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New Board of Councilors Member:
Roslyn Ellison Blake, PharmD ('92)
California Society of Health-System Pharmacists

The California Society of Health-System Pharmacists has chosen Associate Professor Kathleen Besinque as the recipient of this year’s Distinguished Service Award. According to the CSHP, the award recognizes “one individual annually who has made exceptional and sustained contributions to the Society at the regional and state levels.” Besinque has been actively involved with the organization since 1994, where she has served as chair on numerous committees and presented at many seminars.

“...The CIC exemplifies the spirit of collaboration between medicine, pharmacy and public health and I’m proud to represent pharmacists in the increasingly important role they play in immunizing Californians.”

— Jeffery Goad, PharmD, MPH

California Immunization Coalition

Associate Professor Jeffery Goad, PharmD, MPH, has been elected president of the California Immunization Coalition (CIC), a non-profit, public-private partnership dedicated to achieving and maintaining full immunization protection for all Californians, in order to promote health and prevent serious illness. He is the first pharmacist to lead the organization composed of physicians, nurses, public health officials and the public.
Sarah Hamm-Alvarez, the Gavin S. Herbert Professor in Pharmaceutical Sciences, has been named director of the Office of Research Development for the Southern California Clinical and Translational Science Institute. As director, Hamm-Alvarez will help the Office of Research Development to identify needs and opportunities in clinical and translational science, put together interdisciplinary teams to address those needs and opportunities, and oversee the CTSI pilot grant program.

Also holding leadership positions at the CTSI are Roberta Diaz Brinton, R. Pete Vanderveen Endowed Chair in Therapeutic Discovery and Development, who is the director of the Center for Scientific Translation, and Frances Richmond, director, International Center for Regulatory Science, who directs the Regulatory Knowledge and Support group of the CTSI for the Los Angeles Basin.

“The School of Pharmacy is proud to have three faculty members on the elite leadership team for the Southern California Clinical and Translational Science Institute that promotes translation of scientific discovery into new tools for clinical and community health.”

— R. Pete Vanderveen, Dean
Looking Back, Advancing Ahead

2011 saw the USC School of Pharmacy make significant strides, not only in advancing our programs, but also in advancing the entire profession. We reorganized our administration, launched several key initiatives, expanded upon others and focused even more intensely on progressing the field by promoting drug discovery and expanding translational research.

One program in particular—the USC Medication Therapy and Safety Initiative—defines our dedication to advancing the role of the pharmacist nationally while affirming our commitment to direct care. The initiative has helped the neediest people in our communities by providing clinical pharmacy services in safety-net clinics since 2002. This past year began a major effort to increase our coverage to 24 clinics and medical homes by 2013. This initiative advances the entire healthcare field by demonstrating that having pharmacists manage medication therapy for complicated patients provides the best possible care.

The safety-net setting also provides an ideal training ground for students and residents in caring for a diverse population and addressing a wide range of diseases and conditions. And, for faculty members, safety-net clinics offer invaluable opportunities to advance research by collecting crucial data regarding health outcomes, medication safety, cultural competency and interdisciplinary care. These vital efforts—along with our partnership with the Keck Hospital of USC and USC Norris Cancer Hospital in placing our clinical pharmacists in their facilities—are crucial to improving the training of new pharmacists by expanding opportunities for professional development.

Jeff Goad, PharmD, MPH, is increasing the scope of training opportunities even further by developing a program that will credential students and practicing pharmacists in specialized areas including travel health, immunization and medication therapy management. His vision for a continuous educational platform, offered both face-to-face and virtually, will provide practicing pharmacists with opportunities to enhance their practices without disrupting their busy schedules. Board of Councilors member Denis Portaro helped launch this program with a substantial gift to the school.

A critical challenge to our profession—and to the nation's health—is the clogged pipeline of new drugs and treatments awaiting FDA approval. In fall 2011, we established the International Center for Regulatory Science to help assure that promising new medical products reach the marketplace faster, while maintaining stringent safety standards. Under the direction of Frances Richmond, PhD, the Center's research aims to help navigate
the mazes of the complex regulations resulting from rapid changes in technology and economic globalization. Being truly international, the Center also will work with companies and governments around the world. This effort represents an important step forward for the School—and a fitting one, as we established the world’s first and only doctorate in regulatory science, as well as a master’s degree, among our other innovative programs in this important area.

The School’s innovation in regulatory science was recognized by a major gift from clinical research leader Quintiles, establishing the Quintiles Chair in Pharmaceutical Development and Regulatory Innovation and the Quintiles International Lecture Series. Both the chair and the lecture series will be housed at the Leonard D. Schaeffer Center for Health Policy and Economics at USC, a collaboration the School of Pharmacy maintains with the USC Price School of Public Policy to promote health and value in healthcare delivery through innovative research and policy in the United States and around the world. The Quintiles Chair will allow us to recruit a world-class expert in regulation and health policy to work toward more efficient and effective healthcare delivery.

Meanwhile, the Quintiles International Lecture Series, under the guidance of Schaeffer Center Director Dana P. Goldman, PhD, provides a vital forum to address pharmaceutical economic policy and regulatory issues. The series opens up dialogue among global leaders to form new methodologies that streamline the regulatory process and accelerate innovation.

Leadership also is the watchword for the School’s involvement with the Southern California Clinical and Translational Science Institute (CTSI), which helps turn breakthroughs in the laboratory into treatments in clinics and the community. Sarah Hamm-Alvarez, PhD, Gavin S. Herbert Professor in Pharmaceutical Sciences, has joined CTSI as director of the Office of Research and Development. She assumes responsibility for fostering establishment and development of interdisciplinary clinical and translational teams, projects and programs.

At CTSI, Dr. Hamm-Alvarez joins her fellow School of Pharmacy faculty members Roberta
Diaz Brinton, PhD, the R. Pete Vanderveen Chair in Therapeutic Discovery and Development, who directs the Center for Scientific Translation, and the aforementioned Frances Richmond, who leads the Regulatory Knowledge and Support Program. Dr. Hamm-Alvarez also has taken on a key role with the School’s administrative reorganization, now serving as vice dean for Research and Graduate Affairs, as well as interim chair of Pharmacology and Pharmaceutical Science.

This reorganization also sees Kathleen A. Johnson, PharmD, MPH, PhD, the William A. and Josephine A. Heeres Professor in Community Pharmacy, as vice dean for Clinical Affairs and Outcome Sciences and continuing to serve as chair of the Titus Family Department of Clinical Pharmacy and Pharmaceutical Economics & Policy. Kathleen Besinque, PharmD, MEd, now serves as assistant dean for Curriculum and Assessment. Jeff Goad takes over as vice chair for Continuing Professional Development, Credentialing and Distance Education. Fred Weissman, PharmD, JD, continues as the associate dean for Student/Faculty Affairs and Admissions and Michael Wincor is the associate dean for Global Initiatives and Technology.

These appointments, along with the leadership of Drs. Richmond and Goldman in their respective areas, signal a new path in the USC School of Pharmacy’s longstanding leadership in pushing the pharmacy profession forward. I am also delighted to note the addition of Roslyn Blake, PharmD (’92), to our Board of Councilors, a key new member of our leadership circle.

The 21st century continues to bring tremendous changes to our profession, and we will remain ahead of the curve by helping pharmacists define themselves through expanding practice areas and using our expertise to better serve patients and optimize outcomes for a healthier society.

R. Pete Vanderveen, PhD, RPh
Dean
John Stauffer Decanal Chair in Pharmaceutical Sciences
INFLUENCE & IMPACT

The School of Pharmacy’s faculty continues to output research and implement practices that are changing the future of pharmacy and the healthcare landscape. Here is just a sampling of their achievements.

EDUCATING FUTURE SCIENTISTS

Associate Professor Nouri Neamati, PhD, utilized his expertise on HIV to edit the newly released textbook, *HIV-1 Integrase: Mechanism and Inhibitor Design*, part of the Wiley Series in Drug Discovery and Development.

This new comprehensive learning tool sets the stage for future discovery by surveying chemical, biochemical and biological approaches to finding a promising target enzyme to inhibit HIV and retroviruses, illustrating rational drug design using step-by-step examples, and outlining challenges and drug design issues.

According to the publisher, “this book fills an important gap in the review literature, offering a valuable introduction to scientists who need to collaborate with researchers in several disciplines in order to effectively target HIV-1 integrase.”

Neamati has previously published over 170 peer-reviewed articles, several book chapters, and holds patents in the area of drug design and discovery. He has received grant funding from the NIH, Department of Defense, the Whittier Foundation, the Susan Komen Breast Cancer Foundation, the University-wide AIDS Research Program and the American Lung Association.

His research specialty is the utilization of small-molecule design to develop drugs and therapeutics for various diseases, with a focus on HIV and cancer.
EMPHASIZING IMPORTANCE OF PHARMACISTS IN CHANGING HEALTHCARE LANDSCAPE

Making certain drugs available without a prescription from a physician has the potential to increase usage and decrease related costs – and a consultation with a pharmacist is required prior to purchasing these drugs.

These are the conclusions reached by Associate Professor Neeraj Sood and his colleagues, Eric Sun of Stanford University and Xiaohui Zhou of the Pardee RAND Graduate School, in their article “Behind-the-Counter Statins: A Silver Bullet for Reducing Costs and Increasing Access?,” which was published in *Health Services Research*.

Not only does the movement of drugs to behind-the-counter provide pharmacists more opportunity to implement their expertise, but the article explains that given their extensive training in management of drug therapy, pharmacists are more than capable of providing the necessary supervision and counseling.

REDUCING COSTS FOR HOSPITALS AND PATIENTS

Shetal Desai established an in-house authorization center at the Norris Cancer Hospital that works collaboratively with payers and manufacturer-sponsored patient assistance programs to obtain coverage for chemotherapy treatments. The center is staffed by five nurses and pharmacy student interns, with Desai as its director.

The benefits of establishing Norris’s authorization center are featured in Desai’s article, “In-House Authorization Center to Improve Reimbursement for Outpatient Chemotherapy Infusions,” which appeared in the *American Journal of Health-System Pharmacy* last year.

According to the article, Norris recovered $1.4 million in chemotherapy drug replacement in the two and a half years since the center was established. In addition, overall payments increased from 29 percent in 2007 to 32.5 percent in 2009, and unpaid claim adjustments dropped from 71 percent in 2007 to 59 percent in 2008.

UNDERSTANDING THE BIOLOGY BEHIND BEHAVIOR

An innovative paper in the *International Journal of Neuropharmacology* by University Professor Jean Shih and colleagues explained the link between an enzyme deficiency and an inability to properly assess threat.

Mice lacking the monoamine oxidase A enzyme exhibited defensive behaviors (such as biting or tail rattling) in the presence of neutral stimuli such as plastic bottles. Conversely, in the presence of true danger cues such as predator urine or an anesthetized rat, the mice with the enzyme mutation were less cautious and defensive than their littermates, even climbing on the unconscious rat.

“Taken together, our findings suggest that monoamine oxidase A deficiency leads to a general inability to appropriately assess contextual risk, as indicated by the inappropriateness of their defensive behaviors,” said Shih.
**DEMONSTRATING FISCAL IMPACTS OF HEALTH ISSUES**

In the study, “Differences in Health Between Americans and Western Europeans: Effects on Longevity and Public Finance,” in the July issue of *Social Science and Medicine*, Professor Dana Goldman compared American and European life expectancy and found that middle-age health differences impact life expectancy.

The research found much of the life-expectancy gap would disappear if the United States lowered levels of middle-aged obesity and obesity-related chronic diseases such as diabetes and hypertension to European levels. In addition, getting 50-year-old Americans as healthy as Europeans could save Medicare and Medicaid $632 billion by 2050.

In another study published in the January issue of *Health Affairs*, Goldman and colleagues looked at two Los Angeles programs, each aiming to increase diabetes control among low-income patients using more intensive patient education and engagement. One program employed a short-term intensive intervention using a team that included nurses and a specialist, while the second integrated case management and clinical pharmacy services in the primary care model.

The study shows that both models improved short-term disease control. However, the model that integrated case management and clinical pharmacy services was less labor intensive and potentially less expensive. “The challenge is to understand the essential aspects of these interventions; refine their design so that they are more cost-effective and fiscally feasible; and identify long-term health and cost effects,” concludes the study abstract.

**A NEW HYPOTHESIS ON AGING**

For more than fifty years, the most dominant theory about the underlying cause of aging has been that the highly reactive molecules, derived from the oxygen used by cells to generate energy, indiscriminately attack cellular components, causing structural damage and loss of function. This theory, commonly referred to as the “free radical theory” of aging, predicted that structural damage increases in the latter part of life and the intake of antioxidants should decrease the damage and prolong life span. However, evidence has gradually emerged that the predicted age-associated increase in molecular structural damage is relatively minor. Frequently, it is insufficient to explain the concurrent functional losses in various systems of the body.

In a recent publication in the journal *Free Radical Biology and Medicine*, Raj Sohal, the Timothy M. Chan Professor in Complementary Therapeutics, and William Orr, Southern Methodist University, have proposed a new hypothesis of the cause of aging. They postulate that the trigger for the onset of senescence is the progressive increase in the release of hydrogen peroxide by mitochondria, which causes a gradual shift in the redox state of cells, and over-oxidation of critical proteins, including those that regulate the activities of the genes. The result is that cells become less competent in their responses to internal and external challenges. The incidence of disease increases and the overall level of fitness declines, finally reaching a point where there is not enough vitality to continue living.
The University of Southern California School of Pharmacy has received a gift from Quintiles to establish the Quintiles Chair in Pharmaceutical Development and Regulatory Innovation and the Quintiles International Lecture Series, both to be housed at the Leonard D. Schaeffer Center for Health Policy and Economics at USC.

“The Quintiles Chair will allow USC to recruit a world-class faculty expert with the interdisciplinary knowledge of both health economics and regulatory policy,” said USC President C. L. Max Nikias. “As USC builds collaborations between these two vital areas, the Quintiles gift will advance the university’s research and scholarship in ways that will significantly shape the future of healthcare.”

The Schaeffer Center at USC, a collaboration between the USC School of Pharmacy and the USC Price School of Public Policy, offers an ideal home for the Quintiles Chair. Recognized as one of the nation’s premier centers for innovative, independent research contributing to health policy development, the Schaeffer Center at USC aims to promote health and value in healthcare through rigorous research and analysis. The Quintiles Chair allows for the recruitment of a world-class expert in regulation and health policy to promote more efficient healthcare delivery.

Dennis Gillings, CBE, founder and chairman of Quintiles commented, “The Quintiles Chair and International Lecture Series have the potential to drive true innovation and create exciting new dialogue in global health. I’m delighted that we are able to support the Schaeffer Center and the USC School of Pharmacy in this worthwhile endeavor.”

In the last decade, the regulatory environment for biopharmaceutical products has greatly shifted as a truly global marketplace has emerged. The gift provides an opportunity to look at potential efficiencies that facilitate the arrival of products to market in a cost-effective way while still ensuring safety.

The USC School of Pharmacy houses the International Center for Regulatory Science, offering the world’s only professional doctorate in the discipline as well as a master’s degree. The program is directed by Frances Richmond, professor at the School of Pharmacy, who will also work with the eventual holder of the Quintiles Chair, in addition to other faculty and students in the program, as well as those at the Schaeffer Center at USC.

“This is a gift that will allow USC to take two disciplines in which we are currently leaders – health economic policy and regulatory science – and meld the thinking to come up with real-world solutions to today’s challenges,” said School of Pharmacy Dean R. Pete Vanderven. “This will be further enhanced through the lecture series.”

The Quintiles International Lecture Series will be directed by Dana P. Goldman, director of the Schaeffer Center at USC. The series provides a high-level international forum addressing pharmaceutical economics policy and regulatory issues. The intent of the series is to provide an open dialogue among international leaders who will work together in forming new methodologies that streamline the regulatory process and accelerate innovation.

“The Quintiles gift puts the Schaeffer Center at the forefront in understanding the long-term consequences of regulatory reform, both in the United States and abroad,” notes Goldman, the Norman Topping Chair in Medicine and Public Policy at USC.

The series will launch in Beijing, China, in June 2012 with a two-day conference on “Pharmaceutical Regulation and Innovation.” The first day of the conference will focus on policy followed by a day on research. Co-sponsor of the conference is Peking University’s Guanghua School of Management. A comprehensive search for the Quintiles Chair is currently underway.

New Gift Supports Pharmaceutical and Regulatory Innovation

“... the Quintiles gift will advance the university’s research and scholarship in ways that will significantly shape the future of healthcare.”

— USC President C. L. MAX NIKIAS
The USC School of Pharmacy has established the International Center for Regulatory Science to help assure that promising new medical products reach the marketplace faster—while also maintaining proper safety standards. The new center’s research is aimed at meeting the challenges caused by increasingly complex regulations that result from rapid changes in technology and economic globalization.

Many pharmaceutical and medical device companies face cost constraints that have only been tightened by the economic crisis, and unfortunately, agencies such as the FDA are threatened with budget cutbacks. Although the FDA collects fees from the pharmaceutical and medical device industries to review their products for approval, it also receives federal funding. Cutbacks to the FDA might have the detrimental effect of worsening the agency’s response time for reviewing much-needed products.

“The Center’s main goal is to help ensure medical products are made faster, safer and better,” explains Frances Richmond, the Center’s director and a School of Pharmacy professor. “We’re concerned with the successful transition from laboratory discoveries to the ultimate outcome of a patient’s treatment.”

Richmond and her collaborative team at USC believe the International Center for Regulatory Science’s mission is vital, and the timing for its launch critical. The Center will work with companies to understand and improve best practices to help their FDA submissions proceed more quickly. The Center also will facilitate communication between industry and such government regulators.

Since the marketplace is now global, the Center will work not only with the FDA and U.S. companies, but with their counterparts around the world in increasing speed while ensuring safety for medical product marketplace. Memoranda of understanding with programs in China and Korea, as well as visiting scholar opportunities, complement exchange programs for students who are pursuing education in regulatory, quality and clinical sciences.

“The Center promises to be a proactive voice impacting how pharmaceutical and medical device products are brought to market,” said School of Pharmacy Dean R. Pete Vanderveen. “The University offers tremendous collaborative opportunities, including our own Leonard D. Schaeffer Center for Health Policy and Economics that will surely work with Dr. Richmond and her group.”

The USC School of Pharmacy is well suited for such an enterprise, as the Center will build upon the School’s longstanding leadership in regulatory science education. The School established the world’s first doctorate in regulatory science and has a long-standing history of innovative educational programs, including a master’s degree and several certificate programs.
The School of Pharmacy is working to double its presence in clinics and medical homes that deliver healthcare services to the uninsured, the poor and the homeless. The School began providing clinical pharmacy services in safety-net clinics in 2002, and currently is a key partner with 12 such clinics in Southern California. The new USC Medication Therapy and Safety Initiative aims to increase the School’s coverage to 24 clinics and medical homes in 2013.

This increased commitment to community is desperately needed, with the continuing economic crisis making these clinics even more vital to meeting the health needs of underprivileged communities, as demand increases and public funding decreases. New census statistics show that more than 15 percent of Americans live below the national poverty level. In California the numbers are even worse, with more than 16 percent in poverty and nearly 20 percent lacking health insurance. Los Angeles County alone is home to more than 2.7 million uninsured.

A USC clinical study demonstrates that integrating pharmacy services into safety-net clinics and medical homes results in measurable improvements in care. For example, hypertension patients had reduced blood pressure, and patients with diabetes showed improvements in blood-glucose control.

“The USC School of Pharmacy’s work in safety-net clinics enables us to have a direct and positive impact on the city’s most at-risk residents,” says Dean R. Pete Vanderveen. “And, since these economic problems face the entire country, we are urging our fellow pharmacy schools to increase their outreach efforts as well.”

Pharmaceutical care services include educating and monitoring patients with chronic diseases—such as diabetes, hypertension, asthma, high cholesterol and heart failure—who often take multiple medications for their conditions. Once diagnosed by a physician, patients are referred to a staff pharmacist for medication therapy management and ongoing monitoring of their drug regimen.
“Staff pharmacists, working under protocols, adjust prescribed therapies and provide patient education to help ensure that each patient reaches treatment goals safely and effectively,” observes Steven Chen, associate professor of clinical pharmacy and one of the School’s leading faculty serving in safety-net clinics.

The improved patient outcomes and cost savings that occur when pharmacists are part of patient-centric, healthcare teams have been shown in clinical settings ranging from hospitals to the Department of Veterans Affairs. A healthier population, in turn, should help drive down the healthcare costs that have risen so alarmingly—by keeping patients healthier and out of the emergency room and hospital. Further, having a pharmacist manage medication therapy for the most complicated patients increases access to healthcare, as it frees up the physician to see more patients.

Pharmacy students and residents benefit from the program as well, since the clinics provide ideal training for a diverse population and a wide range of diseases and conditions. For the faculty members who provide services, the clinics also offer opportunities for research and to collect crucial data regarding health outcomes, medication safety, health literacy and cultural competency that ultimately will lead to further advances in care.

Increasing the number of clinics and medical homes where students and residents are trained also is important because the more exposure they gain to such facilities, the more likely they’ll choose to dedicate their careers to helping people in these settings, according to Dean Vanderveen. “This trains even more pharmacists to work on the frontline to meet the nation’s most pressing healthcare needs,” he notes.

“USC is one of the most active schools in the nation in developing leading integrated care models for the underserved,” adds Chen, who also serves as co-chair emeritus of the Health Resources and Services Administration Patient Safety and Clinical Pharmacy Collaborative —part of the U.S. Department of Health and Human Services—which aims to increase the number of schools working with clinics nationwide. The USC safety-net initiative was launched with an HRSA seed grant in 2002.

“We will continue working with the HRSA Patient Safety and Clinical Pharmacy Services Collaborative as we increase our support of the underserved in Southern California,” says Dean Vanderveen. “This new initiative also is a great opportunity for the USC School of Pharmacy to positively impact our community and to share an effective model that can be adopted throughout the country.”
The skies cleared and scores of golfers hit the links at the Angeles National Golf Course at the 7th Annual School of Pharmacy Alumni and Friends Golf Outing.
Homecoming Festivities 2011

Alumni, friends, family and students gathered for Homecoming 2011..... culminating with a Trojan victory over the Washington Huskies - 40 to 17.
DENIS and SANDRA PORTARO GIFT supports technology-enhanced learning

With dispensing becoming ever more automated, Portaro sees this as a time when the profession needs to make haste, establishing the pharmacist’s clinical credentials.

Associate Professor Jeffery Goad, the newly named vice chair for Continuing Professional Development, Credentialing and Distance Education, is doing just that by expanding the School’s professional development activities with a decided preference toward distance courses. While the School will continue to offer popular face-to-face programs — like the annual Winter Retreat in January and the Hawaii course in August — Goad is putting together a roster that will provide working pharmacists with information on advances in research, technology and practice. Courses will be offered completely online or provided primarily online complemented by a face-to-face module.

“Jeff’s project is exactly the kind of thing we need to advance the profession, and give the mass of working pharmacists an opportunity to gain knowledge and skills to take advantage of emerging revenue sources,” says Portaro. “I think it could radically change the face of continuing education, from something viewed as onerous and obligatory to something viewed as essential.”

The new offerings will cover a wide range of topics such as travel medicine, immunization and medication therapy management. The Portaro gift jumpstarts the new professional development opportunities at the School. Eventually, it will add features that further enhance the profession, like a credentialing center.

“With the automation clock ticking very fast, it seems like a now or never situation. We are delighted to be able to help in this way,” says Portaro.
ALUM updates

Gustavus A. Aranda, Jr., PharmD ('04), MS ('05), is now director of health services, US Medical, Bristol-Myers Squibb.


David Bruhn, PharmD/MBA ('02), is now the health outcomes liaison, national accounts, GlaxoSmithKline.

Xiaoying Chen, PhD ('11), is now a postdoctoral fellow at Pfizer.

Scott Evans, PharmD ('98), appointed interim chief executive officer of Keck Hospital of USC and USC Norris Cancer Hospital.

Peggy Han, PharmD ('99), is now medical science liaison at Genentech BioOncology.

Edna Ivans, BS ('50), honored with the Spirit of Philanthropy Award, National Philanthropy Day, on November 15, by the Association of Fundraising Professionals in Fresno.

Vivian WY Lee, PharmD ('98), is an associate professor in the School of Pharmacy and assistant dean of student affairs, Chinese University of Hong Kong.

Lidia Rystov, MS ('11), has been published in the Journal of Pharmaceutical and Biomedical Analysis.

Li-Juan (Rita) Shen, PhD ('05), has been promoted to associate professor in the Graduate Institute of Clinical Pharmacy at the National Taiwan University College of Medicine in Taipei, Taiwan.

Catherine Rust Swink, PharmD ('99), has opened Valley Apothecary, a retail/compounding pharmacy in Sun Valley, ID.

Michelle Taub, PhD ('94), has been promoted to senior research fellow at Boehringer-Ingelheim Pharmaceuticals in Ridgefield, CT.

Frank Tornatore, PharmD ('77), has been appointed to associate dean and department chair at the American University of Health Sciences School of Pharmacy in Signal Hill; has passed the National Examination for Professional Practice in Psychology.

David Truong, PharmD ('07), is now a manager in regulatory affairs at Santarus Inc.

Jason Wan, PhD ('91), is now vice president of pharmaceutical science at WuXi AppTec Co. in Shanghai, China.

Jennifer Yu, PharmD ('96), is an instructor at the Chinese University of Hong Kong School of Pharmacy.

Keary Zhou, PharmD ('07), is an instructor at the Chinese University of Hong Kong School of Pharmacy.

remembrances

Irwin Reiner, PharmD ('61), passed away on October 17, 2011. He was the former owner of Roxbury Pharmacy and a long-time member of QSAD Centurion.
In May, nine School of Pharmacy students headed to Tijuana, Mexico to take part in a two-day clinic, where they teamed up with physicians, dentists and other specialists to provide medical attention to patients who typically receive no or minimal healthcare.

The participating students are all members of the USC chapter of the Student National Pharmaceutical Association, who worked alongside other USC students as volunteers for the “Healing Hearts Across Borders” organization. Hundreds of patients were seen at the clinic by physicians and other specialists, and then sent to the pharmacists and pharmacy students to receive appropriate medications and counseling.

In December, the group headed to Belize where they conducted a health fair and educational programs under the mentorship of Gustavus Aranda, Jr., PharmD ’04, MS ’05. The interdisciplinary USC team provided screening tests at the health fair, offered HIV/AIDS education for teens in a juvenile detention center and showed children the importance of hygiene and poison prevention during visits to orphanages. Student leaders of the project are Ruth Awosika and Toni Codling, both PharmD candidates ’12. Other pharmacy students on the trip included Raymond Shum and Sylvia Nguyen, both PharmD candidates ’14, and Jaclyn Kaladjian and Vineeta Jagitiani, both PharmD candidates ’13. Walter Cathey, PharmD ’62, special assistant to the dean for diversity, is advisor to the school’s SNPHA Chapter.

Like all of USC, the School of Pharmacy is DEDICATED to ACADEMIC and SCIENTIFIC EXCHANGE with PARTNERS from AROUND THE WORLD.

STUDENT NATIONAL PHARMACEUTICAL ASSOCIATION HEADS SOUTH OF THE BORDER

Mexico - Healing Hearts across Borders

Belize - Reaching out with Health Education and Services
**WELCOMING INTERNATIONAL COLLEAGUES**

The School of Pharmacy hosted visitors from the University of the Philippines Manila College of Pharmacy, who were in California to celebrate the centennial celebration of the College with their alumni living in the U.S. Visiting dean, Imelda Peña, presented Associate Dean for Global Initiatives and Technology Michael Wincor with a centennial book tracing the history and mission of the UP Manila College of Pharmacy.

**STUDENTS FROM PACIFIC RIM PARTNER SCHOOLS GET A TASTE OF THE US PHARMACY CURRICULUM**

Last summer, students and practicing pharmacists representing five schools of pharmacy in Taiwan spent a month at USC pursuing a drug discovery project and learning about clinical pharmacy practice in the United States. One of the Taiwanese students, Cheryl Liu of Taipei Medical University, commented, “The education system is different here than in Taiwan. There’s more of an emphasis in the U.S. on the clinical aspects of pharmacy.” Dean Vanderveen presents the certificate of completion to Ho-Hsun Lee of Chia Nam University.

**GETTING AROUND**

Associate Dean Michael Wincor gets around, in this case on the back of a scooter driven by Chi-Chen Shen, a student at Kaohsiung Medical University School of Pharmacy in Taiwan. Associate Dean Wincor was a visiting professor at the school when Shen offered a “real” view of the city on the back of her scooter enroute to dinner. Over the past several months, Dr. Wincor has visited with colleagues in Japan, India, Taiwan and Hong Kong. While in Asia, he also attended the 71st World Congress of the International Pharmaceutical Federation in Hyderabad, India, in September and the USC Global Conference in Hong Kong in October.

**PHARMACY ALUMNI ARE LEADING EXPANDED CLINICAL PHARMACY PRACTICE IN HONG KONG**

During a fall trip to the Pacific Rim, Associate Dean Wincor met with three USC School of Pharmacy alumni who are faculty members at the School of Pharmacy at the Chinese University of Hong Kong. Vivian WY Lee, PharmD (’98), who is an associate professor at the School of Pharmacy as well as an assistant dean of the Chinese University of Hong Kong, instituted the first clinical pharmacy clerkships and international clinical pharmacy exchange program at the school over the past decade. Today, she has expanded the program to include clerkships in nine specialty areas and has launched an interactive online drug information platform. USC is well represented at the school. In addition to Dr. Lee (center), faculty members include (left) Jennifer Yu, PharmD (’99), and Keary Zhou, PharmD (’07).
The School of Pharmacy has signed an agreement with Good Neighbor Pharmacy, a national network of independently owned and operated community pharmacies, to provide a unique, international travel health program for community pharmacists.

The program, which is part of a larger immunization certification program available to the over 3,700 Good Neighbor Pharmacy members, offers a training program that includes comprehensive pre-travel health services in the convenient community pharmacy setting. Pharmacists who are certified to administer specific immunizations and vaccines in their state are eligible to participate in this travel health program.

International travel health experts at the School of Pharmacy will provide additional training and clinical support to participating pharmacists. Pharmacists will gather information from their patients and work with USC Travel Medicine Assistance Program (MAP) to give patient and destination-specific recommendations for vaccines, prescription and OTC medications, travel supplies and counseling topics.

“Working with USC Travel MAP gives another opportunity for our Good Neighbor Pharmacies to be a resource for their patients, which is consistent with Good Neighbor Pharmacy’s goal of becoming a healthcare destination.”

—GNP President MIKE CANTRELL

Dr. Jeffery Goad and Dr. Edith Mirzaian, who both hold the Certificate in Travel Health from the International Society of Travel Medicine, are among the experts working on the USC Travel MAP program with Good Neighbor Pharmacies.

“Too often, people head out of the country without thoroughly preparing to keep themselves healthy and safe during their trip. This often results in unhappy travels,” says Jeff Goad, director of the USC Travel MAP. “Good Neighbor Pharmacies working with us at USC Travel MAP can provide patients with what they need to help ensure a healthy trip.”

Goad believes that this service offers patients an opportunity to have convenient access through their neighborhood pharmacy to the right information, medications and immunizations before embarking on an international trip.

“Working with USC Travel MAP gives another opportunity for our Good Neighbor Pharmacies to be a resource for their patients, which is consistent with Good Neighbor Pharmacy’s goal of becoming a healthcare destination,” said Mike Cantrell, president of Good Neighbor Pharmacy. “Pharmacists certified to provide immunizations who acquire this additional training will be providing one more important professional, convenient service for their patients.”

For more information about international travel services at USC, visit http://pharmacy.usc.edu/travel
The National Association of Chain Drug Stores (NACDS) Foundation has awarded a $50,000 grant to Associate Professor Jeff Goad to support his overseeing the School’s expansion of its postgraduate year-one community pharmacy practice residency. USC is one of 12 universities to receive the funding, which totals $1.5 million.

The grants are designed to foster patient-focused residency programs. The recipients were determined based on the recommendations of an independent review committee composed of representatives from the American Association of Colleges of Pharmacy, American Pharmacists Association and the NACDS Foundation.

The grant to USC allows the School to offer a second residency position in community pharmacy practice. The position will be part of the residency program that starts on July 1, 2012. USC currently has 31 residents, including those affiliated who serve in other institutions. Dr. Goad is director of Student Outreach for Community Health and of the USC International Travel Health Clinic.

“The Community PREP grant program was developed to provide expanded opportunities for pharmacy school graduates to pursue community pharmacy residencies and hone their skills in providing patient care services,” says NACDS Foundation President Edith A. Rosato, RPh, IOM. She points to USC as an example of “patient-focused residency programs which help cultivate pharmacy graduates’ abilities to provide innovation in the delivery of patient care services for the ultimate advancement of public health.”

Established in 2010, Community PREP seeks to create 30 new, fully accredited post-graduate community pharmacy residency opportunities through grants to nonprofit schools and colleges of pharmacy.
Paul Beringer, PharmD, awarded $30,000 grant from the Los Angeles Basin Clinical and Translational Science Institute Pilot and Feasibility Grant Program for the project, “Pharmacologic Evaluation of RTD-1, a Novel Peptide Inhibitor of TACE in an Experimental Model of Neutrophilic Airway Inflammation”; appointed chair of the Therapeutic Monitoring Panel for the journal *The Annals of Pharmacotherapy*.


Steven Chen, PharmD, CDM, FCShP, quoted in the *Los Angeles Times* about the USC School of Pharmacy’s plan to double the number of pharmacists at safety-net clinics throughout Southern California in October; presented at the California Society of Health-System Pharmacists Seminar 2011 in Anaheim in November.

Daryl Davies, PhD, co-organized symposium entitled “Recent Advances in the Discovery and Preclinical Testing of Novel Compounds for the Prevention and/or Treatment of Alcohol Use Disorders,” where he presented multiple topics at the 34th Annual Meeting of the Research Society on Alcoholism in Atlanta in June.

Jason Doctor, PhD, had his article “How to Aggregate Health? Separability and the Effect of Framing” featured on MDLinx in August; was invited to serve as a member of the editorial board of the journal *Medical Decision Making* for a three-year term; participated in a National Science Foundation-sponsored workshop entitled, “Patient Empowerment: A Transdisciplinary Informatics-Based Approach,” in Park City in November.

Melissa Durham, PharmD, was elected pharmacy educator representative for the California Pharmacists Association.

Kevin Forrester, PharmD, presented at the California Society of Health-System Pharmacists Seminar 2011 in Anaheim in November.

Jeffery Goad, PharmD, MPH, elected president of the California Immunization Coalition; interviewed by Radio Disney and ESPN LA about the “Stay Healthy...Vaccinate” program in July; presented at the California Society of Health-System Pharmacists Seminar 2011 in Anaheim in November.

Dana Goldman, PhD, was cited by CNN for his study which found a correlation between increased Internet access and rising admissions for treatment of prescription drug abuse in July; had his research, demonstrating that Americans’ health around age 50 is overwhelmingly the main contributor to shorter life spans, featured on United Press International and Xinhua News Agency in July; featured on CBS News Tallahassee, Florida affiliate WCTV-TV for his study on the US-Europe life expectancy gap in August; published “How much savings can we wring from Medicare?” in the *New England Journal of Medicine* in September.


Emily Han, PharmD, presented an update on gout at the 16th Annual Korean American Pharmacists Association Continuing Education Symposium, in La Guardia, NY, in October.

Joel Hay, PhD, quoted in *The Record Searchlight* about the negative impact marijuana has on society in October.

Kathleen Johnson, PharmD, MPH, PhD, William A. Heeres and Josephine A. Heeres Professor in Community Pharmacy, Titus Family Department chair, presented on clinical pharmacy education in the US as an invited guest faculty, at the Amrita University School of Pharmacy, in Kochi, India; presented on pharmacist intervention to improve clinical outcomes in persons with diabetes, at the Annual Meeting of the Federation of International Pharmacists, in Hyderabad, India, in September.

Geoffrey Joyce, PhD, quoted by the *New York Times* about Pfizer’s plan to delay sales of a generic for Lipitor in November.

Tien Ng, PharmD, FCCP, BCPS, presented at the California Society of Health-System Pharmacists Seminar 2011 in Anaheim in November.

Michael Nichol, PhD, presented “Cost-Effectiveness of a Novel Prostate Cancer Detection Index from a Managed Care Payer Perspective” and “Impact of Noncompliance with Diabetes Care Guidelines on Emergency Room Visits and Hospitalizations in a California Medicaid Type 2 Diabetes Mellitus Population,” at the 33rd Annual Meeting of the Society for Medical Decision Making in Chicago in October.

Frances Richmond, PhD, presented “Regulatory Updates for the US RDA,” in Hangzhou, China, in September; presented “The US Regulatory System: An Update,” in Wonju, Korea, and Shanghai, China, in September.

Neeraj Sood, PhD, participated in a press briefing accompanying the release of Health Affairs’ September issue on “Confronting Costs,” in Washington, DC, in September; had his research that found that people who had high-deductible health plans and a consumer-directed account reduced healthcare costs featured by United Press International in September; had his Health Affairs article, “Medicare’s Bundled Payment Pilot For Acute And Postacute Care: Analysis And Recommendations On Where To Begin” cited by The Lund Report and Healthcare Finance News in September.

Glen Stimmel, PharmD, BCPP, presented on setting treatment expectations at the Keck School of Medicine Rheumatology Department Grand Round in July; presented “Drug Therapy for Late Life Depression,” at the Montana Geriatric Education Centers 9th Annual Conference, in Missoula, MT, in October; wrote “Sexual Side Effects of Psychiatric Medication” and question and answer “Ask your Psychiatric Pharmacist” for national NAMI; co-authored The Psychiatric Pharmacy Manifesto, College of Psychiatric and Neurologic Pharmacists.

Fred Weissman, PharmD, JD, associate dean for Academic and Clinical Affairs, served as an ACPE Accreditation Site Evaluator for the Oregon State University College of Pharmacy PharmD Program in October; contributed an article about recent pharmacy laws to the California Journal of Health-System Pharmacy.

Bradley Williams, PharmD, presented “Pharmacokinetics in the Elderly” and “Clinical Pearls in Geriatric Drug Therapy,” at the UCLA Intensive Geriatrics Review Course for Physicians and Pharmacists in Los Angeles in September; presented “Prescription Medicines: Is the Price Right?,” at the AARP Life @50+ Event and Expo in Los Angeles in September.

Michael Wincor, PharmD, associate dean of Global Initiatives and Technology, elected member at large on the section executive committee of the International Pharmaceutical Federation; presented “Integration of Basic and Clinical Sciences in the Professional Curriculum: Focus on Student Competence,” at the 2011 American Association of Colleges of Pharmacy Annual Meeting and Seminars in San Antonio in July; interviewed by CNN about the danger of patients receiving different prescriptions from multiple doctors, without communication between the healthcare providers in September.

Annie Wong-Beringer, PharmD, FCCP, FIDSA, presented at the California Society of Health-System Pharmacists Seminar 2011 in Anaheim in November.

NEW FACULTY

Michael Jamieson, DRSc, has been appointed associate director for the Regulatory Science program. He received his Masters in Regulatory Science here at USC, and was one of the first three students to graduate from the new Doctorate in Regulatory Science program at the 2011 commencement.

Kathleen Rodgers, PhD, has joined the faculty as an associate professor in the Titus Family Department of Clinical Pharmacy and Pharmaceutical Economics & Policy. Dr. Rodgers has conducted research on a broad range of topics, including gynecological cancers, medical device safety, and drug effectiveness and toxicology.
Assistant Professor Andrew MacKay has received a $75,000 grant from the Ming Hsieh Institute for Engineering Medicine for Cancer for the project, “Diagnostic Imaging of Smart Genetically Engineered Nanomedicines,” which he will research along with co-investigators Drs. Peter Conti and Zibo Li.

“Solid tumors are treated using surgery, radiation, chemotherapy and more recently immunotherapy,” says MacKay. “Nanomedicines are an emerging source of innovation, with untapped potential to improve each of these modalities."

The MacKay group explores protein polymers as building blocks for cancer nanomedicines. Unlike many nanotechnologies, these protein polymers are biodegradable, are safe, can be seamlessly fused to therapeutic proteins, and can be programmed to assemble a range particles of defined size and shape.

“The immediate objective of this one-year proposal is to combine the self-assembly functionality of these peptides with collaborations with industry partners. A reception was hosted by the School as well, allowing current faculty and students an opportunity to meet with alumni, partners and others from across the nation and around the world.

Doctoral students Robert Mo and Yan Wang took top honors for their current research projects. Both students are pursuing PhD’s in pharmaceutical sciences in the lab of Wei-Chiang Shen, the John A. Biles Professor in Pharmaceutical Sciences.

Yan Wang won the Graduate Student Symposium Award in Biotechnology for her project, “Transferrin Receptor-Mediated Activation and Sustained in vivo Hypoglycemic Efficacy of Recombinant Proinsulin-Transferrin Fusion Proteins”. The award recognizes Wang’s novel approach in drug design and discovery with her project showing potential for diabetes therapeutics. Wang’s award was sponsored by Pfizer.

Mo’s presentation was entitled “Model Amphipathic Peptide-Mediated Cellular Delivery of siRNA Polyplex for Gene Silencing”. His work focuses on efficient ways of delivering therapeutics with applications in diabetes and cancer. Mo won the AAPS Graduate Student Symposium in Physical Pharmacy and Biopharmaceutics sponsored by Bristol–Myers Squibb.
Treating emotional disorders is a complex undertaking, and oftentimes the therapies themselves can cause additional problems for those affected.

With the help of new funding from several grants, Research Assistant Professor Marco Bortolato is searching for viable alternatives to these drugs in his lab, by aiming to discover the mechanisms that underlie the positive effects and distinguishing these from the unwanted side effects existing drugs can cause.

Bortolato received a two-year, $445,500 R21 grant from the National Institute of Child Health and Human Development for the project, “Interactions of MAO A with Vulnerability Factors for Aggression,” which he will be working on with University Professor Jean Shih, the Boyd P. and Elsie D. Welin Professor in Pharmaceutical Sciences, and postdoctoral students Simone Tambaro and Sean Godar.

This grant will enable Bortolato to study how aggression develops in animal models. Although it is known that the factors that lead to the exhibition of aggression are stress, male hormones, and low levels of monoamine oxidase-A (MAO-A), the neurobiological processes that cause the aggression to present itself are yet to be discovered.

“Most aggression research studies the three risk factors individually, but this is taking a holistic approach,” explains Bortolato.

Bortolato is hypothesizing that the same neurobiological mechanisms that cause aggressive behavior to develop are the same mechanisms that occur when aggression is prevented. In his lab, Bortolato has shown that Finasteride, a male hormone blocker commonly used to treat enflamed prostate in older patients, stops aggression, but since this is not a viable method to use in adolescents, he is trying to understand the neurobiology behind how it works to come up with an alternative treatment.

By understanding the neurobiological mechanisms behind aggression, Bortolato hopes to be making the first steps to finding therapies or preventative measures for aggression that could be used toward other impulse control disorders as well.

In addition to the R21 grant, Bortolato has received funding for two additional projects for which he is acting as a co-investigator. He is taking part in a four-year $572,000 grant from the European Union for the COST project, “Structure-Based Drug Design for Diagnosis and Treatment of Neurological Diseases,” and has received a $105,000 grant from the Manitoba Health Research Council for the project, “A Neurodevelopmental Model of Adolescent Cannabinoid Exposure”.

Bortolato hopes his recent grants will provide major stepping stones in finding viable treatments for aggression and other impulse control disorders.
### Department of Pharmacology & Pharmaceutical Sciences

#### Faculty Updates

**James Adams,** PhD, edited and wrote a chapter for the book *Extracellular and Intracellular Signaling*, published by the Royal Society of Chemistry; medical expert for four TV shows in 2011: “Royal Pains,” “Awake,” “Body of Proof” and “Flashpoint.”

**Ronald Alkana,** PharmD, PhD, associate dean of Graduate Affairs and Interdisciplinary Graduate Programs, gave multiple presentations at the 34th Annual Meeting of the Research Society on Alcoholism in Atlantic in June; presented “Integration of Basic and Clinical Sciences in the Professional Curriculum: Focus on Student Competence” and “The Future of Graduate Education: Rethinking Our Goals,” at the 2011 American Association of Colleges of Pharmacy Annual Meeting and Seminars in San Antonio in July.

**Marco Bortolato,** MD, PhD, awarded two-year, $445,500 R21 grant from the National Institutes of Health for the project titled “Interactions of MAO A with Vulnerability Factors for Aggression”; awarded grant as co-investigator from the European Union for the project titled “Structure-Based Drug Design for Diagnosis and Treatment of Neurological Diseases;” awarded grant as co-investigator from the Manitoba Health Research Council for the project titled “A Neurodevelopmental Model of Adolescent Cannabinoid Exposure”.

**Roberta Diaz Brinton,** PhD, R. Pete Vanderveen Endowed Chair in Therapeutic Discovery and Development, is one of 19 researchers who received funding from the California Institute for Regenerative Medicine to support the assembly of a research team to develop an application for the Disease Team Therapy Development Awards; informed Congressional staff about Alzheimer’s disease at panel organized by the Society for Women’s Health Research in December; presented at the 3rd Alzheimer’s Disease Translational Research Investigators Meeting, in Washington, DC, in September; presented at the 4th International Symposium on Nutrition, Oxygen Biology and Medicine, in Paris, France; awarded NIA RO1 5-year, renewal grant of $8,994,829 for project, “Perimenopause in Brain Aging and Alzheimer’s Disease.”


**Julio Camarero,** PhD, filed a patent for a photoswitchable method for the ordered attachment of proteins to surfaces; presented on new approaches to replace antibodies for diagnostics and therapeutics on cancer at the Cancer Detection & Diagnostics Technologies for Global Health Conference, in Rockville, MD, in August; presented at the Western Regional Meeting of the American Chemical Society in Pasadena in November.

**Roger Clemens,** DrPh, presented on current dietary guidelines at the Canadian Nutrition Society meeting in June; quoted by $_Opinion_ about herbal products that are sold as miracle cures in July; quoted by $_MarketingDaily_ applauding McDonald’s announcement that it will create healthier Happy Meals in July; interviewed by NBC News Los Angeles affiliate KNBC-TV about the frequency with which food regulators conduct inspections in November.

**Ian Haworth,** PhD, presented at the Western Regional Meeting of the American Chemical Society in Pasadena in November.

**J. Andrew MacKay,** PhD, awarded $45,000 grant from the Board of Trustees of the Robert E. and May R. Wright Foundation and the Southern California Clinical and Translation Science Institute for the project titled “Biomolecular Engineering of Sustained-Release Disintegrins for Cancer Therapy;” awarded $75,000 grant from the Ming Hsieh Institute for Engineering Medicine for Cancer for the project titled “Diagnostic Imaging of Smart Genetically Engineered Nanomedicines;” awarded $2,037,500 grant from the National Eye Institute-NIH for the project titled “An Experimental Approach to Maculopathy”; presented at the Western Regional Meeting of the American Chemical Society in Pasadena in November.

**Nouri Neamati,** PhD, was featured in TG Daily and Health Canal.com for his research of small molecules that could mimic peptides that can kill lymphoma cells in mice, which may lead to the development of better cancer-fighting medication in November.

**Wei-Chiang Shen,** PhD, John A. Biles Professor in Pharmaceutical Sciences, awarded $281,880 grant renewal from the National Institutes of Health for the project titled “Transferrin Conjugates for Oral Protein Drug Delivery;” presented the keynote speech, “Cell-Penetrating Peptides for Cytosolic or Nuclear Transport,” at the PepCon2011 Protein & Peptide Conference, in Beijing, China, in March; presented at the China Pharmaceutical University, in Nanjing, China, in May; presented “Pharmacokinetics of Recombinant Bifunctional Fusion Proteins” as an invited speaker at the Gordon Conference on Drug Metabolism, in Holderness, NH, in July; filed US patents for spacers to increase the expression of recombinant fusion proteins, fusion proteins with cleavable spacers and uses and methods for uses of protein precursors as prodrugs.
Roberta Diaz Brinton, the R. Pete Vanderveen Endowed Chair in Therapeutic Discovery and Development, is one of 19 researchers to receive a CIRM Disease Team Therapy Development Award from the California Institute for Regenerative Medicine (CIRM) to support the assembly of a research team to develop a clinical trial grant that could be worth up to $20 million.

“These planning awards continue CIRM’s record of requiring scientists to work in teams, sharing knowledge and speeding the time to new therapies,” said CIRM President Alan Trounson in a release.

Brinton’s proposal called for the founding of a disease team to develop a small molecule therapeutic, allopregnanolone, for the prevention and treatment of Alzheimer’s disease. Lon S. Schneider, professor of psychiatry, neurology and gerontology at the Keck School of Medicine, is co-PI on the project, and the Clinical and Translational Science Institute Center for Scientific Translation and USC NIA Alzheimer’s Disease Research Center are contributing partners.

“Allepregnanolone promotes the ability of the brain to regenerate itself by increasing the number and survival of newly generated neurons,” explains Brinton.

These newly generated neurons are associated with a reversal of cognitive deficits and restored learning and memory function in preclinical models of Alzheimer’s disease. Further, allopregnanolone reduces the amount of Alzheimer’s pathology in the brain.

Brinton emphasizes the fact that Alzheimer’s therapies like this urgently need to be developed.

“In the US, 5.4 million people have Alzheimer’s and another American develops the disease every 69 seconds,” she says. “No therapeutic strategies exist to prevent or treat Alzheimer’s, and results of a recent two-year clinical study show that the currently available medications for managing symptoms are ineffective in patients with mild cognitive impairment or mild Alzheimer’s.”

Brinton believes that allopregnanolone has the potential to be effective for both the prevention of and early stage treatment of Alzheimer’s disease, and will use the funding to assemble an interdisciplinary team of clinicians, scientists, and therapeutic development, regulatory, data management and statistical analysis experts that will plan and implement clinical trials of the compound.

The Brinton team’s full research application will be voted on by the CIRM governing board in the summer of 2012.
SCHOOL OF PHARMACY CONFERENCE ADDRESSES MAJOR HEALTHCARE CONCERN

This year’s “Moving Targets” Symposium drew a wide audience with its focus on aging.

Dr. Felipe Sierra, director of aging biology at the National Institute on Aging, presents to the Moving Targets audience. The event was organized by doctoral students Shili Xu and Harsh Sanchetti.

Americans 65 years or older numbered 39.6 million, or 12.9 percent of the total population, in 2009, and this number is projected to grow to 72.1 million, or 19 percent of the population, by 2030. The aging of America presents health and financial challenges to the nation, and today’s research is approaching it from diverse perspectives.

On October 8, over 200 scientists, students, faculty, clinicians and industry representatives addressed the topics of aging and oxidative stress at the 10th annual “Moving Targets” symposium, hosted by the School of Pharmacy’s chapter of the American Association of Pharmaceutical Sciences and the National Institute on Aging, at the Davidson Conference Center.

Dean R. Pete Vanderveen welcomed the participants to the conference. The symposium included a round table discussion led by authorities in the aging field, followed by lectures covering a wide range of topics. Presenters included Dr. Felipe Sierra, director of aging biology at the National Institute on Aging; Drs. Holly Van Ramen and Zelton Sharp, of the Utah Health Sciences Center; Dr. Christiaan Leeuwenburgh, of the University of Florida; Dr. Bruce Ames, of the Children’s Hospital Oakland Research Institute; Dr. Brian Ross, of the Huntington Medical Research Institute; Judith Campisi, of the Lawrence Berkeley National Laboratory; Eric Yuen, from Johnson & Johnson; and Mary Ellen Cosenza, from Amgen.

The day also included a poster competition open to all interested students. Taking the $1,000 prize for the Amgen Young Investigator Award was Kavya Ramakuman for her poster, “Discovery of Novel Small Molecule Inhibitors of Glutathione S-Transferase Omega with Antiproliferative Properties”.

The Dean’s Young Investigator Award was shared by two students, each receiving a $500 prize. Jennifer-Ann Bayan won for her posted entitled, “The Intrinsic and Paracrine Effects of PTEN Loss in Pancreatic Beta-cells,” and Yan Wang won for “Transferrin Receptor-Mediated Activation and Sustained in vivo Hypoglycemic Efficacy of Recombinant Proinsulin-Transferrin”.

“Moving Targets provided a direction for novel areas of future aging research,” noted School of Pharmacy student Shili Xu, USC-AAPS chair, who co-organized the event with Harsh Sanchetti.

Faculty advisor for the group is Assistant Professor Andrew MacKay. Support for the symposium was provided by the USC School of Pharmacy, National Institute on Aging, Amgen, Pharmavite and the Southern California Clinical and Translational Science Institute.
Pharmacy Student HONORED for DEDICATION to VOLUNTEER WORK

Parth Parikh named a recipient of the prestigious RESPy Award.

“Volunteer work and community outreach give pharmacy students a chance to find out what they can really do,” said PharmD student Parth Parikh. “It’s a chance to be creative while changing lives for the better.”

This attitude has won Parikh the Pharmacy Times/Wal-Mart RESPy award, given to students who demonstrate a commitment to volunteer service, a high level of professional and public-health related activities, and a dedication to advancing the pharmacy profession.

Parikh has been involved in volunteer efforts since his first semester at the School of Pharmacy, and has participated in over a dozen health fairs and community clinics that provide screening and counseling services to underserved populations in L.A.

“Working with homeless patients was extremely rewarding,” said Parikh. “For them, the smoking cessation program was like a rebirth, and I was so glad to be a part of that.”

Parikh even brought his dedication to the pharmacy profession and volunteer work abroad, co-organizing Project India, an outreach project that educates pharmacy students in India about clinical aspects of the profession, a facet not currently emphasized abroad, and allows them to utilize their skills at community health fairs.

Each year, only eight students from across the country receive the RESPy award for “Respect, Excellence and Service in Pharmacy,” and are selected by a panel of judges who evaluate the students’ commitment to community service.

ALL ABOARD

Working with CVS/Caremark, USC’s Operation Immunization, led by directors Jessica Dea and Eddie Wong, spearheaded a county-wide campaign promoting immunization against the flu. This rail ad was a centerpiece of the effort aiming to boost immunization rates. The campaign was featured throughout the rail system. The campaign is estimated to have garnered nearly 3.5 million impressions.
students

Tim Bensman, PharmD ('11), PhD candidate in Clinical and Experimental Therapeutics, has been awarded a $10,000 scholarship from the Medco Foundation administered by the American Association of Colleges of Pharmacy. Four students received this award nationwide out of 200 applicants. Winners were chosen based on their good standing in their respective dual degree programs, and an essay detailing their career goals and professional involvement. Bensman is pursuing a dual degree so that he can remain in academia as both an educator and a researcher. He is one of the first students at USC to pursue this particular degree.

where POLITICS meets PHARMACY

With the Herculean task of fixing the healthcare system in the United States still front and center, elected officials, healthcare leaders, faculty and students gathered to offer insights into what is being done and what needs to be done to optimize care while reducing costs. Speakers and students grappled with the pharmacist’s role in healthcare through lectures and discussions at the annual Legislative Day held at the Radisson at USC on October 7. Presenters included member of Congress Laura Richardson; Mitchell Katz, the director of the Los Angeles County Health Service; Assembly members Anthony Portatino, Mike Eng, Mike Feurer and Betsey Butler; and Steve Miller, who spoke on behalf of Assembly member Mike Davis.

SCHOLARSHIP WINNER

Co-directors of Legislative Day, students Vincent Capati (far left) and Tadeh Vartanian (far right) with Director of the LA County Health Service Mitchell Katz, a speaker at the event, (center) and Professors Steven Chen and Kathleen Johnson.
School of Pharmacy student Jason Lebowitz was invited to present his findings on differences in long-term costs of gastric bypass surgery vs. gastric banding at the Annual Meeting of the American Diabetes Association in San Diego. The data demonstrates that while both surgical procedures are effective at reducing both care consumption and cost in type 2 diabetes patients in the short-term, longer-term costs significantly increased in patients undergoing bypass, whereas patients with banding had a reduction in cost and healthcare utilization.

The California Society of Health-System Pharmacists recognized several students at its annual seminar, held at the Disneyland Hotel and Resort in November. Eunice Rhee won the Student Leadership Award, the Joseph Beckerman Scholarship and the Student Leadership in Health-System Practice Award. Also recognized were Emily Choi and Joy Wang, who led the tobacco cessation project that won the Student Chapter Community Service Project Award.

School of Pharmacy student Letisha Wyatt was selected by the USC Graduate School and the National Science Foundation EDGE Program to represent USC at a national-level conference, the 2011 Compact for Faculty Diversity Institute on Teaching & Mentoring. Wyatt, a PhD student in the labs of Professors Ron Alkana and Daryl Davies, received a $1,500 funding award covering all expenses to attend the conference, which took place in Atlanta, Georgia, October 20-23. She was selected to attend based on a recommendation by her faculty advisor and her department chair.

SNPhA

Saleema Kapadia, USC SNPhA president, regularly speaks to students about the many career opportunities available to today’s pharmacists at Bravo Medical Magnet. The program is offered as part of the Pharmacy Explorers Group at the high school, led by president and senior Indira Kissoondyal. This was one of several lunch and learn programs offered by SNPhA to area high schoolers as a way to encourage them to study smart and hard and to consider a career in pharmacy.

presenting in a NATIONAL FORUM

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STATEWIDE SPOTLIGHT

The California Society of Health-System Pharmacists recognized several students at its annual seminar, held at the Disneyland Hotel and Resort in November. Eunice Rhee won the Student Leadership Award, the Joseph Beckerman Scholarship and the Student Leadership in Health-System Practice Award. Also recognized were Emily Choi and Joy Wang, who led the tobacco cessation project that won the Student Chapter Community Service Project Award.
Student Updates

Lilit Aladadyan, DRSc candidate, presented “New Initiatives in Food Regulations,” in Shanghai, China, in September.

Hesham Abdullah, DRSc candidate, presented “Multi-Regional Clinical Trial and their Challenges/Associated Considerations,” in Hangzhou, China, and Shanghai, China, in September.


Patrick Dimapindan, DRSc candidate, presented “Import & Export Regulations,” in Shanghai, China, in September.

Clare Elser, DRSc candidate, presented “Preparing for FDA/CE Inspection,” in Wonju, Korea, and Shanghai, China, in September.

Isara Isarowong, DRSc candidate, presented “CAPA Systems,” in Wonju, Korea, in September; presented “Considerations of Outsourcing,” in Shanghai, China, in September.

Yiyu Li, PhD candidate, presented “Fibril Structure of Human Islet Amyloid Polypeptide (hIAPP),” at the Western Regional Meeting of the American Chemical Society in Pasadena in November.

David Locke, DRSc candidate, presented “Animal Trials Under GLPs,” in Shanghai, China, in September.


Haven McCall, DRSc candidate, presented “FDA’s Oversight of Software and Electronic System,” in Wonju, Korea, and Shanghai, China, in September.

Robert Mo, PhD candidate, presented “Amphipathic Penetrating Peptides for siRNA Delivery,” at the Annual iPIDD Symposium in Burbank in June.

Martha Pastuszka, PhD candidate, received a Biomedical Nanoscience Travel Award that supported her travel to Berlin, Germany to attend the conference on “Particles 2011: Stimuli Responsive Particles and Particle Assemblies,” in July; presented “Expression of a Thermo-Reversible Intracellular Switch,” at the Annual iPIDD Symposium in Burbank in June; attended the Western Regional Meeting of the American Chemical Society in Pasadena in November.

Divya Pathania, PhD candidate, received a Phi Beta Kappa Alumni Award; won the Department of Pharmacology and Pharmaceutical Sciences Outstanding Teaching Assistant Award.

JoAnn Pfeiffer, DRSc candidate, presented “Clinical Trial Management,” in Wonju, Korea, and Shanghai, China, in September.

Valerie Ramsey, DRSc candidate, presented “Regulatory Expectations of OTCs,” in Shanghai, China, in September.

Chin-Wei Soo, DRSc candidate, presented “Meeting FDA/CE Quality Standards,” in Wonju, Korea, and Shanghai, China, in September.

Neal Storm, DRSc candidate, presented “Regulatory Submissions for Biologics,” in Hangzhou, China, and Shanghai, China, in September.

Simone Turnbull, DRSc candidate, presented “Regulatory Expectations of Cosmetics/US Regulation of Dietary Supplements,” in Shanghai, China, in September.

Mauricio Umaña, DRSc candidate, presented “US Regulations for Stem Cells,” in Shanghai, China, in September.


Letisha Wyatt, PhD candidate, has been appointed Graduate Student in Residence, Diversity Outreach, for the 2011-2012 year.

Shili Xu, PhD candidate, presented “Mechanistic Characterization of SCI44 in Colon Cancer,” at the 2011 Molecular Therapeutics of Cancer Research Conference in Pacific Grove in July.

Megan Yardley, PhD candidate, has been elected to the Graduate and Professional Student Senate Board.

Ni Zeng, PhD, has received a Krown Fellowship for her project titled, “PTEN Loss Promotes Beta Cell Growth: Implications for Diabetes Therapy”.

**JUST IN...**

2011 NACDS Foundation pharmacy scholarship winners include PharmD students Bonny Chan, Parth Parikh and Brent Tambourine.
I believe the USC School of Pharmacy has been a cornerstone to what I’ve been able to do professionally. Recently, at a QSAD meeting, while listening to Dean Vanderveen speak about the School’s initiative to garner support for students and programs to advance the profession and faculty, I felt a sense of responsibility in the room. It led me to look inward and to ask myself, “What can I do?” For me, supporting the Diversity Scholarship and the R. Pete Vanderveen Chair in Therapeutic Discovery and Development is an honor and I’m humbled by the opportunity to give back.”

—GUSTAVUS A. ARANDA, JR., PharmD (’04), MS (’05) Director of Health Services, US Medical Bristol-Myers Squibb

To learn how you can change a life, contact Mary Wackerman at 323.442.1360 or mwacker@usc.edu. www.usc.edu/pharmacy

above: In December, Dr. Aranda led a group of USC School of Pharmacy students, members of the Student National Pharmaceutical Association, on a humanitarian trip to Belize. Dr. Aranda (center, front) is shown here at the Hattieville Village Community Health Fair where USC students conducted screenings and provided educational information. The group also visited orphanages educating children about poison prevention and hygiene and presented HIV/AIDS education at a juvenile detention facility.
March 4 – Sunday
Dean’s Roundtable
Arcadia, California
Information: 323.442.1360 or mwacker@usc.edu

March 6 – Tuesday
7th Annual Scholarship Lunch
USC School of Pharmacy Centennial Park
Information: 323.442.1738 or stanovic@usc.edu

April 2012
Distinguished Faculty Speaker Series
USC Orange County Center
Irvine, California
Information: 323.442.1738 or stanovic@usc.edu

May 9 - Wednesday
Alumni/Senior Awards Banquet
Town and Gown - University Park Campus
Information: 323.442.1738 or stanovic@usc.edu

May 11 – Friday
School of Pharmacy Satellite Commencement
Pappas Quad/HSC Quad
Information: 323.442.1383 or horgan@usc.edu

June 13 – Wednesday
9th Annual GNP/ICP Scholarship Golf Classic
Robinson Ranch Golf Club
Information: 323.442.1738 or stanovic@usc.edu

July 23-27 – Monday - Friday
55th Annual Postgraduate Refresher Course in Maui
Ritz-Carlton, Maui
Information: 323.442.2403 or pharmce@usc.edu