

Research Summit Focuses on Development of Entrepreneurial Activities



The WVU School of Pharmacy held its Inaugural Research Summit for the purposes of establishing a Research Advisory Council (RAC) to help guide the development of entrepreneurial activities in the School of Pharmacy.

Representing leaders in industry, business, science, and technology, the RAC members will provide faculty an external network to tap into for advice and needed expertise.

The RAC is chaired by **Pravin Chaturvedi**, Ph.D., alumnus of the WVU School of Pharmacy and President and CSO of IndUS Pharmaceuticals/Napo Pharmaceuticals in Woburn, Massachusetts.

Other WVU alumni who are contributing their expertise to the RAC include: **Edward Allera**, R.Ph., J.D., attorney and shareholder at Buchanan Ingersoll & Rooney, PC, in Washington, DC; **Vincent Anido, Jr.**, Ph.D., President and CEO of ISTA Pharmaceuticals in Irvine, California; **Robert Powell**, Ph.D., Scientific Advisor at Roche Holding Ltd. in Shanghai, China; and **Parry Petroplus**, founder and President of Petroplus & Associates in Morgantown, West Virginia.

In addition, active contributors to the RAC are: **Peter Crooks**, Ph.D., endowed professor at the University of Kentucky in Lexington, Kentucky, and founding scientist of six biotechnology companies; **G. Alexander Fleming**, M.D., President and CEO of Kinexum LLC in Harpers Ferry, West Virginia; **Valentin Gribkoff**, Ph.D., CSO and Senior Vice President of Discovery Research at Knopp Neurosciences in Pittsburgh, Pennsylvania; and **Raymond Winquist**, Ph.D., Vice President of Pharmacology at Vertex Pharmaceuticals in Cambridge, Massachusetts.

“All of the RAC members are recognized for their achievements in the life sciences, business, and regulatory fields, and we are fortunate to have such a distinguished group working with the WVU School of Pharmacy,” said WVU School of Pharmacy Dean, Patricia Chase.

The three major objectives of the RAC are to: 1) leverage technological and research advances from the WVU School of Pharmacy and Health Sciences Center towards economic development initiatives; 2) foster outreach and integration of research initiatives among the life science disciplines within WVU; and 3) identify and discuss research as well as business infrastructure needs, that would allow the development of entrepreneurial initiatives, and move research and technological advances towards commercialization.

The Inaugural Research Summit focused on providing the RAC with a broad overview of research initiatives across the Health Sciences Center and in the School of Pharmacy. Future meetings will address specific initiatives, with the goal of having the RAC serve as a catalyst for accelerating and positioning the School’s research and technological advances for economic development.

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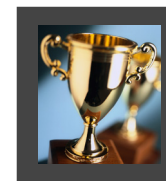
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Congratulations to Spring 2010 Ph.D. Graduates

The WVU School of Pharmacy is pleased to announce three new Ph.D. graduates from its Pharmaceutical and Pharmacological Sciences Graduate Program.

The Graduate Program in the WVU School of Pharmacy is the largest biomedical Ph.D. program at the Health Sciences Center with students in two pathways: Pharmaceutical and Pharmacological Sciences, and Health Outcomes.

Qingbiao “Tommy” Huang is from Fujian, China. He completed his dissertation, “Cytochrome P450 1A-ligand interactions: implications for

substrate specificity and inhibitor susceptibility,” under the guidance of Grazyna Szklarz, Ph.D., associate professor in the Department of Basic Pharmaceutical Sciences. Dr. Huang has accepted a post-doctoral research position at Washington State University in Pullman, Washington.



Jarod Kabulski is from Fairmont, West Virginia. His dissertation, “Development of Au-

immobilized P450 platform for exploring the effect of oligomer formation on P450-

mediated metabolism for in vitro and in vivo drug metabolism predictions,” was conducted under the mentorship of Peter Gannett, Ph.D., professor and interim chair of the Department of Basic Pharmaceutical Sciences. Dr. Kabulski is currently a post-doctoral research fellow in the Institute for Bioinformatics at the Virginia Polytechnic Institute in Blacksburg, Virginia.

Rahul Khanna

is from New Delhi, India. His dissertation, “Burden of care and health-related quality of life among caregivers



of children with autism-spectrum disorders,” was performed under the mentorship of Suresh Madhavan, Ph.D., professor and chair of the Department of Pharmaceutical Systems and Policy. Dr. Khanna is currently an assistant professor at the University of Mississippi School of Pharmacy in Oxford, Mississippi.

Huang, Kabulski, and Khanna join three students who earlier earned Ph.D. degrees from the School of Pharmacy’s graduate program during the past year. All six alumni have gone on to highly competitive research positions in academia and the federal government.

Outstanding Graduate Students Recognized by SoP

Graduate students serve as the foundation for the next generation of scientists. Each Spring, the WVU School of Pharmacy recognizes three exceptional graduate students at its Scholarships and Awards Convocation for outstanding achievement and research.



Kimberly Blake, a fourth-year student, received the Outstanding Achievement Award. This

award recognizes a student whose impact extends beyond the boundaries of the graduate program, with Ms. Blake epitomizing the graduate student scholar and leader.

Ms. Blake has given numerous scholarly presentations and is

the recipient of a highly competitive AFPE predoctoral fellowship. She has also served in prominent leadership positions including the President of the WVU chapter of the International Society for Pharmacoeconomics and Outcomes Research (ISPOR) and on the WVU Health Sciences Center Student Advisory Council. Ms. Blake’s research expertise relates to medication therapy management and health promotion. Her mentor is Carole Harris, Ph.D., professor in the Department of Behavioral Medicine and Psychiatry.

Abhijeet Bhanegaonkar, a fourth-year student, received the Outstanding

Research Award in Pharmaceutical Systems and Policy. Mr. Bhanegaonkar has published two manuscripts, with two additional papers

under review. He recently received a dissertation grant from Biogen Idec to study patient preferences for

benefits and risks associated with disease modifying drugs in multiple sclerosis. His mentor is Suresh Madhavan, Ph.D., professor in the Department of Pharmaceutical Systems and Policy.

James Fishback, a fourth-year student, received the Outstanding Research Award in Basic Pharmaceutical Sciences. Mr. Fishback’s research interests relate to

drug discovery and development. During the



past two years, Mr. Fishback has published three papers, including a first-author review in a high impact

journal, and has another manuscript under review. He has also played an instrumental role in the submission of two grants to the National Institutes of Health, one of which resulted in funding for new equipment that will facilitate the development and execution of functional assays used in drug screening. His mentor is Rae Matsumoto, Ph.D., associate dean and professor in the Department of Basic Pharmaceutical Sciences.

Sooter Brings Nanoscience and Genomics Expertise to SoP

The WVU School of Pharmacy welcomes Letha Sooter, Ph.D., as an Assistant Professor in the Department of Basic Pharmaceutical Sciences. She is also a member of the WVNano Initiative and has an adjunct appointment in the Department of Chemistry.

Dr. Sooter hails from Ponca City, Oklahoma. She received her Ph.D. in biochemistry from the University of Texas at Austin.

Dr. Sooter obtained postdoctoral training at the Massachusetts Institute of Technology in the Department of Chemical Engineering where she

worked on yeast cell surface display selections.

She pursued a second postdoctoral opportunity with the U.S. Army Research Laboratory Optics Branch. Her research focused on the selection of nucleic acid and peptide binding species for the detection of biological, chemical, and explosive warfare agents. In addition, she was involved in the design and development of a handheld assay system for the detection of warfare agents.



Letha Sooter, Ph.D.

Dr. Sooter is recognized for her expertise in combining cell biology and material sciences approaches to develop novel detection methods. Her laboratory utilizes DNA or amino acids as building blocks for in vitro selection and the creation of molecular

recognition elements to detect nanomaterials and other agents of interest.

She holds numerous patents and is the recipient of a major grant from the U.S. Army Research Office to continue

her work related to biological, chemical, and explosive warfare detection.

WVU and the WVNano Initiative is the state's focal point for nanoscale science, engineering, and education.

Dr. Sooter will contribute to the teaching mission in the School of Pharmacy in the area of pharmacogenomics.

Several members of Dr. Sooter's laboratory also join the school, including Bridget Hines, Ph.D., a postdoctoral research fellow, and graduate students, Anthony Giovengo and Ryan Williams.

Travel Awardees Present Research at International Meetings

Congratulations to three graduate students in the Pharmaceutical and Pharmacological Sciences pathway who received competitive travel awards to present their research at international meetings.



Swati Kunduri, a fourth-year student, received an American Radiolabeled Chemicals

Junior Scientist Award in Pharmacology, which was presented at the annual Experimental Biology meeting in Anaheim, California. Ms. Kunduri works under the mentorship of Jamal Mustafa, Ph.D., professor in the Department of Physiology and

Pharmacology. The title of her research presentation was "Exaggerated vasoconstriction through adenosine A₁ receptor depends on CYP4A enzyme."



Michael Dodrill, a sixth-year student, received a Graduate Student Travel Award from the American

Society for Pharmacology and Experimental Therapeutics. Mr. Dodrill presented his research, "Lipopolysaccharide hyperpolarizes the guinea-pig tracheal epithelium by increasing the activities of the epithelial sodium channel (ENaC) and the Na⁺,K⁺-pump," at the society's annual meeting in Anaheim, California. Mr. Dodrill's mentor is Jeffrey Fedan, Ph.D., at NIOSH.



Maryam Sharifi-Sanjani, a fourth-year student, received a Graduate Student Travel

Award to the 16th World Congress of Basic and Clinical Pharmacology (WorldPharm 2010) in Copenhagen, Denmark. Ms. Sharifi-Sanjani's July presentation is entitled, "Involvement of H₂O₂ in adenosine-mediated regulation of coronary flow." Her mentor is Jamal Mustafa, Ph.D.

Students in the Graduate Program in Pharmaceutical and Pharmacological Sciences are supervised by mentors throughout the WVU Health Sciences Center and NIOSH, with the administrative home for the program based in the

School of Pharmacy. These partnerships are instrumental in maintaining high quality research experiences for our students.

CONGRATULATIONS

Congratulations are also extended to the following outstanding graduate students who were nominated for awards in the School of Pharmacy: Therwa Hamza (mentor: Bingyun Li), Swati Kunduri (mentor: Jamal Mustafa), Anurag Mishra (mentor: Liying Wang), Michael Seminerio (mentor: Rae Matsumoto), Neel Shah (mentor: Joel Halverson), and Lance Wollenberg (mentor: Peter Gannett)

Notes from Dr. Matsumoto



Rae Matsumoto, Ph.D.

In these uncertain economic times, it has become more important than ever to diversify our funding base.

Over 80% of the School of Pharmacy's research funding comes from state and federal agencies, with about half of these resources representing competitive federal funding. Less than 20% of the school's research portfolio is comprised of industry and foundation awards, and we currently have no revenues resulting from technology transfer.

While we continue to pursue and grow competitive federal funding through individual,

training, and program grants, we are also looking outward to start developing an awareness of entrepreneurial opportunities.

The Research Advisory Council, which is described in this edition, is a critical resource to help educate and guide the school's faculty in this new direction. In addition, the council will be vital in assisting us to develop appropriate infrastructure to help support these activities.

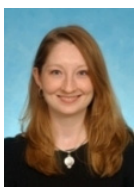
We are truly blessed to have dedicated alumni and committed professionals to support this endeavor, all on a voluntary basis. Uncertain economic times or not, the WVU School of Pharmacy is committed to continue growing our research and moving forward with our mission.

Rae Matsumoto, Ph.D., is the Associate Dean for Research and Graduate Programs. She may be contacted at: rmatsumoto@hsc.wvu.edu for questions or comments regarding this column.

SoP Trainees Receive Research Awards at Van Liere Event

The Van Liere convocation and research day is an annual event to celebrate the research being conducted across the WVU Health Sciences Center campus. Each April, students and trainees from the Schools of Pharmacy, Medicine, Dentistry, and Nursing showcase their research via oral and poster presentations.

The presentations are judged by a panel of faculty members and awards are presented in 12 categories. Five trainees affiliated with the School of Pharmacy were recognized for their excellence in research.



Kimberly Blake received second place for her oral presentation, "Association among cardiometabolic risk factor clustering, weight status and cardiovascular disease." She is a fourth-year student in the Health Outcomes pathway. Her mentor is Carole Harris, Ph.D., professor in the Department of Behavioral

Medicine and Psychiatry.

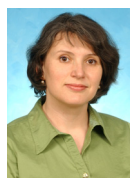


Michael Seminerio was awarded first place in the Basic Sciences 07 category for his poster presentation, "Characterization of optimized sigma ligands." He is a third-year student in the Pharmaceutical and Pharmacological Sciences pathway. His mentor is Rae Matsumoto, Ph.D., associate dean and professor in the Department of Basic Pharmaceutical Sciences.



Anurag Mishra placed third in the Basic Sciences 08 category for his poster presentation, "Assessment of fibrogenic potential of carbon nanotubes in vitro." He is a second-year student in the Pharmaceutical and Pharmacological Sciences pathway. His mentor is Liying Wang, Ph.D., adjunct professor in the Department

of Basic Pharmaceutical Sciences and the National Institute on Occupational Safety and Health (NIOSH).



Christina Demian was awarded first place in the Residents/Clinical fellows category for her poster presentation, "A new role for community pharmacists: InterACTS – an interdisciplinary approach to colorectal cancer." She is a trainee in the public health program and is co-mentored by Cathy Coyne, Ph.D., assistant professor in the Department of Community Medicine and Art Jackowitz, Pharm.D., professor in the Department of Clinical Pharmacy.



Christy Fields Williams received third place in the Residents/Clinical fellows category for her poster presentation, "Impact of influenza pandemic on

patients' attitudes in receiving vaccination in a rural pharmacy." She is a community pharmacy resident and her mentor is Betsy Elswick, Pharm.D., associate professor in the Department of Clinical Pharmacy.

To view earlier issues of the Research Quarterly, please visit our website at: <http://www.hsc.wvu.edu/sop/research/index.html>

The Research Quarterly is a publication of the WVU School of Pharmacy Office of Research and Graduate Programs. For more information, please contact 304-293-1450.

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