

USC honors outstanding achievement at annual Convocation

Two faculty members whose work is important to health care received USC's highest honor, the Presidential Medallion, April 7 at the 27th annual Academic Honors Convocation.

They are Hastings Distinguished Professor and Chair of Cardiothoracic Surgery Vaughn A. Starnes and University Professor Michael Waterman.

At the Convocation, USC President Steven B. Sample presented the USC Faculty Lifetime Achievement Award to Michael Lai, Distinguished Professor Emeritus of Molecular Microbiology and Immunology at the Keck School of Medicine. In addition, he honored several other members of the University



From left, Michael Waterman, USC President Steven B. Sample and Vaughn A. Starnes.

health sciences community for outstanding achievement.

Starnes, an internationally renowned surgeon, has been a pioneer in cardiothoracic surgery, heart and lung transplantation and repair of congenital heart

defects. He is also acclaimed for his expertise in heart surgery for newborns and children.

Appointed as a USC Distinguished Professor in 2004, he is the founding executive director of the University's Cardiovascular Thoracic Institute. He also directs the residency program for congenital cardiac surgery at Childrens Hospital Los Angeles.

Sample said Starnes was recognized for "significant contributions to cardiothoracic medicine and transplantation, his distinguished career as a healer and educator, and his dedication to the advancement of human health and well-being."

Speaking about Waterman, Sample

said that the University Professor, a member of the USC faculty since 1982, "is widely regarded as the founding father of computational biology."

The interdisciplinary field uses mathematics, statistics and computer science to study molecular mechanisms.

He co-developed the Smith-Waterman algorithm for gene and protein sequence comparison and the Lander-Waterman formulas for physical mapping and sequencing.

This second algorithm made it possible for the biotech firm Celera Genomics to accelerate and complete sequencing of the human genome well in advance of the government-funded

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USC creates world's first Ph.D. program in regulatory science

By Kukla Vera

Recall of Heparin, a widely-used blood thinner, due to contaminants in shipments from China.

Lead in paint on toys prompts massive toy recalls.

Wires used in implantable heart devices are defective and recalled by the manufacturer.

These are just a few recent headlines that have scared consumers, creating an uncertainty about the integrity of the foods we eat, the medicines we take and the medical devices we use. Taming these risks are professionals in regulatory science, the discipline that shepherds products through the regulatory environment, charged with making them safer while following government regulations and bringing products, many lifesaving, to consumers faster.

This is heady stuff and the global marketplace requires complex thinkers to lead this effort and to forestall future headlines like those above. To this end, USC has announced the world's first program leading to a professional doctorate in regulatory science.

Announcement of the program was made on March 26 at the 2008 Horizons Conference of the Regulatory Affairs Professional Society in San Francisco.

"The doctoral program is aimed at mid-career executives in the rapidly growing biomedical and pharmaceutical

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Veronica Jauriqui

FUN IN THE SUN—First-year medical students Angie Basso (left) and Ashley Prosper enjoy some impromptu hula hooping on the sidelines of a volleyball game at Student Spirit Day, held April 15, on the Harry and Celeste Pappas Quad. The beach party-themed event offered fruit smoothies and dinner hosted by Keck School of Medicine Dean Carmen A. Puliafito. More than 150 students participated in the festivities.

Division of Physical Therapy ranked first in nation—again

By Sara Villagran

The 2009 *U.S. News & World Report Annual Guide to America's Best Graduate Schools* has awarded a top ranking to USC's Division of Biokinesiology and Physical Therapy at the School of Dentistry.

The division placed first out of 211 professional (entry-level) physical therapy programs around the country accredited by the Commission on Accreditation in Physical Therapy Education.

Although the program has been in

the top spot since 2004, this year the rankings were based on a new survey conducted in the fall of 2007. The rankings were based on the results of peer assessment surveys sent to deans, administrators, and/or faculty at accredited degree programs or schools in each discipline.

Respondents rated the academic quality of programs on a five-point scale, based on their assessment of the curriculum, faculty and graduates.

"We have always known that we are doing excellent work here at USC, but

it's wonderful to have that confirmation from our peers," said James Gordon, associate dean and chair of the division. "Now we just need to continue working hard to stay on top."

The division recently completed a comprehensive strategic plan for 2007-2012. The aim of the plan is to "create and exploit opportunities that will extend our leadership and excellence through 2012 and beyond."

Established in 1945 to train physical therapists at the undergraduate level,

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USC Board of Trustees honors Brian Henderson for leadership of Keck School

By Jon Nalick

At a recent conference of the USC Board of Trustees, the board honored Distinguished Professor and former Keck School of Medicine Dean Brian E. Henderson for his leadership of the School and his distinguished continuing research career.

At its March 28 conference, the board passed a resolution that also praised Henderson for his guidance of the Keck School's Department of Preventive

Medicine as its founding chair, the USC/Norris Comprehensive Cancer Center as its former director, and the USC Zilkha Neurogenetic Institute as its founding director.

The resolution stated, "His decadal legacy includes impressive gains in research funding and medical student test scores, the recruitment of more world-class professors and scientists, the creation of a stem cell research program, and the completion of the USC

Harlyne J. Norris Cancer Research Tower."

It also stated that the University "honors with the highest esteem the commitment of Brian Henderson to the well-being and vitality of the university and its mission, and proclaims its enduring and profound gratitude for his exemplary and continued service."

Henderson, the Kenneth T. Norris Jr. Chair in Cancer Prevention, stepped down as dean in 2007 and returned to full-time research in cancer epidemiology.



Jon Nalick

BAXTER FOUNDATION CONTINUES TRADITION OF SUPPORT—Trustees of the Donald E. and Delia B. Baxter Foundation visited the Health Science Campus on April 21. The foundation generously supports junior faculty research and medical students and, to that end, has given more than \$5 million dollars since 1959. Front row, from left are: Trustee Don Haake; Katie Russell, daughter of Trustees Jim and Jane Russell; Trustee Martha Haake, daughter of Donald E. and Delia B. Baxter. Back row, from left are: Jim Russell; Jane Russell; Trustee Richard Haake, Dr. Elizabeth Fini, senior associate dean for research advancement at the Keck School; and Frank Markland, associate dean of scientific affairs.

Markland exits scientific affairs post to focus on research

By Katie Neith

Frank Markland, professor of biochemistry and molecular biology, has stepped down from his role as associate dean for scientific affairs of the Keck School of Medicine, after four years of contributions to innovative programs. Effective April 30, Markland will re-focus his attention on his productive research program.

During his service as associate dean, beginning in 2004, Markland helped junior faculty secure funding in an increasingly competitive research environment. He designed a position for a scientific grants writer and worked to establish the Office of Postdoctoral Affairs.

More recently, Markland was instrumental in establishing collaborations that led to USC's initial funding for stem cell research from the California Institute for Regenerative Medicine.

"This position came about unexpectedly for me and I really enjoyed it," said Markland. "I learned a lot and wish the new team great success in their future endeavors."

The Keck School's new office of research advancement is headed by Elizabeth Fini, who joined the Keck fac-

ulty Feb. 29 as senior associate dean for research advancement. "Dr. Markland has made significant contributions to the support of the Keck School's research enterprise during a time of transition and opportunity," Fini said. "We are grateful for his contributions, upon which we will build."

A veteran of the Keck School faculty since 1973, Markland served as acting chair of the Department of Biochemistry and Molecular Biology from 1986 to 1988. He also led the Medical Faculty Assembly in 1982.

Markland's research in centers on seeking medical applications for compounds found in snake venom, including breaking up blood clots and fighting cancer. Markland is now writing grants to expand his research to look at different anti-angiogenic approaches.

He remains active in this year's competition for awards from the Donald E. and Delia B. Baxter Foundation and the Wright Foundation, both of which provide funding for junior faculty to further their research and position them for larger scale funding from the National Institutes of Health and other government agencies.

CONVOCATION: USC honors exemplary faculty and student accomplishments

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Human Genome Project.

He is the principal investigator for the USC Center of Excellence in Genomic Science, a founding editor of the Journal of Computational Biology and a member of the American Academy of Arts and Sciences and the National Academy of Sciences, among other associations.

The medallion, Sample said, was awarded to Waterman "for his pioneering work in computational biology, his distinguished career as a scientist and educator, and his dedication to the well-being of USC's community of scholars."

Sample recognized Lai for his pioneering studies of infectious diseases, his stature as a world-renowned virolo-

gist and for his research into a wide range of RNA viruses, including hepatitis C and the coronavirus that causes severe acute respiratory syndrome.

Lai became president of National Cheng Kung University in Taiwan after retiring from USC in 2006, though he maintains a portion of his research program at the Keck School of Medicine.

Two Keck faculty members were recognized for previously announced honors. Appointed by President Sample, Stephen J. Ryan was named Distinguished Professor and Richard F. Thompson was named University Professor. Distinguished Professor is the honor given to professors whose accomplishments have brought special renown to the university. University Professor is

an honor reserved for faculty members who have displayed significant accomplishments in several disciplines.

Ryan, who holds the Grace and Emery Beardsley Distinguished Chair of Ophthalmology at the Keck School of Medicine, is president of the Doheny Eye Institute, former dean of the Keck School of Medicine and former USC senior vice president for medical care.

Thompson is the William M. Keck Chair in Biological Sciences and professor of psychology at USC College, professor of neurology at the Keck School of Medicine of USC, and senior research associate at the USC Davis School of Gerontology.

Keck School doctoral student Feng-Ting Huang received the Phi Kappa

Phi Student Recognition Award for her research into the production of antibodies in the human body. Her research seeks ways to prevent and treat diseases such as sporadic Burkitt's lymphoma.

Elyn R. Saks received the Phi Kappa Phi Faculty Recognition Award. She is associate dean and the Orrin B. Evans Professor of Law at the USC Gould School of Law, professor of psychology at the USC College, and professor of psychiatry and behavioral sciences at the Keck School of Medicine. A mental health law expert, Saks won the 12th Annual Books For A Better Life Award in the inspirational category for her memoir *The Center Cannot Hold: My Journey Through Madness*, which chronicles her battle with schizophrenia.



Professor Frances Richmond is director of the regulatory science program at the School of Pharmacy.

REGULATORY: New program is first of its kind

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industries,” said Frances J. Richmond, director of the program. “It will focus on global strategies for dealing with the explosion of new healthcare products and the web of national laws and international policies that govern everything from clinical trials to manufacturing to advertising.”

Richmond started the USC regulatory science program offering a Master of Science curriculum in 1999. At its inception, the USC program was one of only a handful in the nation while today a dozen programs exist. The program has grown from a few students to nearly 100. The demand for the graduates has been startling, with many entertaining multiple job offers upon or before degree completion.

“Dr. Richmond has cultivated a rich network of industry partners, many of whom teach in the program and hire our graduates. These partners convinced us of the need to offer the professional doctorate,” said School of Pharmacy Dean R. Pete Vanderveen.

According to Richmond, regulatory science is transitioning from administering paperwork and procedures to pioneering new ways to manage the opportunities and challenges that are the fodder of news headlines over the past years.

“The USC professional doctoral program in regulatory science represents a

major milestone in recognizing the critical importance of regulatory affairs as a discipline requiring the highest level of formal scientific training,” said Rick Wilson, senior vice president of Global Regulatory Affairs at Allergan. “Just as the master’s program has produced critically needed talent for this important field, the doctoral program promises to increase the supply of well-trained, knowledgeable persons needed for industry, academia and regulatory agencies.”

“Classes for students in the doctoral program will be offered at the USC Health Sciences Campus and via distance education offerings that provide a virtual classroom experience through lecture webcasting, live video-conferencing and ‘e-teams’ tackling simulated projects,” said Richmond. “The program structure has been designed to accommodate working professionals.”

The program is expected to take three to five years, depending on the student’s prior education and the amount of time available to devote to studies. Applications are being accepted for the inaugural class starting in the fall of 2008.

Learn more about the professional doctorate program and other offerings at <http://regulatory.usc.edu> or contact regsci@usc.edu or Kathy Knodel, manager of Regulatory Science Programs at (323) 442-3102.

Advocacy group seeks to aid neurological patients

By Jon Nalick

A family-sponsored group that supports research and patient care at the Keck School of Medicine’s Leslie P. Weiner Neurological Care and Research Center is seeking new members to broaden its reach and further assist the Center.

Called CONQUEST, for “Comprehensive Outpatient Neurological Quest for Excellence,” the group is composed of volunteer patients, family members and friends whose lives have been personally touched by the faculty and staff at the Weiner Neurological Center. Since its inception in 2001, the group has raised more than \$300,000 through CONQUEST events and direct solicitation for research and the expansion of the numerous advocacy services.

Helena Chui, professor and chair of neurology, said that the donations have been used during the past two years to fund social worker and psychologist positions at the center as well as a training program for young psychologists and social workers.

The program, known as the Center of Psychosocial Excellence (COPE), helps provide support services to persons with chronic neurologic disorders and their families.

Gail Murdock, assistant professor of

neurology, who established COPE, said that the program focuses less on neurological symptoms and more on general quality of life issues such as “how we live, how we love, how we prioritize goals and value ourselves, loved ones and life goals.”

“The COPE program is here to assist our clients in recognizing these important issues. We strive to help maintain hope, with the knowledge that medical care isn’t just about the body and its travails,” she said.

However, Chui noted that the CONQUEST Fund is nearly depleted and the expanded psychological and social work services “are now in jeopardy of being reduced.”

To help maintain those services, CONQUEST is now seeking new members and donors and will host informational meetings in May about ways to join and volunteer.

There will be meetings on May 7 at 6 p.m. and May 13 at 10:30 a.m. at the Van Der Meulen Library, third floor, Healthcare Consultation Center II, 1520 San Pablo St., Los Angeles. Also, donors may contribute through a program called “Friends of CONQUEST.” Contributions will be used to maintain the COPE program.

For information or to attend, contact Kirsten Heckes at (323) 442-5984.

National groups laud USC on gay, lesbian issues

The American Medical Student Association (AMSA) and Gay and Lesbian Medical Association recently honored two Keck School groups for their efforts to bolster awareness of lesbian, gay, bisexual and transgender health issues.

The national organizations honored Keck AMSA and USC MedGLO, the Medical Gay and Lesbian Organization, with the LGBT Health Achievement Award, praising them for promoting “innovation and diversity in sustainable, meaningful programming, as well as a commitment to advocacy for this community of patients and providers.”

Keck School student Patrick Hou, whose work on campus also was recognized through the award, said specific programs that garnered praise included the Keck School’s first National Coming Out and Ally Day event, which attracted more than 300 people from USC and the local community, and numerous lunchtime talks on subjects such as transgender health issues.

Hou called the campus educational efforts “truly works of collaboration between MedGLO and AMSA” and highlighted the efforts of his student colleagues, including Natalie Ramos, Russell Buhr, Michael Lee, Jolene Sawyer and Kjerstin Barrett.

RANKINGS: USC’s PT program remains at #1 spot

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the division started offering master’s degrees in physical therapy in 1962. When it began awarding a doctor of philosophy degree in 1984, it was the first physical therapy program in the nation to do so. It was only the second program in the nation to offer the doctor of physical therapy (DPT) as the entry-level professional degree in physical therapy.

Today, the division enrolls about 321 students, the majority in the DPT program. Others are enrolled in residency programs in orthopedic and neurologic physical therapy (specialty programs for practicing therapists) or research degree programs (master of science and doctor of philosophy) in biokinesiology. Faculty members conduct research in a number of areas: biomechanics, motor behavior and motor control, exercise science, and motor development.

In Case of An Emergency...

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<http://emergency.usc.edu>

This page will be activated in case of an emergency. Backup Web servers on the East Coast will function if the USC servers are incapacitated.

Call the Emergency Information Phone:
213-740-9233

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

Calendar of Events

The HSC Calendar is online at www.usc.edu/hscalendar

Monday, Apr. 28

NOON. Fellows' Core Curriculum Conference. "Renal Physiology," Alicia McDonough, USC. GNH Drs. Dining Rm. A & B. Info: (323) 226-7307

4 P.M. Transplant Conference. "Post Transplant Lymphoproliferative Disorders," Mirosław Smogorzewski, USC. UH Salerno Rm. Info: (323) 226-7307

Tuesday, Apr. 29

9 A.M. Neurology Grand Rounds. "Multiple Sclerosis Differential Diagnosis: When McDonald Had a Better Explanation," Mark Tullman, Columbia Univ. ZNI 112. Info: (323) 442-7686

NOON. Cancer Ctr. Grand Rounds. "From New Molecules to New Therapies for Inflammation and Cancer," Nicos Petasis, USC. NOR 7409. Info: (323) 865-0801

SAVE THE DATE

April 29—Akiko Ito, chief of the United Nations Global Program on Disability, will speak about her efforts from noon to 1:30 p.m. at the Norris Library Basement Conference Room. Ito is responsible for the U.N.'s program to promote the human rights of persons with disabilities through law, policies and development cooperation. She has been charged with the disability program at the United Nations since 1994. Boxed lunches will be provided. For more information or to RSVP, contact Erin Quinn at erinquin@usc.edu.

Notice: Deadline for calendar submission is 4 p.m. Monday to be considered for that week's issue—although three weeks advance notice of events is recommended. Please note that timely submission does not guarantee an item will be printed. Send calendar items to HSC Weekly, KAM 400 or fax to (323) 442-2832, or e-mail to ebalauw@usc.edu. 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.

Wednesday, Apr. 30

7 A.M. Medicine Grand Rounds. "Primary Hyperaldosteronism," Suma Raju, USC. GNH 1645. Info: (323) 226-7556

NOON. Renal Grand Rounds. "Renal Pathology," Michael Koss, USC. GNH 6441. Info: (323) 226-7307

Friday, May 2

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

Monday, May 5

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

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

Tuesday, May 6

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

Wednesday, May 7

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

Friday, May 9

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



Veronica Jauriqui



SCIENCE, WITH A TWIST(ER)—Fifth grade students from schools surrounding USC's Health Sciences Campus participated in the eighth annual USC-HSC Science Fair, held April 18, on Harry and Celeste Pappas Quad. Students from Griffin Avenue Elementary, Murchison Street Elementary and Sheridan Street Elementary competed for a variety of prizes, including a pizza party awarded to the winning science project. Project topics included the inner workings of the eye, the science behind tornadoes (left) and the effects of cell phones on raw eggs (above). Close to 400 students participated in the event.

HSC NEWSMAKERS

Complete listing at: www.usc.edu/uscnews/usc_in_the_news/

An April 22 CNN.com article quoted OB/GYN **Daniel Mishell** on a non-surgical sterilization procedure as an option for birth control.

On April 21, British TV network Sky News featured Doheny ophthalmologist **Mark Humayun** and the artificial retina implant project. International publications, including *The Scotsman*, Times Online and *The Australian* ran similar stories.

On April 21, CNN interviewed pharmacologist **James Adams** about datura stramonium, a plant that Native Americans used in sacred ceremonies.

An April 20 *Philadelphia Inquirer* article quoted molecular biologist **Pragna Patel** about the evolution of human anatomy.

An April 19 *Boston Globe* article quoted liver transplant expert **Andrew Stolz** and noted LAC + USC Medical Center in a story about organ transplants for immigrants.

An April 18 *Palos Verdes Peninsula News* article profiled pharmacist **Walter Cathey** and the USC School of Pharmacy Diversity Initiative.

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