NIH awards $10 million to USC-led virus control study

By Meghan Lewit

A multi-institutional team of researchers led by Jae Jung, professor and chair of the Department of Molecular Microbiology and Immunology at the Keck School of Medicine, has received more than $10 million in funding from the National Institutes of Health to investigate virus control mechanisms.

The team will explore the molecular mechanisms by which viruses, such as the influenza virus and Hepatitis C virus (HCV), evade the body’s immune response.

Keck School of Medicine researchers will receive $5 million from the grant. The funding, to be dispersed over five years, marks the largest research center grant in this area and will bring together specialists in a number of disciplines, including cell biology, immunology and virology.

“This multi-project grant will attempt to delineate the molecular mechanisms underlying virus-host interactions to yield insights for the development of novel antiviral therapeutic interventions, as well as safe and effective vaccines,” Jung said.

USC investigators, including Jae Jung, James Ou, Chengyu Liang and Alan Gut, will focus on understanding how the host develops firsthand innate immune recognition and how viruses have evolved a number of mechanisms to thwart innate host defenses.

Much of Jung’s research has focused on the roles of RIG-I and TLRs, host proteins that detect influenza virus and HCV genetic information and trigger an interferon (IFN)-mediated innate immune response that limits virus replication, as well as initiating a systemic host immune response, Jung explained. (See related story in box below)

The efficacy of the IFN responses has led to a number of viruses evolving various evasion strategies to counteract the host IFN system.

On's study will attempt to understand how HCV interacts with host cells to evade intracellular innate immunity.

HCV is an arm of the hepatitis virus family associated with hepatocellular carcinoma, which is the fifth most common cancer in the world.

The various strategies employed by HCV to establish chronic infections include using a viral compound to block the RIG-I pathway. This particular strategy is essential to the viral life cycle and is a key component of the antiviral defense mechanism.

By Cheryl Bruyninckx

The Doctors of USC integrates clinical practices, launches new branding efforts

‘This is a major investigation to understand how to enhance innate immunity and block viral infections.’

—Jae Jung, professor and chair of the Department of Molecular Microbiology and Immunology at the Keck School of Medicine

The Doctors of USC in every aspect of our business,” said Minor Anderson, president and CEO of The Doctors of USC. “It is very important that we brand our new appointments and clear letters with instructions patients will receive.

On new Doctors of USC business cards have been designed and are available for purchase. Clinical staff will still have a business card, which feature the use of standard-sized patient letters. On new Doctors of USC letterhead, all patients will receive letters with instructions regarding their new appointments and clear messaging about any rescheduled appointments.

Professional standards policies zero in on patient care

By Cheryl Bruyninckx

New policies regarding professional standards for serving patients are being implemented throughout USC’s clinical practices.

The professional standards committee, chaired by Minor Anderson, president and CEO of The Doctors of USC, has approved new standards on how patient phone calls should be answered, as well as how doctors should communicate with referring physicians.

“There is always room for improvement when it comes to communication with our patients and referring physicians, as it is one of the most important aspects of patient care,” said Anderson. “The professional standards committee has worked hard to develop a set of standards that each clinical faculty and staff member will be held accountable for.”

Clinical staff needs to make every attempt to answer calls before the fourth ring and manage patient calls through a satisfactory completion. Telephone calls are not to be answered on speakerphone, and staff is encouraged to use headsets as a hands-free option. All appointment lines are to be answered by a live person or an automated system with an option to be routed to a live person during business hours. Monday through Friday from 8:30 a.m. to 5 p.m.

Another area of focus for the professional standards committee is standardizing communication with referring physicians. Written documentation of all new and/or pertinent information will be communicated with the referring physician within two weeks and copied into the patient’s medical records. Verbal communication with the requesting physician should take place as soon as is warranted by the nature of the request and the condition of the patient.

With the integration of the clinical practices, these new policies are very important to creating a warm and welcoming environment for our patients and visitors,” said Anderson.
U.S. News and World Report magazine’s August issue has named Children’s Hospital Los Angeles among the best children’s hospitals in the U.S.—in all pediatric specialties ranked. CHLA was among only 10 hospitals in the nation—and the only pediatric medical center on the West Coast—to achieve the feat and to earn a place on the magazine’s national “Honors Roll” of children’s hospitals.

Keck School of Medicine Dean Carmen A. Puliafito hailed the achievement and praised the Keck School of Medicine faculty who staff the hospital as instrumental to its success. “To be honored in all 10 pediatric subspecialties is a truly remarkable accomplishment. It speaks volumes about the quality of care and the depth of dedication that our faculty provide to patients there every day,” Puliafito said.

U.S. News & World Report magazine began its ranking of children’s hospitals in 1990. This is the first year the magazine has ranked children’s hospitals in 10 specialty areas, with 56 children’s hospitals throughout the country represented in the new rankings.

Children’s Hospital Los Angeles ranked among the top 30 children’s hospitals in the nation in all 10 specialties (in alphabetical order): cancer (8), diabetes and endocrine disorders (5), digestive disorders (11), heart and heart surgery (10), kidney disorders (9), neonatal care (17), neurology and neurosurgery (15), orthopedics (7), respiratory disorders (12) and urology (24).

U.S. News & World Report invited 160 hospitals to complete its 65-page survey to be considered for ranking; 98 hospitals chose to do so. The survey was created and administered by RTI International.

The article, “America’s Best Children’s Hospitals,” is available online (http://tinyurl.com/3kan62) and will be published in the August issue of the magazine; available on newsstands July 21.

Continued from page 1

‘RIG-I acts as the sensor and security force against attacks. Then, a protein known as TRIM25 helps RIG-I transmit an alarm signal, which ultimately floods the cell and surrounding tissue with antiviral interferons.

“People worldwide, muted the alarm system against the virus. Remarkably, a flu virus carrying an NS1 mutant defective for this activity loses its virulence in animal models, Jung noted.

“Understanding this host-virus interaction is an essential step in developing safe and effective drugs to target the influenza virus.” This work was performed in collaboration with Adolfo Garcia-Sastre, at Mt. Sinai Medical School and the final doctoral experiments of Michaels Guck, who is the paper’s first author and currently a faculty member at Harvard Medical School. Michaela Ulvira Guck, Randy Ailen Albrecht, Tatschiko Usaino, Kyung-Soo Jun, J-Gueck Huang, Eileen Carson, Helen Parson, Satoko Inoue, Jun Young Jung, Adolfo Garcia-Sastre. “Influenza A Virus NS1 Targets the Ubiquitin Ligase TRIM25 in RNA Stress Recognition by the Host Virology. RNA Stress RIG-I.” Cell Host & Microbe. DOI: 10.1016/j.chom.2009.04.006.

The HSC Weekly is published for the faculty, staff, students, volunteers and visitors in the University of Southern California’s Health Sciences Campus community. It is written and produced by the Health Sciences Public Relations and Marketing Staff. Comments, comments and story ideas are welcome. Permission to reprint articles with attribution is freely given.

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The Weekly
Next Issue: July 24
Environmental health center offers study grants

AHA honors USC University Hospital

USC Neighborhood Outreach awards funds to local programs

AHA honors USC University Hospital

The American Heart Association (AHA) recently honored USC University Hospital for excellence in caring for patients with coronary artery disease and heart failure.

University Hospital received the AHA’s Get With The Guidelines—Coronary Artery Disease Gold Performance Achievement Award, which recognizes commitment and success in implementing a higher standard of cardiac care that effectively improves treatment of patients hospitalized with coronary artery disease. Hospitals that receive the award must demonstrate for 24 consecutive months that at least 85 percent of its eligible coronary patients (without contraindications) are discharged following the AHA’s recommended treatment guidelines.

Hospitai staff received the award at a special presentation on June 17.

The hospital also received the AHA’s Get With The Guidelines—Heart Failure Bronze Performance Achievement Award. The recognition signifies that the hospital has reached an aggressive goal of treating heart failure patients for at least 90 days with 85 percent compliance to core standard levels of care outlined by the AHA.

Environmental health center offers study grants

The Southern California Environmental Health Sciences Center is seeking applications for their 2010 Environmental Health Research Pilot Project Grants, one-year awards of up to $35,000.

The SCEHSC funds pilot projects to support investigators with the opportunity of collecting preliminary data to establish the feasibility of a research project and/or to validate the utility of specific procedures or techniques.

For more information or to apply, contact Sutton at (323) 442-2750 or csutton@usc.edu.

USC Neighborhood Outreach awards funds to local programs

By Sara Reeve

Community organizations in the area surrounding the Health Sciences Campus and their university partners were recognized at the USC Neighborhood Outreach (UNO) Grant Awards ceremony on June 9.

The event, held in the Edmondson Faculty Center, announced the recipients of grants ranging in size from $7,000 to nearly $35,000 that were funded by the annual USC Good Neighbors fundraising campaign.

“The UNO program was created to allow university staff and faculty an opportunity to contribute to the community through an organization with absolutely no overhead,” said John Wolcott, senior computer consultant specialist for the Division of Occupational Science and Occupational Therapy. “Every penny donated to UNO goes directly back into the community.”

Wolcott is a board member of USC Neighborhood Outreach and served as the ceremony’s emcee.

Receiving prime recognition at the ceremony were those programs identified as “signature programs.” These established—three years of activity or more—programs met additional criteria that marked them as exceptional, and have received guaranteed funding for three consecutive years.

Two programs in the HSC area received “signature” status: USC Health & Science Expo 2010, which received $14,167, and the USC Thornton Outreach Program, a service of the USC Thornton School of Music that is active at Murchison Elementary School and was funded in the amount of $34,880.

“It is impressive, despite current economic conditions, USC faculty and staff contribute to UNO and the wonderful programs highlighted here,” said Celina Mancia, field deputy for City of Los Angeles Councilmember José Huizar.

“All of these programs have significant impact on the lives of families in Boyle Heights,” she added.

Other programs to receive grants from UNO include:

• “Expanding STARS,” an educational program sponsored by the USC School of Pharmacy—$13,613
• “A Fotonovela on Obesity,” a project of the USC School of Pharmacy—$30,600
• “Fuente Initiative,” a program of the USC School of Pharmacy—$7,421
• “HSC Community Health Fair 2009,” an event organized by USC Civic & Community Relations—$14,363
• “HSC Partners Newsprint Program,” a program of USC Civic & Community Relations—$3,916
• “Mission Science-HSC,” a project of the Viterbi School of Engineering—$18,842
• “Proyecto Verde,” a new program sponsored by the Keck School of Medicine—$12,105
• “Science for Life Outreach Program,” a program of the Keck School—$11,950
• “USC Neighborhood Mobile Dental Van Prevention Project,” a project of the USC School of Dentistry—$32,918
• “USC Physical Therapy Fit Families Program,” sponsored by the Division of Biokinesiology and Physical Therapy—$19,050

The UNO grants have helped sustain and grow community outreach programs that might otherwise have fallen victim to the worsening economy.

“With all the recent funding cuts, I decided to apply for supplemental funding to 42 different foundations—and was rejected by every one,” said Jennifer Holtzman, assistant professor of clinical dentistry and project leader of the USC Neighborhood Mobile Dental Van Prevention Project, which provides access to oral health care to underprivileged children. “Without this funding from USC Neighborhood Outreach, these kids would not have any access to dental care.”

USC welcomes cancer researcher/oncologist Agus

—Noted oncologist and cancer researcher David B. Agus (center) was welcomed to the Keck School of Medicine of USC June 24 at a reception at the home of Robert and Kelly Day, members of the Board of OverSers of the Keck School. Hosted by the Days and Keck School Dean Carmen A. Huizar, the reception was attended by 80 guests. Agus joined the Keck School faculty on April 1 as a professor of medicine and director of the new USC Westside Prostate Cancer Center, a multidisciplinary center in Beverly Hills that provides care for patients with prostate cancer. He also serves as principal investigator for the Molecular Technologies in Cancer project, which is supported by a recent $5 million gift from the Elion Medical Foundation. The initiative focuses on molecularly targeted therapy, which holds promise as a new paradigm for cancer treatment. Above, with Agus at the reception are Palkofo, left, and Day, right.

The Weekly NEWSMAKERS

By Sara Reeve

A July 2 U.S. News & World Report article quoted stem cell expert Martin Pera about the future of stem cell therapies.

On July 1, CBS Evening News interviewed anesthesiologist Philip Lumb about Diprivan, a powerful sedative allegedly used by Michael Jackson. NBC’s “Dateline” also interviewed him about Diprivan.

A June 27 Newsweek article noted that epigenomic expert and USC Norris Comprehensive Cancer Center director Peter Jones and a Johns Hopkins University colleague recently received a three-year, $9.1 million grant to launch accelerated testing of epigenetic therapy in patients with lung, colon and breast cancer.

A June 25 Associated Press article quoted cardiologist Leslie Saxon about cardiac arrest related to Michael Jackson’s death in a widely carried article.

She was quoted in two Los Angeles Times articles, on Fox News and in a widely carried CBC News (Canada) story.

A June 17 Los Angeles Times article quoted child obesity researcher Donna Spruijt-Metz and featured a USC project that uses a wireless body network to monitor behavior and encourage obese teens to exercise. She was also interviewed live on Fox News about the device.

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

Monday, July 13
9:00 a.m. “Case Presentations,” Sarah Sheibumi, USC. D&T Bldg. B3B105. Info: (323) 409-7995
Tuesday, July 14
9:00 a.m. Neurology Grand Rounds. “Neuro Emergencies-Status,” David Millett, USC. ZNI 112. (323) 442-7686
11:30 a.m. Psychiatry Grand Rounds. “Genetics and Neuroscience,” Pamela Silber, Harvard. ZNI 112. Info: (323) 442-4065
Wednesday, July 15
8:30 a.m. “Mechanical Ventilation,” R. Juarez, USC. GSH 11-321. Info: (323) 226-7923
Friday, July 17
8:30 a.m. “Airway Management II,” R. Juarez, USC. GSH 11-321. Info: (323) 226-7923
Noon. “Case Presentations,” Victor Yu, USC. OPT Bldg. ASC129. Info: (323) 409-7995
Monday, July 20
Wednesday, July 22
8:30 a.m. “Ventilator Associated Pneumonia,” H. Shigemitsu, USC. GSH 11-321. Info: (323) 226-7923
Friday, July 24
8:30 a.m. “Bronchoscopy I,” C.F. Chang, USC. GSH 11-321. Info: (323) 226-7923
11 a.m. Hematology Grand Rounds. “Multiple Myeloma and Monoclonal Gamopathy,” Ann Mehrbusche, USC. LAG+USC IPT G2J103. Info: (323) 865-3950
Noon. “Case Presentations,” Victor Yu, USC. OPT Bldg. ASC129. Info: (323) 409-7995
Wednesday, July 29
8:30 a.m. “Bronchoscopy II,” C.F. Chang, USC. GSH 11-321. Info: (323) 226-7923
Friday, July 31
8 a.m. CHLA Grand Rounds. “Nonsinoviral Assessment of Tissue Iron Stores: From Badside to Bench and Back Again,” Tomas Coutas and John Wood, UWCHLA. CHLA Suban Aud. Info: (323) 361-2935
8:30 a.m. “Shock II,” K. Alshar, USC. GSh 11-321. Info: (323) 226-7923
Noon. “Case Presentations,” Geleman Abboud, USC. OPT Bldg. ASC129. Info: (323) 409-7995

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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) 442-3822, or e-mail to eblaauw@usc.edu. Entries must include date, day, time, title of talk, first and last name of speaker, affiliation of speaker, location, and a phone number for information.

By Sara Reive
For some Los Angeles seniors, it may not be a salesperson ringing the doorbell—it just might be their doctor.

The USC Home Visit Program, led by Wayne Chen and Patricia Harris, both of whom are assistant professors of clinical medicine in the Keck School’s Department of Medicine, provides care for Los Angeles-area patients who have difficulty leaving their homes to attend medical appointments.

“The population is aging, and we are living longer, but we are living longer with chronic illness rather than in good health,” said Harris. “Health care is growing ever more complicated and difficult to negotiate. Most practitioners who make home visits believe that they take control costs by taking care of patients in a less fragmented, more comprehensive fashion. If medical professionals can prevent just one hospital admission, which costs an average of $9,088, there are great potentials for cost savings.”

Home visit services include the treatment and management of common medical conditions such as diabetes, hypertension, wound care, physical therapy and fall prevention. The Home Visit Program staff also helps manage medications, coordinates with home health agencies and makes referrals to specialists for additional care.

For patients like Marvin Miyashiro, home visits from doctors have been a lifeline. Stricken 18 months ago with a viral infection that left him with significant neurologic impairment, the 61-year-old Miyashiro is cared for around-the-clock by his three daughters: Lydia, Paula and Irene.

“The regular care Dr. Harris provides has just been wonderful,” said Irene. “She can monitor his progress and point out changes and developments that we don’t notice because we’re with him every day.”

Miyashiro, who was recently recognized for 40 years of service to the U.S. Customs and Border Protection Service, has limited mobility, but, according to Harris, has made considerable progress and is now awaiting word on acceptance into a temporary residential rehabilitation program.

To participate in the Home Visit Program, patients must pay cash or have medical insurance, such as Medicare, a combination of Medicare and Medi-Cal or Medicare and a PPO. IMOs typically have their own home visit programs.

“I feel strongly that I provide better care to these patients in their homes than I ever could by seeing them in the clinic,” said Harris. “I can see how they live, who is helping them, what obstacles—stairs, fall hazards, no bathroom on the first floor—prevent them from maintaining better health, etc. I also believe that I have prevented many hospitalizations and worsening of health status by following patients closely and catching and treating deteriorating health status before patients become so sick that they needed hospitalization.”

The program provides a 24-hour patient access telephone line that can direct calls to a USC physician who is on call.

“We have used the help line for when we have issues or questions come up late at night, after midnight,” said Irene. “It is very reassuring to have a doctor answer our questions and let us know what to do. It has prevented us from unnecessary emergency room visits.”

While the Home Visit Program currently treats about 100 homebound seniors, Harris aspires to see the program grow to meet the needs of an aging population. “I hope that, with Dr. Chen and myself, we can pool our resources, formalize, and eventually expand the program,” she said.

Irene Miyashiro also hopes the program will grow to serve more patients. “I wish there were more of these types of programs available for people,” she said. “As a family, we feel more relaxed, knowing that the doctor can come to see my dad in his home. They can really take their time and get to know their patients.”