



Jon Nalick

**CHILD'S PLAY**—The USC HSC Child Care Center unveiled its new playground yards (far right) on April 23, after completing a \$200,000 redesign. The renovation was designed to increase the yards' safety and versatility and extend the outdoor space to become a more significant part of the classroom and the children's educational experiences. Above, Katie Rodgers and Karmen Kobiela (holding a USC pompon) cheer the USC band members who came to play at the celebration (right).



## Laurence Kedes to step down as IGM director

After serving 19 years as founding director of the USC Institute for Genetic Medicine, Laurence H. Kedes announced his resignation as director of the IGM effective June 30.

He will return full time to research and remain at the Institute as the William M. Keck Professor of Biochemistry and Molecular Biology.

In his letter to faculty, Kedes expressed his appreciation to everyone affiliated with the IGM.

"I have greatly enjoyed working with the dedicated faculty, staff, students and supporters of the Institute over these past 18 years," he wrote. "It has been a privilege to work with all of you during my time as director. I am not disappearing but intend to remain an active day-to-day participant as a faculty member at the Institute to work with colleagues whom I greatly admire."

Keck School of Medicine Dean Carmen A. Puliafito acknowledged Kedes' role in building the school's reputation. "He is an innovative researcher, one that brought USC into the molecular era," said Puliafito. "We're pleased that we will continue to have an opportunity to

work with him as an accomplished researcher."

During his tenure as director of the IGM, Kedes oversaw the recruitment of more than 20 faculty members and the design and development of the Institute's research facilities and led the Institute's participation in development of multi-investigator research programs including heart disease, hypertension, gene therapy and craniofacial defects.

Kedes previously served as chair of the Department of Biochemistry and Molecular Biology from 1988 to 2002. He is an internationally known expert in the field of skeletal muscle and cardiac muscle molecular genetics. Among his scientific achievements was the first isolation of a protein-coding gene from an animal cell and the first determination of the DNA sequence of a protein coding animal gene. He was also a developer of the first federally funded digital Web-based database for storing and analyzing DNA sequences.

A member of numerous scientific organizations, including most recently as scientific director of the X PRIZE Foundation, he is identified as one of the world's most cited molecular biolo-



Laurence H. Kedes

See **KEDES**, page 3

## Campus security systems to get \$3 million upgrade

By Jon Nalick

To bolster after-hours security on the Health Sciences Campus, USC has initiated a \$3 million program to install ID-card-activated electronic locks on 19 campus buildings. Installation will begin after graduation and be completed during the fall semester.

Shane Hapuarachy, special project manager for the Department of Public Safety (DPS), said that although security upgrades have long been planned for the Health Sciences Campus, the April 2007 Virginia Tech shooting added a sense of urgency to the project.

"Virginia Tech was a big scare for every campus and it emphasized the importance of how we make sure that our campus is safe and secure. We just wanted to make sure that we are solving security problems proactively and that we don't have a Virginia Tech before we implement these higher-end security systems," he said.

Hapuarachy said the HSC Security Enhancement Initiative is primarily designed to limit access to buildings after regular business hours. Under the new system, personnel are issued USC card IDs, which serve as ID and are coded with their access authorization for the buildings in which they work or are authorized to enter. The cards permit access after hours and also log the times at which the user enters and leaves the building.

"Department heads make the decision concerning who is authorized and whether you are someone who needs access after hours. So if you come in at 10 p.m., and doors lock at 6 p.m., you need to be at an assigned access level or you won't get in," he said.

Because most students and employees keep regular hours, he said that, "Probably 90 percent of people on campus won't be affected by the change. But even so, convenience goes down when security goes up."

See **SECURITY**, page 2



# USC study finds gender differences in colon cancer markers

By Meghan Lewit

A new study by USC researchers has found evidence that supports gender-related differences in the development and survival of metastatic colon cancer.

The study, which was published in the April 15 issue of the journal *Cancer Research*, found that specific gene variants linked to the development of colon cancer resulted in opposite survival outcomes for men and women.

Germline variations in the epidermal growth factor receptor (EGFR) DNA—a gene widely expressed in colonic tissue—has been linked with poor prognosis in colon cancer, said Oliver Press, a medical student at the Keck School of Medicine and lead author of the study. However, when researchers looked at EGFR as a prognostic factor, they found that it had opposite implications for men and women.

“We expected to find that high expression would correlate with a poor prognosis and faster growth of the cancer,” said Press. “What we found was that men followed the expected trend, while women’s response was the opposite.”

Researchers analyzed 318 patients—177 men and 141 women—with metastatic colon cancer treated at the USC/Norris Comprehensive Cancer Center and the LAC+USC Medical Center between 1992 and 2003. All the patients were exposed to similar chemotherapy treatments. When genomic DNA samples were analyzed, researchers found that women who had specific gene variants linked with high expression of EGFR had higher overall survival rates, while men with the same variants had lower survival.

“This is the first report to show that

the prognostic value of EGFR depends on gender,” said Heinz-Josef Lenz, professor of medicine at the Keck School of Medicine and the principal investigator on the study. “This may suggest that, in the future, molecular markers should be evaluated differently in women and men and that treatment decisions may depend on gender and not only on molecular or clinical findings.”

Previous research has shown a protective effect of female hormones in colon cancer survival, Press notes. The findings of the study indicate that hormone receptors are important to signal pathways related to the survival of patients.

The study is an important jumping off point to further research into how men and women differ in response to specific treatments, he said.

“Research will need to be done to

determine whether women and men respond differently to certain cancer therapies,” Press said. “Down the road we may see targeted chemotherapy that is tailored to get the best response from male and female patients.”

The study was supported by grants from the National Institutes of Health, the San Pedro Guild Research Fund and Charles Bittick.

Oliver A. Press, Wu Zhang, Michael A. Gordon, Dongyun Yang, Georg Lurje, Syma Iqbal, Anthony El-Khoueiry and Heinz-Josef Lenz. “Gender-Related Survival Differences Associated with Epidermal Growth Factor Receptor Polymorphisms in Metastatic Colon Cancer.” *Cancer Research*, April 15, 2008. Doi:10.1158/0008-5472.CAN-07-2718.

## SECURITY: After-hours access to be restricted

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To limit the inconvenience, he said security officials are working with user groups and departments within buildings to determine which doors will be rigged with card-readers to permit after-hours access—and what times are most sensible to restrict access automatically.

Definitions of “after hours” will vary from building to building based on the needs and practices of the various departments and groups.

Hapuarachy said the planned system represents a significant improvement over current security measures as it replaces a decentralized, patchwork scheme of cameras and alarms with one that is computerized, coordinated and feeds information to a single central location. It is also easily extensible, so a lab with special requirements could be equipped with retinal or thumb scanners to provide additional security.

Even without additional measures, the new system will automatically provide an audit trail of who entered and exited after hours—and when.

“That way, if something happens or does go wrong, you have an idea of who was in the area,” he said.

Additionally, the new access control system eliminates the need for physical keys—which over the years can become lost or missing as employees leave the University or move to other locations on campus.

“That’s a pretty severe security liability to have thousands of rogue keys out there and to have no idea who has them—and it’s expensive to re-key a building. The new system addresses that because when an employee leaves the university, you simply kill their access,” he said.

Hapuarachy said the new system also incorporates lessons learned from the Virginia Tech shooting because it enables security personnel to lock down buildings remotely and instantly.

“If you have a shooter or other threat on campus, this gives DPS the ability to push a button and lock down buildings immediately. You don’t have to risk personnel and go out to lock a building down by hand,” he said.

## ETCETERA



The first grade class at Pasadena’s St. Philip the Apostle School welcomed USC oncologist Heinz-Josef Lenz to their classroom on April 18 to learn about cancer and its treatment. During the visit, Lenz accepted toys that students—including Catherine Maldonado (left) and Hannah Crump above—had collected for “Andi’s Toy Box,” a program that provides children and young siblings of cancer patients with puzzles, coloring books, magazines and other items to keep them occupied in hospital waiting rooms. “Andi’s Toy Box” was established by Brittany Ambrosiano to honor her 16-year-old friend, Andi Collins, who succumbed to breast cancer in 2003.

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**Steve Sussman**, professor of preventive medicine and psychology at the Keck School of Medicine, and **Susan L. Ames**, assistant professor of research at the Keck School’s Institute for Prevention Research, recently published *Drug Abuse: Concepts, Prevention, and Cessation*.

The 368-page book serves as a comprehensive source of information on the causes of, and solutions to drug problems. The text covers conceptual issues of drug use, misuse, abuse and dependence.

Published by Cambridge University Press, the text also addresses the development of prevention and cessation programs, specific program content from evidence-based programs, and program processes and modalities.

## DID WE SAY THAT?

Due to an editing error, an article in the April 25 issue of *HSC Weekly* misstated the type of degree conferred through the USC School of Pharmacy’s regulatory science program. The degree—doctor of regulatory science or DRSc—is a professional doctorate.

# New policy mandates NIH-funded studies must go on PubMed

By Katie Neith

Recent legislation has put into law the National Institutes of Health (NIH) Public Access Policy, which requires all investigators funded by the NIH to submit an electronic version of their final, peer-reviewed manuscripts to PubMed Central.

"Failure to comply with the policy will jeopardize grant renewals and future grant funding from the NIH," said Bill Clintworth, director of the Health Sciences Libraries. "This issue is of critical importance not only to individual investigators, but also to USC as an institution."

The policy went into effect on April 7.

By May 25, all NIH applications, proposals and progress reports must include a PubMed Central reference number (PMCID) when citing an article that falls under the policy and is authored or co-authored by the investigator, or arose from the investigator's NIH award. The reasoning behind the policy is to ensure that taxpayer-funded research is freely available to the public.

The new policy encompasses a movement in the

academic publishing industry called "open access." By definition, open access means that research papers are available on the Internet, permitting users to read, download, copy and distribute—with proper acknowledgement and citing of the original author—at no cost to the readers.

Fees paid by the authors, who can bill the cost into their grants or other funding, help to offset the cost of open access publications. This gives access to a worldwide audience, increasing the visibility of a researcher's work and institution.

"Open access challenges the traditional publishing model by removing price barriers to the reader and shifting them to the production end of publishing," said Clintworth. "By making information available to everyone rather than a diminishing number of people who can afford to purchase it, the research cycle can be shortened due to the wider availability of research findings, and society certainly benefits as a result."

Clintworth said a major misconception about open access is that the peer-review process is not as rigorous as that used in traditional subscription-based jour-

nals. There is no difference. Open access publishing uses the same procedures. The confusion arises with pre-prints or manuscripts that have been "self-archived" in institutional repositories without being reviewed and/or published.

According to Maggie Wineburgh-Freed, associate director of the collection resources division of the Norris Medical Library, one of the most important things for researchers to note is that they must retain copyright of their publications in order to be able to submit them to the NIH.

"Do not sign away your rights when submitting for publication," she said.

More information on this issue, as well as a waiver to retain author rights, is available at [www.arl.org/sparc/author](http://www.arl.org/sparc/author), the Web site of the Scholarly Publishing and Academic Resources Coalition (SPARC).

For more information on the NIH Public Access Policy, including instructions for submitting articles, visit the Norris Medical Library information site at [www.usc.edu/hsc/nml/lib-information/nih.html](http://www.usc.edu/hsc/nml/lib-information/nih.html).

## USC dental hygienists open eyes as well as mouths at oral cancer screening

By Beth Dunham

If the shocked faces of several USC Relay for Life participants were any indication, the manifestations of oral cancer are horrific and, for many, very surprising.

Displayed on the back of the USC Dental Hygiene tent, photos of receding, discolored gums and inflamed, affected palates and lips caught the eyes of many passers-by on the track at Loker Track Stadium on April 5—and in under two hours, drew in over 60 participants for free oral cancer screenings.

The screenings coincided with Relay for Life—an event benefiting the American Cancer Society—in which teams of friends and families each send a member to walk or run around a track, relay-style, for 24 hours.

Volunteer screeners and dental hygiene seniors Sheila Kuo Tiong, Valentina Shahbalyan, Vahe Nakashyan and Linh Ho said many patients were unaware of the damage that oral cancer can cause, and

several had never received an oral cancer screening.

"It is important for people to understand that they should expect and request a complete oral cancer screening every time they visit the dentist or the dental hygienist," said Donna Smith, associate professor of clinical dentistry. "Oral health means more than just healthy teeth; it should mean total oral health."

Besides addressing oral cancer concerns and receiving complimentary toothbrushes and toothpaste, many participants received answers to other dental questions about topics such as the arrival of wisdom teeth and proper dental hygiene habits.

"Some people showed us stuff that had been bothering them for a while," Shahbalyan said.

After performing the national anthem and USC fight song during the relay's opening ceremonies, several members of the Trojan Marching Band also dropped by the tent for screenings. Brett Padelford, assistant director of the band, said that he and other



Diane Melrose, chair of the Dental Hygiene Program (center right), joins members of the USC band at the April 5 USC Relay for Life event at the University Park Campus.

Beth Dunham

band members were happy to get screened.

"We play instruments and use our mouths all the time," he said. "We're glad to be here and grateful to get checked out."

## KEDES: After steering IGM for almost two decades, he returns full time to research

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gists by the Institute for Scientific Information. He has trained more than 70 fellows who now hold professorial appointments at institutions worldwide including department and institute heads at UCLA, Stanford, Yale, Sydney (Australia), Miami, Houston, Geneva (Switzerland) and Gunma (Japan).

"Larry Kedes' outstanding contributions to the University and the international scientific community were

brought out in spectacular fashion at the symposium held to honor his contributions at the IGM last October," said Richard Bergman, Keck Professor and chair of the Department of Physiology and Biophysics. "Most of the lecturers were Larry's former fellows. They all emphasized how critical his mentorship was to their futures as investigators. They also emphasized what a wonderful humanitarian Larry is, and how he selflessly promoted their

careers," Bergman added.

Peter Jones, director of the USC/Norris Comprehensive Cancer Center, said, "Larry Kedes is an absolutely brilliant scientist who was one of the forefathers of modern molecular biology. His recruitment really transformed the medical school. The arrival of an individual of his caliber to the Keck School showed that we were serious about the development of molecular genetics."

USC recruited Kedes in 1989 as the chair of Biochemistry and director of a planned Institute for Molecular Medicine. Kedes quickly changed the names of both the Department—to Biochemistry and Molecular Biology—and the Institute—to Genetic Medicine. His academic honors include being a fellow of the John Simon Guggenheim Foundation, a Howard Hughes Medical

Institute Investigator, and receiving the Distinguished Scientist Award of the American Heart Association, the Provosts Gold Medal from the University of Messina (Italy) and the Henry N. Neufeld Memorial Award (Israel). In 2004 he received the University of Southern California Distinguished Faculty Service Award.

Kedes graduated from the Stanford University School of Medicine. He completed his residency in internal medicine at Harvard's Peter Bent Brigham Hospital and conducted post-doctoral research at the National Cancer Institute and at MIT.

Keck School Dean Puliafito has appointed Elizabeth Fini, senior associate dean for research advancement, as interim director of the IGM. She will work with Kedes over the next several months to ensure a smooth transition.

### In Case of An Emergency...

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.

Call the Emergency Information Phone: 213-740-9233

The emergency telephone system can handle 1,400 simultaneous calls. It also has a back up system on the East Coast.



# Calendar of Events

The HSC Calendar is online at [www.usc.edu/hscalendar](http://www.usc.edu/hscalendar)

## Friday, May 2

**8:30 A.M.** "The Role of the Bcl-2 Proteins in the Development of Lung Injury," G.R. Scott Budinger, Northwestern Univ. GNH 11-321. Info: (323) 226-7923

## Saturday, May 3

**8:15 A.M.** "Thyroid 2008, The 30th Anniversary Symposium," Peter Singer, USC. LA Marriott Hotel, downtown, Los Angeles. Info: (323) 442-2555

## Monday, May 5

**NOON.** "Genetic and Genomic Analysis of the Mammalian Circadian Oscillator," Satchidananda Panda, Salk Inst. NOR 7409. Info: (323) 442-1144

**NOON.** Fellows' Core Curriculum Conference. "Case Discussion: Acid/Base Disorders," Elaine Kaptein, USC. GNH Drs. Dining Rm. A&B. Info: (323) 226-7307

**NOON.** Medical Student Research Forum and Poster Day, various speakers. KAM Mayer Aud. Info: (323) 442-1763

## Tuesday, May 6

**9 A.M.** Neurology Grand Rounds. "Molecular and Neural Mechanisms in the Detection of Painful Stimuli," David McKemy, USC. ZNI 112. Info: (323) 442-7686

**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 [ebalauw@usc.edu](mailto:ebalauw@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.

**NOON.** Cancer Ctr. Grand Rounds. "DNA Methylation and Women's Cancer," Martin Widschwendter, Univ. College London. NOR 7409. Info: (323) 865-0801

## Wednesday, May 7

**8:30 A.M.** "Pulmonary Complications in Pregnancy," T. Murphy Goodwin, USC. GNH 11-321. Info: (323) 226-7923

**8:30 A.M.** Latino Medical Student Association Cinco de Mayo Celebration. HSC Pappas Quad. Info: (323) 442-1050

**NOON.** Renal Grand Rounds. "Renal Imaging: Cases," Vinay Duddalwar, USC. GNH 6441. Info: (323) 226-7307

## Friday, May 9

**8:30 A.M.** "ENaC Membrane Expression and Function in the Lung at Birth is Regulated by SGK and Nedd4-2," Hans Folkesson, Northeastern Ohio Univ. GNH 11-321. Info: (323) 226-7923

## Monday, May 12

**NOON.** Fellows' Core Curriculum Conference. "Post Transplant Immunosuppressive Therapy," Yasir Qazi, USC. GNH Drs. Dining Rm. A&B. Info: (323) 226-7307

## Tuesday, May 13

**11:30 A.M.** Psychiatry Grand Rounds. "Correlates of Perinatal Depression in HIV-infected Women," Suad Kapetanovic, USC. ZNI 112. Info: (323) 226-5572

## Wednesday, May 14

**NOON.** Renal Grand Rounds. "New Advances in IV Iron Therapy in Hemodialysis Patients with Elevated Serum Ferritin, Low TSAT, and Receiving Adequate Epoetin Therapy," Kamyar Kalantar-Zadeh, UCLA. GNH 6441. Info: (323) 226-7307

## Thursday, May 15

**NOON.** Pharmacology and Pharmaceutical Sciences Seminar. "Stabilization of Peptides in Organic Solvents – a Case Study," Wei Wang, Pfizer Laboratories. PSC 104. Info: (323) 442-1902

## Friday, May 16

**8:30 A.M.** "CT Imaging in Pulmonary Vascular Diseases," Jabi Shriki, USC. GNH 11-321. Info: (323) 226-7923

## Monday, May 19

**NOON.** Fellow's Core Curriculum Conference. "Psychosocial Issues of Organ Donation and Transplantation," Susana Dahdul, USC. GNH Drs. Dining Rm. A&B. Info: (323) 226-7307

## New seminar series focuses on rehabilitation science

By Beth Dunham

Even though rehabilitation still provides a similar degree of improvement compared to decades past, patients are entering—and exiting—rehab in comparatively worse shape, said Kenneth Ottenbacher on March 28 during the first monthly Rehabilitation Science Seminar.

Ottenbacher, professor and director of the division of rehabilitation science, director of the Center for Rehabilitation Sciences and senior associate dean for research and graduate education in the School of Allied Health Sciences at the University of Texas Medical Branch, presented a talk on "Trends in Outcomes for Inpatient Medical Rehabilitation."

Ottenbacher's research analyzed data from 1994 to 2007, using information from both before and after the implementation of Medicare's prospective payment system, or PPS, in 2002. Based on each patient's history, condition and prognosis, the PPS allocates a specific amount of money for post-acute care, including rehabilitation, before the patient receives care.

"From 1994 to 2001, length of stay in rehab decreased from a median 20 days to median 12 days," Ottenbacher said. "While effectiveness remained steady and efficiency increased, mortality at three to six months of follow-up also increased."

Ottenbacher hypothesized that mortality may have increased due to changing referral patterns and possible decreases in length of acute care stays before rehabilitation. Premature discharge also can be costly in financial terms, he added.

"For instance, say someone had a stroke and was discharged without regaining good bowel and bladder control," Ottenbacher said. "They could get a urinary tract infection and get re-hospitalized. In the long run, that doesn't save money."



Kenneth Ottenbacher lectures at the inaugural Rehabilitation Science Seminar on March 28.

The seminar came near the end of Ottenbacher's month-long visit to USC. The audience included faculty and students from the USC School of Dentistry divisions of Biokinesiology and Physical Therapy and Occupational Science and Occupational Therapy.

At a reception following the seminar, Ottenbacher said the two divisions are uniquely well-equipped to tackle the tough challenges he addressed in his talk, especially when working together.

"It's a very complex problem, and there's no single solution," he said. "But you have two of the highest ranked programs right here at USC; I am very impressed with the caliber of the faculty and the graduate students."

"We have a tremendous capacity to expand our research potential through collaboration," said Florence Clark, professor and chair of Occupational Science and Occupational Therapy. "We have great opportunities to look at what the best combination of services is to help make patients more independent."

## HSC NEWSMAKERS

Complete listing at: [www.usc.edu/uscnews/usc\\_in\\_the\\_news/](http://www.usc.edu/uscnews/usc_in_the_news/)

An April 28 *Washington Post* article featured a study by USC researchers showing that gastric bypass surgery may relieve lower back pain in obese patients.

On April 27, Chicago NBC affiliate WMAQ-TV interviewed pharmacologist **Roger Clemens** about probiotics.

On April 26, CNN quoted pharmacologist **Jim Adams** about *Datura stramonium*, a plant that Native Americans used in sacred ceremonies.

On April 25, medical trade publisher Elsevier profiled preventive medicine expert **Stanley Azen** and his role as editor of *Computational Statistics and Data Analysis*.

An April 25 *Los Angeles Times* article noted that LAC + USC Medical Center is a teaching hospital that can draw upon doctors in training from a full roster of specialties.

An April 23 *Chicago Tribune* article noted that, in 1997, **Richard Paulson** and USC researchers announced that a child had been born to a 63-year-old woman.

An April 22 *Los Angeles Times* article quoted pharmacist **Julie Dopheide** about increased use of attention deficit disorder drugs by baseball players.

On April 22, ABC News quoted plastic surgeon **Garry Brody** about whether teenagers are too young to undergo cosmetic surgery.

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