



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

August 2016

In This Issue...

- A focus on competency
- Insights through research
- NIH funds research center
- Other news

Dear Friends and Colleagues:

It's the beginning of August and we are fully engaged with the run-up to the new next academic year. The question most frequently posed by faculty at this time is, "Where did the summer go?" (expletives deleted, of course). These are smart, experienced people... you'd think they would have realized that the space-time continuum folds back on itself between the middle of May and the middle of August, making the summer "disappear." Either that, or too much time in the sun. Maybe both.

As faculty begin preparations for fall semester, a topic of discussion, or at least consideration, is the role of critical thinking in a health professions degree program. Fostering critical-thinking skills is presented as a central tenet of many such programs; certainly it is integral to the active- and collaborative-learning model that we have adopted at WSU. Most commonly, "critical thinking" is paired with "problem solving," within a context along the lines of "apply critical thinking skills to solve problems related to individual patients or populations." It is hard to argue against the value of that.

Most academic programs also aspire to produce well-rounded graduates. We want our students to be not only caring and talented health-care practitioners, but also valuable and valued members of their communities. In short, we hope that our graduates will be good citizens as well as good pharmacists or pharmaceutical scientists.

What we often lose sight of is the importance of stressing the value of critical thinking in everyday life, as opposed to pigeon-holing the critical-thinking mindset into the relatively narrow realm of a specific degree program. We are reminded of the relationship between critical thinking and citizenship, for example, at least on an every-four-year cycle, as the major political parties hold their conventions and candidates for elective office attempt to convince us that they are worthy of our support. We watch almost helplessly in the face of statements that lack any sort of evidence base: global warming is an unsettled area of science, genetically-modified foods are dangerous, or vaccines cause autism. There are, of course, worse examples than these.

As educators, we have a unique opportunity, and some would say a responsibility, to help our students understand the value of questioning and thinking about what they hear, whether in the classroom or in the clinic or on a news site, in order to make intelligent, informed, and impactful decisions. This is an integral part of producing the well-rounded graduates we say we value, and at the same time helps in a modest way to create and maintain an informed and engaged citizenry.

At WSU, we aspire to providing our students with a “transformative experience.” Such an experience not only changes how students view themselves, but how they view and interact with the world around them. This aspirational goal is, or should be, all-inclusive, and not an inwardly-directed element of the curriculum.

Be well, and stay informed.



Gary M. Pollack
Dean
Washington State University College of Pharmacy

A focus on competency

Carrying innovations in education forward into health care practice



Dr. Jennifer Robinson

Jennifer Robinson is passionate about her students. As an assistant dean for recruitment and student success at the WSU College of Pharmacy, part of her job is to ensure that as WSU pharmacists go out into the professional world and seek residencies to further specialize and build their skills, those opportunities are ready for them.

A post-graduate pharmacy residency is much like a medical residency. Freshly minted Doctors of Pharmacy apply to and complete residency programs to gain deeper expertise, knowledge and patient care experience in one of many specialty areas, such as oncology pharmacy, pediatrics or infectious diseases.

Robinson is currently working with a colleague from the Northeast Ohio Medical University (NEOMU) in order to address a potential hurdle for pharmacy graduates

looking to apply for residency programs.

In the fall of 2013, the WSU College of Pharmacy made the shift to a competency-based grading model, in which students receive a designation of honors, satisfactory or fail (HSF), instead of the traditional letter grade (GPA). The College of Pharmacy has experienced resounding success with this grading model in the three years since the transition. Retention rates have increased, along with student satisfaction and achievement. In some cases, student stress has even been reduced. However, a challenge the new grading system may now face will be after graduation when Cougar pharmacists apply to post-graduate residency programs.

The problem with GPA as a benchmark

The majority of pharmacy residency programs rely on traditional application processes to select new residents each year. This legacy system uses traditional application screening methods, and many programs require applicants to provide their GPA on applications. Many programs even use GPA as a first-level screening metric, automatically rejecting any applicant who do not meet a program's "benchmark" for academic achievement. But what happens if an applicant's grade was "Honors" as opposed to "4.0"?

According to Robinson, it is time to expand the metrics used to determine residency placement.

"Using only GPA as an initial screening metric effectively excludes any applicant who graduated from a program that does not use a GPA grading model," she said.

Robinson is advocating that residency programs focus on the skillsets needed to be a successful health care provider, rather than using an increasingly arbitrary number to screen applicants.

"Because of the variations in how programs calculate GPA, it is not a good indicator of knowledge and skills," she said.

But how do you measure soft skills? Being able to work in teams, empathize, exercise clinical decision making skills, and being culturally sensitive can be tricky things to quantify.

"The key is finding common indicators across all programs that can be used to measure these skillsets," said Robinson. "Is there a better way to assess these elements? I think so."

Timothy Ulbrich, associate professor and associate dean for workforce development and practice advancement at the NEOMU College of Pharmacy, is working with Robinson to publish a paper addressing the question of GPA as an appropriate measure of a residency candidate's knowledge and skills. Their objective is to provide the evidence that it is not.

To best serve WSU pharmacy graduates, the important objective for Robinson is to get the word out. Her goal is to increase the awareness of the college's switch from GPA based grades to the HSF model.

"I want to even the playing field," said Robinson. "We need to figure out a way to fairly evaluate all students using similar metrics, regardless if they come from a GPA or non-GPA system."

Getting the word out

To get this information into the right hands, Robinson started at the American Society of Health-Systems Pharmacists (ASHP) midyear meeting, a conference where residency programs have the opportunity to interact with student pharmacists interested in applying to residencies. She talked to directors of post-graduate residency programs and preceptors, the pharmacists certified to teach and mentor pharmacy residents.

“I spoke to them regarding the ‘no GPA’ dilemma, why we don’t have a GPA, and how they can avoid screening out our graduates as they apply for residencies,” she said.

For the next step, Robinson and Ulbrich will present at the National Pharmacy Preceptors Conference this August in Washington, D.C., an event put on annually by the ASHP. Robinson sought out this conference because it brings together the specific leaders in pharmacy who influence residency programs across the country.

“We’re at the cutting edge of pharmacy education and presenting what we’re doing to these academic influencers will allow for them to go back and make adjustments in their residency programs so they are ready to evaluate student pharmacists who come from programs like ours,” she said.

“We have sections of our presentation where we ask for feedback from the audience. I’m really excited to hear what they will say,” said Robinson. “We will be essentially running a small focus group on how to message ‘No GPA’ going forward.”

The WSU College of Pharmacy has a longstanding legacy of developing outstanding health care professionals. Robinson’s collaborative effort to increase access to health education and innovations in curricular delivery and assessment at the WSU College of Pharmacy supports the university’s land-grant mission to address some of society’s most complex issues, specifically WSU’s efforts surrounding advancing [Opportunity and Equity](#), and [Improving Education](#).



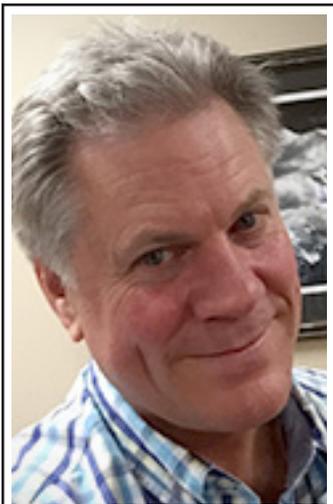
Statin drugs reduce infection risk in stroke patients

WSU faculty, alumni collaborate to uncover insight on population health trend

By Eric Sorensen, WSU science writer

A Washington State University researcher has found that statin drugs can dramatically lower the risk of infections in stroke patients.

Doug Weeks, an adjunct professor in the Elson S. Floyd College of Medicine and director of research at St. Luke’s Rehabilitation Institute, analyzed the records of more than 1,600 hospitalized patients who suffered an ischemic stroke and found statins reduced the risk of infection by 58 percent. Ischemic strokes are due to blockage of a vessel that supplies blood to the brain.



Dr. Doug Weeks

His findings appear online this month in the [Journal of Stroke and Cerebrovascular Diseases](#).

“If patients had statins before there was evidence of an infection, there was a reduced risk that they would actually develop an infection,” said Weeks.

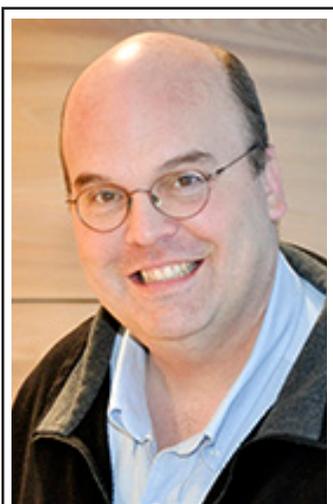
Statins are typically used to lower cholesterol levels to reduce the risk of cardiovascular disease. But in the past decade, said Weeks, researchers have noticed that they also have anti-inflammatory properties in humans that can benefit the body’s response to infection.

He analyzed data of hospitalized stroke patients and saw that those on statins upon admission or early in their stay had significantly lower risk for developing infections than those put on statins later in their hospitalization or not at all.

Weeks controlled for other possible influences like the severity of strokes, age and the presence of other conditions like diabetes.

He and his colleagues also noticed that the timing of the drug was a major factor.

“The administration of statins relative to infection is critically important,” he said. “We’ve been able to establish that if statins are given early, before infection can occur, the risk of infection is substantially reduced. However, this relationship needs to be tested in more rigorous placebo-controlled studies to see if this benefit with statins is maintained.”



Christopher Greer, '91



Dr. Megan Willson

Estimates vary, but one-third to almost one-half of stroke patients develop infections, he said. The infections could be introduced through tubes or catheters. There are also indications that stroke subdues the body’s immune system, making a patient more prone to infection.

Weeks’ coauthors are Christopher Greer, pharmacy manager at St. Luke’s and adjunct faculty in WSU’s Department of Pharmacotherapy, and Megan Willson, a pharmacist at Providence Sacred Heart Medical Center and a WSU clinical associate professor of pharmacotherapy.

Their work is in keeping with WSU’s Grand Challenges, a suite of research initiatives aimed at large societal issues. It is particularly relevant to the challenge of [Sustaining Health](#) and its theme of changing the course of disease.



Research collaboration lands \$10M from NIH

New center to study natural product-drug interactions

By Judith Van Dongen, WSU Health Sciences Spokane



Dr. Mary Paine

A collaboration of researchers at WSU, the University of Washington, and the University of North Carolina at Greensboro is leading a project to advance scientific knowledge on potential interactions between natural products and commonly used drugs. The multidisciplinary team has been awarded a five-year, \$10 million grant from NIH's National Center for Complementary and Integrative Health to establish a Center of Excellence on Natural Product-Drug Interactions Research.

Because natural products, such as green tea and St. John's wort, aren't regulated like drugs, pharmaceutical companies are not required to look at them to see whether they might interact negatively with new or existing drugs. So researchers like Mary Paine, an associate professor in the WSU College of Pharmacy, have taken up the cause, which is complicated by the variable chemical makeup of natural products.

"When we study drugs, we know exactly what is in each tablet or capsule, but that's not always the case with natural products," Paine said. "This makes it challenging to compare research data between different labs."

Paine co-leads the project with University of Washington colleague Danny Shen. Key goals for the new center include establishing best practices for studying natural product-drug interactions, identifying existing gaps in knowledge, and selecting and investigating four to six natural products that may interact with conventional medications. With help from WSU's Murrow College of Communication, they will also develop an online database to disseminate findings to other researchers, health care providers, and the public.



Other College News

FACULTY SCHOLARSHIP

Publications

- Pharmacotherapy Professor and Associate Dean for External Professional and Continuing Education **Danial E. Baker** published, "Zika virus and the media," in the independent, peer-reviewed journal *Hospital Pharmacy* (2016;51(4):275-276).
- **Danial Baker** and one co-author published, "Patiromer," in *Hospital Pharmacy* (2016;51(4):328-336).
- **Danial Baker** and one co-author published, "Mepolizumab," in *Hospital Pharmacy* (2016;51(5):405-414).
- Pharmacotherapy Clinical Professor **Terri L. Levien** and **Danial Baker** published, "Drug evaluation: trabectedin (Yondelis)," in Wolters Kluwer Health's *The Formulary Monograph Service (FMS)* in March 2016. Wolters Kluwer Health is a drug and health information publisher, the FMS is a resource used in

the formulary decision making process for hospitals and managed care systems on recently released and investigational drugs.

- **Danial Baker** and one co-author published, “Drug evaluation: talimogene laherparepvec (Imlygic),” in the FMS in March 2016.
- **Danial Baker** and one co-author published, “Drug evaluation: asfotase alfa (Strensiq),” in the FMS in March 2016.
- **Terri Levien, Danial Baker** and one co-author published, “Drug evaluation: necitumumab (Portrazza),” in the FMS in March 2016.
- **Danial Baker, Terri Levien** and one co-author published, “Drug evaluation: osimertinib (Tagrisso),” in the FMS in March 2016.
- **Danial Baker** published, “Drug utilization evaluation: patiromer (Veltassa),” in the FMS in March 2016.
- **Danial Baker** and two co-authors published, “Drug evaluation: uridine triacetate (Vistogard),” in the FMS in April 2016.
- **Danial Baker** and one co-author published, “Drug evaluation: von Willebrand factor (Recombinant) (Vonvendi),” in the FMS in April 2016.
- Pharmacotherapy Clinical Assistant Professor **Anne P. Kim** and **Danial Baker** published, “Drug evaluation: elotuzumab (Empliciti),” in the FMS in April 2016.
- **Anne Kim** and **Danial Baker** published, “Drug evaluation: daratumumab (Darzalex),” in the FMS in April 2016.
- **Anne Kim** and **Danial Baker** published, “Drug evaluation: ixazomib (Ninlaro),” in the FMS in April 2016.
- **Danial Baker** published, “Drug utilization evaluation: lesinurad (Zurampic),” in the FMS in April 2016.
- **Danial Baker** and one co-author published, “Drug evaluation: selelipase alfa (Kanuma),” in the FMS in May 2016.
- Pharmacotherapy Research Associate in Drug Information **Zaynah Ali** and **Danial Baker** published, “Drug evaluation: selexipag (Uptravi),” in the FMS in May 2016.
- **Anne Kim** and **Danial Baker** published, “Drug evaluation: lesinurad (Zurampic),” in the FMS in May 2016.
- **Terri Levien** and **Danial Baker** published, “Drug evaluation: sugammadex (Bridion),” in the FMS in May 2016.
- **Danial Baker** and one co-author published, “Drug evaluation: alectinib (Alecensa),” in the FMS in May 2016.
- **Danial Baker** published, “Drug utilization evaluation: sugammadex (Bridion),” in the FMS in May 2016.
- Pharmaceutical Sciences Professor and Associate Dean for Graduate Education **Kathryn E. Meier** co-authored with two others, “Positive and negative cross-talk between lysophosphatidic acid receptor 1, free fatty acid receptor 4, and epidermal growth factor receptor in human prostate cancer cells,” published as a Fast Forward article in the Journal of Pharmacology and Experimental Therapeutics (JPET), the leading research journal of The American Society for Pharmacology and Experimental Therapeutics (ASPET). Article available online July 29, 2016. [read abstract](#)
- Pharmaceutical Sciences Associate Research Professor **Gang Chen**, Pharmaceutical Sciences Associate in Research **Christy Watson** (Lazarus lab), Boeing Distinguished Professor and Pharmaceutical Sciences Chair **Philip Lazarus**, and three co-authors published, “Regulation of UGT2B expression and activity by miR-216b in liver cancer cell lines,” as a Fast Forward article in JPET, available online July 29, 2016. [read abstract](#)

Presentations

- The U.S. Transuranium and Uranium Registries (USTUR) hosted the special session, “Five decade follow-up of plutonium and uranium workers,” at the 61st Annual Health Physics Society Meeting in Spokane, Washington, July 17-21, 2016. USTUR staff also conducted four podium presentations, and co-presented five podium presentations.
- **Anne Kim, Terri Levine, Danial Baker**, and one other presented the poster, “Utilizing an electronic drug information request database to reduce the time to response,” at the American Society of Health-System Pharmacists (ASHP) Midyear Clinical Meeting and Exhibition in New Orleans, Louisiana.
- Pharmacotherapy Professor and Department Chair **John R. White, Jr.** delivered the PowerPak web-based continuing education program, “Focus on the individual target: initiating and optimizing insulin therapy for Type 2 diabetes in the long-term care setting – Case 1,” provided by the University of Tennessee College of Pharmacy and ASiM. [access the course online](#)
- Pharmacotherapy Associate Professor **Joshua J. Neumiller** delivered the American Association of Diabetes Educators (AADE) live webinar, “Optimizing patient care, conversations, and adherence: 2016 diabetes medications update,” on July 8, 2016.
- **Joshua Neumiller** presented, “Diabetes update 2016,” at the 2016 Northwest Pharmacy Convention in Coeur d’Alene, Idaho, on June 3, 2016.
- **Joshua Neumiller** delivered the PowerPak web-based continuing education program, “Appropriate use of basal insulin,” provided by Postgraduate Healthcare Education, LLC. [access the course online](#)
- Pharmacotherapy Assistant Director of Experiential Services **Luke Rice** and Pharmacotherapy Clinical Assistant Professor **Shannon Panther** co-presented, “Millennials,” at the WSPA Northwest Pharmacy Convention in, Coeur d’Alene, Idaho, on June 4, 2016.

Grants

- Experimental & Systems Pharmacology Associate Professor **Susan A. Marsh** received \$10,000 from the American Physiological Society over the next one and one-half years for the project titled, “Exercise Rx for student pharmacists.”
- Experimental & Systems Pharmacology Clinical Professor **Jean-Baptiste Rouillet** received a \$40,000 grant over the next year from the National Institutes of Health for the project titled, “2016 International Conference on Plant Sterols, Health & Diseases.”
- **Shannon Panther** received a \$7,050 grant over the next five months from the Community Pharmacy Foundation for the project titled, “Fostering pharmacy leadership towards achieving the IHI Triple Aim Goals.”

Awards

- **Kathryn Meier** has been selected as one of INSIGHT Into Diversity magazine’s Inspiring Women in STEM for 2016. She will be featured in the August issue of the INSIGHT Into Diversity magazine.

STUDENT ACHIEVEMENT

Doctor of Philosophy (Ph.D.) students

- **Mandi Hopkins** with faculty co-author **Kathryn Meier** and one other published, “Positive and negative

cross-talk between lysophosphatidic acid receptor 1, free fatty acid receptor 4, and epidermal growth factor receptor in human prostate cancer cells,” as a Fast Forward article in JPET, available online July 29, 2016. [read abstract](#)

- **Aimee Bell-Sutliff** with faculty co-authors **Gang Chen, Christy Watson, Philip Lazarus**, and two others, published, “Regulation of UGT2B expression and activity by miR-216b in liver cancer cell lines,” as a Fast Forward article in JPET, available online July 29, 2016. [read abstract](#)

Doctor of Pharmacy (Pharm.D.) students

- **James Leonard** with faculty co-author Danial Baker published, “Drug evaluation: Talimogene laherparepvec (Imlygic),” in the FMS in March 2016.

Coming Events

- August 12, 2016 | WSU College of Pharmacy Research Day
The College of Pharmacy will once again host a Research Day at WSU Health Sciences in Spokane, Washington. The event will include postdoctoral talks, poster presentations and a career panel.



College of Pharmacy

P.O. Box 1495, Spokane, WA 99210-1495 | www.pharmacy.wsu.edu