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New IT chief to enhance communication campus-wide

'The goal is to create a fully integrated healthcare delivery system where these separate units work as one.'

—Mark D. Amey, chief information officer

By Meghan Lewit

Mark D. Amey has joined USC as chief information officer for several units, effective Sept. 21.

Amey will lead development and implementation of information technology (IT) strategic plans and procedures for USC University Hospital and USC Norris Cancer Hospital, the Keck School of Medicine and the Doctors of USC physician group.

One of Amey's top priorities is creating a seamless information delivery system among these entities, enhancing faculty and staff communication and patient care delivery.

Amey previously served as regional CIO and vice president of Ascension Health Information Services in Tucson, Ariz., and the Carondelet Health Network hospitals of Ascension Health. There he was responsible for regional leadership and management of information services for eight hospitals totaling 1,461 beds, various clinics and related services. He also served as the liaison between the system office, regional and hospital executives, physicians, board members and customers. Prior to that Amey was chief information officer of the Southern California region for Adventist Health, which included five hospitals.

"From a patient perspective, a more effective information delivery system allows information and data to flow

Mark D. Amey

easily between the hospital and physician's office," Amey said. "The goal is to create a fully integrated health care delivery system where these separate units work as one, enhancing the clinicians' effectiveness, the patients' experience, and ultimately the clinical outcomes that we provide."

Information and results generated in the clinical setting can be used by Keck School of Medicine faculty for research and development, a model that may lead to improved physician practices down the road, Amey noted.

The university acquired the USC University Hospital and USC Norris Cancer Hospital on April 1, 2009, in an historic purchase agreement with Tenet Healthcare Corp. USC's purchase included 471 inpatient beds and 1,700 hospital employees. More than 500 faculty physicians known

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Pioneers in small RNA research receive Massry Prize

By Meleeneh Kazarian

Molecular biologists Victor Ambros and Gary Ruvkun have been named recipients of the 2009 Massry Prize for their discovery of microRNAs.

The Massry Prize, which includes a substantial monetary award, recognizes outstanding contributions to the biomedical sciences and advancement of health. The recipients will give lectures at Mayer Auditorium on Nov. 12 at noon.

Ambros, professor at University of Massachusetts Medical School, and Ruvkun, professor of genetics at Harvard Medical School, received the honor for discoveries they made in the 1990s that highlighted the existence of a multitude of genes that did not code for proteins.

The pair discovered tiny strands of RNA (microRNA)—on the order of 20 nucleotides long—that regulate as many as half of all protein-coding genes of the genome.

In 1993, they worked in concert to show that lin-4 miRNA, a 22-nucleotide RNA in C. elegans, had a functional role in developmental timing of cells. Several years later, Ruvkun discovered a second small RNA named let-7, which was found to exist in several other animals, suggesting that these microRNAs were indeed ubiquitous.

Their work demonstrated that microRNAs played a regulatory role in differentiation, cell structure, organismal function, cognition and memory. MicroRNAs could regulate when, where and at what level protein coding genes were expressed.

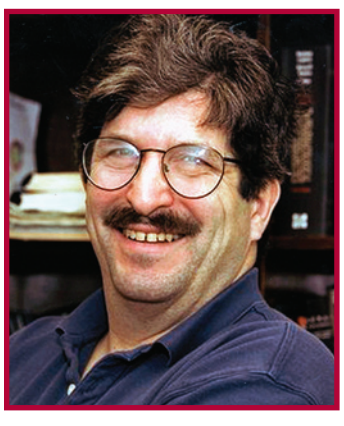
Mutations in microRNAs could lead to genetic diseases and many forms of cancer.

Ruvkun earned his doctorate from Harvard in biophysics and continued his postdoctoral research at Harvard with two Nobel Prize winners, Walter Gilbert at Harvard and H. Robert Horvitz at Massachusetts Institute of Technology

Ambros received his doctoral degree in biology from MIT under Nobel laureate David Baltimore. He conducted his postdoctoral research at MIT with Nobel laureate H. Robert Horvitz.

Their pioneering work revolutionized the scientific understanding of RNA and its role in many cellular processes and spurred the development of new genetic tools for basic research and for improving human health.

The Meira and Shaul G. Massry Foundation established the Massry Prize in 1996. Shaul Massry, professor emeritus of medicine at USC, founded the nonprofit organization. To date, 22 scientists have received the Massry Prize—and eight later went on to win Nobel Prizes.



Gary Ruvkun

Victor Ambros

Keck School researchers awarded $2.8 million in ARRA funds

Eight Keck School researchers have received grants or supplements totaling $2.8 million from the American Recovery and Reinvestment Act (ARRA) of 2009.

The scientists—all from The Saban Research Institute of Childrens Hospital Los Angeles—to receive the ARRA grants or supplements are:

• Saverio Bellusci, associate professor of surgery at the Keck School, received two ARRA supplements totaling nearly $40,000 to fund two undergraduate students for two summers. The undergraduate students will be recruited from a pool of candidates from both universities and community colleges. The supplement will allow the students to gain expertise in mouse genetics and developmental biology, which will increase their opportunities for careers in health sciences.

• Emil Bogenmann, director of research education at The Saban Research Institute and associate professor of pediatrics, molecular microbiology and immunology at the Keck School, received two ARRA supplements totaling $264,000 for two programs. The first will fund five summer research positions for undergraduate students from disadvantaged backgrounds. The second will fund 15 minority high school students from South Central Los Angeles in the Latino & African American High School Internship Program, a college preparatory program that provides students with the necessary tools to get into, and succeed in, high quality four-year colleges and universities.

• Jeffrey I. Gold, director of the Pediatric Pain Management Clinic at Childrens Hospital and associate professor of anesthesiology and pediatrics at the Keck School, received a $286,000 grant for a research study to further understand the neurobiological mechanisms of how virtual reality may reduce pain intensity, increase pain tolerance and produce analgesia in

See **ARRA**, page 2

ARRA awards School of Pharmacy more than $1 million

By Kukla Vera

The American Recovery and Reinvestment Act has awarded five grants totalling more than $1 million supplementing support for current research at the USC School of Pharmacy.

The two largest awards went to Nouri Neamati, an associate professor working on HIV therapies, and Sarah Hamm-Alvarez, the Gavin S. Herbert Professor in Pharmaceutical Sciences, whose work focuses on drug delivery to the eye.

Neamati's grant provides $442,000 to enhance his lab's efforts to inhibit the HIV-integrase protein.

Hamm-Alvarez was awarded $409,000 to further research efforts designed to find ways to best deliver medications to the eye. Co-investigator of the Hamm-Alvarez grant is Andrew MacKay, an assistant professor in the Department of Pharmacology and Pharmaceutical Sciences.

Hamm-Alvarez and MacKay will develop nanoparticles to deliver therapeutic agents to the lacrimal gland in the eye.

Ultimately, this research supports the development of new treatments for dry eye diseases that affect millions of Americans, leading to loss of vision in many.

The two-year award from the National Eye Institute provides funding for an additional 1.6 positions on the project. Hamm-Alvarez is the chair of the school's Department of Pharmacology and Pharmaceutical Sciences and the associate dean for research affairs.

Neamati's work combines computational chemistry with laboratory experimentation in his quest to find inhibitors that selectively block the interaction between HIV-1 integrase and a cellular protein called LEDGF/p75 for the treatment of AIDS.

The grant extends the footprint of Neamati's research, providing additional staff to move the work forward. Neamati's support comes from the National Institute of Allergy and Infectious Diseases.

Tino Sanchez, a Ph.D. student working in the Neamati lab, was awarded a two-year fellowship totaling $82,000. This support allows Sanchez to mine molecular databases for novel compounds that are able to disrupt replication of the HIV virus.

Sanchez's work is also supported by a fellowship from the California HIV/AIDS Research Program.

Ron Alkana, professor and associate dean of graduate studies and curricular development, has been awarded a $59,000 supplement to support Ph.D. student Letisha Wyatt as a graduate assistant in his lab. The grant will allow Wyatt to contribute to the work of the Alkana and Davies labs in the pursuit of finding new approaches to prevent and treat alcohol-related problems. This award was made by the National Institute of Alcohol Abuse and Alcoholism.

Another grant from the institute went to Darryl Davies, associate professor in the Titus Family Department of Clinical Pharmacy and Pharmaceutical Economics & Policy, who works with Alkana in searching for therapies to treat alcohol abuse and alcoholism.

Davies' award of $45,000 provides an opportunity for a secondary-school science teacher and two undergraduates to spend hands-on time in the laboratory setting.

ARRA: Awards fund wide range of research on campus

Continued from page 1

healthy adolescents.

• Anatoly V. Grishin, a researcher with the division of pediatrics at Childrens Hospital Los Angeles and assistant professor of surgery at the Keck School, received a two-year grant of $400,000 to fund a pilot study about how intestinal epithelial cells establish and maintain tolerance to Toll-like receptor ligands of bacteria that populate the gastrointestinal tract.

• Mary Kearns-Jonker, a researcher in the Developmental Biology Program of the Department of Surgery and an assistant professor of research at the Keck School, received $810,000 to fund research for alternative organ donors for human transplantation, which represents a solution to the escalating shortage of organs that are available for patients with end-stage diseases.

• Stephen E. Lankenau, a principal investigator in the division of research on Children, Youth and Families at Childrens Hospital and associate professor of research at the Keck School, received $439,000 to study changes in overdose response and other drug-related health behaviors among injection drug users participating in two overdose prevention programs in Los Angeles.

• Robert E. Seeger, head of the division for basic and translational research in the Childrens Center for Cancer and Blood Diseases at Childrens Hospital Los Angeles and professor of pediatrics at the Keck School, along with co-investigators Shahab Asgharzadeh and Richard Sposto received an ARRA supplement of $397,000 for studies aimed at defining subgroups among clinically defined high-risk stage 4 patients with neuroblastoma, a common childhood tumor.

• Lingtao Wu, a researcher in the Department of Pathology at Childrens Hospital Los Angeles and an associate professor of pathology at the Keck School, received an ARRA supplement grant of $222,000 to study the pathway of proliferation/differentiation transition in myeloid leukemia and hematopoietic stem cells.

USC Alumni Association honors trio of Keck School luminaries

By Joseph Peters

The USC Alumni Association is honoring three members of the Keck School of Medicine community—Carmy Peters, Phyllis Rideout and William Schubert—for their service to the university.

The trio, along with 60 other honorees, will be lauded for their efforts at the Sept. 25 Volunteer Recognition Awards dinner to be held at Town and Gown.

Peters, director of development for the USC Norris Comprehensive Cancer Center, is being named Alumni Volunteer Friend of the Year. This award is usually given to a USC staff member who has made an outstanding contribution to the development of a USC alumni volunteer program.

Peters, a 1963 graduate of the Rossier School of Education, has worked on the Norris development team for almost 15 years, managing major gift fundraising and donor recognition.

One of her most significant contributions was helping to coordinate the formation of the Patient Education and Outreach Center and Jennifer Diamond Cancer Resource Library for patients and families seeking information on oncology. She is a long-time advisor to the Norris Auxiliary, a group of volunteers who support the center through fundraising and service.

Rideout and Schubert both will receive Widney House Awards, given in recognition of extraordinary contributions by a volunteer to any USC alumni-related organization, such as an alumni club. Rideout, who served as an associate director for administration at Norris for 18 years, joined the Norris Auxiliary in 2005 and has served as chair of the board of directors for the group.

She is currently working to develop a strategic plan for the auxiliary.

Schubert, USC College '50, was a clinical professor of family medicine at the Keck School for more than 20 years. An alumnus of the Keck School of Medicine, he served as president of the USC Medical Alumni Association in 1972.

He is an active member of Salerni Collegium, a support group for USC medical students, and served as president of the Collegium in 1995.

The Weekly

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USC GOOD NEIGHBORS CAMPAIGN

A Tradition of Giving!

Good Neighbors Campaign sets $1.2 million goal

By Jon Nalick

In the 15 years since its inception, the Good Neighbors Campaign has raised and distributed more than $10 million—and $1.1 million last year alone—for worthy programs benefitting the communities surrounding both university campuses.

This year, organizers are challenging university employees to donate $1.2 million during the campaign, which runs during the month of October. This year also marks the first time that USC hospital personnel are invited to participate.

Carolina Castillo, executive director of planning and development in the office of Government and Community Relations, and Good Neighbors Campaign director, called the campaign "a unique program that enables faculty and staff to take pride in furthering the university's mission to create and sustain university-community partnerships that enhance the communities in which we work, study and live."

Moreover, she added, "USC is so strongly committed to the Good Neighbors Campaign initiative that it covers all administrative overhead and expenses in order to enable 100 percent of every dollar contributed to USC Neighborhood Outreach to be distributed to our local schools and community-based organizations."

This year, USC Neighborhood Outreach (UNO), the nonprofit organization funded by the Good Neighbors Campaign, funds 14 different programs at and around the Health Sciences Campus, including programs to promote science education, reduce diabetes, offer dental care and provide music instruction.

Castillo said that the campaign offers members of the Health Sciences Campus—especially health care professionals—a unique opportunity to build on the public service they perform every day.

She added, "We are confident all members of the Trojan Family will step up to the challenge and help us reach our goal of raising $1.2 million and a campus-wide participation rate of 50 percent. We welcome the enthusiasm of our newest USC employees at Norris Cancer Hospital and University Hospital for the Good Neighbors Campaign and look forward to increased giving and participation in grants by the HSC community to strengthen its local neighborhood."

USC faculty and staff will receive campaign informational and pledge packets via campus mail by Oct. 1.

Visit USC's Good Neighbors Campaign Web site at www.usc.edu/goodneighbors for information on the annual initiative. To see how contributions can change the lives of community members who live around USC's University Park and Health Sciences campuses, watch the 2009 campaign video available online.

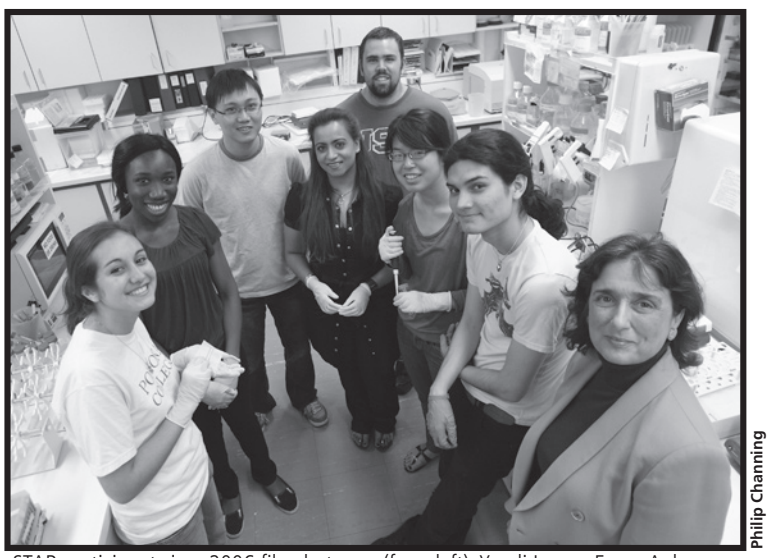
GNC-funded program sets its sights on star high school students

By Kukla Vera

Funded by the Good Neighbors Campaign, the USC STAR Program places Bravo Medical Magnet High School seniors on research teams in USC labs.

Roberta Diaz Brinton, the R. Pete Vanderveen Chair in Therapeutic Discovery and Development, remembers the very first STAR student she had in her lab 20 years ago.

"She was much like the students of today, full of awe and packed with potential," said Brinton who is a professor at the USC School of Pharmacy. "Once they finish STAR, they leave empowered."



Philip Channing

STAR participants in a 2006 file photo are (from left): Yureli Lopez, Esosa Agbonwaneten, Jia Yao, Syeda Ahmed, post doc Ryan Hamilton, Tiffany Lam, Julian Lemus and STAR director Roberta Diaz Brinton.

Brinton's first student, Wing Cheung, went on to Caltech and then Harvard Medical School and today is a liver transplant surgeon. This year's crop of graduates from Brinton's lab is similarly impressive—heading off to top schools and feeling very empowered by their STAR experience. In fact, every student who has ever graduated from the STAR program has gone on to college.

Julian Lemus, heading to MIT this fall to study aerospace engineering, said that he had no idea what was done in a research lab until STAR. That's hard to imagine when you see him today confidently interacting with others in the lab—from other STAR students to doctoral students, post docs and the lab director.

The USC Science Technology and Research (STAR) Program provides an opportunity for seniors at the Bravo Medical Magnet High School to work as an integral part of a USC research team. Coordinated through the science curriculum at Bravo, the STAR experience counts as a course, allowing the student to spend about 20 hours each week in the lab during the school year. Additionally, STAR students do a six-week, full-time stint in the lab over the summer.

"This isn't a spectator lab experience," said Brinton. "These students are consequential members of the research team—they are mentored and learn how to do what scientists do – including lab techniques and the thinking that is required to solve a problem."

"STAR has made me part of where the science happens—you don't get this from books," added Tiffany Lam, a 2009 graduate who is heading to Wellesley College in the fall. "My experience in Dr. Brinton's lab has helped me see the big picture and the role that the day-to-day experimentation has in following a trajectory to the result."

STAR students have a way of staying connected. The Brinton lab welcomes them back at various times in their career paths. For example, this summer Jimmy To, who was a STAR student in 2006-07, is doing research while on break from University of California San Diego. "It's like a family here. STAR really taught me what science is and really gave me an advantage when I went off to college." To hopes to ultimately return to USC for his post-graduate degree in pharmacy.

Likewise, STAR alum Syeda Ahmed, currently working in the Brinton lab while contemplating medical school applications, said, "Very few high schoolers ever get to do research at this level. It's a door opener when you get to college."

Esosa Agbonwaneten is heading to UC Irvine, where she plans to study biological sciences and hopes to become a neurosurgeon. She said, "Now I see the complexity of a research project and it has been amazing to apply the science and not just read about it."

Each year the STAR program places about 25 students in laboratories at the School of Pharmacy, the Keck School of Medicine and the School of Dentistry. Brinton directs the program and Joseph Cocozza coordinates it for Bravo. The program is supported by a USC Neighborhood Outreach grant, funded through the annual Good Neighbors Campaign.

Yureli Lopez, off to her freshman year at Pomona College this fall, encourages younger students to consider opportunities like STAR. "Don't be scared—try it because I think it will really help you as you move forward to college."

Good Neighbors Campaign Facts

- **100% of all campaign funds designated to USC Neighborhood Outreach support university-community partnerships**
- **The annual campaign has raised more than $10 million since its inception in 1994**
- **In 2008, USC employees, alumni and friends raised more than $1.1 million**
- **Grants benefit programs that focus on education, health and fitness, the arts and public safety**
- **Nearly 500 employees give 1% or more of their salaries and are members of the President's leadership circle**
- **USC Neighborhood Outreach has funded 365 university-community partnerships since 1995**

Good Neighbors Campaign aids program to keep HSC-area families fit

By Sara Villagran

Stay active and stay healthy.

That's the message that the Division of Biokinesiology and Physical Therapy delivers as part of its Fit Families Program—a free wellness physical therapy program for underserved children and adults living around the Health Sciences Campus.

Kate Warren (center left), past Fit Families staff and USC student, lead participants to compete in a variety of physical activities, one of which is a relay race requiring each team member to perform four different tasks.

Funded with a $19,000 USC Neighborhood Outreach grant made possible by the Good Neighbors Campaign, the program targets children age 10-17 from the local community and their families—focusing especially on those who are at high risk for diabetes and conditions associated with physical inactivity.

Cheryl Resnik, director of community outreach in the division, called the program a great success, noting that it has served more than 300 individuals since its inception in 2005.

"The program has become really popular, with people finding out mainly by word of mouth from other friends or family members, Resnik said. "Keeping kids physically active and healthy is very important, and with schools cutting physical education programs, these kinds of programs are especially needed," she added.

Graciela Serrano, a mother of two and a past clinic participant said, "I would tell people to come to this program. They teach you how to take care of yourself and be more aware of what you're eating and why you should exercise. My kids are more interested and motivated to take care of themselves and are more active."

Fit Families provides evaluation, group exercise activities, individualized exercise programs, and nutrition counseling designed to enhance potential for long-term lifestyle change. Services are delivered via group lectures and discussions, interactive demonstrations, one-on-one discussion, and through computer-based tutorials for diabetes and nutrition education.

Funding from the Good Neighbors Campaign in fiscal year 2009-2010 has allowed Fit Families to purchase equipment; provide participants with pedometers, t-shirts, and exercise-and-food logs; and also pay for student salaries.

The program currently partners with Muchison, Griffin, Sheridan Bravo, and El Sereno Schools, Hazard Park, and the USC Division of Biokinesiology and Physical Therapy.

Organizers seek to establish partnerships with other public or private entities and initiatives to extend its ability to address gaps in and provide access to physical therapy care for individuals and communities in need.

Fit Families runs every Saturday from 9 a.m. to noon at Hazard Park. To volunteer, contact Oscar Gallardo, program director, at oggallar@usc.edu.

To refer a child or family who may be interested in the program, please call (323) 224-5592.

HSC community relies on 14 programs funded by Good Neighbors Campaign

Program Name	Community Partner	USC Partner	Description	Award
Science for Life Outreach	Murchison Elementary and El Sereno Middle School	Keck School of Medicine — Joseph Cocozza	USC faculty and students provide elementary school children with standards-based science exercises that engage students in science discovery and analytical skills	$11,590
Proyecto Verde	Clinica Msr. Oscar Romero	Keck School of Medicine — Kendra Gorlitsky	A multi-purpose community garden will be developed at Clinica Romero to promote individual and public health principles through gardening, exercise and preventive education about diabetes and obesity	$12,105
USC Physical Therapy Fit Families Program	Sheridan Elementary, Murchison Elementary, Griffin Elementary, and Francisco Bravo Medical Magnet	Biokinesiology and Physical Therapy — Professor Cheryl Resnik	Provides pro-bono preventive, wellness, and rehabilitative physical therapy services to underserved elementary, middle and high school aged children in the local community who are diagnosed with or at higher risk for diabetes	$19,050
FUENTE Initiative	Sheridan Elementary, Murchison Elementary, Griffin Elementary, Francisco Bravo Medical Magnet, East LA Occupational Center and East LA Skills Center	School of Pharmacy — Kathleen Goad and Jason Doctor	Children and parents receive poison prevention, appropriate drug-use and self-management education including health education about diabetes, hypertension, obesity, HIV/AIDS, healthy pregnancy, STDs, etc.	$7,421
A Fotonovela on Obesity	Clinica Msr. Oscar Romero	School of Pharmacy — Melvin Baron	Uses an effective communication tool to change the course of obesity among low income, low literacy Latino families in the HSC and UPC neighborhoods by helping identify the problem, prevention strategies and treatment options	$30,600
Expanding STARS – Sharing the Power of Science with USC Neighborhood Youth	Francisco Bravo Medical Magnet High School	School of Pharmacy — Roberta Diaz Brinton	Science and math inquiry-based, problem-based learning provided to high school students through hands-on research alongside USC faculty and students working in university laboratories	$23,850
USC Neighborhood Mobile Van Prevention Project	Sheridan Elementary, Murchison Elementary, Griffin Elementary, Francisco Bravo Medical Magnet and USC Family of Schools	School of Dentistry — Jennifer Holtzman	USC students and faculty serve over 1,000 low-income elementary school children on-site by providing preventative oral health services, education on dental hygiene and referrals	$32,818
HSC Community Health Fair 2009	Sheridan Elementary, Murchison Elementary, Griffin Elementary, Francisco Bravo Medical Magnet, East LA Occupational Center and East LA Skills Center	Civic and Community Relations — Cesar Armendariz	Over 1,100 local school children and community residents receive preventive health services and screenings for blood pressure, cholesterol, diabetes, mammograms, dental, vision, exercise, Healthy Families, and clinic referrals provided by over 200 HSC faculty, student and staff volunteers	$14,364
HSC Health & Science Expo 2010	Sheridan Elementary, Murchison Elementary, Griffin Elementary and Francisco Bravo Medical Magnet	Civic and Community Relations — Cesar Armendariz	Over 400 local elementary school students participate in an essay contest and develop science projects to compete in a fair with mentorship of 20 USC students	$14,167
Mission Science 2: HSC	Sheridan Elementary, Murchison Elementary, Griffin Elementary, Francisco Bravo Medical Magnet and Variety Boys and Girls Club	Viterbi School of Engineering — Larry Lim	Over 300 elementary and middle school students learn science, engineering and technology by working on an informal, inquiry basis through hands-on projects, exhibits, and science experiments	$18,842
HSC PartnerNews newspaper	Sheridan Elementary, Murchison Elementary, Griffin Elementary and Francisco Bravo Medical Magnet	Civic and Community Relations — Cesar Armendariz	Over 4,000 students and families receive this bilingual, bimonthly newspaper featuring positive news and events about the HSC Partner Schools, HSC neighborhoods and USC community-outreach efforts	$19,016
Education Consortium of Central Los Angeles (ECCLA)	Education Consortium of Central Los Angeles (ECCLA)	Civic and Community Relations — Katherine Diaz	Supports student scholarships and annual teacher of the year awards	$24,570
USC DPS Crime Prevention - Mc Gruff "The Crime Dog"	Sheridan Elementary, Murchison Elementary, Griffin Elementary, Francisco Bravo Medical Magnet and USC Family of Schools	Department of Public Safety — Officer Wyman Thomas	Provides a wide variety of crime prevention and education programs to HSC and UPC K-12 students and community residents including theft prevention, identity theft, personal safety and acquaintance rape	$3,550
USC Thornton Outreach Program	Murchison Elementary and USC Family of Schools	Thornton School of Music — Susan Helfter	Comprehensive, weekly, in-school and after-school music education programs, benefitting over 3,500 students and community members in the HSC & UPC neighborhoods.	$34,880

USC study may explain cause of drug resistance in leukemia

By Steve Rutledge

Keck School of Medicine researchers at The Saban Research Institute of Childrens Hospital Los Angeles and the National Institute of Arthritis and Musculoskeletal and Skin Diseases have discovered a high concentration of a mutator protein in cells that develop resistance to drug treatment in leukemia.

The finding, which appeared in the Sept. 8 issue of the journal *Cancer Cell*, provides an explanation of why leukemia cells often become drug-resistant and may lead to the development of therapies that improve survival in leukemia patients.

A research team led by Markus Müschen, director of the Leukemia Research Program at The Saban Research Institute, director of the Leukemia and Lymphoma Program at the USC Norris Comprehensive Cancer Center and associate professor of pediatrics at the Keck School, found that the protein AID, which normally mutates antibody genes in B cells, triggers resistance to the drug Gleevec in chronic myeloid leukemia (CML) patients.

Gleevec represents the standard treatment for CML and was introduced as the first example of target-specific cancer therapy 10 years ago. Nonetheless, CML cells often develop resistance to Gleevec and when that resistance occurs, these patients have very limited treatment options. While the problem of Gleevec-resistance is well known and affects many of the nearly 25,000 patients who currently live with CML in the United States, how drug-resistance develops remained a mystery.

The work done by Müschen and his colleagues now elucidates a central mechanism of drug-resistance in CML. The multi-investigator study received major contributions from faculty of the Keck School of Medicine: Michael R. Lieber, John Groffen, Yong-mi Kim and Nora Heisterkamp.

"Before this, we did not know why some patients developed resistance to Gleevec," Müschen said. "Now that we know at least one mechanism, we can work to develop therapies to counter the effects of AID in the chronic phase of the disease."

Every year, 4,500 patients in the United States are newly diagnosed with CML, a slowly progressing cancer that usually occurs during or after middle age and rarely occurs in children. In CML, an unusually high number of hematopoietic stem cells (blood cell progenitors) that were slated to become immune system cells, instead develop into cancerous cells that don't die off, resulting in damage to the bone marrow and blood.

"The involvement of the mutator enzyme AID exemplifies that the Darwinian principle of 'survival of the fittest' also explains how drug-resistance arises in leukemia," Müschen said. "Not all mutations introduced by AID are favorable for the leukemia cells, but those that confer drug-resistance provide an enormous survival advantage for the leukemia cells."

Gleevec was first approved by the U.S. Food and Drug Administration in 2001 for the treatment of CML. At the time of its approval, it was hailed as a magic bullet, increasing overall survival for CML patients to 95 percent over a five-year period. The drug works by inhibiting the action of a cancer-causing protein called BCR-ABL1 kinase. In most CML patients, the drug's continuous inhibition of this protein is enough to keep the cancer at bay.

New association reaches out to parents of Keck students

By Sara Reeve

Parents of students at the Keck School of Medicine now have a new way to connect with each other and the Trojan Family at large.

The Parents' Association of the Keck School of Medicine is a new free volunteer group that aims to get parents involved in their children's medical school experience.

Nani Bush

George Stoneman

One of the association founders, Keck alum George Stoneman (M.D., '65) noted that while medical school parents have a different relationship to the school than parents of undergraduates, they still want a way to stay involved.

"Two parents of past students told us that they went to the white coat ceremony, and then four years later, they went to graduation," said Stoneman.

"When they came back, they saw a lot of the same faces among their fellow parents, and they wished there had been a way to keep in touch with them throughout those four years," he said.

Volunteers for the Parents' Association held their first parent outreach effort at last month's white coat ceremony. According to Stoneman, the group signed up more than 70 parents and two sets of grandparents.

Membership in the group is free, and organizers plan several different benefits, including a subscription to *Keck Medicine* magazine, an invitation to the Salerni Collegium homecoming tailgate reception, as well as new special events just for parents. Stoneman hopes to organize a "mini-medical school" event where parents would get a taste of what it is like to be in medical school.

"Students, staff and alumni all know that they are a part of the Trojan Family, and parents are a part of that family, too, but they just don't know it," said Stoneman. "We want them to feel like they are a part of the Trojan Family. The parent's association will give them a chance to become involved and support their children during their medical school experience."

For more information about the Parents' Association of the Keck School of Medicine, call the Office of Alumni Relations at (323) 442-3292.

AMEY: Hailed as 'excellent choice to lead' campus integrated technology initiative

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as the Doctors of USC and associated with the Keck School of Medicine of USC practice there.

"Enhanced information technology services is a major part of our plan for developing our hospitals and providing the most cutting-edge patient care," said Mitch Creem, CEO of the hospitals. "Mr. Amey brings a wealth of experience in developing and implementing IT strategic plans in patient care environments. His leadership will be essential as we complete the transition to a world class university academic medical center."

Keck School of Medicine Dean Carmen Puliafito noted that the work of the medical school needs to link with the hospitals and clinical practices in order to thrive.

"Mr. Amey is an excellent choice to lead our integrated technology initiative," Puliafito said.

Amey received a bachelor of business administration degree in management and finance from Andrews University in Berrien Springs, Mich., and later earned a master's in business administration from La Sierra University in Riverside, Calif., with an emphasis in health care administration.

The Weekly NEWSMAKERS

A Sept. 22 CBC News (Canada) article highlighted research led by Assistant Professor of Pediatrics, Physiology & Biophysics **Steven Mittelman** which found that obese children with leukemia have a 50 per cent greater chance of relapsing compared with lean children because fat cells block chemotherapy drugs.

A Sept. 17 Reuters article highlighted a study by doctoral candidate in the Department of Preventive Medicine **Emily Ventura** and colleagues which examined the effects of nutritional education on 54 overweight Latino teens over four months.

A Sept. 16 ***New York Times*** article noted that a Pasadena-based biotech company was founded in 2007 on technology developed at the Keck School of Medicine.

A Sept. 16 ***San Gabriel Valley Tribune*** article included a Keck School of USC study on drug resistance in a list of notable new studies. The study found that high concentrations of a specific mutator protein have been found in cells that develop resistance to drug treatment in chronic myeloid leukemia.

A Sept. 16 ***Jewish Journal*** article noted that Assistant Professor of Medicine **Sarita Mohanty** of the Keck School of USC participated in a health care panel.

A Sept. 13 ***Ventura County Star*** article highlighted Rise to Action, a conference that was held at the USC Norris Comprehensive Cancer Center.

A Sept. 9 ***San Fernando Valley Sun*** article quoted Professor of Preventive Medicine **Michael Goran** and featured the USC Childhood Obesity Research Center's efforts to educate children and parents about getting healthy food options into schools.

Calendar of Events

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

Monday, Sept. 28

Noon. KSOM Research Seminar. "The Many States of Pluripotency," Martin Pera, USC. NRT Aresty Aud. (323) 442-7874

Tuesday, Sept. 29

11 a.m. Endocrinology Grand Rounds. "Thyroid Eye Disease," Eli Chang, USC. HMR 100. Info: (323) 442-2806

Wednesday, Sept. 30

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

Thursday, Oct. 1

Noon. Research Center for Liver Diseases Seminar. "Role of Hepatic Macrophages in Drug-induced Liver Injury," Cynthia Ju. Univ. of Colorado. HMR 100. Info: (323) 442-1283

Friday, Oct. 2

Noon. Gastrointestinal Grand Rounds. "Case Presentations," Sarah Sheibani, USC. OPT A5C129. Info: (323) 409-7995

Saturday, Oct. 3

9 a.m. – 5 p.m. California Family Medicine Conference for Medical Students. "Social Justice & Family Medicine: Access, Equality and a Healthy Democracy," Various speakers. Health Sciences Campus. Info: (415) 345-8667

9 a.m. – noon. "American Heart Association Heart Walk" to raise money for research to fight heart disease and stroke. All registered team members will receive a USC team t-shirt and an invitation to a USC team gathering before the walk. For more information or to join the USC team, visit http://tinyurl.com/qzc9vf

10 a.m. – Noon. USC Norris Cancer Hospital and The Doctors of USC present "Fight On for a Cure," to promote breast cancer awareness. Various speakers. RSVP by Oct. 2. NOR Aresty Aud. To register, or for information, call (323) 442-7673.

Monday, Oct. 5

Noon. Liver Grand Rounds. "Case Presentations," Joon Kim, USC. IPT C3J101. Info: (323) 409-7995

Tuesday, Oct. 6

11:30 a.m. Psychiatry Grand Rounds. "U.S. Mental Healthcare Trends," Anand Pandya, Cedars Sinai. ZNI 112. Info: (323) 442-4065

Wednesday, Oct. 7

Noon. Renal Grand Rounds. "Incontinence," David Ginsberg, USC. GNH 4420. Info: (323) 226-7337

Thursday, Oct. 8

Noon. Research Center for Liver Diseases Seminar. "Overcoming Barriers to the Use of Hepatocytes and Stem Cells in the Treatment of Liver Disease," Ira Fox, Univ. of Pittsburgh. HMR 100. Info: (323) 442-1283

Friday, Oct. 9

8 a.m. Conference, "Body Computing 3.0," Town and Gown Banquet Hall, University Park Campus. Info: http://www.usccardiology.org/bodycomputing/

Noon. Infectious Diseases Grand Rounds. "Updates of Pain Management and Specific Pain-related Issues in HIV Patients," Ali Nemat, USC. GNH 6441. Info: (323) 226-7504

Friday, Oct. 9

Noon. Gastrointestinal Grand Rounds. "Case Presentations," Angizeh Sadeghi, USC. OPT A5C129. Info: (323) 409-7995

Tuesday, Oct. 13

11:30 a.m. Psychiatry Grand Rounds. "Grief and Bereavement," Sidney Zisook, UC San Diego. ZNI 112. Info: (323) 442-4065

Wednesday, Oct. 14

Noon. Renal Grand Rounds. "Prostatitis and BPH," Matthew Dunn, USC. GNH 4420. Info: (323) 226-7337

Noon. Research Center for Liver Diseases Seminar. "Disrupted Mitochondria Function and Nitric Oxide Biology in Fatty Liver Diseases," Shannon Bailey, Univ. of Alabama. HMR 100. Info: (323) 442-1283

Friday, Oct. 16

Noon. Gastrointestinal Grand Rounds. "Case Presentations," Sarah Sheibani, USC. OPT A5C129. Info: (323) 409-7995

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

Institute for Global Health kicks off guest lecture series

By Sara Reeve

Changing health policy is challenging, even in the face of excellent research data that support the change, said Alfred Sommer, dean emeritus of Johns Hopkins University's Bloomberg School of Public Health. He spoke Sept. 15 at the first in a new monthly lecture series sponsored by the USC Institute for Global Health.

Jon Nalick

Alfred Sommer, dean emeritus of the Johns Hopkins University's Bloomberg School of Public Health, discusses the effects of vitamin A deficiency on eye disease.

Known for his long-term research and advocacy supporting the widespread use of vitamin A to prevent blindness and child mortality in developing nations, ophthalmologist Sommer discussed how his research was interpreted and acted upon by health organizations, pharmaceutical companies, governments and the media.

"You don't just get from good data to good policy," said Sommers. "Data is open to a lot of interpretations, and those interpretations have to be brought together into some sort of scientific consensus."

According to Sommer, many leaders in the public health arena once scoffed at the notion that vitamin A supplementation could make sweeping improvements to childhood mortality. The World Bank now estimates that the practice is the most cost-effective medical intervention in the world.

While acknowledging the many hurdles researchers have to go through to achieve lasting change, Sommer ended his discussion with a call to the audience for perseverance and dedication to advancing public health.

"Changing policy is still very difficult because you have competing priorities, politics, special interests, media attention, etc.," he said. "It's not an easy process, but it's one you have to stick to because if you find something you think is important, and you want to make a difference in the world, you have to pursue it to its logical conclusion. Just abandoning it is not a logical conclusion."

Sommer was introduced by Carmen A. Puliafito, dean of the Keck School. "Al is an inspiration to all of us in academic medicine, all of us who try to bring technology and science into the realm of therapeutics," said Puliafito. "As an ophthalmologist, I am tremendously proud of Al's contributions on a broad scale."

Jonathan Samet, director of the USC Institute for Global Health and chairman of the Department of Preventive Medicine at the Keck School of Medicine, welcomed the audience of students, faculty and staff to the first event sponsored by the institute.

"This is the first in a series of lectures that will bring to the campus a group of leaders in global health from around the world," said Samet. "In its first year, we will bring you a perspective from people who have been out there, doing things in their own countries and worldwide."

For information about upcoming guest lectures, contact the USC Institute for Global Health at (323) 865-0419.

HSC Emergency Preparedness Fair slated for Sept. 30

The USC Office of Fire Safety/Emergency Planning will hold the Health Sciences Campus safety awareness fair on Wednesday, Sept. 30, at Harry and Celesta Pappas Quad from 10 a.m. to 2 p.m. The event will feature emergency supply vendors selling disaster survival kits, first aid kits, fire extinguishers, smoke detectors, disaster food and water, flashlights, earthquake safety devices and other items at discounted prices for Trojans. In addition, there will be hands-on demonstrations on fire extinguisher usage, an earthquake simulator and displays on home fire prevention, hazardous materials emergencies, laboratory safety, preventing sexual assault, identity theft, alcohol abuse and more.

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