



DEPARTMENT OF

# pharmacology and pharmaceutical sciences

## NEWSLETTER

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### *Statement by the Chair*



*Happy New Year!*

*Faculty, staff and students had a busy and science-packed fall, as we completed our first academic term within the new department. Highlights of our fall activities included the formation of an "Aging/ Neurodegeneration" faculty*

*working group, which met through the fall and will continue its meeting during the spring, to discuss ongoing projects, potential collaborations, and programmatic growth of this area within the department.*

*A "Therapeutic/Drug Discovery and Delivery" faculty working group is also planned for the spring, to begin discussions about possible programmatic endeavors in this area.*

*I hosted, along with other faculty, our annual reception at the American Association of Pharmaceutical Scientists Annual Meeting in San Antonio this fall, and enjoyed the opportunity to see our former associates including graduate students, postdoctoral fellows and former faculty continue to excel. The reception, which had a turnout of about 50, benefited from the attendance of many our faculty including Drs. Alkana, Cadenas, Davies, Shen and Stiles, as well as Dean Vanderveen. (Please see picture in next page).*

*I am also delighted that our department is the academic home of two student award winners who were selected to present their research at the Graduate Student Symposium at AAPS: Liyun Yuan and Alexandra Schiewe.*

*Many other faculty, students and postdoctoral fellows made presentations at a number of other meetings during the fall term including AACP, ASCB and Neuroscience, garnering outstanding representation for our department in a number of different arenas.*

*We all regretfully said goodbye to Professor David Ann, as he assumed his new position at City of Hope National Medical Center as a Professor of*

### **Dean Vanderveen appoints Wei-Chiang Shen the John A. Biles Professor**

Wei-Chiang Shen is appointed as the John A. Biles Professor of Pharmaceutical Sciences. Recruited twenty years ago by John A. Biles who was then the dean of the School of Pharmacy, Shen expresses being greatly honored and calls Biles his inspiration.



He is a recipient of numerous honors and award for his research that includes the Eurand Award Grand Prize for Outstanding Novel Research in Oral Drug Delivery in 2002.

His research has focused on novel ways of delivering drugs to targets in the body, in particular, large-molecule drugs; a great important area of research in the last decade because today's promising drugs are large-molecule proteins. As one of the pioneers, Shen primarily explores oral and pulmonary delivery routes. He is supported by an NIH grant and a contract from Pfizer. He is also working on addressing different issues in protein drug delivery.

Shen has published over 100 articles, holds 12 US patents, and is a Fellow of the American Association of Pharmaceutical Scientists (AAPS) and American Association for the Advancement of Sciences (AAAS).

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*Clinical and Molecular Pharmacology, but are excited about his many new opportunities in their cancer therapy program.*

*Finally, I am pleased to announce the joint appointment of Dr. Michael Kahn, the first Provost's Interdisciplinary Scholar, who joined the USC Institute of Stem Cells and Regenerative Medicine in November of 2006 with appointments in Biochemistry, and Pharmacology and Pharmaceutical Sciences.*

*Have a productive spring!*

## AAPS Reception in San Antonio Texas



*Top row L-R (clockwise):* Liyun Yuen, Fariba Norouziyan, Thejani Rajapaksa, Daryl Davies, Enrique Cadenas, Michael Shiue, Hovik Gukasyan, Sarah Hamm-Alvarez, Carsten Eckhardt, Dean Vanderveen, Ron Alkana, Jeff Wang, Wei-Chiang Shen, Bangyan Stiles and Leena Patel. *Kneeling, L-R (clockwise):* Gerald Nagatani, Rana Bahhady, Laith Al-Mawsawi, Neil Mathias and Pratik Saha.

### **Haworth, guest editor of *Advanced Drug Delivery Reviews***

Associate Professor Ian Haworth is the guest editor for a recently published issue of *Advanced Drug Delivery Reviews* (Vol. 58, Iss. 12-13, 2006, pp. 1271-1450) devoted to computational methods in drug delivery.

This compilation of review articles from many of the best laboratories in this field is intended to highlight the potential applications of computation in drug delivery, with a focus on the molecular basis of delivery mechanisms.

### **Sohal, associate editor for *Elsevier Science Journal***

Professor Rajindar S. Sohal has been invited and agreed to serve as an associate editor for Elsevier Science's *Journal of Mechanisms of Ageing and Development*.

### **Wang to serve in NIH Study Section**

Assistant Professor Clay Wang has been invited to serve on the NIH Chemical and Bioanalytical Sciences Study Section for March 2007.

### **Cadenas, chair of an NIH Section Study**

Professor Enrique Cadenas is the newly-appointed chair of the NIH Cellular Mechanisms in Aging and Development Study Section of the Center for Scientific Review. His term will run through June 2008.

The study section will review applications involving molecular and biological mechanisms of development and aging, encompassing studies from single cells to whole organisms. Cadenas was selected as chair for achievement in his field, apparent through his research accomplishments, publications and other scientific honors and activities. He has been funded by NIH for 15 consecutive years.

### **Neamati reviewer and editorial services**

Assistant Professor Nouri Neamati has been asked to serve in the Developmental Therapeutics Study Section of the Congressionally Directed Medical Research Program (CDMRP) as a reviewer.

Neamati is also selected to serve in the Editorial Advisory Board of "Expert Opinion on Drug Discovery"

## Two grant awards for Neamati

Assistant Professor Nouri Neamati has been awarded two new grants: (1) LUNGeivity Discovery Award from the American Lung Association for \$200,000 for two years; and (2) the DOD Idea Award in Ovarian Cancer from the Department of Defense for \$815,000 for three years.

Using a highly robust computational platform Dr. Neamati designed and discovered a series of novel small-molecule anticancer agents with remarkable potency in a panel of cancer cell lines and mouse xenograft models. Two of his compounds showed significant potency in lung cancer cells and another one was exceptionally potent to ovarian cancer cells. The overall objectives of these grants are to show safety, efficacy, and pharmacokinetic properties of these drugs in mice.

## Kudos to our Students ...

**Laith Q. Al-Mawsawi** (4th year PhD student in Nouri Neamati Lab) for winning the School of Pharmacy Krown Award.

**Lilian Chiang** and **Janette Contreras** from Sarah Hamm-Alvarez Laboratory for passing their preliminary examinations in November and December.

## Welcome, Sharon!



*Hello, I'm **Sharon Wallace**, the new Contracts and Grants Coordinator. I've been here about one and a half months and would like to thank you for welcoming me to the School of Pharmacy. I'm looking forward to the rest of the year and working with many of you. I'm very excited about this position and hope I can mold it into a position that will be productive to the needs of the faculty and the Department.*

## Adams in History Channel TV Show

Associate Professor James D. Adams was featured on a television show for the History Channel "Fear Files: Zombies" that aired on October 24, 2006. The show has been re-broadcasted several times since then.

Professor Adams was interviewed about the Haitian practice of making zombies by rubbing an ointment on the abdomen. There have been several suggestions that puffer fish poison might be used to make zombies. Professor Adams pointed out that puffer fish poison is unstable and does not cross the skin. Instead, Professor Adams suggested that scopolamine from a *Datura* plant can cross the skin, penetrate the brain and induce a zombie state. Haitians have used this plant, referred to as zombie cucumber, for many years as a trial by ordeal in their traditional religious practice.

## Presentations

**Daryl Davies**, research associate professor, organized and chaired the symposium entitled, "GABA-A and Glycine Receptors: Potential Model Systems for the Development of Medications for the Treatment of Alcoholism," at the Alcoholism (ISBRA) 2006 World Congress on Alcohol Research. Davies also presented at this ISBRA Congress entitled, "Pharmacotherapy for Alcoholism: Novel Targets for Medication Development in Ligand-Gated Ion Channels." The meeting was held in Sydney, Australia from September 10-13, 2006.

In the same congress, Professor **Ron Alkana**, presented some of their laboratories' work at a poster session entitled, "Potential Sites of Alcohol Action and Medications Development in Extracellular and Transmembrane Domains of Glycine Receptors Suggested by Cysteine Mutagenesis, n-chain Alcohols and Anesthetic-like Thiol Reagents."

## Au revoir and Congratulations ...

**Xiaoming Ou**, research assistant professor from Jean Shih Lab, began 2007 as a tenure track assistant professor at the Department of Psychiatry and Human Behavior, University of Mississippi Medical Center, Jackson, MI.



## Publications

### Dr. Ronald L. Alkana

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### Dr. Roberta D. Brinton

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### Dr. Enrique Cadenas

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Navarro A, Sanchez-Pino MJ, Gomez C, Bandez MJ, Cadenas E, Boveris A. Dietary thioproline decreases spontaneous food intake and increases survival and neurological function in mice. *Antioxid Redox Signal.* 2007 Jan;9(1):131-41.

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### Dr. Sarah Hamm-Alvarez

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Mircheff AK, Wang Y, Jean MD, Ding C, Trousdale MD, Hamm-Alvarez SF, Schechter JE. Mucosal Immunity and Self-Tolerance in the Ocular Surface System. *Ocul Surf.* 2005 Oct;3(4):182-192.

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### Dr. Wei-Chiang Shen

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### Dr. Jean C. Shih

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### Dr. Rajindar S. Sohal

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