In trio of journal articles, Agus suggests new approach for fighting cancer

By Hope Hamashige

One thing David Agus is clear about is that there will be a future for the treatment of cancer. It does not matter whether it is a breakthrough in the treatment of cancer, there has to be a breakthrough in the way scientists and physicians look at the disease.

This point crosses across unequivocally in the November issue of Nature and its sister publication, Nature Genetics, which published a trio of articles involving Agus, professor of medicine at the Keck School of Medicine of USC. Those articles highlight Agus’ belief that cancer researchers should look at the ways other academic disciplines solve problems in an effort to break out of the old ways of thinking about cancer.

One of the pieces in Nature focuses on Agus’ research on proteins and their role in the development of cancer. While much of the research focused on genes, Agus set out to uncover the role of the proteome, the large and ever-changing universe of proteins encoded by the DNA, in the development of cancer.

Undertaking this task was monumental as proteins are more complex than genes. For that reason, he teamed up with Danny Hillis, an early adopter of parallel-processing computing and former vice president of Walt Disney Imagineering. Hillis is now a research professor at the Keck School and faculty member of the USC Center for Applied Molecular Medicine, which is directed by Agus. Though unorthodox, the pairing makes sense.

Because there are more than two million proteins with
dental care outreach program awarded $18 million

By Beth Newcomb

The Ostrow School of Dentistry of USC will receive nearly $18.4 million in grant funds from First 5 LA in support of its dental care outreach to young children in Los Angeles County.

The grant, the largest in the school’s history, will enable the Ostrow School of Dentistry’s Community Oral Health Programs to help nearly 46,000 disadvantaged children and their families over the next five years.

The programs established and expanded by the grant will allow Ostrow to assess the oral health needs of children under the age of 5, connect their families with affordable insurance and dental clinics, and support the operations of those clinics.

The impact of poor dental health on children in Los Angeles is extremely significant. An earlier Ostrow study found that nearly 73 percent of disadvantaged children in the city have active caries, the disease responsible for tooth decay. Another USC study found that kids who reported having recent tooth pain were four times more likely to have a low grade point average and missed significantly more school each year than children without dental problems.

“Improving children’s dental health in L.A. County has been a major priority for First 5 LA,” said Kim Belshé, executive director of First 5 LA. “The USC grant will be addressing many of the critical oral health needs of children 0 to 5 years of age.”

“The process for receiving this designation is lengthy and rigorous,” said Gina Greco, who is spearheading the effort to achieve nurse magnet status for Keck Hospital.

David Peng named chair of the Keck School Department of Dermatology

By Leslie Hedgeway

David H. Peng has been named chair of the Department of Dermatology at the Keck School of Medicine of USC, effective April 1, 2013.

An outstanding clinician-scientist and innovative teacher with a proven track record as a dynamic builder of clinical and educational programs, Peng returns to the Keck School after spending the past three years at Stanford University School of Medicine, where he is associate professor and director of the Department of Dermatology’s Residency Training Program, one of the nation’s most prestigious residency training programs in dermatology. He also serves as chief of the Stanford Dermatology Clinics, director of the Medical Dermatology Program and director of the Allergic Contact Dermatitis Program in the Department of Dermatology.

Peng’s goals for the Keck School’s Department of Dermatology include making the department a center for excellence in diseases of the skin for pediatric patients, establishing its faculty as leaders in complex medical dermatology, and becoming known nationally as one of the top residency training programs in the United States.

“I want to build this program into a top 10 Department of Dermatology in the United States. I want to build this program into a top 10 Department of Dermatology in the United States. I want to build this program into a top 10 Department of Dermatology in the United States.”

The program will initially receive $18 million in new funds from First 5 LA in support of its dental care outreach to young children in Los Angeles County. This program will help thousands of underprivileged children in Los Angeles.

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There is a good reason for Marc Weigensberg's belief that integrative medicine can have benefits for some of his patients. He has seen it benefit his patients in the past.

Weigensberg, an associate professor of clinical pediatrics at the Keck School of Medicine of USC, taught many of his pre-diabetic teen patients at Los Angeles County+USC Medical Center to utilize the mind-body healing modality of guided imagery to help control their stress, a practice that resulted in decreasing levels of the stress hormone cortisol. The patients also became more physically active.

Because of what he has seen in his own practice and research, Weigensberg is one of the faculty members leading the charge to establish USC's new Institute for Integrative Health.

The idea of establishing such a center has been in the works for several years, said Debasish Tripathy, professor of clinical medicine at the Keck School. It finally came into being this fall when a diverse group of USC faculty members applied for and received a Research Collaborative Fund grant from the USC Office of the Provost to get a collaborative research community integrating medicine and up running.

Tripathy, who is also part of the steering committee, said that at least 30 to 40 faculty members are doing research on some aspect of integrative medicine. establishing some type of center is a natural next step. "Now that we are organized, our hope is that we can help each other to produce high level research that will lead to useful services," he said.

The group has organized a series of breakfast seminars featuring speakers on a number of subjects in integrative health. The seminars are multi-disciplinary and aimed at establishing goals for the center, as well as bringing together faculty from both the University Park and Health Sciences campuses, as well as Children's Hospital Los Angeles, who are pursuing research in related subjects. Tripathy, co-leader of the women's cancers program at the USC Norris Comprehensive Cancer Center, noted that given this is an academic research center, there will be a heavy focus on research. The team will design studies to find evidence for using complementary/alternative modalities. For example, he noted, there is already a clinical trial underway to study whether acupuncture can help breast cancer patients who have the side effect of joint pain due to hormonal therapy. Through this clinical trial, researchers hope to determine whether there is scientific evidence that acupuncture could help these women get through their therapy without debilitating pain.

Solid research will allow the institute to present scientific findings to both the faculty to bring important to the practice of medicine and to the public. Tripathy said he hopes that what they find will be useful enough to have a significant impact on patients. "It is possible that what we say will have an impact on the practice of medicine," he said. "We want our students to be able to teach the next generation of health care practitioners about this segment of the health care industry. Ultimately, they also envision establishing clinical practices that will incorporate both the best practices of modern medicine and those complimentary treatments that prove to benefit patients. Acupuncture, which is an established modality for pain, and even covered by many insurance companies, has recently been made available for inpatients at Keck Medical Center.

Incorporating complimentary treatments into clinical practice is a longer-range goal, said Weigensberg, who will require careful planning and a lot more research to prove that these modalities are scientifically sound. Weigensberg and his colleagues hope that the institute will be able to present evidence of scientific findings to the rest of the world that will understand what we already do."

USC Health Sciences partners with Hope Through Housing to assist seniors and disabled residents

National Community Renewal (CORE) and its Hope through Housing Foundation are partnering with the Keck School of Medicine of USC and other USC health professional schools to help low-income seniors and disabled residents living in affordable housing.

The Keck Interprofessional Geriatric Group is a pilot project involving USC faculty and health professional students at the Keck School, the Division of Occupational Science and Occupational Therapy, the Division of Biokinesiology and Physical Therapy, the School of Pharmacy and the Ostrow School of Dentistry.

The interprofessional (IP) student-faculty teams will assist chronically ill residents with limited access to medical care. "We need to determine methodologies and innovations that will address the care of our senior and disabled population," said Steve PonTell, president and chief executive officer of National CORE. "The Affordable Care Act includes provisions for senior home-and-community-based growth. This program brings the services needed most to a vulnerable group that has limited access to care and treatment."

Over an eight-month period, the IP teams will work individually with the Hope Through Housing residents enrolled in the program and to assess and make recommendations for their health needs. The program will also offer health education talks to the entire housing community. "Comprehensive geriatric care is best given in interprofessional teams, whereby each health professional is working within his or her expertise to meet the multiple and complex health needs of the elderly," said Jo Marie Reilly, co-director of the Keck School Primary Care and Community Medicine Program.

The assessments will take place in familiar surroundings—the residents' homes—and a focused plan of care will be created. Said Reilly, "As health care strives to be more efficient and patient-centered, our health professional schools are training future professionals—professionals who are prepared to meet and understand the roles that multiple providers play in meeting community health needs."

PonTell said he expects this model "to be replicable and to show that this population will experience a favorable change in their health with this kind of intervention."

National CORE is the third largest U.S. nonprofit developer of affordable housing, having serviced more than 250,000 residents in the past 20 years.

DENTAL: First 5 LA's $18 million grant is Ostrow School of Dentistry's biggest ever

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Continued from Page 1

- Assist families in enrolling in insurance programs and finding affordable dental clinics.
- Conduct dental public health research.
- Operate a new dental faculty at the Los Angeles County+USC Medical Center
- Hub Clinic run by the Violence Intervention Program (VIP) for approximately 15,000 children in foster care.
- Develop and implement a sedation program at a dental clinic run by the St. John's Well Child and Family Center.
- Teach primary care physicians and nurses to spot potential oral health problems.
- Educate general dentists on the special dental issues that very young children can have.
- Admit two additional residents to its Pediatric Dentistry residency program each year.
- Establish the school’s affiliated community clinics and hospitals during their residency and increase the number of pediatric dentists with experience and enthusiasm for serving the underserved in California.
- First 5 LA oversees the L.A. County allocation of funds from Proposition 10, which added a 50-cent tax on tobacco products sold in California. Funds go for health care, education and child development programs for children from the prenatal to age 5 and their families.
- First 5 LA's mission is to increase the number of young children who are physically and emotionally healthy, safe, and ready to learn.

MAGNET: Hospital seeks elite designation

Continued from Page 1

time. Receiving the designation also requires a site visit to have those data verified by the ANCC.

Hospitals with nurse magnet designation have higher job satisfaction rates and lower burnout, both of which are believed to be among the factors that contribute to better patient outcomes. Seeking the designation can take upward of a year and has to be renewed every four years. Greco said the goal is to submit the application by August of 2013.

“Our staff is already aware of the fact that Keck has amazing nurses on staff,” said Annette Sy, chief nursing officer for Keck Medical Center. “Once we have earned our nurse magnet designation, the rest of the world will understand what we already do.”
USC Norris cancer research ranks among top clinical advances

By Alison Trinidad

USC Norris Comprehensive Cancer Center research that identifies specific genes that have turned on or off in order for cancer cells to survive was named one of the top 20 major advances in cancer research this year by the American Society of Clinical Oncology (ASCO).


The annual report, now in its eighth year, is an independent review of clinical cancer research advances that have the greatest potential to improve patients' survival and quality of life. Compiled and edited under the guidance of 21 renowned experts in specific fields of cancer research, the report describes, in lay language, the most significant advances of the year, offering the public a window into the achievements, trends and challenges in oncology.

The USC study, which appears in the tumor biology section of the report, was led by Peter Jones, distinguished professor of urology, biochemistry and molecular biology at the Keck School of Medicine of USC. "We want to know what makes a cancer cell a cancer cell," said Jones, an epigenetics pioneer who discovered the mechanism behind the drug 5-azacytidine, which is now standard treatment for a pre-leukemia bone-marrow disorder. "This particular study was the first to track down these genes that, when silenced through DNA methylation, allow the cancer cell to avoid normal death."

DNA methylation, or the addition of methyl groups to a gene, can change gene expression without changing the DNA sequence. This epigenetic process is potentially reversible, making the areas where it happens good targets for new treatments to be developed. "Our findings essentially pave the way for more effective cancer medicine," said the study's first author, Daniel D. De Carvalho, a USC postdoctoral fellow who now leads a lab at the Princess Margaret Cancer Centre in Toronto. "Our research continues to focus on understanding the mechanisms that underlie how tumors are created in order to develop new and more efficient cancer treatments."

Co-authors include Shikha Sharma, Jueng Soo You, Sheng-Fang Su, Phillippa C. Taberlay, Theresa K. Kelly, Xiaojing Yang and Gangning Liang, all from the Keck School. "The study was supported by grant R33CA802242 from the National Institutes of Health's National Cancer Institute."

The 2012 ASCO report covers the full range of clinical research disciplines: epidemiology, prevention, screening, early detection, treatment, patient and survivor, biomarkers, tumor biology, and cancer disparities. Featured research is categorized as "major" and "notable." Major advances are considered practice-changing and had to be published in a peer-reviewed journal. They may also report on treatments that received FDA approval in the past year. Notable advances are promising clinical research results that are not immediately applicable to practice, either because a drug is not yet FDA approved or the information has not yet appeared in a peer-reviewed publication.

An interactive online version of the report, with illustrations, resources and supplemental information, will also be available for download on ASCO's website on Dec. 3, www.cancerprogress.net.


Keck Medical Center promotes lung cancer awareness at homecoming—Jeffrey Hagen, chief of the division of thoracic surgery, hands out towels promoting the USC Lung Cancer Program to football fans at the Nov. 12 USC homecoming game at the Los Angeles Memorial Coliseum. The Keck Medical Center of USC had a special booth celebrating Lung Cancer Awareness Month before the afternoon game against Arizona State. In addition to Hagen, lung cancer physicians Daniel Oh, Eugene Chung and Christopher Lee distributed giveaways and information on the lung cancer program, including 3,000 towels, 3,000 sunscreens, 3,000 lung cancer wristbands and 500 visors.

The Weekly NEWSMAKERS

A Nov. 30 article in the Los Angeles Times featured the Keck School of Medicine’s new online graduate program, which is set to begin this spring.

The public health program is the first of its kind at the medical school, the story said. It was developed "to address the growing need for educated public health professionals in the U.S. and worldwide," said Louise Rohrbach, associate professor and director of USC's MPH program at the Keck School.

A Nov. 26 broadcast on KCOP-FM featured an ongoing study led by Lon Schneider, professor of psychiatry and the behavioral sciences and neurology at the Keck School of Medicine, and Roberta Brinton, the R. Pete Vandenberg Chair in Therapeutic Discovery and Development and professor of pharmacology and pharmaceutical sciences in the USC School of Pharmacy, about the effect of soy supplements on menopause symptoms. The schools are conducting a clinical trial, funded by the National Institutes of Health, to determine whether the supplements might prevent memory loss or reduce hot flashes.

A Nov. 26 article in The New York Times featured research led by Michael Goran, who holds the Dr. Robert C. and Veronica Atkins Endowed Chair in Childhood Obesity and Diabetes and is professor of preventive medicine, physiology & biophysics, and pediatrics at the Keck School of Medicine, finding that Type 2 diabetes occurred 20 percent more often in countries where high-fructose corn syrup is in common use. "We’re not saying that high-fructose corn syrup causes diabetes or that it is the only factor or even the only dietary factor with a relation to diabetes," Goran said. "But it does support a growing body of evidence that high-fructose corn syrup and diabetes."
Calendar of Events
This Calendar of Events is also online at www.usc.edu/hsccalendar for the Health Sciences campus community

Tuesday, Dec. 11
7:30 a.m. USC Institute for Integrative Health Breakfast Reception and Seminar Series. “Physical Therapy & Integrative Health,” Maria Perfumo, USC. Seminar begins at 8 a.m. CHP 1602. Info: (323) 442-2638
4:30 p.m. Neurosciences Graduate Program Distinquished Speaker Series. “Discovering the Human Connectome,” Michael Bowdush, USC. DOH 100. Info and reservations: (323) 254-9922

KAM will be printed. Send calendar items to eblaauw@usc.edu, or fax to (323) 442-2832, or email to eblaauw@usc.edu.

Wednesday, Dec. 12
6:30 p.m. University Sidney Research Organization Benefit Dinner. Honorees: Patrick Haden, USC; Camila Koenig, University of Michigan. NRT Aresty Auditorium. Info: (323) 865-0801

Note: Deadline for calendar submission is 4 p.m. Monday to be considered for that week’s issue—although timely submission does not guarantee an item to be considered for that week’s issue—although three
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PENG: New leader for Dept. of Dermatology
Continued from Page 1
integral part of the research going on in cancer therapeutics, genomics, epigenetics, and epidemiology.”

Peng said he is particularly excited to return to the Keck School. “Returning to USC represents a dream come true,” he said. “The teaching mission is built upon caring for the patients of Los Angeles and providing care for anyone who comes through our door. The medical school affords us the chance to teach compassion and professionalism in real-life situations. The medical students here at USC are special—they work hard and understand the concept of ‘giving back’ to the community. I also look forward to working with so many outstanding colleagues who are leaders in their fields.”
Peng is a widely respected authority on melanoma, contact dermatitis and inpatient dermatological care. He is currently co-investigator for a major National Institute of Environmental Health Sciences-funded study that seeks to define the critical aspects of environmental ultraviolet exposure in the production of melanin, the pigment in skin.

In 2008, Peng and colleague Myles Cockburn, associate professor in Preventive Medicine, spearheaded a unique study conducted in partnership with Kaiser Permanente Southern California to promote accurate skin self-examinations among its more than two million members. He currently provides clinical expertise on melanoma and other skin cancer risk factors to the community-based SunSmart program, which targets more than 700,000 Los Angeles school children to teach them how to develop and maintain healthy sun exposure behaviors.

At Stanford, Peng also serves as director of continuing medical education in the Department of Dermatology. Peng received his bachelor’s degree from the University of California, Berkeley, and medical degree from the University of California, San Francisco. He completed his residency at UCLA, where he also earned a master of public health degree before returning to USC for his residency in dermatology.

He joined the Keck School’s faculty in 2004 and was appointed visiting assistant professor of clinical medicine, associate residency program director in the division of dermatology, and director of the Contact Dermatitis Clinic. He was appointed residency program director in 2008 and served as acting chair of the Department of Dermatology between November 2008 and July 2009. A native of Pasadena, Peng is married to Chenning Peng and has four children.

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.