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NIH backs Keck School investigators

Two get \$8 million for outstanding research

By Cristy Lytal

he National Institutes of Health (NIH) has recognized Keck School of Medicine of USC scientists Gage Crump, PhD, and Pinghui Feng, PhD, with awards for Sustaining Outstanding Achievement in Research (SOAR) eight-year, \$8 million grants to enhance our understanding of dental, oral and craniofacial diseases and conditions.

Awarded by the NIH's National Institute of Dental and Craniofacial Research (NIDCR), the grants support mid-career scientists with strong track records of productive and innovative

Using zebrafish as a model of



Gage Crump

Pinghui Feng

human craniofacial development and disease, Crump and his team have pioneered new ways to study the development, maintenance and regeneration of the head and face. Moving forward, Crump will continue to explore how progenitor and stem cells build, maintain and regenerate the face and head — and ultimately use

the lessons learned from zebrafish to advance treatments for human patients.

Crump, an associate professor of stem cell biology and regenerative medicine at the Keck School, also is dedicated to fostering the next generation of stem cell scientists. In 2013, he created USC's PhD Program in Development, Stem Cells and Regenerative Medicine, and in 2017 he won a USC Mentoring Award for his exceptional efforts in guiding graduate students to success.

Feng, an associate professor of molecular microbiology and immunology at the Keck School, explores the link between

See **RESEARCH**, page 3

USC partners for \$12 million study on Alzheimer's diversity

By Zara Abrams

he USC Mark and Mary Stevens Neuroimaging and Informatics Institute at the Keck School of Medicine of USC is working to reverse a troubling trend in biomedical research: the lack of diversity in data archives. A new collaborative project, the



Arthur Toga

Health and Aging Brain among Latino Elders (HABLE) study, is funded by a \$12 million grant from the National Institutes of Health and seeks to establish a better understanding of aging and Alzheimer's among Mexican-Americans.

See **DIVERSITY**, page 3



KECK MEDICINE DOCTORS KEEP YOUNG VOICES HEALTHY: The USC Thornton School of Music and USC Voice Center partnered to offer the second annual vocal screening clinic on Sept. 15 to voice students at the USC Voice Center's new downtown Los Angeles location.

Keck Medicine opens new Palmdale location

 ${f I}$ magine getting a cancer diagnosis — and then having to drive more than an hour each way for surgery and follow-up appointments. That's the dilemma Antelope Valley residents were facing until Keck Medicine of USC came to town.

Monish Aron, MD, professor of clinical urology at the Keck School of Medicine of USC, began seeing patients at Palmdale Regional Medical Center in 2011 and, by the spring of 2016, he had been joined by colleagues specializing in urology, colorectal surgery and breast surgical oncology. The partnership has been such a success that Keck Medicine now has opened a dedicated suite of offices in the medical center at 38660 Medical Center Drive, Suite A200.

Sang W. Lee, MD, professor of clinical surgery and chief of the division of colorectal surgery, was enthusiastic about the new arrangement.

"To have a consolidated space here where urology and colorectal surgery can see patients — I think it's a must," Lee said. He also highlighted the need for specialized care in the region. "We're the only colorectal surgery service in the whole Antelope Valley. The fact that patients can get the same quality care here that they get at USC makes a huge difference."

Breast surgical oncologist Maria Nelson, MD, assistant professor of clinical surgery, noted that physicians will be able to offer the same procedures available at Keck Medicine's Los Angeles locations.

See PALMDALE, page 3

Schools join programs, opening doors to lab for teen neighbors

Be a Good Neighbor

October marks the beginning of the Good Neighbors Campaign, USC's annual employee-giving initiative organized by Civic Engagement. The campaign encourages USC faculty and staff to contribute a portion of their paychecks to support programs that help strengthen local communities. Students, alumni and friends also can participate.

To date, the campaign has raised more than \$20 million to support 740 community partnership programs. For more information or to give online, visit goodneighbors.usc.edu.

By Divya Yerwa Mary

Individually, the Science, Technology and Research (STAR) and Engineering for Health Academy (EHA) programs have long opened pathways for high school students particularly underrepresented minorities — to pursue careers in life sciences, biomedical engineering and biotechnology. Now, Daryl Davies, PhD, professor of clinical pharmacy and director of undergraduate education at the USC School of Pharmacy and Joseph Cocozza, PhD, assistant professor of research ophthalmology at the Keck School of Medicine of USC have joined to blend and expand these programs' longstanding partnerships

with Francisco Bravo Medical Magnet High School for even greater impact on young scientists' futures.

The augmented STAR/ EHA program, funded by USC's Good Neighbors Campaign, offers an innovative approach to science, technology, engineering and math (STEM) education by providing high school students an entire year's experience in USC research laboratories that is integrated with their academic curriculum.

Throughout the year, STAR/ EHA students conduct original research projects under the careful guidance of postdoctoral researchers, graduate students and laboratory directors. This level of engagement in a university-



Daryl Davies, left, and Joseph Cocozza have joined forces to offer high school students an entire year's experience in USC research laboratories.

level research environment fosters the students' interest in science and research, in addition to preparing them for success in college.

On their own, the STAR/ EHA programs have had

a 100 percent success rate of participants going on to college, with a large percentage attending top universities such as USC, Stanford, Caltech, Princeton, Yale, Harvard, MIT,

See **NEIGHBORS**, page 3

OCTOBER 6 • 2017

Clinical Trials Office offers support for faculty members

By Amanda Busick

The Keck School of Medicine of USC has a number of new initiatives that are creating a more streamlined and user-friendly environment to help faculty members succeed in managing their clinical research, often a time-consuming and complicated undertaking.

The USC Clinical Trials Office (CTO) handles administrative aspects of industry-funded clinical trials, including coverage analysis, contracting, budget development and post-award financial management. The CTO also conducts coverage analysis and provides assistance with budget development for federally funded clinical trials.

The Keck School has operated the CTO for schools on the Health Sciences Campus since January 2016. During that time, the CTO staff has doubled and workflows have been improved, leading to the clearing of a backlog of 246 studies pending activation and an activation rate increase from an average of 8 to

15 studies per month, administrators said. The CTO now has a goal of activating all trials within 90 days of submission.

The Southern California Clinical and Translational Science Institute (SC CTSI), funded by the National Institutes of Health, provides services and resources to researchers at USC and Children's Hospital Los Angeles (CHLA). The Clinical Research Support group of the SC CTSI provides a wide variety of resources to support clinical research. Researchers can access biostatistical support, regulatory advice, a pool of study coordinators, recruitment services and an outpatient Clinical Trials Unit. They also can access pilot funding, research vouchers and team-building expertise, as well as multiple funding opportunities.

"We also provide free consulting hours for research teams to strategize recruitment," said April Armstrong, MD, MPH, associate dean for clinical research and associate professor of clinical dermatology. "This includes both traditional

recruitment venues and social media platform strategies."

The SC CTSI, CTO and other support teams have launched the Clinical Research Harmonization Initiative with the goal of developing a more streamlined process for submission and activation of clinical trials. Creation of a single portal for trial submission is the next goal.

"The Keck School and the dean consider clinical research to be a high priority," said Thomas A. Buchanan, MD, vice dean for research and the director of the SC CTSI. "We've made major investments in the infrastructure, and because of our expanded resources, submissions are up and they are getting processed much more quickly."

Interested faculty can learn more about the resources available for clinical trials at a town hall from 4 p.m. to 5:30 p.m. Oct. 23 in Mayer Auditorium. For more information, contact Julie Carl at jcarl@med.usc.edu.

Visions and Voices brings public health expert to campus

By Amanda Busick

amara Jones, MD, PhD, MPH, spoke to an audience that overflowed to two auditoriums recently about how race, social status and discrimination factor in to health equity, and what medical professionals can do to improve race-associated differences in health outcomes.

The lecture, which took place Sept. 18, was the first of the academic year on the Health Sciences Campus from USC Visions and Voices, an ongoing series that brings a variety of speakers, performers and events to USC campuses to engage students and others in the arts and humanities.

Jones, a physician, epidemiologist and senior fellow at the Satcher Health Leadership Institute and the Cardiovascular Research Institute at the Morehouse School of Medicine, spoke extensively about the problems faced by minority populations in the U.S., using animations, illustrations, creative analogies and allegories to



Camara Jones speaks at a USC Visions and Voices event on the Health Sciences Campus.

explain how people can "fall off the cliff" when faced with a medical crisis, and where a person could "land" after such a crisis, depending on their race and socioeconomic status.

She went on apply this cliff analogy

to real-world health equity concerns. "An example of addressing the social determinants of health would be addressing poverty, or addressing adverse neighborhood conditions," such as lack of basic services or safety

concerns, Jones explained. These can only be fixed, she continued, if you understand the reasons the adverse conditions exist in the first place.

Jones, who also is the immediate past president of the American Public Health Association, engaged the audience by presenting her lecture as a conversation. She encouraged attendees to speak out with questions or comments while she was speaking, which led to interactions that created a deeper understanding of the concepts being presented.

"When you find yourself at a decision-making table, your first job is to look around and say 'who is not here who has an interest in this proceeding?" Jones said. "And then your job is not just to represent their interests at the table, but to try to find them a way to the table."

More information on future Visions and Voices events can be accessed at visionsandvoices.usc.edu.

Calendar of Events

Friday, Oct. 6

7 a.m. USC Caruso Department of Otolaryngology – Head and Neck Surgery Grand Rounds. "Contemporary Management of Chronic Cough: Thinking Outside the Box," Joseph Bradley, MD, Washington University School of Medicine in St. Louis. Eli and Edythe Broad CIRM Center Auditorium. Info: Kim Schultz, (818) 620-4171, schultzk@usc.edu

Noon. USC Human Resources. "2018 Open Enrollment Information Session." Alhambra. Info: (213) 821-8100, uschr@usc.edu, https://openenrollment.usc.edu

Noon. USC Research Center for Liver Diseases Seminar. "Mitochondrial Protein Translocation and Disease: Studies with Small Molecule Modulators," Carla Koehler, PhD, University of California, Los Angeles. McKibben Lecture Hall, Room 156. Info: Dolores Mendoza, (323) 442-1283, dmmendoz@usc.edu

Saturday, Oct. 7

7 a.m.-3:30 p.m. Department of Medicine, division of rheumatology, and USC Office of Continuing Medical Education. "USC Clinical Rheumatology Update: Focus on RA, Lupus and Psoriatic Arthritis." Aresty Auditorium. Info: Lysandro Valenzuela, (323) 442-2555, usccme@med.usc.edu, https://cmetracker.net/KECKUSC/Catalog

Tuesday, Oct. 10

11:30 a.m. USC Human Resources. "2018

Open Enrollment Information Session." Keck Hospital of USC, Cardinal Room. Info: (213) 821-8100, uschr@usc.edu, https://openenrollment.usc.edu

Noon. USC Law & Global Health Collaboration. "Fake News and Censorship: Twin Challenges for Law and Global Health in the Digital Age," David Kaye, JD, University of California, Irvine. USC Gould School of Law (LAW) 130. Info and RSVP: (323) 442-7233, global.health@usc. edu, http://bit.ly/2ykddxf. This event will be live-streamed at https://www.facebook.com/ USCGlobalHealth.

Noon. Department of Psychiatry Grand Rounds. "Gender Identity and Dysphoria in Congenital Adrenal Hyperplasia," Susan B. Turkel, MD, and Steven Storage, MD. GNH 1645, 1st Floor Lecture Hall. Info: Gretchen Heidemann, (323) 442-4000, gheidema@usc.edu

5:30 p.m. Department of Ophthalmology Grand Rounds. Debarshi Mustafi, MD, and Andrew Clark. USC Roski Eye Institute, HC4, 6th floor conference room. Info: Ty Christopher, (323) 409-5233, http://eye.keckmedicine.org/grand-rounds/

Wednesday, Oct. 11

7:30 a.m. USC Institute for Integrative Health Seminar. "Leveraging Technology in Mindfulness-Based Interventions," Inna Arnaudova, PhD. Harkness Auditorium. Info and RSVP: Quintilia Avila, (323) 442-2638, qavila@usc.edu

Thursday, Oct. 12

Noon. Gehr Center for Health Systems Science, Department of Medicine Talk. "The Role of Community Health Centers in our Health Care System," Cástulo de la Rocha, JD, AltaMed Health Services Corp. Aresty Auditorium. Info: Rachel Lim, (323) 409-3823, rachel.lim@med.usc.edu

6 p.m.-7:30 p.m. Art Rx Workshop. Simi Rahman, MD. Aresty Auditorium. Info and RSVP: Georgia Weston, (818) 645-0938, grhuston@usc.edu

Saturday, Oct. 14

7 a.m.-4 p.m. Center for Cerebrovascular Disorders, Departments of Neurosurgery and Neurology, and USC Office of Continuing Medical Education. "2017 Cerebrovascular Disease Symposium: From Clinical Trial to Clinical Practice." Mayer Auditorium. Info: Lysandro Valenzuela, (323) 442-2555, usccme@med.usc.edu, https://cmetracker.net/KECKUSC/Catalog

7 a.m.-5:15 p.m. Department of Cardiovascular Medicine and USC Office of Continuing Medical Education. "Innovations in Cardiovascular Diagnosis and Therapy." 506 S. Grand Ave., Los Angeles. Info: Lysandro Valenzuela, (323) 442-2555, usccme@med.usc.edu, https://cmetracker.net/KECKUSC/Catalog

Monday, Oct. 16

11 a.m. USC Human Resources. "2018 Open Enrollment Information Session." USC

Norris Cancer Hospital, NOR LC 503/504. Info: (213) 821-8100, uschr@usc.edu, https://openenrollment.usc.edu

Noon. USC Institute for Global Health and division of international emergency medicine at the Keck School of Medicine of USC. "Planetary Health: Human Health Impacts of Environmental Change," Christopher Golden, PhD, MPH, Harvard University. The Forum at Tutor Campus Center (TCC) 450. Info and RSVP: (323) 442-7233, global. health@usc.edu, https://globalhealth.usc.edu/planetary-health/. This event is part of the USC Global Health Lecture Series and will be live-streamed at https://www.facebook.com/USCGlobalHealth.

Thursday, Oct. 19

12:30 p.m. SC CTSI and the Keck School of Medicine of USC Workshop. "Lunch & Learn: Biostatistics Workshop, Study Designs and Data Collection Strategies: Scientific and Logistical Considerations in Selecting the Design to Address your Research Question." Harlyne J. Norris Cancer Research Tower (NRT) LG 503/504. Info and RSVP: Aileen Dinkjian, (323) 442-1087, aileen.dinkjian@med.usc.edu, http://bit.ly/2y2b9sl

Saturday, Oct. 21

10 a.m. USC Stem Cell Open House. "Lab Tour and Open House at StemCyte," Wise Young, MD, PhD, StemCyte. 13800 Live Oak Ave., Baldwin Park. Info: Jonas Wang, (626) 646-2500, http://www.stemcyte.com

Notice: Calendar items are due at least 10 days before publication date. Timely submission does not guarantee publication in print. See more calendar entries at hscnews.usc.edu/calendar-of-events. Submit items at tinyurl.com/calendar-hsc. Include day, date, time, title of talk, first and last name of speaker, affiliation of speaker, location and a phone number/email address.

Vaccine could stop Alzheimer's years before it begins

By Erica Rheinschild

Researchers at the Keck School of Medicine of USC are tackling the sixthleading cause of death in the United States — Alzheimer's disease — with a new study that intervenes decades before the disease develops. The school is joining approximately 90 institutions in North America, Europe and Australia in the Generation Study, which is testing a vaccine and oral medication to prevent or delay Alzheimer's in older adults at increased risk for developing the disease.

By focusing on prevention, the study is taking a different approach to halting a disease that affects 47 million people worldwide.

"One of the challenges in developing new medications for Alzheimer's is that researchers tend to test medications on people with more advanced Alzheimer's, and the medications are simply not proving to be



Lon Schneider

effective," said the study's lead investigator at the Keck School, Lon Schneider, MD, professor of psychiatry and the behavioral sciences and professor of neurology. "By intervening 10 to 12 years before Alzheimer's manifests, we may be able to stop it before it begins or delay the symptoms."

Adults 60 to 75 years of age with normal cognition who are

interested in participating must undergo genetic testing for the *apolipoprotein e4* (APOE4) gene, which is associated with an increased risk of developing Alzheimer's.

About half of people with Alzheimer's disease carry the *APOE4* gene, which can be inherited from either parent, Schneider said. About 25 percent of the population carries one copy of the *APOE4*

gene, and about 2 percent to 3 percent of the population carries two copies, having received one from each parent. To qualify for the study, participants must have two copies of the gene.

Qualifying participants may be randomized to take a vaccine, oral medication, placebo vaccine or placebo oral medication. The vaccine and oral medication target amyloid beta — the main component in amyloid plaques in the brain and a culprit in Alzheimer's

— in two different ways: The vaccine helps the body develop antibodies against amyloid beta, while the oral medication blocks an enzyme that creates amyloid beta. Participants may receive the study medications for five to eight years.

"If we are able to show that the vaccine or oral medication is effective at delaying Alzheimer's among people at higher risk, then this would strongly imply that we are on the right track for developing treatments," Schneider said.
"If we can delay the onset of
Alzheimer's by five years, for
example, the incidence of the
illness would drop by half. It
would also give individuals five
more years without symptoms
of the illness."

Should the vaccine or oral medication prove to be effective in people with two copies of the *APOE4* gene, then it likely also would be effective for other people at risk for Alzheimer's, according to Schneider.

"Our clinician-scientists have been actively involved in clinical drug development for Alzheimer's disease for more than 30 years," said Rohit Varma, MD, MPH, dean of the Keck School. "This study is a reflection of our continued efforts to conquer one of the greatest health challenges of our time."

For information about the study, contact Nadine Diaz at (323) 442-7600 or ndiaz@usc.edu.

PALMDALE

Continued from page 1

"I've already ordered the same equipment I have at (Keck Medical Center), so patients in Palmdale will be able to get minimally invasive surgery." she said.

surgery," she said.

Palmdale gave Keck
Medicine a warm welcome to
the new dedicated suite with
an open house on Sept. 21
that included representatives
from state and local
government, the Palmdale
Chamber of Commerce and
an appearance by Julyssa
Renteria, Miss City of
Palmdale 2017.

Chris Jones, Regional Operations Director for Keck Hospital, is optimistic about the partnership. "When people see that they can get USC care, they're going to want to come here. It's a very good facility and I've met a lot of the leadership and staff. Everyone is committed, everyone is engaged and that's what you want. It's going to be a great collaboration."

DIVERSITY: Clinical trial participation urged from people of all races

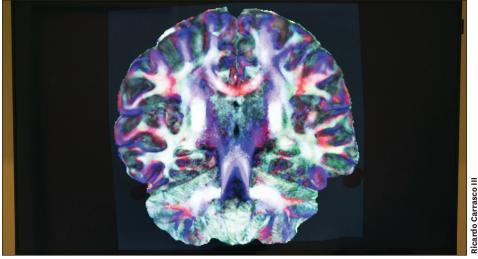
Continued from page 1

"Most of the archives around the world have insufficient numbers of underrepresented groups," said Arthur W. Toga, PhD, director of the institute and one of the principal investigators of the study. "It's important for people of all races and ethnicities to participate in Alzheimer's clinical trials, because this disease is a problem that affects all of us."

The five-year study was launched in September and is a collaboration with researchers from the University of North Texas (UNT) Health Science Center and University of California, San Francisco. Investigators will recruit and test 2,000 volunteers from North Texas — half Mexican-American and half non-Hispanic white — and hope to learn something new about how the debilitating disease affects Latinos differentially.

Previous research by Sid O'Bryant, PhD, associate professor of internal medicine at UNT and principal investigator of the study, points to one possible explanation for Mexican-Americans' increased risk: metabolic risk factors such as obesity and Type 2 diabetes.

"It could be that diabetes and metabolic dysfunction or depression, or a combination of both, are of



Researchers at the USC Stevens Neuroimaging and Informatics Institute will be responsible for 4,000 brain scans during the five-year study.

major importance to memory loss and Alzheimer's disease among Mexican-Americans," O'Bryant said.

Researchers will perform cognitive tests, blood work and brain scans on participants twice during the five-year period to monitor changes in health and behavior over time. O'Bryant's team even purchased a robot to help handle the mass of data they plan to collect: the bot will process 400,000 blood tubes stored in the university's biorepository.

Researchers at the Keck School are

responsible for another large chunk of data: 4,000 brain scans. Toga, Provost Professor of Ophthalmology, Neurology, Psychiatry and the Behavioral Sciences, Radiology and Engineering, and the Ghada Irani Chair in Neuroscience, will oversee image storage and processing, while Yonggang Shi, PhD, assistant professor of neurology, and Meredith Braskie, PhD, assistant professor of research neurology, respectively will process connectivity and structural

NEIGHBORS: Programs push teens' access to STEM

Continued from page 1

Cornell, Brown and University of California, Berkeley. "This accelerated experience makes our students highly preferred candidates at top universities and over 95 percent of them receive scholarships," Davies said.

"I met people who helped me apply to college, taught me about college and graduate school, shared their experiences with me and supported me as I made decisions about my education," said STAR alum Jenny Martínez, OTD, OTR/L, who now is an assistant professor at the USC Chan Division of Occupational Science and Occupational Therapy.

Students work in various biomedical and biomedical engineering labs in the Keck School, USC School of Pharmacy, Herman Ostrow School of Dentistry of USC and USC Viterbi School of Engineering. For example, Bravo High senior Daniela Miranda has been working in the laboratory of Paula Cannon, PhD, professor of molecular microbiology and immunology at the Keck School, investigating mechanisms to improve the efficiency of gene editing.

The experience, Miranda said, "made me



Bravo High senior Daniela Miranda, right, has been working in the laboratory of Paula Cannon, left.

realize I'm more capable than I thought I was." Cannon admits to initial skepticism about having a high school student join her lab, concerned that the science would be too intense. Today, she says it's been a win-win experience.

"This isn't a one-way thing," she added.
"We get so much back from it. Having the enthusiasm of a high school student brought out the best in my lab." Through the eyes of aspiring scientists like Miranda, Cannon said, "you rediscover the excitement and incredible opportunity we have to do research every day."

RESEARCH: Awards provide support for investigators' career progress

Continued from page 1

human herpesviruses (e.g., herpes simplex virus and Kaposi's sarcoma-associated herpesvirus) and chronic oral inflammation, which can cause gum disease. Understanding these molecular mechanisms (specifically those governed by protein deamidation) may lead to therapies for oral and other inflammatory diseases.

Feng also chairs the Keck School's Monday seminar committee, serves as a mentor for the Programs in Biomedical and Biological Sciences, and is a member of the USC Institute for Emerging Pathogens and Immune Diseases. His previous positions include instructor at Harvard Medical School and assistant professor at University of Texas Southwestern Medical Center.

"To ensure the long-term stability of the biomedical research enterprise, we must encourage successful independent careers for earlystage investigators and retain them as they become more established," said NIDCR director Martha Somerman, DDS, PhD. "The SOAR awards will enable these outstanding investigators to continue their career trajectories while pursuing dental, oral and craniofacial research projects that have the potential to break new ground and ultimately improve human health."

OCTOBER 6 • 2017

HSC Newsmakers

A roundup of news items related to Keck Medicine of USC, which may include philanthropic donations, research grants, publication in academic journals and mentions in the news media:



Keck Medicine of USC administrators and employees joined the American Heart Association's annual 5K walk on Sept. 23.

Employees walk to raise funds for heart research

More than 560 Keck Medicine of USC employees participated in the American Heart Association's 2017 Los Angeles Heart Walk, held Sept. 23 at the Rose Bowl in Pasadena. Keck Medicine, a sponsor of the annual 5K walk, encouraged physicians and staff to participate in its efforts to help the American Heart Association fund research and education that will save and improve the lives of those battling cardiovascular diseases. The Heart Walk is the association's premier event for raising funds and heart disease and stroke survivors are an important part of the heart walks — with a special 1-mile survivor route offered to them. Keck Medicine receives more than \$2 million in funding for research annually from the American Heart Association. — L. Alexis Young



A team of Keck Hospital of USC nurses submitted documentation to be considered for Magnet status.

Nurses submit documentation for recognition program

THE AMERICAN NURSES CREDENTIALING CENTER (ANCC) Magnet Recognition Program is viewed around the world as the ultimate seal of quality and confidence, the highest honor an organization can receive for a nursing practice. Keck Hospital of USC submitted Magnet documentation in June; the ANCC document review process and site visits will take place over the next three to four months. In preparation for the official site visits, mock site visits were held in September. Keck Medicine of USC is dedicated to becoming the leading academic medical center in the region. Specialty designations such as Magnet status demonstrate clinical excellence and exceptional medicine. Magnet recognition will reinforce the health system's commitment to achieve sustained growth and success. In a memo, Rod Hanners, COO of Keck Medicine of USC and CEO of Keck Medical Center of USC, stated, "It is important to remember that this process is not purely a nursing effort — all employees play a role in influencing the Magnet designation." — L. Alexis Young

Joanna Smeeton wins Pathway to Independence Award

AFTER HER BREAKTHROUGH DISCOVERY THAT zebrafish can be used to study arthritis, Joanna Smeeton, PhD, postdoctoral scholar – research associate at the Keck School of Medicine of USC, has received a prestigious National Institutes of Health Pathway to Independence Award. Known as the K99/R00, the award will help her transition from the postdoctoral to the faculty stage of her career. "The ultimate goal of my work is to



Joanna Smeeton

uncover the mechanisms driving joint repair in fish," she said. "How is it that fish can restore their ligaments and cartilage so well after injury? Hopefully, we can translate these lessons into new and effective cell-based clinical treatments for patients." — Cristy Lytal



BRINGING SMILES TO HOSPITAL BEDS: Zachary Steel, assistant professor of theatre practice in medical clowning at the USC School of Dramatic Arts, and Caitlyn Conlin, adjunct lecturer at the USC School of Dramatic Arts, visit patients at USC Norris Cancer Hospital. The pair spend weekly shifts as "medical clown practitioners" at USC Norris and Los Angeles County + USC Medical Center, as well as teach a series of classes to undergraduates on medical clowning.

Collaboration, partnerships celebrated at USC Body Computing Conference

By Douglas Morino

A new partnership with Lyft that increases access for senior citizens to high-quality care at Keck Medicine of USC facilities is expected to launch by the end of the year.

The announcement was made Sept. 22 at the 11th Annual Global Body Computing Conference, an event at USC's University Park Campus that attracts thought leaders from across the globe, offering perspectives and insights on the convergence of health and technology.

Under the pilot program, senior citizens, many of whom are considered vulnerable and at-risk patients, will have access to cost-free rides to medical appointments as well as social and other activities. The program will study whether these rides can also reduce isolation and help older adults be healthier.

"Seniors often deal with issues like isolation and loneliness," said Jim Murphy, MBA, vice president, innovation, UnitedHealthcare Medicare & Retirement. "In addition to helping them stay socially connected, we hope this program will help at-risk seniors keep their medical appointments and allow them to close any gaps in their health care."

Developed by the AARP Foundation, UnitedHealthcare, the USC Center for Body Computing and Lyft, the program links seniors with on-demand ride services, allowing patients older than 60 who have missed at least two doctors' appointments within the last 12 months and who have an upcoming appointment in the next three months, to have access to cost-free rides from Lyft.

"Our mission is the same today as it was when we started: to create a virtual, global health care system that is continuous, on-demand, easily accessible and deeply personal," said Leslie Saxon, MD, professor of medicine (clinical scholar) at the Keck School of Medicine of USC and founder and executive director of the USC Center for

Body Computing. "Disruption of traditional models of care or any industry always takes longer than you think, but change happens fast."

Saxon referenced the AARP Foundation, UnitedHealthcare and Lyft pilot program as an example of a partnership that disrupts traditional health care to empower patients and provide a service that complements their medical care.

Among the topics discussed at the conference were bodyworn sensors that provide realtime readings, cybersecurity initiatives and athlete health.

Along with Saxon, conference participants included Bakul Patel, MS, MBA, associate director for digital health at the U.S. Food and Drug Administration; Gene Sykes, MBA, CEO of

the LA2028 Olympic bid; and Lisa Marsh Ryerson, MS, president, AARP Foundation. Panels and Q&A sessions also featured Keck Medicine physicians and innovators from across the university.

Among the featured panels was a discussion on how diabetes can be fought with digital sensors, social networks and software.

Robert Ford, MBA, executive vice president of medical devices for Abbott, discussed new wearable technology that allows users to collect real-time data on glucose levels and other diagnostics, allowing them to monitor and optimize their health in real time.

"We're just starting to scratch the surface of what's possible with wearable technology," Ford said.

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Next Issue: October 20