2010 Presidential Citizens Medal for Brinton

For her work as director of the USC Science Technology and Research (STAR) program, which has opened the doors of opportunity for thousands of disadvantaged and minority inner-city youth, White House has given Roberta Diaz-Brinton a Citizens Medal, an honor that recognizes Americans who have performed "exemplary deeds of service for their country or their fellow citizens." The Medal is among the highest honors a civilian can receive. For more stories: USC, White House.

PPSI Chair to attend HERS Institute

Sarah Hamm-Alvarez will be attending Higher Education Research Services (HERS) Institute for Advancing Women Leaders in Higher Education Administration at Wellesley College in Massachusetts. She will attend four sessions in the academic year beginning in October. For more stories, click here; of Hamm-Alvarez.

Welcome — Bogdan Olenyuk

A chemical biologist, Bogdan Olenyuk joins the PPSI faculty from the University of Arizona where he was an assistant professor of chemistry. His research focuses on the regulation of gene expression using synthetic small molecules. Dr. Olenyuk is a recipient of a prestigious National Science Foundation Career Award, National Institutes of Health Ruth L. Kirschstein National Research Service Award, and a current NIH R21 award recipient.

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By now the fall semester is well underway and we have much to report.

We were joined by a new Assistant Professor, Dr. Bogdan Olenyuk, on July 1 who arrived at USC via the University of Arizona’s Department of Chemistry. Dr. Olenyuk’s new program in chemical biology strengthens this very important element of the department’s research profile and we welcome him to PPSI.

A number of federal grants were received over the past few months, most notably, the first (of many) federal grants in the form of an R21 award to Dr. Andrew MacKay and the first (of many NIH RO1 awards to Dr. Bangyan Stiles.

Other faculty also received new or continuation research funding and are all to be congratulated during this challenging economic period.

You will read here about some of our educational and outreach programs involving partner universities, spearheaded by a number of PPSI faculty.

And we are extremely proud to have Dr. Roberta Brinton recognized as the recent recipient of a Presidential Citizen’s Medal for her hard work and dedication to the advancement of science and technology education through the USC STAR program!

We hope to see you all at the USC School of Pharmacy reception at AAPS in November in New Orleans!
Ronald Alkana


Enrique Cadenas

- Speaker on the following international gathering:
  - SFRR-Europe Summer School on Protein Maintenance and Turnover in Aging and Diseases, 4-10 June 2010, Spetses, Greece. Protein post-translational modifications in aging and neurodegenerative disorders.
  - Annual Meeting of the Helenic Academy, 11-14 June 2010, Spetses, Greece. Lipoic acid and thiol-disulfide exchange in aging.
  - Conference on Lipid Oxidation, Human Diseases, and Aging. 16-17 June 2010, Turin, Italy. MAPK and insulin signaling in aging and a model of Alzheimer’s disease: role of mitochondria. ■

Sarah Hamm-Alvarez

- NIH EY01386-13 grant is renewed in the amount of $911,250 from September 1, 2010 through May 31, 2013. Project title: “Microtubule-based transport in lacrimal gland function.”

- Gave the “Basic Science Conference Summary” and hosted the Tear Film and Ocular Surface Society International Meeting in Florence, Italy, Sept 22-26, 2010.

- Attended the Provost’s retreat at the Terranea Resort, Rancho Palos Verdes, on August 21, 2010, and gave a presentation on “Funding of Postdoctoral Fellowships.”

- Present at the ISER (International Society for Eye Research) Meeting in Montreal, Canada, July 2010. Title of talk: “Insights into lacrimal gland interaction with the immune system from the polymeric immunoglobulin A receptor knockout mice.” ■

Bangyan Stiles

- Awarded R01 grant in the amount of $283,500 from the National Institutes of Health for her project titled “The Mechanism of Beta-Cell Regeneration.” Click here for more of this story.
Julio Camarero

- Attended the following NIH Study Sections in Washington DC on June 2010:
  - Drug Discovery and Molecular Pharmacology (DMP) study section.
  - Human Protein Affinity Reagents study section ZRG1 GGG-E 50 S.

Jean C. Shih

- DVD-ROM project with Marsha Kinder, “A tale of two genes,” will be part of the following courses this fall:
  - Pharm.D. Level I class on biochemical and molecular targets for drug action taught by Enrique Cadenas.
  - BISC 104 class of Chien-Ping Ko, professor of neurobiology, College of Letters, Arts and Sciences.
- Traveled to Taiwan:
  - Talked on “MAO: from Impulsivity to Compulsivity Animal Models for Mental Disorders” at the Taipei Medical University, July 2, 2010.
  - Attended the Convocation of Academicians, Academia Sinica, Taiwan, July 4-8, 2010.
  - Attended an Advisory Board meeting for the Neuroscience Center of Academia Sinica, July 2010.
  -Talked on “MAO KO mice as models for mental disorders” at the National Taiwan University, July 2010.

Liqin Zhao

- Awarded $200,000 Investigator-Initiated Research Grant funded by the Alzheimer’s Association for her project titled “Insulin-Degrading Enzyme, ER Subtype, ApoE Genotype & Alzheimer’s Prevention vs Treatment.” Click here for more of this story.

Contracts and Grants FYI’s!

- eRA Commons and the National Center for Biotechnology Information (NCBI) have partnered together to provide one comprehensive online bibliography portal. NCBI’s “My NCBI” system boasts a feature called “My Bibliography,” where users can create and store professional citations. As of July 23, 2010, PD/PIs are no longer able to enter citations manually into eRA Commons and must use My Bibliography to enter and maintain any citations they wish to have available in Commons.
- Starting January 25, 2011, NIH, AHRQ, and NIOSH will be eliminating the error correction window from the application process. This means that any application submitted after 5PM local time of the applicant organization will be subject to late policies.

Additional information available upon request.

Sharon Wallace, wallace@pharmacy.usc.edu
Summer Course for Taiwanese Students

Ian Haworth, the course coordinator, together with Nouri Neamati, Curtis Okamoto, Rebecca Romero and Brian Sutch taught an intensive three-week drug design and delivery course to 32 visiting students from Taipei Medical University, China Medical University and Kaohsiung Medical University. “The course is equivalent to a two- or three-semester unit program,” said Michael Wincor, associate dean of globalization and continuing professional development.

The course was taught as a hands-on exercise in drug design. Brief formal lectures were punctuated by computer exercises aimed at solving real-world problems in structure-based ligand design and improvement of the biopharmaceutical properties of inhibitors. “Our goal was to show the students that drug design is a creative science that draws upon many different fields,” said Dr. Haworth. The students worked in groups of four. Each group was given the starting point of a protein-ligand complex, which they tried to improve over three weeks. “The aim of the project was to use the computer to predict favorable changes in the ligand, both from binding and delivery perspectives,” said Dr. Haworth. He added that “the computer provides a wonderful means of communication, particularly for students with a language barrier.”

In the first week of the course, Dr. Neamati and Dr. Haworth gave introductory lectures on molecular structure and structure-based design, and the whole teaching team worked with the students to get them up to speed on several computer programs. In the second week, Dr. Romero and Dr. Okamoto introduced several biopharmaceutical concepts. “We emphasized the key idea that the molecular design must include the potential for delivery,” said Dr. Romero. In the third week, the lectures were switched to large-molecule drugs, while the students completed their project work. On the final day of the course, each group gave a 30-minute presentation of their findings. “The presentations were excellent,” said Dr. Haworth; “It was exciting to see how far the students had come in three weeks: it really was a testament to their effort and ability.”

As well as trouble-shooting the software and helping the students during the course, Brian Sutch (pictured teaching) developed an excellent web site that allowed the students a starting point for the exercises in the course. “This was our first attempt at offering this course through almost entirely web-based software,” said Brian. “We see great potential for developing the course further, with improved design of our web site.”

The entire three-week course, faculty agreed, had been a success, largely due to the excellence of the students. It was a great combination of learning and having some fun. It is hoped that this will become an annual event with the three universities in Taiwan.

For more on this article click here.

More pictures next page.
Below are among those who received their certificates from Dean Pete Vanderveen:

- Ting-Hsuan Wu
- Chia-Wei Chang
- Kai-Chun Lin
- Wan-Wen Huang
- Nai-Hsuan Li

There were lots and lots of photos taken. Mementos. Shown are but a few.

Teachers and students all.

Customary gift giving to teachers, Rebecca Romero and Ian Haworth.

With Nouri Neamati.

Jean Shih presented her DVD-ROM, “A tale of two MAO genes, exploring the culture and biology of anxiety and aggression.”

With Curtis Okamoto and Rebecca Romero.

Prof. Shou-Mei Wu (lady in the middle) of Kaohsiung Medical University, delegation advisor, with (l-r) Clay Wang, Jean Shih, Fred Weissman, Michael wincor and Wei-chiang Shen.

With new friends, Rosalin Khuu and Elina Baskina (center, not wearing white smocks), 4th year pharmacy students assisting Dr. Wincor in coordinating the students’ social events and their exploration of pharmacy in America.
**Where is he now?**

**DHRUBA “DJ” CHATTERJEE**

It is with great pleasure that I am writing a bit about myself for the USC School of Pharmacy, Department of Pharmacology and Pharmaceutical Sciences newsletter. I thank you for this opportunity.

I graduated with a Ph.D. degree in Pharmaceutical Sciences in 1996 under the supervision of Dr. Robert T. Koda, a great person and mentor who, unfortunately, is not with us anymore. My thesis involved the transdermal delivery of methotrexate, potentially for its use in the treatment of rheumatoid arthritis. Currently, I work as a Director of Clinical Research and Development of anti-diabetes medicines for Novo Nordisk Inc., a multinational pharmaceutical company based out of Denmark, at its US headquarters. It has been an eventful journey so far, starting with a memorable ‘launch’ at the USC School of Pharmacy.

Rewinding back to 1990, I had just completed my Bachelors in Pharmacy and moved from India to Los Angeles in pursuit of a Ph.D. degree in Pharmaceutical Sciences. The surroundings (both at my new home and school environment) were very ‘new’. Like most of my other batch mates at USC, I spent most of the time in school with intense course and laboratory work. I did my rotations in Dr. Vince Lee’s and Dr. Wei-Chiang Shen’s laboratories, until I ‘found a home’ in Dr. Koda’s laboratory ‘in the basement’. If I closed my eyes today and looked back, I remember the long (but fun) nights before the semester examinations, numerous after-hours exploration on the UNIX-based network in the basement computer room, trying my luck sending messages to others outside the school (currently known as ‘e-mail’, was just being introduce then), saving on the desktop a project report and a term-paper (due the very next day) when a powerful earthquake was in progress; Pharm D. students queuing outside my lab with questions, the numerous sessions with animals and the constantly running HPLC systems in the laboratory contributing towards my thesis. It was surely a very memorable five years of my life!

The School provided an excellent atmosphere to each of the students and fellows from all over the world. There were adequate breaks in the intense curriculum through Friday afternoon happy-hours on the quad, roof-top parties, faculty-student parties and graduate student parties. While in session, the course work, the professors and the graduate program trained me to construct, design and execute cutting edge research work focused towards answering a few key questions that could be applied for medicinal use in man. The school encouraged and actively supported me during the two summers when I interned for Syntex Research (in Palo Alto, CA). In addition to the work towards my dissertation, I am indebted to Dr. Koda for having thoroughly exposed me to the field of practical and theoretical pharmacokinetics. For four years I was the leading teaching assistant to the Pharm.D. students on their Pharmacokinetic Laboratory course. This got me quite interested in the field that deals with quantifying the amount of drug in the different parts of one’s body. Additionally, in association with the Norris Cancer Center, in our laboratory I determined the pharmacokinetics of several real-life prospective anti-cancer drugs administered to cancer patients. It was my immediate attraction to pharmacokinetics from those days that forms the basis of what I do for a living today.

With a fresh Ph.D. from USC Pharmacy, I moved to another truly football town in pursuit of a post-doctoral fellowship in the College of Pharmacy, University of Michigan. I further researched in the field of transdermal research under the renowned Dr. Gordon L. Flynn. During the last year of this fellowship, I also worked as a consultant to Mylan Pharmaceuticals to develop a generic transdermal delivery system (a form of which is currently marketed and a very successful product for Mylan Corporation). It is that same year that I watched every (continued next page)
game at the ‘Big House’ that made Michigan the NCAA Football Champion! Since they did not play against USC, they had my whole-hearted support.

I made a significant switch in my career leaving Michigan. Not having given up on ‘my love’ for pharmacokinetics, I applied for a position of a Clinical Pharmacology Reviewer of New Drugs with the FDA, and joined the position in the spring of 1999. Sure enough, Dr. Alfredo Sancho, another old friend/graduate student and ex-Trojan from Dr. Wolf’s laboratory, was in the same Division within FDA to welcome and orient me. Over the course of the next 6 valuable years, I got trained on the most critical steps of drug development ‘hands-on’. I learned from new drug applications (NDAs) how a drug is developed, how clinical trials are decided based on specific clinical needs, what makes a drug a ‘drug’ and what does not. Most importantly, all FDA reviewers (such as myself) were privy to all aspects of drug development from a regulator’s point of view (clinical/medical, chemistry/manufacturing, biostatistics, pharmacology/toxicology and clinical pharmacology and regulatory policy/law, among other disciplines). I have been involved as the primary clinical pharmacology reviewer on numerous drug products which are household names today – thanks to the direct-to-consumer advertisements on TV! The stint at the FDA has been surely the most prominent training/learning experience of my professional career so far.

Having equipped with considerable drug development knowledge, I sought to pursue a career in the pharmaceutical industry as a clinical researcher. Here, I would be involved in leading specific clinical function that were not a part of my duties within the FDA, namely, commercial influence of drug development strategies and execution of clinical trials. I joined a Denmark-based pharmaceutical company, Novo Nordisk, in 2005. The company has about 30,000 employees worldwide and is a world-leader in anti-diabetes medicines. I work for them designing strategies for Phase I and II clinical trials for new anti-diabetes drugs. It has been quite a gratifying experience so far, having been significantly involved with a recently marketed new anti-diabetic drug. I have spent prolonged periods in the beautiful country of Denmark working at our headquarters. Additionally, I have also had the opportunity to travel to many other countries as a part of my global responsibilities.

But, no experience can compare to that I have had at USC School of Pharmacy. I have made life-long friends with co-graduate students and professors; shaped my professional career, developed work ethics and a positive attitude towards life while at USC. I got married as a final year graduate student at USC. So, I will always ‘live’ with USC. I am among a fortunate few to be able to say that!

On a personal note, as a family (my wife, Susmita, and sons Rohan and Rahil) we live around Princeton, NJ around the corner from the historic Princeton University campus. If any of you happen to travel to this part, please drop and meet an ex-USC grad!

Wish the very best for everything and to everyone at the School of Pharmacy!

Fight On!
Welcome

... to our new graduate students pictured above during the Welcome Reception at the Edmondson Faculty Center on September 2, 2010.


At the back: Pu Shi, Harsh Sancheti, Paul Dicocco, Vinit Gholap, Jugal Dhandhukia, Amit Agarwal, Tianyi Jiang and Yilong Li.

Not in the picture are: Suhaas Aluri, Pang-Yu “Aaron” Hsueh, Sachin Jadhav, Linlin Ma, Zhen Meng and Junko Yaegashi.

Introduced at the Welcome Reception: Lucy Coraline Mackay

“We are both thrilled,” Andrew and Adrienne wrote as they announced the birth of their first child, Lucy Coraline, who was born on June 29, 2010 at 10:19 am, weighing 8 lbs, 2 oz and 21 inches long at the Huntington Hospital in Pasadena.

Also welcomed: Bogdan Olenyuk and his laboratory staff, who came with him from the University of Arizona.

Llewellyn Cox is the new Program Administrator in Research Affairs.

Llewellyn received a Ph. D. in Molecular Biology from the University of Wales College of Medicine in 2003 and subsequently completed a postdoctoral fellowship at Cornell University in Neurosciences. Then he joined City of Hope as a Research Project Manager where he has worked for the past two years in Research Administration.

Llewellyn’s office is in 700M, telephone is 323-442-1737 and he can be reached at llewellc@usc.edu.

Lucy Coraline is gleefully held by administrative staff, Josie Morales and Ruth Ballard.
Best during Academic Year 2009-2010

Best Research Assistant
Helen Ha

Best Teaching Assistants
Kavya Ramkumar
Yumna Shabaik

All the above honorees come from the lab of Nouri Neamati.

Krown Fellowship

James Sanchez, a Ph.D. in Clay Wang’s lab, is this year’s recipient of the Krown Fellowship, clinching the award with his project entitled, “Genome-based deletion analysis uncovers the prenyl xanthone biosynthesis pathway in Aspergillus nidulans.” This honor came with a monetary award of $10K for discretionary fund and stipend support.

NIH NRSA Predoctoral Fellowship

Letisha Wyatt
(pictured with mentors, Ronald L. Alkana and Daryl Davies), received a perfect score under the new scoring system of NIH for her project entitled, “Ethanol Modulation of Neuronal P2X4 Receptors.” The grant commenced July 2010.

Summer Internships

NIH-NIBB
Melissa Millard, a fourth-year Pharmacology and Pharmaceutical Sciences Ph.D. Candidate in the laboratory of Dr. Nouri Neamati recently completed a three month summer internship at the National Institute of Bioimaging and Bioengineering at the National Institutes of Health in Bethesda, Maryland. Her studies, performed in the Laboratory of Molecular Imaging and Nanomedicine (LOMIN), under the direction of Xiaoyuan Chen Ph.D., focused on the development of nanoparticle formulations to facilitate tumor-specific delivery of highly active phosphonium salts recently discovered in the Neamati laboratory.

MERCK & CO.
Robert Mo, a fifth year Ph.D. candidate in the lab of Dr. Wei-Chiang Shen, participated in a ten-week internship program this past summer at Merck & Co. in Summit, NJ. He worked on the development of controlled release matrix tablet formulations in the division of Product Value Enhancement.

GENENTECH
Dimple Modi, a PPSI master student from the lab of Daryl Davies had been granted a Neuroscience Research Internship for twelve weeks that started from June 1 to August 20 at Genentech, member of the Roche group. Her internship was in the Department of Neuroscience (Neurophysiology) in Genentech’s South San Francisco laboratories. Her projects focused broadly on ways to facilitate future electrophysiology experiments (continued to p.16)
Meetings

APRU Doctoral Students Conference


Divya presented their laboratory’s work: Design and discovery of novel small molecules as modulators of reactive oxygen species-mediated cell signaling. Her co-authors are Mario Sechi, Michele Palomba and Nouri Neamati.

Jennifer’s oral presentation was entitled, “The paracrine effects of PTEN loss in pancreatic beta-cells.”

CONTROLLED RELEASE SOCIETY

Yan Wang, from Wei-Chiang Shen Lab attended and presented her research work at the 37th Annual Meeting & Exposition of Controlled Release Society last July 10-14 in Portland, Oregon. Title of her poster presentation: “Proinsulin-Transferrin Recombinant Fusion Protein is a Novel and Potent Inhibitor in Hepatic Glucose Production.”

GORDON RESEARCH CONFERENCE

Nick Mordwinkin, Pharm.D., a graduate student in the laboratory of Stan Louie and Kathy Rodgers under the PPSI program, was selected to present at the Gordon Research Conference last August 8 to 13, 2010 in Biddeford, Maine. He discussed the role of Angiotensin (1-7) on the production nitric oxide and proliferation of endothelial progenitor cells.

Mordwinkin, although still a graduate student, presented at this prestigious conference on the merit of his scientific findings. His findings may explain why diabetic patients have an increased risk of myocardial infarction and other tissue injuries. In addition, his findings suggest that the administration of angiotensin (1-7), a seven amino acid peptide, may reverse this impairment in diabetes.

iPIDD Retreat

PPSI is copiously represented at the Interdisciplinary Program in Drug Discovery retreat last June 24, 2010 at the Pickwick Gardens of the University Park Campus with the oral presentations of the following graduate students:

Xiaoying Chen, Wei-Chiang Shen Lab: “Pharmacokinetics of Bifunctional Fusion Proteins.”

Anna Popova, Ronald L. Alkana-Daryl Davies Labs: “Mapping DNA with a Nucleotide-Independent Spin Probe.”

Tino Wilson Sanchez, Nouri Neamati Lab: “Novel HIV-Integrase Inhibitors.”

Shili Xu, Nouri Neamati Lab: “Targeting Bcl-2 in Cancer.”
Amber got married

Amber Valencia, a Ph.D. Candidate at the lab of Clay Wang, was a radiant and beautiful bride when she married Christian Somoza last June 25, 2010 at the Hyatt Regency in Long Beach with 110 relatives and friends in attendance. The lucky groom served with the United States Marines with two combat tours to Iraq. He is currently a psychology major at California State University at Dominguez Hills and works as a security consultant abroad.
Moving on …

Daya Perkins

First is Daya’s recent accolade: she is the recipient of the ISBRA (International Society for Biomedical Research on Alcoholism) President’s Young Investigator Award during ISBRA’s Annual World Congress in Paris, France, on September 13-16, 2010.

Since graduating, Daya Perkins has been working at Allergan Inc. after being awarded the highly competitive USC-Allergan Global Pharmaceutical Sciences fellowship. She graduated in May with her Ph.D. in Molecular Pharmacology and Toxicology and an M.S. in Regulatory Science. At USC, she had a successful career as a graduate student, with three first author publications in esteemed journals, an NIH F31 predoctoral fellowship and the school’s Krown fellowship under her belt. Daya credits her relatively painless transition into industry in these tough economic times to the education she received at USC and the contacts she made as a student. “My training as a scientist gave me the tools to think independently and creatively, but it wasn’t until I got to Allergan that I realized how invaluable my Regulatory Science degree was,” says Daya. She works in the Chemistry Manufacturing and controls (CMC) Scientific Affairs division at Allergan. She is excited about how much she has learned about the submission process for drugs in just two months at the company. “My supervisor and mentor, Duane Mauzey (pictured with Daya, an alum of the USC Regulatory Science program and currently a candidate for the first cohort of the doctoral degree in Regulatory Science), is a literal repository of incredible knowledge and support,” says Daya of Mauzey. She plans on continuing her research collaboration at USC while at Allergan.

To this end, she traveled to Paris with Ronald L. Alkana, her graduate mentor, at the Annual ISBRA World Congress in Paris, France, last September 13-16, 2010, where she presented their paper that was also published in abstract form as follows: Perkins, DI, Trudell JR, Davies DL and Alkana RL. Changing the structure of extracellular domain loop 2 in glycine and GABA-A receptors markedly alters ethanol sensitivity and suggests mechanisms of ethanol action. Alcoholism: Clin. Exp. Res Vol 34(S):S165, 2010

Daya is also now teaching, this fall, in the CMC class of the Regulatory Science program. She is also a recent recruit as a health writer for Livestrong.com.

Luis Urbano is now with 3P Biopharmaceuticals in his hometown in Pamplona, Spain, as a scientific project manager. He was a postdoctoral fellow at the lab of Julio Camarero.

Ryan Hamilton is a recipient of the Biology of Aging Training Grant at the University of Texas Health Science Center and has now joined the laboratory of Holly VanRemmen as a postdoc at the laboratories of Roberta Brinton and Enrique Cadenas.
Sabine Chauveau is a student at the University of Auvergne at Clermont-Ferrand in France, concurrently taking two studies for a degree and diploma. She is in fourth year of an eight-year program leading to a Pharmacy degree and also a fourth-year student for a five-year program for a diploma in Science, Technology and Health, specializing in genetics and physiology. In an examination for entrance to pharmaceutical studies at the University, she ranked fourth of the 285 examinees.

Since going to the university, Sabine had spent her summers being a camp leader or camp supervisor, to children from 6 to 11 and also from 15 to 17 years old, including two summers in Croatia. This summer she chose an internship at the lab of Julio Camarero where her project, with fellow French student, Caroline Martel, is on the induction of various peptides with anti-cancer potential activity. Techniques they use include the cloning and expression of precursor recombinant proteins, purification by HPLC, and characterization of the corresponding peptide by Mass Spectrophotometer.

Caroline is hoping for she could study abroad again. Very athletic, she took the opportunity to run a half marathon in San Francisco last July 25, earning a medal for finishing it. She loves travelling and being exposed to new cultures. She also has a penchant for cooking especially her native French recipes. The lab of Julio Camarero had a delicious sampling of her genuine French crepes.

Anna Papinska is currently a student at the Warsaw University of Life Sciences who recently studied for the summer semester at the Katholieke Universiteit Leuven in Belgium under the Erasmus student exchange program. Her five months study in Katholieke University was capped by a bachelor’s thesis in laboratory functional biology and laboratory of pharmaceutical biology.

At the lab of Nouri Neamati for two months during the summer, she is being mentored by Erik Serrao, a graduate student. She is helping Erik develop a novel bioluminescent assay to measure HIV-1 integrase dimerization, as well as its interaction with various human proteins. This assay is applicable to high-throughput drug screening, and Nouri Neamati has access to a database of 10 million unique compounds for use in these assays.

Anna speaks fluent Polish and English, and is conversational in German, Spanish and Russian. She plays the guitar, windsurfs, skis, swims and loves to travel.
Dr. Tambaro is an Italian neuroscientist. Over the last eight years, he has worked for a private company (Neuroscienze Pharmaness) in Pula (Sardinia, Italy) on the development of novel anxiolytic and antidolorific agents. In particular, his research has focused on the role of cannabinoid and opioid systems in the regulation of emotional behavior and neuropathic pain, with a combined approach of animal models and in vitro bioassays.

Dr. Tambaro won a fellowship from the Sardinia government to join the lab of Jean C Shih as a visiting scholar. For his project, he will study the long-term behavioral sequelae of serotonergic activation during early postnatal developmental stages in collaboration with Marco Bortolato. This research will help understand the involvement of serotonin in the neurobiological bases of autism and aggression.

**DIMPLE MODI (from page 10)**

as well as analyses and comparison of dendritic spines and plasticity. The main goal of her internship was to see if shRNA packaged in Adeno-Associated Viral (AAV) shall aid in achieving massive knocking down (KD) of Gene 1 and Gene 2 in neurons. Thus her research mainly involved comparing spine density of neurons by knocking down either Gene 1 or Gene 2 in slice cultures. Simultaneously, she also established and validated an AAV transfection method in hippocampal slices. She also made various attempts at exogenous validation of multiple Gene 1 and Gene 2 shRNAs in HeLa cells. Towards the end of her internship period, she was provided with an opportunity to present her findings in the form of a poster to her fellow colleagues and scientists from other departments.

**Qing Zhao**, visiting scholar in the Brinton and Chui laboratories, is an Associate Professor at the Department of Neurology, Jilin University, Changchun, China. She is also a medical doctor of the University’s affiliate, China-Japan Union Hospital. Dr. Zhao is pursuing translational research from the bench to the bedside and devotes her time between two laboratories – conducting her discovery and preclinical translational research in Roberta Diaz Brinton’s laboratory in the School of Pharmacy and her clinical research and care with Helena Chui in the Keck School of Medicine.

In the Brinton laboratory, Dr. Zhao’s research focuses on the development of NeuroSERMs (Selective Estrogen Receptor Modulators) for prevention of Alzheimer’s disease and is funded by the USC Alzheimer’s Disease Research Center (ADRC) led by Dr. Chui. The significance of this project is to design and synthesize safe and effective alternatives to hormone therapy as a means of sustaining neurological health in women and prevent late-onset age-associated Alzheimer’s disease. In the Chui lab, Dr. Zhao is collaborating with Dr. Chui, Ling Zheng, Ph.D., and Rohit Varma, M.D., M.P.H. and is conducting a new epidemiologic study of mild cognitive impairment among Chinese Americans living in Monterey Park, California. Dr. Zhao will return to the Department of Neurology, Jilin University early next year to build her own laboratory where she will continue the translational research she began at USC.
The Jane and Gale Bensussen Translational Research Laboratory is going to celebrate its first anniversary this October. During the past year, the lab has become fully operational and reached several major goals.

The lab has established a comprehensive operations and management system, including a well-developed infrastructure, an expert support team, and written policies. It also instituted a chargeback procedure for billing, provided online scheduling, and designed a lab web page.

Based on its initial configuration, the lab continues to expand and update its resources. Additions over the past year include the Prospect Edge 200 separation system that allows for non-denaturing density-based sample fractionation; a 384-well microplate heat block compatible with the ABI 7900HT fast real-time PCR workstation; a cooling system connected to the Wyatt DynaPro plate reader for temperature control; a multiscreeen vacuum manifold and pressure pump compatible with the Bio-Plex suspension system; a microplate carrier set compatible with the Sorvall Legend T+ centrifuge; accessories such as titer plate shaker, vortex mixer, minicentrifuge and pipetman neo set; and computer/software updates. Presently, the lab houses 14 specialized instruments that enable a broad range of automated and multiplexed biological analyses in a medium- to high-throughput fashion.

Over the year, the lab has expanded its user base from a few labs within the School of Pharmacy to nearly 20 research groups from four schools (Pharmacy, Medicine, Gerontology, and College of Letters, Arts & Sciences) across both campuses, generating 3000+ usage hours.

The lab has organized and hosted a series of seminars and training events in an effort to promote knowledge and applications of state-of-the-art technologies associated with resources housed in the lab.

The lab has welcomed numerous outside visitors including faculty candidates, MS/PhD/PharmD applicants, donors, etc. Dr. Liqin Zhao gave lectures to first-year graduate students in the course PSCI599 in an effort to familiarize students with resources that will be available for their future research.

In the coming year, the lab will continue to provide service and support for translational research endeavors.

For additional information:
- Lab Web Page: [http://www.usc.edu/schools/pharmacy/research/translational_lab.html](http://www.usc.edu/schools/pharmacy/research/translational_lab.html)
- Lab Online Scheduler: [http://www.uburst.com/cgi-bin/ureserve/hosted/usc.pl](http://www.uburst.com/cgi-bin/ureserve/hosted/usc.pl)
- Inquires can be addressed to Dr. Liqin Zhao (liqinz@usc.edu).
**PUBLICATIONS**

**Ronald Alkana**


**Marco Bortolato**


**Robertta Brinton**


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**Newsletter Vol. 5, No. 3 September 2010**

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