



UNIVERSITY of MARYLAND
SCHOOL OF PHARMACY

From the Chair's Desk

News from Paul Shapiro, PhD
Chair, Department of Pharmaceutical Sciences

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Dear alumni and colleagues,

I hope this edition of the Department of Pharmaceutical Sciences newsletter finds you doing well and enjoying the winter season.

The fall semester was a busy one for our faculty, staff, students, and postdoctoral fellows. Most recently, we were pleased to learn that our Center of Excellence in Regulatory Science and Innovation (M-CERSI), a collaboration with the University of Maryland, College Park, was renewed for an additional two years, taking the program into its sixth year of continuous funding. As an offshoot of M-CERSI, the School's MS in Regulatory Science will see its first graduates this academic year. We are planning a special convocation ceremony in May to recognize the achievements of the program and its students that will feature Dr. Stephen Ostroff, the acting commissioner of the FDA.



And finally, we were pleased to have 25 PSC alumni from all over the country join us in November for our graduate program's first Grad Gathering, at which alumni shared their career experiences with our current students and postdocs. We received such positive feedback on this inaugural event that we are already making plans for a repeat.

Wishing you all the best,

[Paul Shapiro, PhD](#)

Professor and Chair

Department of Pharmaceutical Sciences

PSC Alumni Return to School for Inaugural Grad Gathering

The department hosted its inaugural PSC Grad Gathering for alumni and current students in the [PhD in PSC program](#) on Nov. 13. Featuring career panel discussions, a research poster session, and a networking reception, the event brought more than 25 of the program's alumni back to the School to share their professional knowledge and experience with current students and postdoctoral fellows. It was a wonderful opportunity to connect with alumni, and our students enjoyed

learning more about our alum's career paths. We look forward to hosting the event again in the future. [Read more here...](#)



CERSI Symposium Highlights Use of Biomarkers in Drug Development

In August, the School of Pharmacy welcomed researchers from academia, government, and industry to "Evidentiary Considerations for Integration of Biomarkers in Drug Development," a symposium jointly sponsored by the University of Maryland [Center of Excellence in Regulatory Science and Innovation \(CERSI\)](#), the Critical Path Institute (C-Path), and the Food and Drug Administration (FDA). With more than 500 individuals attending either in-person or via live webinar, the symposium organized by [Jia Bei Wang, PhD](#), professor in PSC, and [James Polli, PhD](#), the Shangraw/Noxell Endowed Chair in Industrial Pharmacy and



Pharmaceuticals in PSC, in collaboration with the FDA and C-Path, was the most well-attended of all CERSI-sponsored conferences held in recent years, providing participants with an opportunity to gain perspective on biomarker development and the application of biomarkers in preclinical and clinical research. [Read more here...](#)

School of Pharmacy Enters Education Collaboration with Millennium Health

The School of Pharmacy has entered into an education collaboration with Millennium Health, a leading health solutions company based in San Diego, Calif., that strives to deliver timely, accurate, and clinically actionable information to inform the right treatment decisions for each patient at the right time. Through this new collaboration - made possible in part by School of Pharmacy alumna, Naissan Hussainzada, PhD '09, who serves as director of clinical strategy for pharmacogenetics testing and principal investigator for Millennium Health - the company will provide genotype tests for third-year student pharmacists in the School's advanced pharmacogenomics elective

course for the next five years. [Read more here...](#)

UMB Conducts First-of-its-Kind Study on Bioequivalency of Anti-epileptic Drug

A first-of-its-kind study published in *Epilepsia*, the official journal of the International League Against Epilepsy, by researchers from the School of Pharmacy and the University of Maryland School of Medicine examining the bioequivalence of generic lamotrigine versus brand-name Lamictal, has found no significant differences in patients with epilepsy, reinforcing the current standard used by the Food and Drug Administration (FDA) to test bioequivalence among generic and brand name medications. Although the FDA's bioequivalence standard only requires generic drug manufacturers to test for bioequivalence in healthy volunteers after one dose, principal investigator [James Polli, PhD](#), and collaborators from the School of Medicine took their study to the next level. They compared generic lamotrigine versus brand-name Lamictal in 35 "generic-brittle" patients with epilepsy - individuals who had previously reported an increase in seizures or other adverse events after switching to a generic anti-epileptic drug. In addition, patients were switched between the brand name and generic formulations, which had been masked to ensure that patients could not differentiate between the formulations based on appearance, every two weeks for eight weeks. [Read more here...](#)



Kudos!

Our department's faculty and students are regularly recognized at the local and national level for their expertise. Here is a short list of recent accomplishments.

- [Andrew Coop, PhD](#), professor, has been named chair-elect of the American Association of Colleges of Pharmacy's Chemistry Section.
- [Steven Fletcher, PhD](#), assistant professor, received a United States Patent for "Potent Analogues of the C-MYC Inhibitor 10074-G5 with Improved Cell Permeability."
- [Steven Fletcher, PhD](#), assistant professor; [Alex MacKerell, PhD](#), the Grollman-Glick Professor in PSC, and [Paul Shapiro, PhD](#), professor and chair, received a United States Patent for "Non-ATP Dependent Inhibitors of Extracellular Signal-related Kinase (ERK)."
- [Maureen Kane, PhD](#), associate professor, has been named executive director of the School's Mass Spectrometry Center.
- [Peter Swaan, PhD](#), professor of pharmaceutical sciences, and associate dean for research and graduate education, has been named vice chair of the American Foundation for Pharmaceutical Education's Board of Grants.
- [Bruce Yu, PhD](#), professor, is a co-recipient of a United States Patent for "Dendrimers and Methods of Preparing Same Through Proportionate Branching" and has been named director of the School's Center for Nanobiotechnology.

Grants and Fellowships

- **Lee Chen**, graduate student, received a 2015 American Association of Pharmaceutical Scientists Graduate Student Research Award.
- **Tanvi Deshpande**, graduate student, received an AstraZeneca Travel Award to attend the 2015 Annual Meeting of the American Association of Pharmaceutical Scientists.
- **Louise Djagne**, graduate student, received a Travel Award to attend the American Society of Microbiology's Pseudomonas Conference.
- **Brandy Garzel**, graduate student, received a one-year \$56,324 National Research Service Award from the National Institutes of Health for "Role of BSEP in Drug-Induced Cholestatic Liver Toxicity" and received a Travel Award to attend the Gordon Research Conference on Cellular and Molecular Mechanisms of Toxicity.
- **Stephen Hoag, PhD**, professor, received a one-year \$15,616 contract from Metrohm USA.
- **Maryanna Lanning**, graduate student, received a one-year \$10,000 grant from the American Chemical Society for "Towards Targeted Antineoplastics: The Disruption of Aberrant Protein-Protein Interactions with Small Molecule Inhibitors and Synthetic alpha-helix Mime."
- **Wenjing Li**, graduate student, received a Travel Award from the American Society of Mass Spectrometry to attend the Asilomar Conference on Native Mass Spectrometry-based Structural Biology.
- **Alexander MacKerell, PhD**, the Grollman-Glick Professor in PSC, received a nine-month \$195,840 grant from the University of Chicago for "Polarizable Force Field for Proteins and Lipids" and received a four-month \$55,677 contract from Pfizer for "Validation of the SSFEP and SILCS Computational Methodologies."
- **Ramon Martinez**, graduate student, has been named a Meyerhoff Graduate Fellow.
- **Angela Nguyen**, graduate student, received a 2015-2016 UMBC/UMB NIH Chemistry-Biology Interface Graduate Student Training Grant.
- **Paul Shapiro, PhD**, professor and chair, received a one-year \$52,336 contract from Biomed Valley Discoveries for "Effects of Inhibitors on ERK2 Interactions with Substrates or Regulatory Proteins."
- **Soundarya Vaithianathan**, graduate student, received a 2015 Graduate Student Scholarship Award from the International Pharmaceutical Excipients Council of the Americas.
- **Angela Wilks, PhD**, professor, received a nine-month \$100,000 contract from the Maryland Technology Development Corporation for "New Targets and Approaches to Antibiotic Development" and received a one-year \$45,000 contract from the Middle East Africa Council of Ophthalmology for "MEACO XIII International Congress."
- **Patrick Wintrobe, PhD**, associate professor, received a one year \$100,000 contract from the Alpha-1 Foundation for "Modeling Misfolded Z Alpha 1-antitrypsin for in silico Drug Design."
- **Fengtian Xue, PhD**, assistant professor, received a two-year \$138,000 grant from the American Association for Cancer Research for "BCL6-BTB Domain Inhibitors for Triple Negative Breast Cancer" and received a two-year \$105,344 contract from Rakta Therapeutics for "Selective Inhibitors of Heme

Transporters as Anti-parasitic Agents."

- [Bruce Yu, PhD](#), professor and director of the Center for Nanobiotechnology, received a two-year \$664,884 contract from MedImmune for "Using NMR to Characterize Protein Formulations."