



UNIVERSITY of MARYLAND
SCHOOL OF PHARMACY

From the Chair's Desk

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

In This Issue

Summer 2015

[Study Aims to Develop Faster Techniques for Identifying bacterial infections](#)

[Study Aims to Develop Faster Techniques for Identifying bacterial infections](#)

[Faculty Member Testing New Biomarkers for Fetal Alcohol Spectrum Disorders](#)

[Talent Competition Highlights Student Innovation in Regulatory Science](#)

[Kudos!](#)

[Grants and Fellowships](#)

Dear alumni and colleagues,

It's been an active spring and summer in the Department of Pharmaceutical Sciences (PSC). After more than seven years as department chair, Andrew Coop, PhD, stepped down in May to focus on his research developing new analgesics that may soon be entering clinical trials. I want to thank Dr. Coop for his outstanding service to the department, the School, and to the University of Maryland, Baltimore. He's been an invaluable resource and help during my transition into this new role.



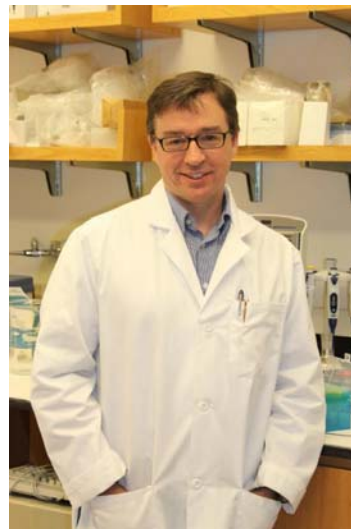
As Dr. Coop can attest, there are many details to address as department chair. Fortunately, I have help from my colleagues [Angela Wilks, PhD](#), and [Hongbing Wang, PhD](#), both professors in PSC who now serve as program chairs for the newly created Chemical and Biological Discovery and Experimental and Translational Therapeutics Programs, respectively, in the department. This restructuring of the department will help streamline administrative duties and, more importantly, enhance our research and teaching activities. All of this is made possible by the outstanding staff in the PSC business office.

These are exciting times for PSC. Faculty continue to garner funding to pursue innovative research, and students are graduating and obtaining excellent positions. I hope you enjoy reading about our recent activities and achievements.

[Paul Shapiro, PhD](#)
Professor and Chair
Department of Pharmaceutical Sciences

Faculty Member Testifies at the FDA on GDUFA Renewal

Earlier this summer, James Polli, PhD, the Shangraw/Noxell Endowed Chair in Industrial Pharmacy and Pharmaceuticals, joined representatives from across academia, government, and industry at the Food and Drug Administration (FDA) to testify for the renewal of the Generic Drug User Fee Amendments of 2012 (GDUFA). The legislation is scheduled to expire at the end of September 2017. During his presentation to the agency, Dr. Polli offered an academic perspective on the impact of GDUFA-funded research across both academia and industry. He spoke about several ongoing GDUFA-funded projects at the School of Pharmacy and other universities across the country, including a groundbreaking study comparing bioequivalence between a major brand name and generic anti-epileptic drug for which he served as the principal investigator, in an effort to illustrate the importance of ensuring that any reauthorization of GDUFA includes continued funding for generic drug research. [Read more here...](#)



Study Aims to Develop Faster Techniques for Identifying Bacterial Infections

Faculty members from the Schools of Pharmacy and Dentistry have received a \$1.1 million grant from the National Institute of General Medical Services at the National Institutes of Health to create a bacterial library using mass spectrometry technology. The library, being developed by [David Goodlett, PhD](#), the Isaac E. Emerson Chair of Pharmaceutical Sciences at the School of Pharmacy and Robert Ernst, PhD, an associate professor in the Department of Microbial Pathogenesis at the School of Dentistry, will allow physicians to more quickly and accurately identify a patient's infection, leading to more accurate and quicker treatment. Drs. Goodlett and Ernst will use a mass spectrometry technique called matrix-assisted laser desorption ionization, or MALDI, to create a library of chemically barcoded bacteria that can be checked to determine which infection a patient has. [Read more here...](#)



PSC Faculty Receive \$1.5 Million from the FDA to Study Iron Medications

Four faculty members from PSC have received a \$1.5 million, three year grant from the United States Food and Drug Administration (FDA) that will enable them to study the differences between specific iron brand and generic medications given to kidney disease patients who suffer from anemia. The goal of the study is to determine the bioequivalency of the two iron medications because some concerns exist about differences in the safety of the brand and generic versions. [Sarah Michel, PhD](#), an associate professor in PSC, will lead the study, which includes an 18-month clinical trial with 48 healthy volunteers and research on the blood samples collected from the volunteers. Dr. Michel, who is a bioinorganic chemist, has teamed with [Maureen Kane, PhD](#), an associate professor in PSC with expertise in mass spectrometry; [James Polli, PhD](#), the Noxell/Shangraw Endowed Chair in Pharmaceutics within PSC who has expertise in bioequivalency studies and clinical trial design; and [Angela Wilks, PhD](#), a professor in PSC who researches mechanisms by which bacterial pathogens acquire and utilize hemoglobin as an iron source. They will be joined by Tricia Ting, MD, an associate professor of neurology at the University of Maryland School of Medicine, who will serve as the study's medical officer. [Read more here...](#)



Talent Competition Highlights Student Innovation in Regulatory Science

In January, the [Maryland Center for Excellence in Regulatory Science and Innovation](#) hosted its annual "America's Got Regulatory Science Talent" Competition to challenge students from the School of Pharmacy and the University of Maryland, College Park to think of innovative solutions to regulatory science challenges. This year's winning team of graduate students from the School of Pharmacy's Department of Pharmaceutical Health Services Research proposed a technological solution for helping seniors keep up-to-date on the ever evolving safety information for the multiple medications they may take each day. [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.

- The School of Pharmacy's **student chapter of the American Association of Pharmaceutical Scientists (AAPS)** received an Education Initiative Award from AAPS' Pharmacokinetics, Pharmacodynamics, and Metabolism Section.

- **Andrew Coop, PhD**, professor, has been named a fellow of the College on Problems of Drug Dependence.
- **Daniel Deredge, PhD**, postdoctoral fellow, won a Best Poster Award at the 8th Annual Frontiers at the Chemical-Biology Interface Symposium in May at the University of Maryland, Baltimore County.
- **Stephen Hoag, PhD**, professor, has been appointed to the Food and Drug Administration's Pharmacy Compounding Advisory Committee.
- **Steven Fletcher, PhD**, assistant professor, received a United States patent for "Amphipathic and Other Double-sided Alpha-helix Mimetics Based on a 1,2-Diphenylacetylene Scaffold" and has been named vice-president of the School's Faculty Assembly.
- **Sarah Michel, PhD**, associate professor, has been named president of UMB's Faculty Senate.
- **Hongbing Wang, PhD**, professor, was named one of the School of Pharmacy's American Association of Colleges of Pharmacy Teachers of the Year.

Grants and Fellowships

- **Heather Boyce**, graduate student, received a pre-doctoral fellowship in pharmaceuticals from the Pharmaceutical Research and Manufacturers of America Foundation.
- **Shamia Faison**, graduate student, received an Early Career Investigator Conference Award to attend the 2015 International Conference on Global Health in China in April.
- **Brandy Garzel**, graduate student, received the Ruth L. Kirschstein National Research Service Award Individual Predoctoral Fellowship.
- **Young Ah Goo, PhD**, research assistant professor, received a \$60,000 one-year grant from Chonbuk National University for "A Clinical Study of Biomarker Identification for Efficacy Assessment on Latent Metabolic Syndrome Subjects" and received a \$150,000 one-year contract from MedImmune for "Top-Down Mass Spectrometry Approaches for Novel Molecule Post-translational Modification Analysis."
- **Geoffrey Heinzl** and **Maryanna Lanning**, graduate students, received American Foundation for Pharmaceutical Education Predoctoral Awards.
- **Jing Huang, PhD**, postdoctoral fellow, received a one-year \$30,000 contract from the National Heart, Lung and Blood Institute for "Development and Testing of Novel Empirical Force Field for Molecular Dynamics Simulations that Includes Multipoles and Polarizability."
- **Wenjing Li**, graduate student, received a Travel Award to attend the 63rd Annual American Society for Mass Spectrometry Conference in St. Louis.
- **Alexander MacKerell, PhD**, the Grollman-Glick Professor of Pharmaceutical Sciences, received a one-year \$54,701 contract from SilcsBio for "Pre-computed Free Energy Maps for Rapid Structure-based Ligand Design."
- **Benjamin Oyler**, graduate student, received a travel award to the 2015 American Society for Mass Spectrometry's Sanibel Conference on Security and Forensic Applications in Florida in January.
- **Paul Shapiro, PhD**, professor and chair, received a six-month \$76,951 contract from Biomed Valley Discoveries, Inc., for

"Studying BVD-523 in In-Vitro Settings of MAPK Inhibitor Resistance."

- **Audra Stinchcomb, PhD**, professor, received a one-year \$385,663 grant from the National Institute for Pharmaceutical Technology and Education for "Absolute Bioavailability/Pharmacokinetic and Residual Drug Analysis of Oxybutynin, Scopolamine, and Fentanyl Transdermal Systems in Healthy Adults."
- **Angela Wilks, PhD**, professor, received a two-year \$14,500 contract from The Research Network for "Bacterial Heme Oxygenase Protein and Biological Assay Development."

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