New cancer research program to be based at USC

By James Grant

USC has been selected to establish a $16 million cancer research center as part of a new strategy against the disease by the U.S. National Institutes of Health and its National Cancer Institute. The five-year award will create a National Cancer Institute Physical Science-Oncology Center based at USC and involving a consortium of universities.

Partnering in the USC grant will be Georgia State University, the University of Cincinnati, the University of Colorado, the University of Florida, the University of Michigan, the University of Pennsylvania, the University of Texas at Austin, the University of Wisconsin-Madison, and the University of California, San Diego. "The Physical Science-Oncology Center initiative differs from past cancer research programs. While cancer biologists often work with scientists in other fields, this marks the first large-scale recruitment of outside scientists in the battle against the disease.

Noted technology innovator and entrepreneur W. Daniel Hillis, research professor of engineering at the USC Viterbi School of Engineering and professor of research medicine at the Keck School of Medicine of USC, is the principal investigator for the effort.

"This funding allows us to bring together a unique team of physicists, mathematicians, engineers and biologists to work together with physicians on the understanding and treatment of cancer," said Hillis, who is also co-chairman of Applied Minds Inc. and a former Disney Imagineering executive.

The new center is one of 12 in the nation to receive the designation as a Physical Science-Oncology Center. "By bringing a fresh set of eyes to the study of cancer, these new centers have great potential to advance, and sometimes challenge, accepted theories about cancer and its supportive microenvironment," said John E. Niederhuber, director of the National Cancer Institute. "Physical scientists think in terms of time, space, pressure, heat and evolution in ways that we hope will lead to new understandings of the multitude of forces that govern cancer — and with that understanding, we hope to develop new and innovative methods of arresting tumor growth and metastasis.

The five-year grant will allow the USC center to focus on creating a set of "virtual cancer" models based on measurements from individual cancer patients. The models then would be used to simulate cancer growth and predict drug responses for each patient.

"Clinical tools to accurately describe, evaluate and predict an individual's response to cancer therapy are a field-wide priority," said David Agus, senior co-investigator on the grant and professor of medicine at the Keck School of Medicine. "The USC Center for Applied Molecular Medicine and the USC Westside Prostate Cancer Center. "The center brings to USC a network of scientists from multiple disciplines to try and control cancer with new ideas.

The USC-led consortium will develop a single, integrated, virtual cancer model that describes cancer's complexity from the smallest interactions at the molecular-cellular level to large-scale phenomena of how a tumor interacts with its environment.

The center brings to USC a network of scientists from multiple disciplines to try and control cancer with new ideas.'

—David Agus, professor of medicine at the Keck School of Medicine and director of the USC Center for Applied Molecular Medicine

Glenn Ault named associate dean for clinical administration

By Sara Reeve

As a reflection of the importance of the partnership between the Keck School of Medicine of USC and the LAC+USC Medical Center, Keck School Dean Carmen A. Puliafito has appointed Glenn Ault to the new position of associate dean for clinical administration (LAC+USC Medical Center). Ault, an assistant professor, will represent the school in day-to-day operations with the hospital.

“This is an incredibly important new position for the Keck School,” said Puliafito. “For more than 100 years, USC and the County of Los Angeles have worked together to offer quality medical care to the public. In this new position, Dr. Ault will be dedicated to fortifying and strengthening this partnership that is so critical for all County residents.

Ault will work in close collaboration with the chairs of the clinical departments, division chiefs and administrative staff at LAC+USC to ensure the clinical and academic missions of the medical school are realized. He will provide oversight of the contract between the County of Los Angeles and USC that covers the provision of clinical care, resident supervision and clinical research. Ault will be responsible for ensuring that the Keck School meets its obligations under this agreement and for helping to resolve issues that may arise. The current contract was signed in November 2008 and runs through June of 2013.

“Having started out as a resident at LAC+USC in 1994, I know firsthand how important this affiliation is to both the County and the Keck School,” said Ault. “It is mutually beneficial—USC doctors and residents provide high quality care for patients of the County of Los Angeles, and the hospital provides an invaluable teaching opportunity for Keck School medical students and residents.”

Ault currently serves as medical director of the operating rooms and as chief of service for the division

VISIONS FOR CHANGE— Mauricio Hernandez Avila, Mexico’s deputy minister of health, presented lectures at the University Park and Health Sciences Campuses on Oct. 21 and 22. He covered topics including the H1N1 influenza outbreak in Mexico, as well as the country’s efforts to combat obesity and chronic diseases related to nutrition.

Right, Avila speaks at the Hamley J. Norris Cancer Research Tower’s Aresty Auditorium.

The events were hosted by the USC Center for Public Diplomacy as part of the USC Office for Global Health Visions for Change lecture series.

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See AULT, page 2
USC cardiology expert highlights women’s heart health

By Sara Reeve

Why do women seeking cardiovascular care receive fewer referrals for invasive procedures than men, but experience more complications? Leslie Saxon, chief of cardiology at USC University Hospital, had one answer while speaking to a group of women from the USC University Hospital Guild.

“Women are harder to figure out than men; everyone knows that,” said Saxon. “But people don’t pay attention to that fact in medicine.”

Saxon spoke to an audience of 40 guild members on the topic “Heart Health for Women” at a meeting on Oct. 20 at the Wilshire Country Club in Los Angeles.

She explained that women tend to put off caring for their own physical health, often because they are care providers for their children, spouses and parents. In order to provide care that appreciates the busy schedules of modern women, Saxon argued that cardiovascular care for women should become part of a multidisciplinary collaborative model.

“As physicians, we need to be consistent in the pressures that women are under, and how many places she needs to go to in a day,” said Saxon.

“A multidisciplinary practice that combines cardiovascular care, urology, OR/GYN and other specialties can provide optimal patient care and a dynamic education environment.”

The USC University Hospital Guild has rendered support and service to hospital programs, faculty, students, patients and the community since 1993.

“The Hospital Guild is one of the most worthwhile organizations that you could ever belong to,” said Candy Duncan, membership chair and past president of the guild. “We are supporting our doctors, future doctors, our hospitals, and our members get very worthwhile information from these speakers, like Dr. Saxon. I’ve sought medical attention from two doctors who were past speakers at Guild events.”

AULT: New associate dean known as a natural leader and strong collaborator

Continued from page 1

of colorectal surgery at LAC+USC. He also evaluates and treats patients at USC Norris Cancer Hospital.

“Dr. Ault has the knowledge and skills that will enable him to collaborate very effectively with both LAC+USC Medical Center officials and Keck School department chairs and division chiefs,” said Edward Grandaill, chair of the Department of Medicine, Hastings Professor and Norris Chair of Medicine at the Keck School of Medicine. “This collaboration is essential in order to ensure that clinical and teaching services provided under this partnership are of the highest quality and accomplished as smoothly and collegially as possible.”

The partnership between Los Angeles County and USC began in 1885, seven years after the original County Hospital opened with 100 beds and six staff members. LAC+USC is the largest single provider of health care in Los Angeles County. USC physicians provide patient care, lead clinical research and oversee the training of more than 1,000 medical residents and medical students at the medical center.

“Dr. Ault is a natural leader, and an excellent choice to represent the Keck School on our campus,” said Pete Delgado, chief executive officer of the LAC+USC Healthcare Network. “He is a passionate advocate for patient care and he genuinely cares for this hospital. I’m glad to welcome him to this new position.”

A native of Philadelphia, Pa., Ault received his bachelor’s degree from Muhlenberg College in Allentown, Pa., his medical degree from Hahnemann University in Philadelphia, and a master of science in education from USC. He has been an assistant professor in the Keck School division of colorectal surgery since 2004 and is currently program director of the colorectal surgery residency program.

“With the opening of the new County hospital facility last year, it brings potential to grow programs and capitalize on opportunities,” Ault said.

“I am excited to begin work with all the clinical departments of the Keck School to grow and strengthen this relationship and to help build upon the success of the clinical enterprise there.”

CENTER: Aims for interdisciplinatory research with transformational potential in the medical sciences

Continued from page 1

host.

Specifically, the consortium will model networks of interactions at the molecular and cellular levels; tumor molecular and cellular processes; tumor invasion, invasiveness and vascularization; and tumor interaction with host factors and the immune system.

“The models we are going to develop are based on a dataset spanning the many facets of cancer as interrogated by a suite of novel measurement platforms. Our unique dataset will enable us to rigorously describe cancer as the complex system it is,” said Parag Mallick, assistant professor of research at the Keck School of Medicine, one of the project co-leaders who played a critical role in writing the grant establishing the center at USC. “We will be primarily describing therapeutic response of non-Hodgkin lymphoma to standard chemotherapy, but additionally ensuring the generality of our approach by investigating acute myelogenous leukemia and non-small-cell lung cancer.”

According to USC Executive Vice President and Provost C. L. Max Nikias, “This grant honors outstanding interdisciplinatory research efforts that have transformational potential within the biological and medical sciences. USC is honored to lead a consortium of such a high caliber.”

The winning grant proposal was assembled and submitted with the guidance of USC’s Washington, D.C., Research Advancement Office.

“We greatly appreciate the effort of Steven Moldin, executive director of research advancement, and his colleagues who brought together all the various universities and institutes into the research project,” said Randolph Hall, USC vice provost for research advancement. “Without their efforts, the grant would not have been submitted.”

In addition to the research partner institutions, the USC-led initiative features consulting researchers from several academic, industry and institutional partners, including the Weizmann Institute of Science, the Translational Genomics Research Institute, Princeton University, the University of California at Irvine, the Santa Fe Institute, Applied Proteomics and Applied Minds.

Noteworthy consultants and collaborators include Stanford’s Sanjiv Gambhir, Cold Spring Harbor Laboratory’s Scott Lowe and the Santa Fe Institute’s Nobel Laureate Murray Gell-Mann.
Good Neighbors Campaign-funded program proves to be a magnetic force for local students

By Joe Peters
On a recent Friday, Emmanuel Duran, a fourth-grade student at Murchison Elementary School, and his classmates repeatedly added metal washers to one side of a pivotal balance, trying to estimate how many it would take to break the magnetic grip holding down the other side of the balance.

Called “Breaking Magnetic Force,” the experiment—and the lesson plan supporting it—is part of a USC Neighborhood Outreach program called “Science For Life,” meant to introduce elementary school students to the excitement and relevance of scientific discovery in everyday life.

Duran said he appreciated the experiment and said he especially liked how “it ties things together” conceptually.

The same could be said about Science For Life. The program, originally started seven years ago as a National Science Foundation-funded longitudinal study of the effectiveness of hands-on science education in schools, has become a close collaboration between Murchison teachers and USC students and professors, including program leader Joseph Cocozza, research assistant professor of the Keck School of Medicine.

For six weeks, students work through a series of modules designed by USC engineering scientists, which emphasize frequent hands-on experimentation and data analysis. The students are tested before the program begins and then retested when it concludes.

“I like the hands-on element,” said Suzie Barajas, a Murchison teacher. “We teach three units [of science], and out of all three, the kids have the highest test scores in this unit.”

Jose Aparicio, an USC student volunteer, added: “I like the kids’ excitement. They want to do it all themselves.”

Cocozza said the program is designed to foster a long-term interest in science by intervening before students lose interest.

The study and affiliated project, he added, are meant to provide the answer to specific questions: “Are the kids staying in science? Are they getting better grades in science?”

In future years, he said, “We’re looking to involve the parents in some of these activities," with the hope that they will reinforce at home the lessons the children are learning in school.

Keck student leaders honored at awards ceremony

By Sara Rees
Student leaders from the Keck School of Medicine were recognized at an awards ceremony on Oct. 21 for their achievements in the classroom and community.

The annual ceremony, hosted by Dean Carmen A. Puliafito in the Edmonson Faculty Center, honored 45 second- and third-year students who received Dean’s Recognition Awards, as well as 29 recipients of the Association of Pathology Chairs’ Pathology Honors Society awards.

Family and friends gathered with students who were called up one by one to receive their awards.

“The best day for us educators is not graduation, because we are sad to see the leaves, but it is the day we see new students,” Puliafito opening remarks. “Students always have higher expectations and standards than those of us who have been around a while. They show tremendous optimism and compassion, and that’s what makes good doctors.”

The students selected for the Dean’s Recognition Awards have demonstrated excellence in academics, research and service to the community in their first two years of medical school, said Henri Ford, vice dean for medical education at the Keck School. Recipients are chosen based on nominations by faculty members.

The Association of Pathology Chairs’ Pathology Honors Society awards recognize students who have excelled in the Keck School’s pathology curriculum. Of the 29 Pathology Honors Society recipients, 15 were also Dean’s Recognition Scholars.

“Pathology is not an easy discipline,” said Karen D’Ostolas, assistant professor of clinical pathology. “These students have shown discipline and incredible achievement through determination and hard work.”

Students in the Keck School of Medicine’s first Mas-
Calendar of Events

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

Monday, Nov. 2

Noon. RSMOM Research Seminar. “Epigenetic Regulation of Transcription, DNA Repair, Aging and Cancer.” Jessica Tyler, Univ. of Colorado. NRT Arroyo Aud. Info: (323) 442-1144

Tuesday, Nov. 3

9 a.m. Neurology Grand Rounds. “Neurobiology of Middle Aging.” Galeh Finch, USC. ZNI 112. Info: (323) 442-7060


Thursday, Nov. 5

10 a.m. – 3 p.m. ISC Benefits Fair. Harry & Celesta Pappas Quad. Info: (323) 442-1011


Saturday, Nov. 7

9 a.m. 3rd Annual Moving Targets Symposium. “Drug Delivery and Therapeutics in the Tumor Microenvironment.” Various speakers. Radisson Hotel, Los Angeles @ USC. Info: bayan@usc.edu

Monday, Nov. 9

Noon. RSMOM Research Seminar. “Chromatin States and Gli Fates,” Laurie Boyer, Massachusetts Institute of Technology. NRT Arroyo Aud. Info: (323) 442-1144

Tuesday, Nov. 10

11:30 a.m. Psychiatry Grand Rounds. “Post-traumatic Stress Disorder Following 9/11.” Susan Turkel, USC. ZNI 112. Info: (323) 442-6065

Noon. USC Staff Assembly Open Forum. “Surviving and Thriving in a Climate of Uncertainty,” John Gaspari, USC. MCH 149. Info: (213) 740-8085

Wednesday, Nov. 11


Monday, Nov. 16

10 a.m. – 7 p.m. RSMOM Golf Tournament. Wilshire Country Club. Info: www.usc.edu/esvp code: KeckGolf


Wednesday, Nov. 18

8:30 a.m. “Building Pharmaceutical Anti-Counterfeiting Programs,” Various speakers. CHP 106. Info: (323) 442-3102

Thursday, Nov. 19

Noon. “Nonalcoholic Fatty Liver Disease,” Sandra Erickson, UC San Francisco. EBM 109. Info: (323) 442-1263

Friday, Nov. 20

8:30 a.m. USC Dept. of Surgery 11th Annual Leonard and Marie Louise Rosoff Visiting Professor Seminar. “Multidisciplinary Strategies for the Treatment of Esophageal Cancer,” Wayne Hofstetter, Univ. of Texas. DOR 109. Info: (323) 442-2506

Clinical Trials Unit opens at USC UH

By Cheryl Bruhn

USC University Hospital and the Keck School of Medicine hosted guests for an open house on Oct. 19 to celebrate the opening of the new Clinical Trials Unit (CTU) on the 3rd floor “north” at USC University Hospital.

“We are delighted to move closer to USC’s growing clinical enterprise,” said Thomas Buchanan, director of the CTU. “With the purchase of the two hospitals and the planned expansion of the Keck School of Medicine facility, this move makes sense for the entire enterprise.”

The CTU is the product of collaboration between the NIH supported General Clinical Research Center (GCRC) and the Health Research Association, which together created the new unit to support a broad array of human mechanistic research and clinical trials with strong support from University Hospital and the Keck School of Medicine.

The new 17,500 sq. ft. unit houses inpatient and outpatient research facilities and provides support in research nursing, biostatistics, exercise testing and body composition, laboratory services, bioinformatics, and research subject advocacy.

It will also offer off-unit testing for projects being conducted across the medical center.

“The new unit will allow us to provide more comprehensive support for the whole spectrum of clinical research being conducted at USC,” said Buchanan.

“We want to promote not only NIH-funded research, but also enhance academic-industry relationships. Our goal is to help great ideas from a variety of sources get translated into better care for our patients.”

For additional information, please contact the CTU at (323) 442-9574.

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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