



Kimberly Blake and Cody Peer, WVU School of Pharmacy Stitzel awardees

Inaugural Stitzel Lectureship and Awards Recognize Achievement

A celebration of science past, present and future characterized the inaugural Stitzel Lectureship. The centerpiece of the event was a talk by Dr. Darryle Schoepp, a graduate of the WVU Pharmacology and Toxicology program. Dr. Schoepp, Senior Vice President and Franchise Head of Neuroscience at Merck and Company, Inc., has catalyzed the introduction of new classes of drugs for neurological and psychiatric disorders, such as Alzheimer's disease, chronic pain, schizophrenia and anxiety. He shared insights about his scientific journey.

Two awards were also presented in the WVU School of Pharmacy from the Robert E. Stitzel Graduate Student Support Fund.

Kimberly Blake, a second year graduate student in the Health Outcomes pathway, received the Professional Development Award. This award supports activities to foster the career development of a graduate student. Ms. Blake's interim mentor is Dr. Suresh Madhavan.

Cody Peer, a Ph.D. candidate in the Pharmaceutical and Pharmacological Sciences pathway, received the Robert E. Stitzel Research and Scholarship Productivity Award. This award recognizes meritorious productivity as measured by published peer-reviewed manuscripts and presentations during the past 18 months. Mr. Peer's mentor is Dr. Patrick Callery.

The Stitzel Lectureship is in honor of Dr. Robert E. Stitzel, a renowned pharmacologist and former Director of University Graduate Studies at WVU. Dr. Judith Gold Stitzel, Professor Emerita of Women's Studies and English, was present to help commemorate the event.

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New Elective Introduces Students to Research

Research training and experience can open doors to many careers in universities, the pharmaceutical industry, state and federal government agencies, clinical research organizations, and various managed care and payer organizations. To help pharmacy students recognize the paths that are available to them via research, an Introduction to Research elective was instituted.

This year, 33 P-1 students

took the course. The elective provided students with an appreciation for the science on which the pharmacy profession is based and continually evolves. "I did not realize that there are so many different types of research that can be conducted in different types of pharmacy settings, not just a lab," remarked one student.

In addition to learning about some of the research being conducted at the

WVU School of Pharmacy, students explored the extent to which research training enables them to better meet their career aspirations through interactions with guest speakers, tours and written assignments.

During future semesters, advanced electives and experiential training will be offered to give pharmacy students additional opportunities to increase their research credentials.

The Introduction to Research elective was well received by students and we look forward to continuing the elective and raising interest in research related careers.

SAVE THE DATE

BERGY LECTURE

Tim Tracy, Ph.D.
University of Minnesota

March 30, 2009
Noon - 1:00 p.m.

Okey Patteson (Main)
Auditorium

Research Advancements: WVU Forensic Initiative



Marie Abate, Pharm.D., professor in the WVU School of Pharmacy Department of Clinical Pharmacy, has developed a Forensic Drug Information (FDI) website and database as part of the WVU Forensic Initiative. The initiative is funded by a grant from the National Institute of Justice.

The Forensics Drug Information project involves the development and maintenance of a comprehensive Forensics Drug Database (FDD) to

compile information from drug-related deaths (e.g. patient demographics, drugs and concentrations present). In addition, a web site has been created to serve as an information resource to medical examiners, coroners, and other professionals who work with these cases.

"In 2004, the year before we began the project, West Virginia led the nation in per capita accidental drug overdoses," said Abate. "We were interested in figuring out what might be contributing to this."

Abate's research has so far shown that the vast majority of the drugs which are responsible for overdoses in West Virginia are prescription medications, not illicit drugs. In recent years,

the top medication detected in drug-related deaths in West Virginia is methadone, a treatment for opiate addiction, with steady increases in cases involving benzodiazepines such as diazepam (Valium). Over-the-counter medications are also implicated such as the antihistamine diphenhydramine (Benadryl).

The project is still ongoing, with data currently entered from over 1,300 drug-related deaths in West Virginia, from 2005 to present, with plans to expand the project to other states.

Analyses of the FDD data will allow many important questions to be explored, such as emerging trends in the drugs identified, gender

and age differences with regard to the number of drugs, specific drugs, and drug combinations taken, potential drug interactions that might predispose to toxicity, and the role of drug metabolites in drug-related deaths. This information can ultimately be used to educate patients and health care providers about the dangers associated with certain drugs and drug combinations, along with ways to help prevent drug-related deaths.

In 2006, drug overdoses were the leading cause of death in West Virginia for adults under the age of 45. These rates were the highest in the country.

— wvrxabuse.com

Cancer Research to Help Patients

Gerry Higa, Pharm.D., BCOP, associate professor in the WVU School of Pharmacy Department of Clinical Pharmacy and the Mary Babb Randolph Cancer Center (MBRCC), is working on a project to improve treatment outcomes for cancer patients undergoing chemotherapy. Laura Gibson, Ph.D., professor in the Department of Pediatrics and tumor microenvironment program leader at the MBRCC, serves as a mentor and collaborator on the project.

Chemotherapy greatly improves survival outcomes

for many cancer patients. However, a big problem that affects a patient's willingness to continue chemotherapy is the severity of the side effects. Vomiting, or emesis, can be particularly debilitating.

"Clinical symptoms and vomiting responses can vary greatly between patients on the same chemotherapy regimen," said Higa. Therefore, it is difficult to predict who should receive medications to prevent chemotherapy-induced emesis.

Two classes of medications can treat chemotherapy-

induced vomiting. The first class, serotonin 5-HT₃ antagonists, is routinely used to stave off the early phase of emesis following chemotherapy.

Higa's research is aimed at helping patients who suffer from a delayed, later phase of emesis. A second class of drugs, substance P/neurokinin-1 antagonists, can be used to treat this later phase. However, the drugs are expensive and can cause other complications.

Higa's project focuses on determining the biochemical mechanisms that regu-

late the release of substance P following administration of chemotherapy. The elucidation of the mediators of delayed vomiting will help clinicians to individualize antiemetic therapy.

Chemotherapy works by destroying cancer cells; unfortunately, it cannot tell the difference between a cancer cell and some healthy cells. So chemotherapy eliminates not only the fast-growing cancer cells but also other fast-growing cells in your body, including, hair and blood cells.

Welcome New Residents!



(Front row l-r) Lisa Glance, Jennifer Rogers, Jane Rogers, Ifemayowa Oyelami and Erica Hutton (Back row) Jen Tharp, Alex Bryant, Lindsey Gorrell, Elizabeth Hageman and Ashley Reed

The WVU School of Pharmacy is pleased to welcome ten new residents to its clinical programs.

Dr. Ifemayowa Oyelami earned her Pharm.D. at the University of Michigan. She is working with Dr. Marie Abate in the West Virginia Center for Drug

and Health Information.

Dr. Alex Bryant received his Pharm.D. from St. Louis University and completed a residency in June 2008 at Louisiana Medical Center prior to joining the infectious disease residency program at WVU. He is working

with Dr. Doug Slain.

Dr. Lindsey Gorrell is a graduate of the WVU School of Pharmacy. She is working with Dr. Gene Makela in the psychiatry and behavioral medicine residency program.

Dr. Erica Hutton, another WVU graduate, has joined Dr. Betsy Elswick in the WVU Rite Aid community pharmacy practice residency program in Grafton, WV.

Dr. Jen Tharp earned her Pharm.D. from Butler University. She is completing a critical care residency at West Virginia University Hospitals under the supervision of Dr. Richard

McKnight.

Five Pharm.D.s have also joined the PGY-1 residency program at West Virginia University Hospitals under the supervision of Dr. Justin Hare. Drs. Lisa Glance, Ashley Reed, Jane Rogers and Jennifer Rogers are graduates of the WVU School of Pharmacy. Dr. Elizabeth Hageman received her Pharm.D. in the School of Pharmacy at Lake Erie College of Osteopathic Medicine.

We wish our new residents a very productive year as they complete their advanced training and research.

Notes from Dr. Matsumoto



Rae Matsumoto, Ph.D.
Associate Dean for
Research and Graduate
Programs

The WVU School of Pharmacy aspires to create future leaders for the profession of pharmacy by pioneering innovative technologies, processes and procedures. To help meet

this goal, the School of Pharmacy is developing several new educational tracks and programs to increase the involvement of pharmacy students, faculty and practitioners in research.

The Introduction to Research elective featured in the present issue offers entering students an opportunity to learn more about the impact of research on the pharmacy profession and the options for additional training through our pharmacy curriculum. In addition, an Area of Emphasis in Research is soon to be offered to phar-

macy students. This track will allow pharmacy students to earn a designation on their WVU transcripts which indicate specialized training in research.

The Department of Clinical Pharmacy has also instituted a research mentorship program for junior faculty. This program pairs developing faculty with seasoned investigators, who have strong publication records and funding experience, to promote the scholarly enterprise.

Together with our existing graduate and residency programs, these new

initiatives provide the beginnings of a backbone for a mentoring ladder to help support the research and scholarly activities of our school. From the very earliest trainees to the most senior investigators, each individual can help to develop their junior colleagues and benefit from the wisdom of others.

These are exciting times. Never have there been so many opportunities in West Virginia to nurture research and scholarly activities, and lead the nation in advancing the profession of pharmacy.

Research Trainees Embark on New Careers

The WVU School of Pharmacy congratulates the newest Ph.D.s from our Pharmaceutical and Pharmacological Sciences Graduate Program.

Dr. Zaouri Zhao is now working at Yale University in New Haven, CT. His dissertation, "Association of changes in norepinephrine and serotonin transporter expression in the long term effects of antidepressant drugs," was completed under the mentorship of Dr. James O'Donnell.



Dr. Dovenia Ponnoth is currently working for the National Institute for Occupational Safety and Health (NIOSH) in Morgantown, WV as a post-doctoral fellow. Her dissertation, "Involvement of adenosine A1 receptors in systemic inflammation and altered vascular reactivity in allergic mice," was conducted under the guidance of Dr. Jamal Mustafa.



We also extend our best wishes to Dr. Neelam Azad,

a former post-doctoral fellow working with Dr. Yon Rojanasakul in the Department of Basic Pharmaceutical Sciences. Dr. Azad is now an Assistant Professor of Pharmaceutical Sciences at Hampton University in Hampton, VA.



We are proud of the accomplishments of our trainees and look forward to hearing about their future successes!

The Graduate Program in Pharmaceutical and Pharmacological Sciences is the largest biomedical Ph.D. program at the WVU Health Sciences Center.

The Research Quarterly is a publication of the WVU School of Pharmacy Research and Graduate Programs. For more information, please contact 304-293-8236.

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