Vascular surgeon Vincent Rowe reaches out in Honduras

By Hope Hamashiglo

Vincent Rowe is not the only doctor at the Keck Medical Center of USC who has a waiting list of patients trying to get an appointment. But he might be the only one who also has a waiting list at a small clinic in the city of San Pedro Sula in Honduras.

Rowe recently spent four days in July in San Pedro Sula, Honduras’ second-largest city, where he has volunteered his surgical services for the last nine years. In those four days, he performed over 20 dialysis access surgeries in a small, understocked, understaffed and underfunded hospital operating room. Because he is the only vascular surgeon who ever visits this area, his waiting list is always growing. “I had always wanted to do volunteer work,” mused Rowe, professor of clinical surgery in the Keck School of Medicine of USC, “but I didn’t know where I could go to best utilize my specific surgical skill set.” Rowe noted there are established organizations for surgeons in other specialties such as Operation Smile, to name one example, but no similar organization exists for vascular surgeons. He stumbled upon this opportunity while on a surgical trip to the Central American nation is that there is a huge need for vascular surgeons.

“There are few specialists,” he explained, “and so most of the access surgeries are performed by general surgeons.”

Rowe focuses his services on providing access to difficult conditions and very often on small children and, through his efforts, he has turned around dozens of lives.”

—Fred Weaver, professor of surgery at the Keck School

Charles J. Gomer named president-elect of USC Faculty

Charles J. Gomer, professor of pediatrics and radiation oncology at the Keck School of Medicine of USC, has been elected vice president (2012-2013) and president-elect (2013-2014) of the USC Faculty. He is a member of the faculty council in the Keck School, one of 20 councils in the Academic Senate representing all USC campuses, schools and libraries. Gomer, as vice president and president-elect of the USC faculty, is also a member of the executive board of the Academic Senate.

“I am honored to represent such exceptional educators and to work with the university’s outstanding administrators. The Academic Senate’s role is to further the academic mission of USC and to ensure that faculty rights and interests are always addressed,” he said.

Gomer, who is vice chair of faculty affairs in the Department of Pediatrics and a cancer research scientist at The Saban Research Institute at Children’s Hospital Los Angeles, is chair of the appointments, promotions and tenure committee for the Keck School. He was also co-chair from 2009-2011 of the USC Mellon Mentoring Forum, which promotes mentoring throughout the university. He received the USC Mellon Foundation Culture of Mentoring Award in 2008 and the USC Provost’s Award for Mentoring in 2012.

“I’ve been very fortunate throughout my career to have effective mentoring and this started as a graduate student with an outstanding thesis advisor,” he said. “I feel it is essential to give back by supporting the next generation of academic researchers and physicians.”

For nearly three decades, Gomer has also received funding from the National Institutes of Health for his research, which focuses on laser medicine, radiation biology, photodynamic therapy and tumor biology.

His translational investigations at The Saban Research Institute have contributed to the development of protocols now used nationally to treat retinoblastoma, a rare eye cancer that usually develops in early childhood.

USC researchers play role in major human genome mapping project

By Leslie Ridgeway

There are 1,900 transcription factors encoded in the human genome—and Peggy Farnham wants to understand the function of each one.

Farnham, professor of biochemistry and molecular biology at the Keck School of Medicine of USC, is one of more than 440 researchers participating in the ENCODE (Encyclopedia of DNA Elements) project, dedicated to finding all functional elements in the human genome. These basic scientists hope that by mining the human genome for gene expression, chromatin structure and transcription factor binding sites, they will help clinical researchers reach an understanding of human disease.

“It has become clear that many diseases are caused by deregulation of a critical gene,” said Farnham, who has been working on the ENCODE project since 2004. “To understand how gene regulation occurs, we need to identify the transcription factor binding sites. Which genes are controlled by these sites? What signaling pathways are they involved in? The answers are in the regulatory regions, and ENCODE information combined with disease information will provide those answers.”

Thus far, the ENCODE consortium has studied approximately 200 transcription factors—and there’s a long way to go, Farnham said.

The ENCODE project marked Farnham’s and other researchers’ important progress by releasing a set of more than 30 papers in journals including Nature and Genome Biology on Sept. 5, providing more insight into the workings of the human genome.

During the ENCODE study, researchers found that more than 80 percent of the human genome sequence is linked to biological function and they mapped more than 4 million regulatory regions where proteins specifically interact with the DNA with exquisite specificity. These findings represent a significant advance in understanding the precise and complex controls over the expression of genetic information within a cell.

The findings bring into much sharper focus the continually active genome in which proteins routinely turn genes on and off using sites that are sometimes at great distances from the genes they regulate; where sites on a chromosome interact with each other, also sometimes at great distances; where chemical modifications of DNA influence gene expression; and where various functional forms of RNA, a form of nucleic acid related to DNA, help regulate the whole system.

Farnham’s team was among the first to adapt the ChIP (chromatin immunoprecipitation) assay to find all the places within the human genome where proteins bind—the transcription factor binding sites. Understanding what happens when a binding site is altered by mutation or natural human variation—what the consequences are, which genes are deregulated as a result of the loss, etc.—could help a clinical researcher develop a therapy that reverses the deregulation, Farnham said.

The ever-growing cache of data collected as part of ENCODE has been

See ENCODE, page 3
The Keck School of Medicine of USC launched one of California’s first physician assistant (PA) programs in 1972, a time when nobody in the medical profession could have imagined the critical role PAs would come to play in the delivery of medical services in the U.S.

The Primary Care Physician Assistant Program will celebrate its trailblazing role in educating PAs and will be kicking off a new alumni association for its 40 years of graduates at the meeting of the California Academy of Physician Assistants on Oct. 6. The new group will honor four distinguished alumni, one from each decade the program has been operating, whose work has helped raise the stature of the profession.

"Confidence in the profession and acceptance has drastically changed over the last 40 years," said Kevin Lohenry, physician assistant and program director of the USC Primary Care Physician Assistant Program. According to Lohenry, the pioneering graduates in the 1970s faced challenges even after completing their schooling. Many had difficulties obtaining licenses, they had to help define which responsibilities PAs were to take on in this new medical structure, and it was often up to them to explain to patients just exactly what a physician assistant was.

In its earlier incarnation, PAs acted as right-hand helpers to physicians, performing such tasks as splitting and casting. Fast-forward to 2012, and PAs are now an integral part of the medical establishment whose ranks are growing and who are now often the first point of contact for many patients.

PAs conduct physical examinations, diagnose and treat ailments, counsel patients, and even assist with surgical procedures as part of a team with the supervision of a physician.

The PA program at the Keck School of Medicine has seen a steady growth in both applications and enrollments in recent years, and there are many good reasons for that. For one thing, graduates from Keck’s PA program perform better than the national average on the certification exams, with 96 percent of them passing on the first try. Plus, physician assistant is, according to Forbes magazine, the fastest-growing profession in the country. And, if that is not reason enough, Money magazine recently called physician assistant one of the best jobs in America.

Looking toward the future, Lohenry said students are now being educated to use cutting-edge medical technology, using electronic health records to manage their patients’ care more efficiently. The program also recently received two grants from the Health Resources and Services Administration (HRSA). One grant focuses on primary care and the other helps the program educate students to learn team-based practice with medicine, pharmacy, and occupational and physical therapy students in a student-run clinic setting.

Lohenry said the new tools and new settings are intended to build on what has always been the program’s core mission: To train high-quality practitioners who are equipped with the skills to advance access to health care.

"I see health disparities becoming more prominent in the future," he said. "USC has done a tremendous job sticking to what they know best, which is educating people to practice in underserved communities."

Pioneering Physician Assistant Program celebrates 40 years of service

USC to host Nobel Laureate Eric Kandel in lecture on memory

Nobel Laureate Eric R. Kandel, will speak on “Perpetuation of Memory Storage” on Thursday, Sept. 20, 3:30-4:30 p.m. in Mayer Auditorium of the Keck Administration Building on the Health Sciences campus.

Kandel, who is University Professor at Columbia University, will discuss his research, which has been concerned with the molecular mechanisms of memory storage in Aplysia (sea snails) and mice. More recently, he has studied animal models of memory disorders and mental illness.

Winner of the 2000 Nobel Prize for Physiology or Medicine, Kandel is also professor and director of the Kavli Institute for Brain Science, senior investigator for the Howard Hughes Medical Institute, and USC Irene McCulloch Distinguished Lecturer in Neuroscience. He is an editor of Principles of Neural Science, the standard textbook in the field, and author of two books, The Age of Insight and In Search of Memory: The Emergence of a New Science of Mind. Written for the general public, In Search of Memory won both the Los Angeles Times and U.S. National Academy of Sciences awards for best book in Science and Technology in 2008.

The free public lecture is sponsored by Elizabeth Garrett, USC provost and senior vice president for academic affairs, and Carmen A. Peralta, dean of the Keck School of Medicine of USC. Please make your reservation online at www.usc.edu/evsp (code: kandel). For more information call (323) 442-2722.

The Weekly NEWSMAKERS

The Sept. 6 broadcast of ABC News’ “Good Morning America” featured research led by Victoria Cortessis, assistant professor of preventive medicine at the Keck School, finding that recreational marijuana use may increase the risk of testicular cancer in the study of 435 California men, those who smoked marijuana were twice as likely to develop the cancer.

"Testicular cancer is on the rise," Cortessis said. Daily Mail (U.K.) reported that the study found men with a history of cocaine use had lower testicular cancer rates. “If this is correct, then ‘prevention would come at a high price,” Cortessis said.

The Sept. 7 broadcast of NBC News’ “The Today Show” interviewed R. William DePaolo, assistant professor of molecular microbiology and immunology at the Keck School, about hantavirus, bubonic plague and West Nile virus outbreaks across the country.

A Sept. 6 article in the Los Angeles Times featured a study led by Thomas Valente, professor of preventive medicine at the Keck School, finding that popular high school kids are more likely to smoke. The study found that students who think their friends smoke—even when they don’t—are more likely to smoke. “Smoking is still being marketed as a sign of maturity,” Valente said.

The Weekly 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. Comments, suggestions and story ideas are welcome. Permission to reprint articles with attribution is freely given.

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funding for ENCODE project in 2003 to develop the organism research since 2003. Researchers across the

methodologies and strategies that were developed a pioneering way to present the information in an integrated form that they call “threads.” Since the same topics were addressed in different ways in different papers, a new website, http://www.nature.com/encode/, enables users to follow a topic through all of the papers in the ENCODE publication set in which it appears, by clicking on the relevant “thread” at the Nature ENCODE explorer page. For example, thread No. 1 compiles figures, tables, and text relevant to genetic variation and disease from several papers and displays them all on one page. ENCODE scientists believe this will illuminate many biological themes emerging from the analyses. In addition to the “threaded papers,” six review articles are being published in the Journal of Biological Chemistry and other, affiliated papers in Science, Cell, and other journals. ENCODE, supported by the National Human Genome Research Institute (NHGRI), was launched as a pilot project in 2003 to develop the methods and strategies that would be needed to map the human genome, focusing on only 1 percent of the genome. By 2007, the pilot became a full-scale project, in which NHGRI invested approximately $125 million over five years. In addition, NHGRI devoted about $40 million in the ENCODE pilot project plus approximately $125 million in ENCODE-related technology development and model organism research since 2003. Researchers across the United States, United Kingdom, Spain, Singapore and Japan

$50,000 gift fully endows Keck Parents Association scholarship fund

By Amy E. Hamaker

Service to the school where he received his start has been a way of life for George Stoneman, an associate clinical professor for the Department of Otolaryngology—Head and Neck Surgery at the Keck School of Medicine of USC. Recently, that service took the form of a $50,000 pledge to support the full endowment of the Keck School Parents Association Endowed Scholarship Fund.

In his nearly 50 years in medicine, Stoneman has been a tremendous asset to the Keck School, including the founding of the Parents Association of the Keck School of Medicine of USC, despite having a busy private practice. Most recently, he was recognized as a 2011 Volunteer Recognition Awards recipient for his loyalty, support and dedication to USC.

“I was inspired after sitting on the board of governors of the USC Alumni Association to start the Keck School Parents Association,” said Stoneman, who received his M.D. in 1965 and performed his residency in otorhinolaryngology at the Los Angeles County-USC Medical Center. “The goal for our own scholarship fund was to make it fully endowed at the $100,000 level.

The fund was halfway there when Stoneman had a fortunate meeting with his friend and Stanford fraternity brother Rafael Mendez—a recipient of scholastic support while receiving his own education. “We were out together with our wives one night, and I talked about the scholarship fund and our goal of at least $100,000,” recalled Stoneman. “Afterward, he just said, ‘Then, I’ll help you.’ I told him I’d match whatever he decided to give.” Thanks to that meeting, Mendez made a donation; Stoneman matched the donation and added to it to fully endow the fund. Mendez, a professor of urology at the Keck School who has recently retired, specialized in kidney transplantation since 1970. In 1984, in affiliation with the Keck School and the Daughters of Charity Health System, Mendez and his twin brother, Robert Mendez, formed the Los Angeles Transplant Institute, now known as the Mendez National Institute of Transplantation.

For Stoneman, the gift is a way for him to see students receive the financial assistance they need and to help parents realize how much they can help all medical students. “When I spoke to the incoming students at the 2012 White Coat ceremony, I told them that their parents are also a part of the Trojan Family,” said Stoneman. “A lot of them support their own child, but when they’re able to, they could also help others. The scholarship fund is a way for them to offer their support; it’s like family helping family.”
Calendar of Events

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

Sunday, Sept. 16
6:30 a.m. – 8 a.m. Registration. 3rd Annual LA Prostate Cancer 5k. USC University Park Campus. All proceeds and donations from the event will be dedicated to prostate cancer research and education at USC. The 5k is open to all levels of runners, joggers and walkers. The race starts at 8:30 a.m. Info: (323) 865-3731

Tuesday, Sept. 18
8:30 a.m. Psychiatry Grand Rounds. “Accelerating New CNS Drug Development: Translational and Biomarker Driven Approaches for Alzheimer’s, Depression and Schizophrenia,” Larry Kreslensky, Paracel International. ZNI 112. Info: (323) 442-4065

Wednesday, Sept. 19
8 a.m. ZNI Seminar. “Engineering Pseudo-Axonal Scaffolds for Myelination: Fiber Diameter is Sufficient to Institute Wrapping,” Jonathan Chan, UCSF. ZNI 112. Info: (323) 442-2144

Thursday, Sept. 20
9 a.m. – 4 p.m. Center for Excellence in Research Workshop: “How to Create International Partnerships to Conduct Global Interdisciplinary Clinical Research.” David Baron, Carlos Pato, Michelle Pato and Fabio Maccardi, USC. CSC 250. Info: (213) 740-6709

9:30 a.m. Special Seminar hosted by Elizabeth Garrett and Carmen Puliafito. “Permutation of Memory Storage.” Eric Kandel, Howard Hughes Medical Institute. KAM Meyer Auditorium. Info: (323) 442-2722

Friday, Sept. 21
6:30 a.m. Anesthesiology Grand Rounds. “Understanding the Perioperative DNR Order.” David Rothenberg, Rush Medical College. DOH 1st Floor Auditorium. Info: (323) 442-5876

8:30 a.m. Surgical Grand Rounds. “Endoscopic Operations in Children—Are They Truly ‘Minimally Invasive’ or Simply ‘Minimal Access?’” Davis Blas CIIA. DOH 1st Floor Auditorium. Info: (323) 442-5876


Monday, Sept. 24
1 p.m. – 3 p.m. SCCTIS Cancer Development Seminar Series. “Strategic Decision Making,” Joyce Wolfe, UCS. CSC 250. F14 registration fee per session. Info: (323) 442-8281

Tuesday, Sept. 25

Thursday, Sept. 27


Friday, Sept. 28
8:30 a.m. Surgical Grand Rounds. Max Gaspard Annual Visiting Professor Lectureship. “Maintaining Best Practices in the Endovascular Revolution.” Samuel Wilson, UC Irvine. DOH 1st Floor Auditorium. Info: (323) 442-5876

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 its item will be printed. Send calendar items to The Weekly, KAM 400 or fax to (323) 442-3751, or email to eblaine@usc.edu. Entries must include day, date, time of talk, first and last name of speaker, affiliation of speaker, location and a phone number for information.

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.

ONLINE EXTRAS
Read more USC news online:

- Wasserman Foundation gift will help support otolaryngology research at USC http://tinyurl.com/8u470vh
- Marijuana use may increase risk of testicular cancer http://tinyurl.com/a9j3jby
- Popular kids in U.S. and Mexico more likely to smoke, USC studies show http://tinyurl.com/7kkx5sm
- Keck School of Medicine of USC professor assists in world’s largest tobacco use study http://tinyurl.com/8ezcmd2

The incoming classes of students in pharmacy, dentistry, occupational therapy and physical therapy all received their white coats in recent weeks as their respective programs held ceremonies to welcome the new students into their chosen professions. The USC School of Pharmacy’s 85 new students were “coated” by either a faculty member or a member of the QSDA centurion board of directors at a ceremony on Aug. 25. QSDA Centurion, a support group of alumni and friends, sponsors the annual event.

After a welcome by Dean R. Pete Vanderveen, associate professor Geoffrey Joyce delivered the keynote address. Joyce, who will teach the students about health care delivery systems during their first month in school, told the students that he felt “like a fish out of water as an economist at a white coat ceremony.” He then went on to describe how his work at the school introduced him to the tremendous opportunities in the pharmacy profession and the tremendous contributions that pharmacists will make in the future. “This is a unique time for pharmacy to expand its role,” Joyce told the students.

The Ohio State University of Dentistry of USC students gave white coats to more than 300 new dental students at its ceremony on Aug. 27.

Arihsha Sadan, dean of the Ohio State School of Dentistry, spoke at the white coat ceremony as a symbol of a solemn obligation to service, compassion and learning.

USC School of Pharmacy student Timothy Liu takes the “dath of the Pharmacist” at the school’s Aug. 23 ceremony.

“There is a well-known USC phrase that I feel is very appropriate for this, and perhaps our newest Pharmacists have heard it a few times already: ‘Fight On,’ Sadan said. ‘By putting this coat on today, you commit yourself to always, in true Trojan fashion, ‘Fight On’ for your patients’ health and well being and for the integrity, honor and ethics of your profession.”

The Division of Occupational Science and Occupational Therapy and the Division of Biokinetics and Physical Therapy both held their white coat ceremonies on Aug. 30. Associate Dean Florence Clark congratulated the 140 occupational therapy students in “joining the unparalleled Trojan legacy of service to the profession of occupational therapy,” noting that this year marks USC’s 70th anniversary of educating future occupational therapy professionals.

Clark explained that the white coat can carry unique meaning to each individual but that it most of all declares one’s obligations to your profession and your colleagues, obligations to your patients and clients, and obligations to the public at large.

Cassandra Sanders-Holly, adjunct instructor of clinical physical therapy and owner and director of Leaps and Bounds Pediatric Therapy Inc., delivered the keynote address at the ceremony for the 95 incoming physical therapy students.

“My white coat sets me apart from the 97 percent of the population who are not called ‘doctor,’” she said. “It is authoritative, but not entitled; bold, but not arrogant, preten- tuous or pompous. It is not a barrier to protect me from my patients, but a tool to enable me to care for them.”

Randy Vera, Beth Donkam, Paula Droefensit and Sara Vil- lagran contributed to this report.

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