

Brinton honored as Woman of the Year by *Los Angeles* magazine

‘When your vision is to do what no one else has done, you need to develop creative and innovative strategies and teams to achieve the goal.’

— Roberta Diaz Brinton, R. Pete Vanderveen Chair, Therapeutic Discovery and Development, USC School of Pharmacy



Phil Channing

Roberta Diaz Brinton has been named Los Angeles magazine’s Woman of the Year.

By Kukla Vera

Los Angeles Magazine has named Roberta Diaz Brinton, PhD, its Woman of the Year for her revelatory research to combat Alzheimer’s disease. Brinton, holder of the R. Pete Vanderveen Chair in Therapeutic Discovery and Development at the USC School of Pharmacy, has developed two compounds currently in clinical trials that have the potential to address the progressive condition currently afflicting more than 5 million people in the United States.

Brinton has dedicated decades to pursuing answers to Alzheimer’s disease and its impact on individuals, families and society. Every 67 seconds, another American develops the disease, which costs the nation more than \$200 billion each year. Since women — who comprise two-thirds of those with Alzheimer’s — are disproportionately affected, Brinton has focused extensive research on discovering why women are at greater risk for the disease and in developing safe and effective

natural formulations that provide the brain-saving benefits of estrogen without negative effects on breast and uterine health.

Women’s unique biology provided the basis for a major discovery: a molecule they make during pregnancy can generate neural stems to regenerate the brain and restore memory function in females and males. This discovery is the basis of a clinical trial of the compound allopregnanolone, which is slated to begin this fall in persons with early stage Alzheimer’s.

Allopregnanolone is the first regenerative therapy ever tested for the disease. Brinton’s work is unique in many ways. It is rare for a single lab to lead the discovery, therapeutic development and clinical trial stages of a project, but Brinton’s lab has done so for both of the current clinical trials she is spearheading.

Her lab also serves as an incubator for the next generation of scientists and experienced researchers who hold PhD, MD and PharmD

See **BRINTON**, page 2

Albers delivers Roxanna Todd Hodges lecture

Gregory Albers, MD, director of the Stanford Stroke Center, was awarded the third annual Roxanna Todd Hodges Visiting Lectureship in Stroke Prevention and Education on July 28 at an event at the Los Angeles Athletic Club.

Albers, who is also the Coyote Foundation Professor in the Department of Neurology at Stanford University Medical Center, has been the director of the Stanford Stroke center since its inception in 1992. He is a leader in the clinical care of stroke patients as well as cerebrovascular research and education.

This lectureship, sponsored by the USC Roxanna Todd Hodges Comprehensive Stroke Clinic, is part of an integrated vision to provide exceptional education in stroke and highlight areas of research that contribute to that goal. The TIA research program is under the auspices of the stroke clinic.

More than 40 guests attended the event in his honor including: Helena Chui, chair of the Keck School of Medicine of USC Department of Neurology; Nerses Sanossian and May Kim-Tenser, co-directors of the USC Roxanna Todd Hodges Comprehensive Stroke Clinic and TIA Program; Deborah Massaglia, president of the Roxanna Todd Hodges Foundation, as well as numerous Keck School of Medicine faculty, fellows, residents and students. At the event, Sanossian said Albers “has been leading the field of acute stroke imaging for the past 20 years.

See **ALBERS**, page 2

USC stem cell PhD students suggest ways to rebuild the body

By Cristy Lytal

The students in the new PhD program in Development, Stem Cells, and Regenerative Medicine recently presented some ideas that would give Dr. Frankenstein a run for his money.

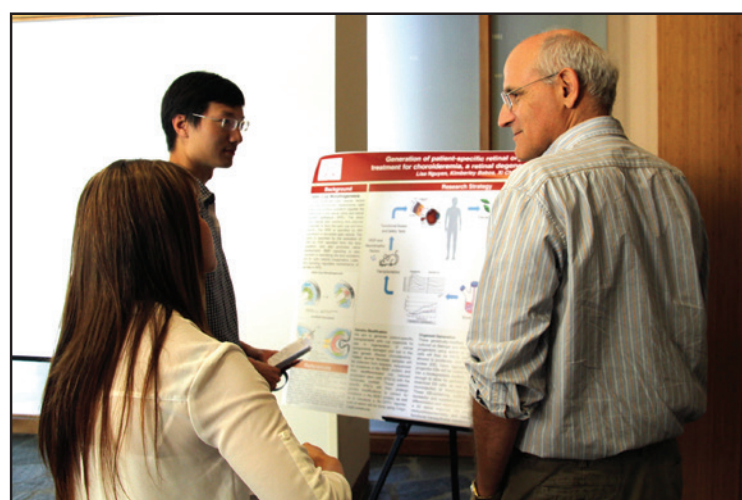
For the summer course DSR 542 Principles of Developmental and Stem Cell Biology, eight teams of students presented elevator pitches and scientific posters outlining strategies for rebuilding the body’s organ systems.

“We really try and do an intensive experience for the new students coming into our program,” said Gage Crump, PhD, director of the Development, Stem Cells, and Regenerative Medicine program, one of the PhD Programs in Biomedical and Biological Sciences (PIBBS). “Rather than having a didactic class where the professor gets up there and just lectures everyone for the whole time, we wanted to have it be more interactive.”

During the course, students discussed the primary scientific literature; gained hands-on experience with stem cell culture, embryology and imaging; and unleashed their imaginations on the challenges of organ regeneration.

Many of the students described the techniques proposed in their posters as “shooting the moon.”

One team suggested a potential treatment for retinal degeneration, which causes blindness. Their approach involved reprogramming patients’ skin cells into 3-D retinal “organoids” on a biodegradable scaffold.



Cristy Lytal

Neil Segil, (right) professor of research in the departments of Stem Cell Biology and Regenerative Medicine and Otolaryngology — Head and Neck Surgery, gets a glimpse into retinal regeneration.

During the semester, this team had the opportunity to discuss their idea with USC Eye Institute scientist David Hinton, MD, who is collaborating with colleague Mark Humayun, MD, PhD, to deliver retinal-support cells into the eyes of patients with macular degeneration in a clinical trial.

Another team did a project about regenerating the cells of the inner ear to treat hearing loss. These cells don’t regenerate in mammals, but do regenerate in birds. Building on this curious fact, the team proposed a quest to identify the genes that enable this regeneration in birds and might induce similar regeneration in mammals.

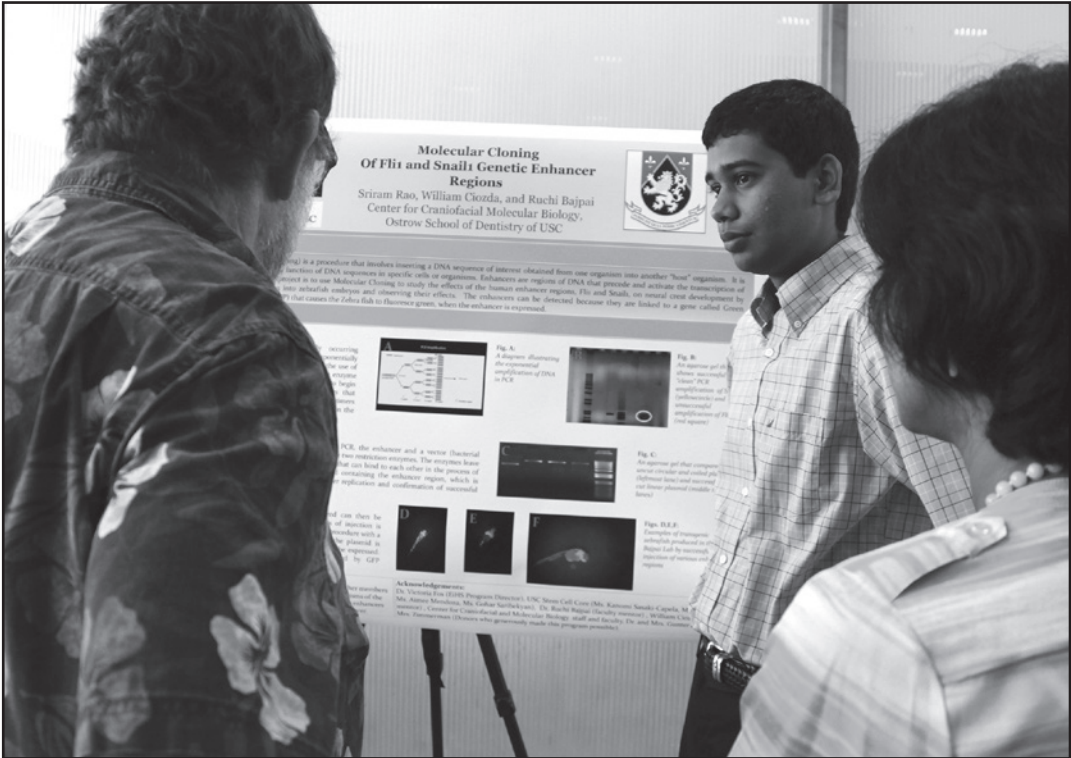
“Overall, it was a really good learning experience,” said student Louise Menendez.

USC offers a summer of stem cells for local high school students

‘Being able to contribute to a scientific project that can play an important role in someone’s life is an amazing opportunity.’

— Marialuisa Flores, student, Lifeline Education Charter School, USC EiHS

By Cristy Lytal
Twenty-three local high school students spent their summer vacations in a very unusual place: the Eli and Edythe Broad CIRM Center for Regenerative Medicine and Stem Cell Research at USC.
This August, these students celebrated their graduations from the USC Early Investigator High School (EiHS) and the USC CIRM Science, Technology and Research (STAR) programs. These are the only programs that offer comprehensive training in stem cell research to high school students.
“The goal of these unique programs is to educate bright young minds at the stage where they’re still formulating ideas and still open and receptive to new discoveries, and introduce them to the wonder and inspirational power of stem cell biology,” said Andy McMahon, PhS, FRS, director of USC’s stem cell research center.
Over the course of the summer, the high school students participated in either a 10-day training course or eight-week research internship, working hands-on with human stem cells in USC’s world-class laboratories under the mentorship of faculty and graduate students.
Victoria Fox, PhD, director of the EiHS program, extended her thanks to everyone who contributed to the experience. “The EiHS program made



Sriram Rao, a student from Harvard-Westlake School participating in the USC EiHS program, worked in the lab of Ruchi Bajpai at the Ostrow School of Dentistry of USC.

possible by a team of very incredible people that starts with my laboratory staff and includes donors, the students, the administrators of the stem cell research center and the mentors who take the students in their laboratories,” she said.
This year’s participants were selected from Harvard-Westlake School, Lifeline Education Charter School, Chadwick School and Bravo Medical Magnet High School, and many received scholarships.
On graduation day, the students shared their transformative summer experiences with their mentors, friends,

parents and teachers by presenting scientific posters and by contributing articles to the program’s new EiHS Journal, which will publish its inaugural issue in October.
“Being able to contribute to a scientific project that can play an important role in someone’s life is an amazing opportunity,” said Marialuisa Flores, a student from Lifeline Education Charter School in the EiHS program. “It was a very enjoyable learning experience, which has made a great impact on my life and future career.”

Native American ancestry a risk factor for diabetic eye disease in Latinos

By Alison Trinidad
New research led by the USC Eye Institute, part of Keck Medicine of USC, shows for the first time that Native American ancestry is a significant risk factor for vision-threatening diabetic retinopathy among Latinos with Type 2 diabetes.
Diabetic retinopathy is the leading cause of blindness in working-age adults in the United States, affecting

more than 4 million Americans age 40 and older.
The research was published online in *Investigative Ophthalmology & Visual Science*, the peer-reviewed academic journal of The Association for Research in Vision and Ophthalmology, the largest and most respected eye and vision research organization in the world.
Diabetic retinopathy

occurs when blood vessels in the eye’s retina are damaged. The retina is the light-sensitive tissue at the back of the eye that acts like a film inside a camera; like damaged film, a damaged retina will produce a bad picture. Symptoms may not be noticeable at first, but the disease can get worse over time and lead to vision loss.
“This is the first study, to our knowledge, that

examines the contribution of genetic ancestry in vision-threatening diabetic eye disease in Latinos,” said USC Eye Institute Director Rohit Varma, professor and chair of the Department of Ophthalmology at the Keck School of Medicine of USC and the study’s principal

investigator. “Previous research has shown that Latinos have a higher prevalence of diabetic retinopathy than non-Hispanic whites and African-Americans. Our findings suggest that one contributor to this heavy burden may be due to their Native American ancestry.”

ALBERS: Delivers key stroke lecture

Continued from page 1
His work in the development and application of perfusion imaging to acute stroke has revolutionized our approach to patient selection.”
Albers delivered his lecture, “Controversies in Penumbra Imaging,” at Neurology Grand Rounds on July 29 at the Zilkha Neurogenetic Institute to a standing-room-only crowd.

BRINTON: ‘Envision the impossible’

Continued from page 1
degrees working shoulder-to-shoulder with graduate, undergraduate and even high school students. In addition, the Brinton lab is the antithesis of the academic silo, as she collaborates with colleagues throughout the university as well as experts outside USC.
“My motto is envision the impossible and make it possible,” Brinton said. “When your vision is to do what no one else has done, you need to develop creative and innovative strategies and teams to achieve the goal.”
She added, “USC creates an environment where creativity and innovation thrive and are connected to the human spirit. It is this combination that drives my collaborations from the School of Pharmacy to the Keck School of Medicine [of USC] to the Andrus School of Gerontology to the Viterbi School of Engineering.”

HSC News

HSC News 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. Permission to reprint articles is available upon request. No artwork may be reproduced without the artist’s consent

Editor: Jon Nalick

Contributors: Hope Hamashige, Cristy Lytal, Leslie Ridgeway and Alison Trinidad

Director, Internal Communications: Virginia Baca

Executive Director, Creative Services: Tom DeSanto

Associate Vice President, Health Sciences Public Relations and Marketing: Deborah S. Fullerton

Vice President, Public Relations and Marketing: Brenda Maceo

Phone: (323) 442-2830 **Fax:** (323) 442-2832

Email: hscnews@usc.edu **Web:** hscnews.usc.edu

Next Issue: Sept. 19



Harry Johns, president of the Alzheimer’s Association, gives the Alzheimer’s Association Jerome H. Stone Philanthropy Award for Alzheimer’s Research to USC’s Berislav V. Zlokovic at the Alzheimer’s Association International Conference held in Copenhagen, Denmark, in July.

Alzheimer’s Association honors USC benefactors Zilkha, Hayley

Selim Zilkha and Mary Hayley, philanthropists and Keck School of Medicine of USC benefactors, received the Alzheimer’s Association Jerome H. Stone Philanthropy Award for Alzheimer’s Research on July 12 at the Alzheimer’s Association International Conference held in Copenhagen, Denmark. Berislav V. Zlokovic, MD, director of the USC Zilkha Neurogenetic Institute, accepted the award on behalf of Zilkha and Hayley. A video of the recipients’ acceptance speech, along with comments from USC President C. L. Max Nikias, PhD, and Keck School of Medicine of USC Dean Carmen A. Puliafito, MD, MBA, is online at tinyurl.com/kj33w4p.

USC Health Sciences Profiles opens gateway to online connections

USC Health Sciences Profiles, an online tool that makes it easy to find USC experts and research in the health sciences, represents more than 2,500 faculty. Designed to promote researchers as well as interdisciplinary research and collaboration, the tool offers a quick search to discover people, research expertise and networks of co-authors and related authors who have published on similar research topics. Since the Southern California Clinical and Translational Science Institute [<http://sc-ctsi.org>] (SC CTSI) relaunched the tool in April, the site has been visited by more than 10,000 users from 200 universities and colleges. The tool automatically generates profile pages for new USC faculty and displays their PubMed publications. While the data are updated automatically, users can customize their own profiles by adding a research description, Web links, videos, social media activity and more. “I especially like the new ‘find research’ feature, which is very useful. It makes it easy to find research published by USC health sciences researchers over time on particular topics,” said SC CTSI Director Thomas Buchanan, vice dean for research and professor of medicine at the Keck School of Medicine of USC. USC Profiles is continuing to evolve as a research-networking tool and as a resource for finding and connecting with experts at USC. “We look forward to partnering with groups on campus as we continue to enhance USC Profiles’ functionality by adding new features and groups such as postdoctoral scholars, residents and research staff,” said Katja Reuter, director of SC CTSI digital strategies. “Potential new features include the capability to promote clinical studies and trials on a researcher’s profile and add CV documents.”

USC Immigrant Health Initiative produces three films on health, culture and immigration

by Larissa Puro
A new mini-documentary series highlighting immigrant families’ experiences and health challenges puts faces and stories to understudied health issues. Produced by the USC Immigrant Health Initiative (iHi) and the USC School of Cinematic Arts, the three short films illustrate the interplay between immigration, culture and health, exposing health challenges among racially and ethnically diverse immigrants in America. The films aim to raise awareness and discuss health issues, needs and intervention strategies among communities. “We hope these films serve to start the conversation about immigrant health and take advantage of the population resources in Southern California to build unique academic programs at USC,” said Lihua Liu, assistant professor of clinical preventive medicine, who initiated and led the iHi for the past three years. In “Home Away From Home,” USC alum Mimi Bitew’s mother, Yitaish Ayalneh, recalls growing up on a farm in Ethiopia eating natural foods and getting regular physical exercise. Now living in Los Angeles with her husband and children, Ayalneh notes marked lifestyle differences, including eating fast food and having to make time to stay active. Living with high blood pressure, she strives to be a good role model for her children, teaching them family values, maintaining tradition and cooking



Three USC-produced short films explore the struggles of local immigrants to maintain their health. doctor-patient communication, health insurance and working to establish a new life in America, while taking care of his parents and his own family. The third film, “A Family’s Spirit,” follows Carmen Lopez, a Mexican-American salon-owner and mother concerned about the health of herself and children. After her father’s death due to diabetes, her own experience with the disease during pregnancy and her son’s obesity diagnosis, she said she had an “awakening.” Despite the challenges of making time to cook and finding healthful food in her neighborhood markets, she’s confident about the lifestyle changes her family is making. “It’s going to take a while,” she says. “But together as a family — slowly, but surely — we’ll get there.”

Physician Assistant Program helps feed the hungry

As part of the program’s orientation week, the Physician Assistant Program Class of 2017 joined forces with program faculty and staff to put a dent in hunger in the Los Angeles Region on Aug. 18 by volunteering at the Los Angeles Food Bank.

At right, faculty, staff and students serve at the Los Angeles Food Bank by picking through fruit and boxing up the best varieties for area shelters.



Calendar of Events

Wednesday, Sept. 10

12:30 p.m. Southern California Clinical and Translational Science Institute Discussion. “Research Ethics Forum: The Havasupai People vs. Arizona State University: Genetics, Consent and Communities,” Donna Spruijt-Metz, USC. Aresty LG503. Info and RSVP: Ray De Mesa, (323) 442-8281, ecde@sc-ctsi.org, ow.ly/zygS2

Thursday, Sept. 11

2 p.m. – 4 p.m. Southern California Clinical and Translational Science Institute Workshop. “Mentoring Workshop,” Emil Bogenmann, USC. Aresty LG503. Info and RSVP: Ray De Mesa, (323) 442-8281, ecde@sc-ctsi.org, ow.ly/yCUtC

Friday, Sept. 12

11 a.m. Hematology Grand Rounds. “Challenges in the Diagnosis of MDS,” Noam Drazin, Cedar’s Sinai Medical Center. LAC+USC Inpatient Tower Conference Room D. Info: Carolyn Castellanos, (323) 865-3913, carolyn.castellanos@med.usc.edu

11:30 a.m. Preventive Medicine Seminar. “New Directions in Population Health,” Pinchas Cohen, USC. SSB 115/116. Info: Susan Largent, (323) 865-0805, slargent@med.usc.edu

Saturday, Sept. 13

7 a.m. – 4:15 p.m. USC Pulmonary Symposium. “2014 State of the Art,” Kamyar Afshar, USC. 191 N. Robles Avenue, Pasadena. Info: Teresa Ball, (323) 442-2555, teresa.ball@med.usc.edu, www.usc.edu/cme

Monday, Sept. 15

Noon. Southern California Clinical and Translational Science Institute, KSOM Office of Research Advancement’s Research Seminar Series and NIH T32 Training Program. “Innovative Thinking Lecture and Interactive Workshop,” Roberta Ness, University of Texas. Aresty LG503. Info and RSVP: Ray De Mesa, (323) 442-8281, ecde@sc-ctsi.org, ow.ly/zG7Nr

Thursday, Sept. 18

7 a.m. – 5 p.m. 18th Annual Max R. Gaspar Symposium. “Peripheral Arterial Disease in 2014.” Millennium Biltmore Hotel, 506 S. Grand Ave., Los Angeles. Info: Lisa Delgado, (323) 442-2555, lisa.ho@med.usc.edu, www.usc.edu/cme. RSVP: usceme@usc.edu, www.usc.edu/cme

Noon. GI and Liver Seminar. “Mechanisms of Autophagy in Protecting Against Drug-Induced Liver Injury,” “Wen-Xing Ding, University of Kansas Medical Center. Hastings Auditorium. Info: Dolores Mendoza, (323) 442-1283, dmmendoza@usc.edu

6 p.m. Orthopaedic Surgery Grand Rounds. “Rotator Cuff Disease: Advances in Pathophysiology, Diagnosis, and Treatment,” “Brian T. Feeley, University of California, San Francisco. Aresty Auditorium. Info and RSVP: sylvia suarez, (323) 226-7204, sylsua@usc.edu

Friday, Sept. 19

11 a.m. Hematology Grand Rounds. “Gazyva for Chronic Lymphocytic Leukemia,” Januario Castro, UC San Diego. LAC+USC Inpatient Tower Conference Room D. Info: Carolyn Castellanos, (323) 865-3913, carolyn.castellanos@med.usc.edu

Thursday, Sept. 25

Noon. USC Research Center for Liver Diseases Seminar. “Role of Mixed-Lineage Kinase 3 in Cellular Stress Responses,” Anja Jaeschke, USC. Hastings Auditorium. Info: Dolores Mendoza, (323) 442-1283, dmmendoza@usc.edu

Saturday, Sept. 27

7 a.m. – 4:30 p.m. 2014 Annual Cerebrovascular Disease Symposium “Medical Versus Surgical Management of Cerebrovascular Disease,” Arun Amar and Gene Sung, USC. Aresty Auditorium. Info: Teresa Ball, (323) 442-2555, teresa.ball@med.usc.edu, www.usc.edu/cme

Notice: Calendar submissions must be received at least 10 days before an issue’s publication date to be considered. Please note that timely submission does not guarantee an item will be printed. Entries must include day, date, time, title of talk, first and last name of speaker, affiliation of speaker, location and a phone number or email address for information.

Submit calendar items at tinyurl.com/calendar-hsc.



Photos/Steve Cohn



Welcome to (and welcome back to) USC — The Keck School of Medicine hosted parties at Dean Carmen A. Puliafito’s home in Pasadena for returning and new students on Aug. 11 and 12. Above, returning student Janice Rivelle and her peers take turns on a swing. Left, first-year Keck School students cheer on Traveler and his Trojan warrior rider, Hector Aguilar.

Just a few (okay, a few thousand) simple steps can help the YMCA

Keck Medicine of USC is the title sponsor of the Stair Climb supporting the Ketchum-Downtown YMCA on Sept. 19.

A team from Keck Medicine of USC is also participating in the event. Join the Keck team and climb the tallest building on the west coast while supporting a great cause. This event is a great opportunity for department collaboration and team building.

Registration for the first 200 Keck Medicine of USC team participants is free. Visit www.YMCAStairClimb.org to sign up and select the Keck Medicine of USC team.

Enter discount code Keck2014 (with the code no fundraising required). Free training sessions and training tips are listed on the website.

Keck Medicine of USC participants will

receive T-shirts to wear on event day. T-shirt pick-up dates are Sept. 15 – Sept. 18, 9 a.m. to 4 p.m. at three locations: Community Benefit, Soto

II second floor, office 2433; Keck Hospital of USC Administration, first floor; or USC Norris Cancer Hospital Administration, Ezralow Tower eighth floor.

USC Health Sciences
Public Relations and Marketing
2011 N Soto Street - SST-2830
Los Angeles, CA 90032

Non-Profit Organization
U.S. POSTAGE PAID
University of Southern California



In case of an emergency...

Call the Emergency Information Phone: (213) 740-9233 The emergency telephone system can handle 1,400 simultaneous calls. It also has a backup system on the East Coast.

Visit the USC Web: <http://emergency.usc.edu> This page will be activated in case of an emergency. Backup Web servers on the East Coast will function if the USC servers are incapacitated.