) Coetzee, professor

of urology and preventive medicine at the Keck School of Medicine and principal investigator on the study. “We have unearthed a new way to understand the risk for prostate cancer.”

The study was prompted by discrepancies in prostate cancer risk among ethnic groups. Currently, risk factors for prostate cancer are governed by age, and a disproportionate increased risk chiefly among African-American men.

This gene “desert” featuring versions of particular SNPs are found more often in African-American men and may explain their increased risk for the disease.

The National Cancer Institute and the L.K. Whittier Foundation funded the study.

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.

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