Dear Friends and Colleagues:

I am pleased to send you this inaugural edition of our college’s new monthly newsletter, which also will “live” on our website. The goals of these monthly communications are simple: to provide you with a brief update on the growth and development of our college, to introduce you to a truly talented group of staff and faculty, and to provide insight into our academic programs and the students who are at the center of everything that we do. I am proud to be a member of this college, and am eager to share my perspective with you. Please subscribe to receive this newsletter by email.

The past 18 months, culminating with the relocation of our program from Pullman to Spokane in December, have been a whirlwind of activity for our college. I will not attempt to summarize all of the progress we have made or the changes we have experienced. Some of the high points, however, are:

- **We have added 16 new faculty to our ranks, and more are on the way.** These scholars, clinicians, and educators add depth and breadth to a core group that for many years has been offering a professional program second to none.

- **We have added a new academic unit, Experimental and Systems Pharmacology, to our existing departments (Pharmaceutical Sciences and Pharmacotherapy).** We now have disciplinary “homes” spanning the range of sciences that together compose contemporary pharmacy.

- **We have experienced rapid growth in our research portfolio and our graduate education program.** We have an outstanding group of graduate students, and the quality and potential impact of the research being conducted in our college is generating additional interest among high-quality applicants to our program.
• **We have increased the size of our Doctor of Pharmacy program.** Our faculty believe that the future of the pharmacy profession is extremely bright, with the promise of new roles in health care delivery for well-prepared practitioners. We also have a cohort of strong students who wish to receive their professional education at WSU. We are committed to preparing our students not only to enter the practice of pharmacy today, but to lead the changes in the practice of pharmacy that are certain to come tomorrow.

• **We have fundamentally changed the way we assess student performance and engage students in the classroom and the clinic.** We have aligned our approach to student assessment with the competency-based philosophy that underscores the delivery of our professional curriculum. In the process, we have implemented a pedagogical strategy that ensures students reach competency benchmarks throughout the curriculum.

• **We have added programmatic diversity in our professional curriculum.** We now have an Honors Program for Doctor of Pharmacy students who wish to differentiate themselves by being engaged in research. We are in the process of launching a combined PharmD/MBA option with our partners in the WSU College of Business. We also are designing a combined PharmD/PhD option for students who wish to pursue a research-oriented career.

Obviously, recapping 18 months of significant progress in a single communication is difficult. Our monthly newsletter will give us an opportunity to communicate our progress in more detail while still being digestible. As always, questions, comments, or feedback is encouraged and welcome. We invite you to stay in touch.

I would be remiss in failing to mention the leadership, support, and collaboration of which we have been the fortunate beneficiaries in our journey to this point:

• **Dr. Elson Floyd,** President of Washington State University. Dr. Floyd’s vision for a Health Sciences campus in Spokane has been our guiding principal for the past several years. Although our college is joining an established College of Nursing, and a rapidly growing Medical Sciences unit, the impact of the designated Health Sciences campus on the College of Pharmacy has likely been the most profound.

• **Dr. Lisa Brown,** Chancellor of WSU Spokane. Dr. Brown’s contributions to the development of the Health Sciences campus, and to positioning our efforts for future success, have been substantial. She understands the value that pharmacy and the pharmaceutical sciences bring to health care in this country, and has been a strong and consistent advocate for us.

• **Walgreens.** Walgreens has invested in our program through a substantial gift to name the auditorium in our new Pharmaceutical and Biomedical Sciences building. We look forward to a long and productive relationship with this visionary company.

• **The Health Sciences and Services Authority of Spokane County.** HSSA has been instrumental in helping us recruit established scholars and develop a strong research infrastructure. Our college has received approximately $3 million from HSSA to support faculty start-up packages and to acquire the instrumentation necessary to make our new building a productive research
A new model of grading students

Honors–satisfactory–fail grades replace letter grades at the College of Pharmacy

What if all pharmacy students got high grades?
What if the grading system was changed so students no longer were focused on a number or a letter, but only on learning what they needed to know to be a good pharmacist?
What if the professors were freed from assigning grades and given the ability to frequently and quickly test the students on their knowledge, and then were asked to work with the students who were falling behind to help them be successful? Sound like a good idea?

That’s exactly the transformation being phased in at the College over the next three years, starting this past August, with Associate Professor Brenda Bray leading the team.

“We believe the focus of a professional Doctor of Pharmacy program should be on the mastery of essential knowledge and skills which prepare graduates to become competent pharmacists rather than on the attainment of grades,” Bray said.

“The honors–satisfactory–fail grading model we have adopted allows us to measure student competency and achievement of well-defined learning objectives,” Bray said. “The traditional grading
Bray is pictured here teaching third-year student pharmacists how to apply their new knowledge to solving problems for patients.

Bray has 12 years of experience teaching third-year pharmacy students in the College’s Applied Patient Care Lab, where they have to apply their book knowledge to caring for patients and solving problems. She has always been interested in innovative teaching methods and started using Human Patient Simulation in the Doctor of Pharmacy curriculum back in 2007 after she learned about it from a colleague in the WSU College of Nursing. The College of Pharmacy was one of the first pharmacy schools in the nation to use simulation in teaching (read more about simulation in the College).

And when most professors hear the word “assessment” they tend to run the other way, whereas Bray is a self-described “assessment nerd.” She has directed the College’s assessment program since 2007. Part of the assessment program includes collecting and studying the information that assesses the quality of the teaching and learning occurring in the College, and then collaborating with faculty to improve the curriculum and student learning based on that knowledge.

That made her a perfect fit for leading this change in the grading system.

A series of workshops led by teaching experts broadened the faculty understanding of the fundamental philosophies surrounding competency-based education. The workshops also helped faculty modify their teaching and testing practices. In the honors-satisfactory-fail model, tests are given every other week on smaller amounts of material, and students receive immediate feedback (see story below on computerized testing).

One teaching expert put it this way, “People don’t learn something the first time they hear it. They learn over time. So in order for students to achieve the objective, they need to know how they are doing. Frequent testing is communication back and forth instead of a grade. It is telling them, ‘You are half the way there.’”

Bray credits the dean of the College, Gary M. Pollack, with getting this change underway, an idea that he brought up at a faculty retreat in May 2012. The faculty were ready for it, took the idea and debated it, and by the following February, they had accepted it and were attending the workshops.

“Traditional grading results in behaviors faculty find obnoxious – from arguing for the extra tenth of a percentage point in their grade, up through cheating,” Pollack explained. “Those behaviors won’t be eradicated, but the incentives to engage in them will be lower, and students will be more focused on learning what they need to know.”

As one of the first – if not THE first – traditional, established schools of pharmacy to adopt this innovative curricular model Bray, Pollack and others on the WSU team led a panel discussion about it...
last summer at the national meeting of the American Association of Colleges of Pharmacy in Chicago. They drew a standing-room-only crowd of about 280 for the entire 90 minutes.

A research project is now underway to understand more about student motivation and learning in a competency-based curriculum.

Research Scientist Salah-uddin Ahmed

HSSA award helps bring professor from Ohio

Research scientist Salah-uddin Ahmed is looking forward to joining the faculty of the College of Pharmacy this spring for many reasons.

“It is an outstanding opportunity to collaborate with clinical researchers and healthcare providers as our research focus is disease oriented and aimed at discovering novel therapies for chronic inflammatory diseases,” Ahmed said.

His primary research interest is in testing the efficiency of the active compound in green tea for treatment of rheumatoid arthritis. People suffering from rheumatoid arthritis tend to develop cardiovascular complications, and Ahmed’s research team also is focused on that complication and studies a specific category of small proteins – cytokines – and the cells that are activated in response to them.

“The success of these studies may lead to a significant advancement in the development of green tea’s active compound or other structurally related molecules as potential treatment options for rheumatoid arthritis and possibly other autoimmune diseases,” Ahmed said.

He is currently an assistant professor of pharmacology at the University of Toledo in Ohio. Prior to his current position, he held appointments in the School of Medicine at Case Western Reserve University in Cleveland and the University of Michigan in Ann Arbor. He has a Ph.D. in nutrition/chemoprevention from Jamia Hamdard University in New Delhi, India. His bachelor’s degree is in biology and chemistry and he has a master’s degree in toxicology. Ahmed was successfully recruited to the College of Pharmacy with funding support from the Health Sciences and Services Authority of Spokane County (HSSA).

“The WSU College of Pharmacy has an excellent environment and facilities for translational research, which is the core of our research area in pharmacology and experimental therapeutics,” Ahmed said. “It is an ideal place to work with medicinal chemists for drug discovery and development.”

Ahmed’s research is currently funded by grants from the National Institutes of Health, the Arthritis Foundation, and Roche/Genetech. His lab team will be moving with him and consists of a graduate student, a research associate and postdoctoral fellows.
She teaches the teachers

**College of Pharmacy implements a new computerized test-giving software**

In the 12 years she has been on the office staff at the College of Pharmacy, Joyce Harbison has always been someone who steps forward when there is work to be done. So when the College needed someone to take the lead in learning a new computerized system for administering examinations, Harbison volunteered.

Keep in mind this new examination system, Examsoft®, had never been used at the College before and that it was viewed as a key tool for the College to successfully transition to a new way of assessing student learning (see article above about grades). It was up to Harbison to master the new computer software and become a “super user” to provide training and support for faculty and students.

“With my supervisor moving into another position, it was a good time for me to make a change, and I thought it sounded like something I might like to do,” Harbison said. That was last May.

Harbison has since mastered Examsoft® and trained a number of others who are now using the system. She continues to train more people and also coordinates the logistics of the testing schedule, location and exam proctors. She troubleshoots Examsoft® issues and continues to refine and improve the processes associated with computerized testing.

“In the short-term, ExamSoft® has streamlined test delivery and facilitated reporting the results to students in a timely manner,” Harbison said. “For the long-term, the curriculum will benefit from the data we gather about test question performance and the ability to match questions to desired outcomes.”

Harbison is a part of the curriculum assessment team led by Associate Professor Brenda Bray.

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**In the compounding lab**

*A day off from school finds these students... in school*

Because they are chemists at their core, many pharmacists enjoy mixing and creating prescription medications from scratch.

That would explain why 12 students in the Doctor of Pharmacy program spent part of a recent Saturday trying to out-perform each other in the compounding lab for a shot at doing the same on a national stage. Working in teams of three, they had two hours to compound three prescription medicines and complete the paperwork that goes along with that.
“Compounding allows the pharmacist to provide customized medications that can help meet the needs of patients,” explained Assistant Professor Connie Remsberg, supervisor of the College’s compounding lab. “For example, they may need to make a liquid form of a prescription for a patient who has trouble swallowing. Delivering medication through the skin by way of an ointment or lotion is another common compounding solution.”

For the chance to compete nationally at the University of Florida in March, the students also had to write a paper discussing the current legislation being reviewed in the U.S. Senate and the U.S. House of Representatives regarding the regulation of pharmacy compounding.

“The winning team – as well as the other teams – thought that opting for a compromise between the two bills would be best for the future of pharmacy compounding,” Remsberg said.

The competition was sponsored in part by Medisca, a pharmacy compounding lab supplier. Judges in addition to Remsberg were the owners of two compounding pharmacies in Spokane – Wayne Clemens and Erik Nelson – and Remsberg’s predecessor as lab supervisor, Shelley Chambers-Fox.

Students Alex Palmer, Brenton Kendall and Sean Leonard will represent WSU at the national Student Pharmacist Compounding Competition March 22–23.

Other College News

FACULTY SCHOLARSHIP

Publications

- Pharmaceutical Sciences Chair and Professor Philip Lazarus and six co–authors published, "The effect of UGT1A and UGT2B polymorphisms on colorectal cancer risk: haplotype associations and gene–environment interactions," in Genes, Chromosomes and Cancer.
- Philip Lazarus and one co–author published, "UGT2B gene expression analysis and identification of stably–expressed control genes for use in real–time PCR in multiple organ sites," in Drug Metabolism and Disposition.
- Philip Lazarus and six co–authors published, "Regulation of UGT1A1 expression and activity by miR–491–3p,"
in the Journal of Pharmacology and Experimental Therapeutics.

- Assistant Professor Megan N. Willson and two co–authors published, “Medication Regimen Complexity and Hospital Readmission for an Adverse Drug Event,” in the Annals of Pharmacotherapy.
- Pharmacotherapy Chair and Professor John R. White was interviewed for the article, "Drug Molly has colleges weighing best counseling approach," in the Spokesman Review. read article
- Clinical Associate Professor Terri L. Levien and Associate Dean and Professor Danial E. Baker published the drug review, "Dimethyl fumarate," in Hospital Pharmacy (2013;48(8):668–679).
- Assistant Professor Joshua J. Neumiller and 10 other co–authors published a position statement, “Nutrition Therapy Recommendations for the Management of Adults with Diabetes,” in Diabetes Care. read article

Presentations

- January 14, 2014
  K. Mike Gibson was interviewed on a KREM 2 news feature regarding Dahl Natural, a medical research and development company that recently moved to Spokane. Gibson is collaborating with the company to create an in–home testing device for the genetic metabolic disorder phenylketonuria, or PKU. watch video

STUDENT ACHIEVEMENT

Doctor of Philosophy (Ph.D.) students

- Garrett Ainslie gave a seminar at the School of Medicine, University of North Carolina at Chapel Hill, for the Curriculum in Toxicology titled : "Assessing dietary substance–drug interaction risk via physiologically–based pharmacokinetic / pharmacodynamics modeling and simulation."
- Garrett Ainslie presented a paper at the Society of Toxicology Future Tox II meeting titled , "Compartmental modeling of two diamidines in rats suggests marked differences in distribution but not renal elimination". He received a Student Recognition Award for this.
- Garrett Ainslie received a travel grant of $1,850 from the American Society of Pharmacology and Experimental Therapeutics to attend the ASPET/Experimental Biology annual meeting in San Diego in April and present a research poster.
- Kara Vogel presented "A novel role for GABA in Cell Death" to the Miami 2014 Winter Symposium, Molecular Basis of Brain Disorders.
- Heidi Medford will be finishing her Ph.D. this year and has accepted a postdoctoral position at the University of Alabama at Birmingham. She expects to start in January 2015.
- Julie Larsen received approval from the WSU Institutional Review Board to study breast cancer survivors to determine if the type of physical activity they do affects mental processing and physical fitness. She is currently looking for volunteer participants in the Spokane area and anyone interested may email her at:
Doctor of Pharmacy (Pharm.D.) students

- **Ross Bindler** co-authored a paper with faculty from the College of Nursing that was just published in the Journal of Pediatric Endocrinology and Metabolism.
- **Azuka Nwude** spearheaded the formation of a WSU chapter of the Student National Pharmaceutical Association. The chapter was officially recognized Jan. 9, 2014. The organization focuses on raising awareness in the community about health issues and doing community service, specifically with minority populations to educate students about population differences.
- **Alyssa Del Palacio** has been selected by the National Association of Chain Drug Stores to participate in the organization’s annual visit to Capitol Hill to advocate for pharmacy – an event known as Rx Impact Day.
- **Martin St. John, Mark Goff** and **Hue Thai**, along with faculty preceptors **Brian Gates, Jeff Clark, Steven Huang**, and colleagues from the WSU College of Nursing provided influenza shots, blood glucose and blood pressure screenings, and medication management counseling for low-income seniors in HUD housing in Spokane, Wash.
- **Cassandra Song** received a $1,000 grant from the American Pharmacists Association Foundation for a project to train 50 students pharmacists to immunize the pediatric population (under age 12) using a training program developed by faculty member **Colleen Terriff**.

### Coming Events

- **March 12–13, 2014**
  WSU student pharmacists and faculty will join the National Association of Chain Drug Stores for Rx Impact Day in Washington D.C., to speak with legislators about pharmacy issues.
- **July 12, 2014**
  The National PKU Alliance (NPKUA) has invited **K. Mike Gibson** to present at the third national conference July 10–13, 2014, in Salt Lake City, Utah.