



The Dean's Newsletter



From
College of Pharmacy Dean
Gary Pollack, Ph.D.

February 2015

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Dear Friends and Colleagues:

Although our newsletter was on hiatus for the inter-semester break, our College continued to move forward at a fairly rapid pace. Much of our attention has been, and will continue to be, focused on preparing to accept our first cohort of Doctor of Pharmacy students on the Pacific Northwest University of Health Sciences campus in Yakima, Washington. Extension to a second location is a significant, and in some ways a life-changing, event for a program such as ours.

In approaching our program extension, we are taking the opportunity to carefully examine how we deliver the didactic portion of our curriculum to all of our students, not only those who will be located in Yakima. Our team has crafted a document defining our pedagogical strategy, and faculty groups have been discussing how that strategy will be implemented. We have focused not only on collaborative learning, which is a hot topic in higher education, but on collaborative teaching as well. By partnering “content experts” and “applications experts” within and among courses, it is feasible to have the best of all possible worlds: efficient delivery of the right information coupled with clear linkage to professional competencies, with concept integration achieved through active-learning activities that cross traditional course (or even disciplinary) boundaries. Such a model would also allow teaching roles and responsibilities to align more closely with the interests and skill sets of individual faculty, improving the experience for learners and educators alike.

Regardless of the final shape of our curricular delivery strategy, we intend to study its effectiveness, communicate our observations so that other programs (within and outside academic pharmacy) can learn from our experiences, and continue to improve as an academic organization. It is the right thing to do on behalf of our students and our university.

I look forward to sharing our experiences with you as we undertake this journey. It promises to be a fun ride!

Best wishes,



Gary M. Pollack

WSU Pharm.D. in Yakima

Program extension gives opportunity for early adoption of new teaching methods



This year, the WSU College of Pharmacy and the Pacific Northwest University of Health Sciences (PNWU) finalized an agreement to offer the WSU Doctor of Pharmacy (Pharm.D.) degree on the PNWU campus in Yakima, Washington. The collaboration between the two universities will allow WSU student pharmacists and PNWU students of osteopathic medicine to learn to care for patients as a team. This partnership follows the College's vision to be a

leader in protecting, promoting and improving human health, and its mission to develop outstanding health care professionals. The goal of this academic collaboration is to prepare pharmacists to care for patients in new and different ways to match the evolving health care landscape, ultimately expanding the availability of health services to under-served populations in rural settings. We will be preparing future pharmacists in Yakima and Spokane who specifically want to provide care to these populations.

In order to ensure that our future pharmacy practitioners display exemplary skill and knowledge aligned with our College mission, the College transitioned to an "Honors-Satisfactory-Fail" curricular grading model that began in fall 2013. The curriculum will be delivered by the same methods in Spokane and Yakima.

The traditional grading model (also known as grading on a curve) evaluates student performance relative to the performance of other students in the class. With the Honors-Satisfactory-Fail (HSF) grading model, one student's success is not dependent on the poor performance of another student, and the model allows faculty to measure student competency and achievement on well-defined learning objectives.

After the first year of the HSF grading model it is clear that we are doing something right. Traditionally, students

are most likely to fall behind between the fall and spring semesters of their first year, meaning they will not be allowed to move forward as result of failing a class. Under the previous grading model, the College followed this trend and would normally see about 10 percent of students falling behind within the first year, with the majority falling behind between the first and second semesters. Within the new HSF grading model from fall 2013 to spring 2014, every first-year student pharmacist moved forward after the first semester with only one student required to be held back at the end of the first year, giving the Class of 2018 an attrition rate of only one percent after their first year.

The extension of the WSU Pharm.D. curriculum to Yakima has presented a unique opportunity to the College to further adopt curricular innovation.

The College faculty have agreed to move forward with a “flipped” classroom model, where content will be recorded ahead of time, and other reading and coursework assigned prior to class. Faculty will be present in both Spokane and Yakima to lead classroom time that is focused on assessing understanding of pre-class material, clarifying concepts and answering student questions, working on problem-based activities, engagement in team-based learning, or active participation in case discussion that provides context for the learning that occurred prior to class.

Classroom time is therefore “freed” from the traditional lecture model, and we can dedicate the liberated classroom to improving the learning experience not just for Yakima student pharmacists, but everyone. Lectures are poorly suited to the likes of collaboration, problem-solving, engagement, active-learning, peer-instruction, discussion, or discovery, and yet these are the key ingredients for better learning, higher learning, and happier learning. Instead of offering classes of lectures, we offer classes that deliver all of these components.

The practicalities of the Yakima extension and our principled commitment to the best possible educational experience for all students necessitates this transformation, and provides an opportunity to adopt the model incrementally and iteratively. However, though the territory is new to many of us, we are blazing a well-marked trail. The proposed classroom model follows a clear trend in higher education toward learner-centered teaching, and is built upon sound pedagogical knowledge. Integrating this flipped classroom with a competency-based HSF grading model equates to a learning environment that is truly innovative and effective.

The Accreditation Council for Pharmacy Education (ACPE) released a draft of their revised standards for accreditation in February 2014. These new accreditation standards will go into effect in the fall of 2016, and will require all Pharm.D. programs across the country to adopt elements of learner-centered teaching methods that are focused on educational outcomes in order to, “ensure that graduates of pharmacy education programs are practice-ready and team-ready – prepared to directly contribute to patient care and collaborate with other health care providers.”

The WSU College of Pharmacy is just, as you could say, ahead of the curve.

Dr. Kathryn E. Meier

Ph.D. program offers additional opportunities, industry internships

By: Lorraine Nelson, WSU Health Sciences Spokane



WSU College of Pharmacy graduate program team. From left: Dr. Kathryn E. Meier, Dr. Sayed Daoud, Lisa Price, Lynn Turner

One of the differences between today's Ph.D. students and those of a few years ago is their interest in being exposed to more career opportunities, says Kathryn E. Meier, associate dean for graduate education in the College of Pharmacy.

"It used to be they came into the program and expected to be prepared mainly for an academic research career," Meier said. "Now they are seeking opportunities to acquire skills related to other career paths, such as the biotechnology and pharmaceutical industries."

Meier approached the issue with the American Society for Pharmacology and Experimental Therapeutics (ASPET) in response to a "Big Ideas" initiative. Her proposal to ASPET for summer internships in pharma/biotech for Ph.D. students was approved, and institutions such as WSU will now be able to apply for the ASPET funding.

If funding can be obtained, the College has industry partners in Spokane potentially willing to provide the students with those internship experiences, Meier said. For now, the College is bringing in industry representatives from throughout the country to talk with the students about careers.

Another difference with today's Ph.D. students is they like more freedom to sample other research labs—in other words do a one-day micro-rotation—in addition to the more traditional way of selecting a lab. Traditionally, selecting the "best-fit" lab involves working many hours a week for many weeks during their first year of graduate school before being allowed to move to another lab. The micro-rotation option was established in the fall of 2014 in response to student suggestions.

"Graduate students look at the available mentors and the research when they select an institution," Meier said. "They want to have multiple options. By expanding the way we have, and adding the faculty we have, there are now more options for them to choose from than we had in Pullman."

The establishment of Ph.D. students on this campus is moving along, Meier said, with new research faculty now in place from various institutions all over the country. The College is gearing up toward the goal of admitting 10 to 15 Ph.D. students per year. Seven were admitted last fall. There are currently 22 in the program.

Both Meier and Sayed Daoud, director of the graduate program, have many years of experience. Daoud joined WSU in 1991 and Meier in 2003.

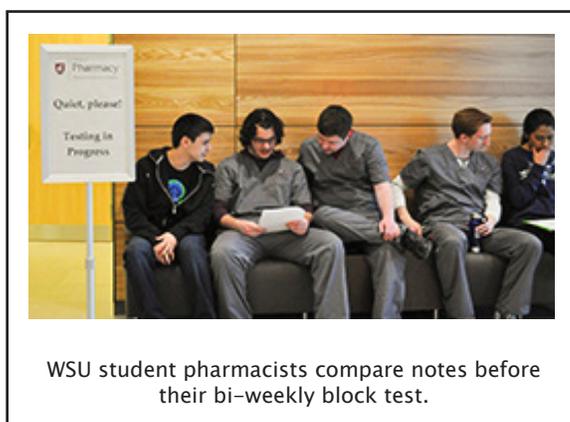
"Aside from recruiting top faculty, the most important method for insuring quality graduate programs is recruit-

ing excellent students,” Daoud said. “Succeeding in attracting top students to choose our graduate program over other research universities requires hard work during the recruitment stage, along with attractive financial aid packages. We are very fortunate that the College is providing competitive funds to attract top students.” The College also has feeder programs, such as a Summer Undergraduate Research Fellowship (SURF) program, which is another conduit to recruit the best students, Daoud said.

They are assisted in the recruiting, admitting and advising process by a full-time program coordinator, Lynn Turner. Meier is also assisted by an administrative assistant, Lisa Price.

Testing, testing, 1, 2, 3...

College of Pharmacy recognized for innovative use of technology



The College of Pharmacy received the Assessment Executor Award in November by testing software company Examssoft for the innovative use of their platform. The College uses the online testing platform for written tests and skills-based assessments of student pharmacists in the Doctor of Pharmacy program.

“Their innovation is admirable,” an Examssoft representative wrote in the award announcement. “In addition to standard quizzes, midterms and finals, the team delivers various assess-

ments types including communication and clinical counseling assignments, clinical experience exams, and have recently begun using Rubrics to grade written assignments.”

Examssoft is an assessment, management and analysis solutions company that specializes in what they call “high stakes exams”. The company supports 650 clients across the U.S., which includes 43 of 50 state bar exams. The College of Pharmacy started using the Examssoft platform for the Doctor of Pharmacy program block testing in the fall of 2013, and integrated the advanced features of the platform to record assessment scores for student pharmacists participating in skills-based clinical simulation exercises this academic year.

The online platform does a lot more than record grades. The system enables multiple faculty to collaborate on assignments within the assessment platform, and also tracks grading across class sections and faculty members to ensure all students are being graded consistently.

It also allows faculty to use multiple rubrics to assess performance and then assign grades all in one step that also eliminates the need for maintaining paper files and returning to the system later for input or updates. Plus, it allows the College’s office of assessment to better track data over time and use these insights to further improve teaching and test delivery methods. Students have access to their own records too, giving them immediate feedback regarding their areas of strengths and weaknesses within the curriculum, which facilitates communication between students and instructors.

“The system allows faculty to be more involved,” said pharmacy assessment coordinator Danielle Birch. “Overall it’s more efficient, makes grading more convenient, and allows faculty to get through grading faster, which provides more immediate feedback to students.”

Other College News

FACULTY SCHOLARSHIP

Publications

- Pharmacotherapy Clinical Professor **Terri L. Levien** and Pharmacotherapy Professor and Associate Dean for External Professional and Continuing Education **Danial E. Baker** published, “Dapagliflozin,” in the independent peer-reviewed journal Hospital Pharmacy (2014;49(7):647-665).
- **Danial Baker** published, “Approvals, submission, and important labeling changes for U.S. marketed pharmaceuticals,” in the journal Hospital Pharmacy. The article presents information on new drugs and indications as well as dosage forms and safety-related changes in labeling or use approved by the U.S. FDA from May 15, 2014, through July 14, 2014. [read article](#)
- **Danial Baker** published, “Medication counterfeiting,” in the journal Hospital Pharmacy (2014;49(8):683-684).
- **Danial Baker** and one co-author published, “Apremilast,” in the journal Hospital Pharmacy (2014;49(8):752-64).
- **Danial Baker** published, “Approvals, submission, and important labeling changes for U.S. marketed pharmaceuticals,” in the journal Hospital Pharmacy. The article presents information from September 16, 2014, through October 15, 2014. [read article](#)
- **Danial Baker** and one co-author published, “Dalbavancin,” the journal Hospital Pharmacy (2014;49(9):851-864).
- **Danial Baker** published, “Approvals, submission, and important labeling changes for U.S. marketed pharmaceuticals,” in the journal Hospital Pharmacy (2014;49(9):865-879).
- **Danial Baker** and one co-author published, “Tedizolid phosphate,” in the journal Hospital Pharmacy (2014;49(10):961-974).
- **Danial Baker** published, “Approvals, submission, and important labeling changes for U.S. marketed pharmaceuticals,” in the journal Hospital Pharmacy (2014;49(10):975-984).
- Allen I. White Distinguished Professor and Experimental and Systems Pharmacology Chair **K. Michael Gibson**, Experimental and Systems Pharmacology Postdoctoral Research Associate **Kara Vogel**, and two co-authors published, “Disorders of GABA metabolism: SSADH and GABA-transaminase deficiencies,” in the Journal of Pediatric Epilepsy, a peer-reviewed international journal from the World Society of Child Science (2014 Nov 25;3(4):217-227)
- Experimental and Systems Pharmacology Assistant Professor **Shobhan Gaddameedhi** and four co-authors published, “The circadian clock controls sunburn apoptosis and erythema in mouse skin,” in the Journal of Investigative Dermatology (2014 Nov 28;doi:10.1038/jid.2014.508).
- **Danial Baker** published, “Medical tourism: Has the time come for ‘medication tourism?’,” in the journal Hospital Pharmacy (2014;49(11):999-1000).
- **Danial Baker** and one co-author published, “Naloxegol: Treatment for opioid-induced constipation in

chronic non-cancer pain,” in the peer-reviewed journal *Annals of Pharmacotherapy* (2014 Dec).

- Pharmacotherapy Associate Professor **Joshua J. Neumiller** published, “Incretin-based therapies,” in the bimonthly peer-reviewed journal *Medical Clinics of North America*. [read article](#)
- Pharmacotherapy Professor **Tracy L. Skaer** and two co-authors published, “Sleep disturbance and suicide risk in the elderly,” in the open-access *Journal of Sleep Disorders and Therapy* (2014 Dec). [read article](#)
- **Tracy Skaer** and two co-authors published, “Mindfulness-based therapy for chronic insomnia,” in the *Journal of Sleep Medicine and Disorders*, an interdisciplinary open-access, peer-reviewed journal (2014 Dec). [read article](#)
- Pharmaceutical Sciences Associate Research Professor **Hui Zhang** and Dorothy Otto Kennedy Distinguished Professor **Gary G. Meadows** with three co-authors published, “Chronic alcohol consumption enhances iNKT cell maturation and activation,” in the journal *Toxicology and Applied Pharmacology* (2014 Dec 9). [read abstract](#)
- United States Transuranium & Uranium Registries (USTUR) Research Associate **Maia Avtandilashvili**, USTUR Associate in Research **Stacey McComish**, USTUR Associate Research Professor Sergei Tolmachev, and one co-author published, “U.S. Transuranium and Uranium Registries case study on accidental exposure to uranium hexafluoride,” in the *Journal of Radiological Protection* (2015, 35 (1):129-151).
- **Hui Zhang, Gary Meadows** and two co-authors published, “Alcohol consumption and antitumor immunity: dynamic changes from activation to accelerated deterioration of the immune system,” in the journal *Advances in Experimental Medicine and Biology* (2015;815:313-31. doi: 10.1007/978-3-319-09614-8_18). [read abstract](#)
- Pharmaceutical Sciences Associate Professor **Salah-uddin Ahmed** co-authored with five colleagues a research article titled, “Anti-inflammatory effects of a novel ricinoleic acid gel system for transdermal delivery,” in the *International Journal of Pharmaceutics*. [read abstract](#)
- Pharmaceutical Sciences Professor **Jiyue Zhu** and Pharmaceutical Sciences Associate Clinical Professor **Shuwen Wang** published, “A combinatory strategy for detection of live CTCs using microfiltration and a new telomerase-selective adenovirus,” in *Molecular Cancer Therapeutics*, a peer-reviewed journal from the American Association for Cancer Research (AACR).
- Pharmaceutical Sciences Professor and Associate Dean for Graduate Education **Kathryn E. Meier** co-authored with six colleagues, “Omega-3 fatty acids and other FFA4 agonists inhibit growth factor signaling in human prostate cancer cells,” published in the February issue of the *Journal of Pharmacology and Experimental Therapeutics*. [read abstract](#)
- **Kara Vogel** and **K. Michael Gibson** with four colleagues co-authored, “Inherited disorders of gamma-aminobutyric acid metabolism and advances in ALDH5A1 mutation identification,” published in the journal *Developmental Medicine & Child Neurology* (2015;doi: 10.1111/dmcn.12668).

Presentations

- **Salah-uddin Ahmed** presented the poster, “Induction of pro-apoptotic noxa expression by ursolic acid sensitizes rheumatoid arthritis synovial fibroblasts to apoptosis: A role of Mir-181a,” for the American College of Rheumatology in Boston, Mass., on November 17, 2014. Other co-authors included Pharmaceutical Sciences Research Associate **Anil K. Singh** from the Ahmed lab.
- **Anil Singh** presented, “Epigallocatechin-3-Gallate (EGCG) suppresses IL-1 induced IL-6 and IL-8 synthesis by selectively inhibiting TAK1 activation in human rheumatoid arthritis synovial fibroblasts,” for the American College of Rheumatology in Boston, Mass., on November 18, 2014. List of authors: **Anil Singh**,

Pharmaceutical Sciences Postdoctoral Research Associate **Sadiq Umar**, **Salah-uddin Ahmed**, and one colleague.

- **Joshua Neumiller** with one colleague presented the topic, “Medication-taking practices and preferences of older persons with multiple chronic medical conditions,” during the webinar titled, “PCORI pilot projects learning network finish line webinar,” hosted by the Patient-Centered Outcomes Research Institute (PCORI) on December 16, 2014.
- **Joshua Neumiller** presented, “Management of Type 2 diabetes with comorbid obesity,” as an enduring webinar for the American Association of Diabetes Educators (AADE) in December 2014.
- **Joshua Neumiller** presented, “Pearls for publication: How to get your ideas or research published,” on January 12, 2015, at the Spokane VA Medical Center, in Spokane, Wash.

Service

- Pharmaceutical Sciences Associate Professor **Grant D. Trobridge** served as a reviewer on a special emphasis study section for the National Institute of Allergy and Infectious Diseases (NIAID).
- **Salah-uddin Ahmed** served as a reviewer on two special emphasis study sections at the National Institutes of Arthritis and Musculoskeletal and Skin Diseases (NIAMS) center at the National Institutes of Health, in Bethesda, Md.
- **Kathryn Meier** served as grant review for the DOD Congressionally-directed Medical Research Program (Metabolic Disease), NSF Graduate Fellowship Program, and the VA Merit Review Eligibility Panel in December and January.
- **Josh Neumiller** was interviewed in an “Ask the Expert” article in *Annals of Long-Term Care: Clinical Care and Aging*. [read article](#)

Awards

- **Kara Vogel** has been awarded a Hello Bio travel award for \$500 to attend the Experimental Biology 2015 Symposium in Boston, Mass., March 28-April 1, 2015. Hello Bio is a UK-based company that supports and promotes life science research.
- **Sadiq Umar** received a young scientists travel award from the American Society for Pharmacology & Experimental Therapeutics (ASPET) to attend the ASPET Annual Meeting at Experimental Biology 2015 in Boston, Mass., from March 28-April 1, 2015. The grant covers up to \$1,000. The Experimental Biology meeting is a gathering of more than 14,000 scientists from over 65 countries representing the fields of anatomy, physiology, biochemistry, pathology, nutrition, pharmacology and immunology.

Grants

- The USTUR has been granted a \$25,000 contract from Pacific Northwest National Laboratory to study plutonium binding in the upper airways of the human respiratory tract.

STUDENT ACHIEVEMENT

Doctor of Philosophy (Ph.D.) students

- **Ana Vergara** will present, “Potential role of the UDP-glycosyltransferase 3A family in tobacco carcinogen metabolism,” at 12:00 p.m. on February 6, 2015, on the WSU Health Sciences campus in Spokane.
- **Alex Little** will present, “Immune modulation of natural killer cells in a chronic alcoholism model,” at 12:00 p.m. on February 13, 2015, on the WSU Health Sciences campus in Spokane.

- **Sabrina Fechtner** will present, “The current status of TAK1 inhibitors in treating autoimmune diseases,” at 4:00 p.m., February 26, 2015, on the WSU Health Sciences campus in Spokane.
- **Brandon Gufford** won a 2015 Presidential Training Award from the American Society for Clinical Pharmacology and Therapeutics (ASCPT), and will be highlighted in the Showcase of Top Trainee Abstracts during the ASCPT Annual Meeting in New Orleans, La., from March 3-7, 2015.
- **Mandi Hopkins** received a graduate student travel award from the American Society for Pharmacology & Experimental Therapeutics (ASPET) to attend the ASPET Annual Meeting at Experimental Biology 2015 in Boston, Mass., from March 28-April 1, 2015. The grant covers up to \$1,000.
- **Kari Gaither** was awarded a travel grant from the WSU Office of Grant and Research Development for her participation as an invited panelist and volunteer for the New Graduate Student Prestigious Fellowship Workshop. Gaither will attend the American Association for Cancer Research (AACR) Annual Meeting in Philadelphia, Penn., April 18-22, 2015.
- **Faya Zhang** with faculty co-authors **Hui Zhang**, **Gary Meadows** and two colleagues published, “Chronic alcohol consumption enhances iNKT cell maturation and activation,” in the journal Toxicology and Applied Pharmacology.
- **Faya Zhang** with faculty co-authors **Hui Zhang**, **Gary Meadows** and one colleague published, “Alcohol consumption and antitumor immunity: dynamic changes from activation to accelerated deterioration of the immune system,” in the journal Advances in Experimental Medicine and Biology.

Doctor of Pharmacy (Pharm.D.) students

- **James Leonard** with faculty co-author **Danial Baker** published, “Naloxegol: Treatment for opioid-induced constipation in chronic non-cancer pain,” in journal Annals of Pharmacotherapy.

Coming Events

- February 27, 2015
Allen I. White Lecture Series: Nahum Sonenberg, Ph.D., from McGill University will be the speaker this year at the WSU College of Pharmacy’s Allen I. White Lecture. The purpose of the annual lecture is to discuss the scientific, social or political aspects of pharmacy or related matters. If you would like more information about attending, please email Lisa Price at lisa.price@wsu.edu.
- March 29, 2015
WSU College of Pharmacy Alumni and Friends Reception: The College is hosting a reception at the APhA Annual Meeting in San Diego, Calif., for WSU Pharmacy alumni and friends. Contact our advancement and alumni relations office at gocougs@pharmacy.wsu.edu for details and to RSVP.
- May 24-25, 2015
Sergei Tolmachev has been invited to present USTUR research findings at the 2015 International Workshop on Sample/Tissue Archiving of Radiobiology (STAR2015) in Kyoto, Japan.



College of Pharmacy

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