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FACULTY SCHOLARSHIP

A MESSAGE FROM GARY M. POLLACK



May 2017

Dear Friends and Colleagues:

It's May already. I know this because (a) we no longer have snow in our pasture and (b) the Chicago Cubs have been playing meaningful games (and looking more like their former selves as opposed to World Series champions) for a month. I never thought I would write "Chicago Cubs" and "World Series champions" in the same sentence...makes me feel a bit like John Candy in what was undoubtedly his finest movie role.

May is, of course, when our fourth-year pharmacy students cease being students and become professionals in their own right. For a variety of reasons, which include but are not limited to more flexibility in their schedules and easier access to parking, faculty often identify commencement as being the best day of the academic year. It is a privilege and pleasure to present our graduating class, and to help our newest alumni to celebrate their accomplishments with family and friends. It is truly an uplifting experience, and our staff and faculty work extremely hard to make this a very special occasion. My thanks, in advance, to all.

This year's commencement is particularly meaningful for our Doctor of Pharmacy program in that it marks the first cohort of graduates who will have completed their program of study in a completely competency-based format. I have commented previously on the profound positive effects this approach has had on the culture of our program and the progression of our students toward their degree. Graduation, however, is where "the rubber meets the road." Over the next several years we will have the opportunity to see how this fine group of individuals will progress through the professional ranks, and how they will begin to change the landscape of health care delivery in Washington state and beyond. I am confident that they will make us just as proud of them as alumni as we have been of them as students.

Best wishes to all for a joyous commencement season,

A handwritten signature in black ink that reads "Gary".

Gary M. Pollack
Dean, College of Pharmacy
Washington State University

UPCOMING EVENTS

MAY

4

Commencement
The FOX, Spokane
1:00 p.m.
[View details](#)

MAY

11

CougaRx Reception
Columbia Tower Club
Seattle, 5:00 p.m.
[RSVP](#)

JUNE

3

CougaRx Nation & Mentor Reception
NW Pharmacy Convention
[RSVP](#)

JUNE

13

TIPed Institute
WSU Spokane
June 13- 15
[View details](#)

[More college events »](#)

COLLEGE NEWS



Mechanism triggers spread of prostate cancer to bones

By Eric Sorensen, WSU science writer

SPOKANE, Wash. – A Washington State University researcher has found a way that prostate cancer cells hijack the body’s bone maintenance, facilitating the spread of bone cancers present in some 90 percent of prostate-cancer fatalities.

Working with colleagues at the Cedars-Sinai Medical Center and elsewhere, Jason Wu found that the process appears to respond to the same drugs found in certain antidepressants. The findings appear in the journal *Cancer Cell* ([http://www.cell.com/cancer-cell/fulltext/S1535-6108\(17\)30046-6](http://www.cell.com/cancer-cell/fulltext/S1535-6108(17)30046-6)).

“Our findings provide a rationale to pursue the new use of these ‘old’ antidepressant drugs to benefit late-stage prostate cancer patients with signs and symptoms of metastasis,” said Wu, an assistant professor of pharmacy at WSU Spokane.

Enzyme activates bone degradation

Introducing human prostate cancer cell lines into mice, Wu and his colleagues saw a particular enzyme called MAOA activate a cascade of signals that made it easier for tumor cells to invade and grow in bone. Ordinarily, bone is built up by cells called osteoblasts and reabsorbed during growth and healing by cells called osteoclasts. But the MAOA enzyme triggers three proteins that enhance the function of the destructive osteoclasts.

“The cancer cells can specifically activate the osteoclasts for bone degradation,” Wu said. “The experimental phenomenon we’ve observed is actually a lot more bone destruction than new bone formation.”

The researchers used several human cancer lines in the mice with consistent results, he said.

“When we reduced this enzyme expression in prostate cancer cells, we found a lower prostate cancer bone metastasis,” he said. “On the other hand, if we overexpress this enzyme in prostate cancer cells, we found increased bone metastasis in mice.”

Antidepressant drug inhibits enzyme

The researchers used a drug called clorgyline to inhibit the activity of the MAOA enzyme; the drug disrupted the signaling system that led to cancer cell invasion and proliferation. Similar drugs are used clinically as antidepressants, the authors write, and their effects on tumors in clinical settings are being investigated.

“To be sure, there have been no clinical studies reporting a lower risk of prostate cancer in people taking antidepressants,” said Wu. “Our studies provide promising results in mice that merit further investigation – such as adjusting the formulation, dose and delivery route of MAOA inhibitors – prior to ultimate clinical application.”

The research is in keeping with WSU’s Grand Challenges, major initiatives aimed at large societal problems. It is particularly relevant to the Sustaining Health challenge and its theme of changing the course of disease.

Funders of the research include the National Institutes of Health/National Cancer Institute, the Steven Spielberg Fund in Prostate Cancer Research and the U.S. Department of Defense Prostate Cancer Research Program.



New program at College of Pharmacy aimed at faculty to increase interprofessional opportunities for students

The delivery of health care is evolving to become more collaborative, high tech and patient-centered. It needs to in order to meet the needs of an aging baby boom population, provide access to care in rural areas and in underserved populations, and to keep up with a new generation of highly connected and mobile patients.

“Our philosophy is that really high quality health care is delivered as teams. The time to get pharmacists and nurses and physicians talking to each other is really when they are students,” says Gary Pollack, dean of the Washington State University College of Pharmacy.

The WSU pharmacy program is doing just that. The college has completely changed the way it approaches professional education for its Doctor of Pharmacy program, and part of this shift in instructional philosophy is the commitment to integrating interprofessional learning into its curriculum.

“I have always been interested in interprofessional education, so this new program opportunity was perfect,” said Anne Kim, clinical assistant professor for the WSU College of Pharmacy.

Kim is part of a team that is developing an interprofessional faculty development program called Success with Interprofessional Practice and Education, or “SWIPE”.

The SWIPE program will provide regular programming for educators who teach in health sciences programs. The goal is to improve health care delivery through teaching team-based care. Providing resources and tools to instructors through the SWIPE program will allow them to better teach students how to be interprofessional and how to work together as professionals, resulting in healthier communities.

“Our training events are aimed at getting faculty from different institutions to come and work together and see the value of interprofessional education so they can incorporate interprofessional elements into their own courses,” says Kim.

The first SWIPE workshop is tentatively set for this summer, and will run quarterly. Their aim is to make the program accessible to both faculty and community preceptors from different professions.

Teamwork makes the dream work

Kim is just one of the faculty at the WSU College of Pharmacy who is a member of the Yakima Valley Interprofessional Practice and Education Collaborative (YVIPEC) Faculty Development Committee. YVIPEC is a collaborative of higher education institutions in the Yakima area dedicated to promoting high quality health care through interprofessional education, scholarship and practice. Institutions currently participating in YVIPEC include Heritage University, PNWU, Central Washington University, and WSU.

“Right now from WSU, the Colleges of Nursing and Pharmacy are both participating. I am looking forward to the WSU College of Medicine joining us soon,” said Kim.

The SWIPE program will be a part of the group’s regular practice and educational events. In the spirit of its inclusive and collaborative culture, SWIPE events will travel to different sites to be more accessible to each of the YVIPEC institutions.

The YVIPEC Faculty Development Committee leads discussions on how the group can increase faculty buy-in to not only teach interprofessionally, but to model it.

“It is important for faculty to model interprofessional collaboration because this is how these professional students are going to practice once they graduate,” said Kim.

This is an example of how the WSU Doctor of Pharmacy program is developing practice-ready graduates who will lead tomorrow’s health care solutions, and how the Doctor of Pharmacy program extension in Yakima is leading the college’s drive for innovation and transformation in pharmacy education.

Building for transformation in health care

As part of developing the SWIPE program, Kim attended a “Train-the-Trainer” (T3) faculty development program specifically focused on interprofessional education and faculty development for educators from the National Center for Interprofessional Practice and Education this past January.

“The T3 workshop was an intense four days of teamwork, project development, and feedback on how to successfully implement our project. It was a really great experience,” said Kim. “Our team had participants from four institutions, representing seven professions.”

Kim plans to roll out the SWIPE program with the introductory event this summer for the deans, chairs and provosts of the YVIPEC institutions. “This is to give them an opportunity to experience our program, understand the benefits, and then encourage the faculty from their own programs to participate,” she said. The quarterly programming for faculty and preceptors will then begin in the fall.

“I have already integrated some of what I learned at T3 into my class and I love it. I am looking forward to seeing the interprofessional faculty interaction at future SWIPE events,” said Kim.



College of Pharmacy says thank you, celebrates students, alumni and donors

The Washington State University College of Pharmacy celebrated with alumni and donors at its annual spring recognition event, Friday, April 21, on the WSU Health Sciences campus in Spokane, Washington.

The event, called Celebrating Generosity, is hosted by the college every spring to celebrate and say “thank you” to its alumni and donors who have made significant contributions to the college in the past year, and to present the college’s annual awards. This year, the college hosted a special continuing education presentation for pharmacy alumni in the afternoon. The presentation showcased the college’s recent work with Albertsons Companies and the state of Idaho to provide certification training to pharmacy technicians to deliver immunizations in Idaho. ([read more on this here](#))

College benefactors along with new endowment funds established within the last year were recognized, including Robert and Judi Higgins who are the college’s newest benefactors. The Higgins family has two

scholarship endowments with the college, the Nelson L. Higgins Memorial Scholarship and the Barbara Higgins Memorial Scholarship.

Individual and corporate support has allowed the college to award over \$350,000 in student scholarships for the 2016-17 academic year. Private support provides for more than just scholarships. Student travel grants, the alumni-student mentor program, and the Preparing for Your Career in Pharmacy seminar series are examples of how the college brings alumni, innovators, entrepreneurs, and community partners together to prepare practice-ready graduates who will lead tomorrow's health care solutions.

WSU College of Pharmacy awards presented during the evening included:

WSU Pharmacy Students of the Year:

These awards are selected by the faculty and recognize a student from each class-year who has shown a commitment to academic performance, leadership, scholarship, service, and professionalism.

- Zachary Miller (Yakima) and Joanna Gourley (Spokane), class of 2020
- Meredith Matsen (Yakima) and Boris Zhang (Spokane), class of 2019
- Kathryn Rand, class of 2018

WSU Pharmacy Teachers of the Year:

These awards are based on nominations provided by the students in each class year and recognize outstanding teachers that demonstrate excellence, innovation, and effectiveness in teaching; and who contribute to fulfilling the college's student-oriented mission.

- PY1 – Damianne Brand-Eubanks, Pharm.D.
- PY2 – Brenda Bray, MPH, Pharm.D. and Anne Kim, Pharm.D., MPH, MIT
- PY3 – Joshua Neumiller, Pharm.D.
- Graduate program: Shobhan Gaddameedhi, Ph.D.
- Trainee of the Year: Yili Zhong, Ph.D.
- Teaching Assistant: Madalyn Brown

National awards presented during the event included:

- U.S. Public Health Service "Excellence in Public Health" Pharmacy Award: Vincent Quach, class of 2018
- National Community Pharmacists Association (NCPA) Student of the Year: Lauren Pollock, class of 2018

Earlier this month, the college hosted a smaller Celebrating Generosity reception specifically for the alumni and community partners in Yakima, Washington, to recognize the contributions of those who have made the Doctor of Pharmacy program extension there so successful.

Both events were made possible by support from Walgreens. Corporate partners at the Spokane Teacher's Credit Union, Boeing Employee Credit Union, Fred Meyer, Rite Aid, Rosauers, and QFC were recognized along with community partners at the Washington State Pharmacy Foundation, Spokane Pharmacy Association, Danial and Susan Baker, Jacquie Ewell, Frank and Monica Cholaj, David Bell, John Oftebro, Gerald Danquist, the College of Pharmacy Class of 1965, and the alumni volunteers who make up the Dean's Advisory Council and the WSU pharmacy alumni community CougaRx Nation board.

A MESSAGE FROM LINDA GARRELT'S MACLEAN



Dear Alums, Colleagues and Friends of Pharmacy,

As the landscape of medicine moves toward personalization with genome mapping and Nano-drug targeting, our profession faces some big changes in the not-so-distance future. In order for the profession of pharmacy to capitalize on these future opportunities, students preparing to be pharmacists must be open to change. In fact, the pharmacists practicing today must be open to change. Within pharmacy, health care delivery, and the student experience: it is all about change.

At WSU we have made a concentrated effort to innovate the way we educate our students in order to develop outstanding health care professionals and scientists who will lead tomorrow's health care solutions. The format of our classrooms and how we assess student success are changing to keep pace with the evolution of the team-based, patient-centered health care environment that is emerging.

One of the elements of our pharmacy educational model that we absolutely could not be successful without is our outstanding network of pharmacy preceptors who teach our students in experiential settings. They are the innovators who lead our student pharmacists to think differently about patient care. It is easy for me to provide examples: Josh Akers with Kelley-Ross and Erik Nelson the owner of Sixth Avenue Pharmacy are role models for advancing community practice, Chris Greer with St. Luke's Rehabilitation challenges student pharmacists to consider all options for improving a patient's outcome, and Nick Eckert with Virginia Mason Memorial in Yakima who works with our students in the new primary care model being piloted in their clinic.

Our preceptors are agents of change for the pharmacy profession and they inspire this quality in our student pharmacists. So this month, as we send the newest generation of pharmacy graduates into the profession, I want to say thank you to all our WSU pharmacy preceptors who helped us develop this class of truly outstanding health care providers!

With Cougar Pride,

A handwritten signature in cursive script that reads "L Garrelts MacLean".

Linda Garrelts MacLean, BPharm, RPh
Vice Dean of External Relations
Clinical Professor

ALUMNI NEWS



STUDENT NEWS

Karl Nacalaban, class of 2018, is wrapping up his year at the helm of the Associated Students of Washington State University Spokane (ASWSUS). [Read more »](#)



SERVICE

Our student pharmacists volunteered with the group Blessings Under The Bridge this March to gain experience through service to the community. [Read more »](#)



HONOR

Pharmaceutical sciences doctoral student, Kari Ann Gaither, received the Karen P. DePauw Leadership Award from the WSU Association for Faculty Women. [Read more »](#)

ALUMNI UPDATES

- **Heidi Medford**, Ph.D. graduate class of 2015, has been hired by the WSU Office of Commercialization in Spokane and was recently featured by the Spokane Journal of Business. [View article »](#)
- **Vicky (Choi) Ristau**, class of 2013, checked in with us recently from Long Beach. Vicky and **Ryan Ristau**, class of 2014, were married last November. She is a community pharmacist at Rite Aid and he is a clinical pharmacist at VA Long Beach.
- **Michelle Hatchett**, class of 2015, is living in Colorado Springs and working at Compass Pharmacy, a closed-door pharmacy that provides medications to long-term care facilities. Michelle and her husband, who teaches physics at University of Colorado Denver, have a six-month-old son named Kepler. [View photo »](#)
- **Bob Chase**, class of 1966, is enjoying retirement in South Cle Elum. He recently donated an antique book of scriptures that sits on a mahogany and oak book cradle that he handmade in his woodworking shop. This beautiful item is now on display at the College of Pharmacy—thank you Bob!
- **David E. Bell**, class of 1976, is coming out of retirement to return to work at Madigan Army Medical Center, due to staffing shortages. Bell serves on the WSU College of Pharmacy Dean's Advisory Council and has named the Bell-Schleif Conference Room in the Pharmaceutical and Biomedical Sciences Building with WSU pharmacy alumni Ron '76 and Carol '79 Schleif. Bell also funded the Die Apotheke Scholarship in Pharmacy endowment at the College of Pharmacy.
- **Nick Bruck**, class of 2004, was honored earlier this month by the Inland-Northwest-Service-Learning-Partnership with their annual "Impact Award" for his significant contributions to the [coordinated response to the Mumps outbreak in Spokane](#) this past winter. Great job Nick!

Want to be listed in our alumni updates? Send us your career information or let us know what you've been up to!
gocougs@pharmacy.wsu.edu

FACULTY SCHOLARSHIP

Publications

- Pharmaceutical Sciences Assistant Professor **Travis T. Denton** and five co-authors published, “Reductions in the mitochondrial enzyme α -ketoglutarate dehydrogenase complex in neurodegenerative disease - beneficial or detrimental?” in *The Journal of Neurochemistry*, a peer-reviewed journal from the International Society for Neurochemistry. (online August 31, 2016, DOI: 10.1111/jnc.13836)
- Pharmacotherapy Professor and Chair **John R. White, Jr.**, published the section, “Titratable fixed-ratio combinations in Type 2 diabetes mellitus: focus on GLP-1R agonists combined with basal insulin,” in *Hot Topics in Primary Care*, a special peer-reviewed supplement to *The Journal of Family Practice* in April 2017.

Presentations

- **Travis Denton** presented the poster titled, “Phosphonate analogues of lanthionine ketimine as potential therapies of autophagy-related pathologies,” at the American Society for Neurochemistry Annual Meeting in Little Rock, Arkansas.

Grants

- Pharmacotherapy Professor **K. Michael Gibson** was awarded \$1,581,766 over four years from the National Eye Institute, part of the National Institutes of Health, for the project, “Rapalog therapy in heritable and vigabatrin-induced GABA metabolic disorders.”

Awards

- Pharmacotherapy Clinical Assistant Professor (Yakima) **Damianne Brand-Eubanks** was voted 2016-17 Teacher of the Year by College of Pharmacy first-year student pharmacists.
- Pharmacotherapy Clinical Assistant Professor (Yakima) **Anne Kim** was voted 2016-17 Teacher of the Year by the College of Pharmacy second-year student pharmacists at the Yakima extension.
- Pharmacotherapy Clinical Assistant Professor and Assistant Dean for Assessment and Accreditation **Brenda S. Bray** was voted 2016-17 Teacher of the Year by College of Pharmacy second-year student pharmacists.
- Pharmacotherapy Associate Professor and Director of Experiential Services **Joshua J. Neumiller** was voted 2016-17 Teacher of the Year by College of Pharmacy third-year student pharmacists.
- Pharmaceutical Sciences Assistant Professor **Shobhan Gaddameedhi** was voted 2016-17 Teacher of the Year for the College of Pharmacy graduate program.
- Pharmacotherapy Postdoctoral Research Associate (Yakima) **Yili Zhong** was selected as the 2016-17 Trainee of the Year for the College of Pharmacy.
- Pharmacotherapy Clinical Assistant Professor **Kimberly McKeirnan** received a Laboratory Innovation and Teaching Excellence (LITE) Award honorable mention by the American Association of Colleges of Pharmacy’s Lab SIG based on her implementation of Tuberculin Skin Test (TST) training into the WSU College of Pharmacy Applied Patient Care skills lab. McKeirnan has been invited to present on her work incorporating TST training into her lab at the AACP Annual Meeting in July.

STUDENT ACHIEVEMENT

Doctor of Philosophy (Ph.D.) students

- **Kari Gaither** (Liu Lab, pharmaceutical sciences) received travel awards of \$500 each from the WSU Graduate School, Associated Students of WSU Spokane, and the College of Pharmacy to present the poster, “MicroRNA mediated regulation of ATF5 contributes to homeostasis and benign to malignant transformation in breast cancer cells,” at the 2017 American Association of Cancer Research (AACR) Annual Meeting on April 1-5 in Washington, D.C.
- **Madalyn Brown** (Gibson lab, pharmaceutical sciences) was voted 2016-17 Teaching Assistant of the Year by College of Pharmacy student pharmacists.
- **Madalyn Brown** presented as part of the WSU College of Pharmacy Graduate Research Seminar Series on April 7, 2017.
- **Shamema Nasrin** (Lazarus lab, pharmaceutical sciences) presented as part of the WSU College of Pharmacy Graduate Research Seminar Series on April 14, 2017.
- **Tarana Arman** (Clarke lab, pharmaceutical sciences) presented as part of the WSU College of Pharmacy Graduate

Research Seminar Series on April 21, 2017.

- **Soumyadeep Sarkar** (Gaddameedhi lab, pharmaceutical sciences) presented as part of the WSU College of Pharmacy Graduate Research Seminar Series on April 28, 2017.

Doctor of Pharmacy (Pharm.D.) students

- The College of Pharmacy APhA student organization, in collaboration with SNPhA and Walgreens, received the Outstanding Service Award as part of the 2017 [Students Serving Washington Awards](#). This award includes \$7,500 to fund future service projects that address critical issues in the state of Washington. [Read more »](#)
- The WSU Professional Pharmacy Student Organization (PPSO) received a 2017 President's LEAD Award, an honor bestowed annually to students and others who advance leadership and engagement at WSU and beyond.
- **James Kent** received a 2017 President's LEAD Award.
- **Vincent Quach** received the U.S. Public Health Service "Excellence in Public Health" Pharmacy Award.
- **Lauren Pollock** received a 2017 NCPA Outstanding Student Member Award.
- **Joanna Gourley** was selected as the WSU College of Pharmacy Student of the Year for the class of 2020 in Spokane.
- **Zachary Miller** was selected as the WSU College of Pharmacy Student of the Year for the class of 2020 in Yakima.
- **Boris Zhang** was selected as the WSU College of Pharmacy Student of the Year for the class of 2019 in Spokane.
- **Meredith Matsen** was selected as the WSU College of Pharmacy Student of the Year for the class of 2019 in Yakima.
- **Kathryn Rand** was selected as the WSU College of Pharmacy Student of the Year for the class of 2018.
- **Yongmin Ko** won the WSU APhA-ASP local Patient Counseling Competition. Yongmin represented WSU at the national competition at the APhA Annual Meeting in March.
- **Courtney Mayo** was selected by her peers to speak at the 2017 Commencement Ceremony on Thursday, May 4, 2017.

Correction

- The date and time for the College of Pharmacy commencement ceremony was incorrectly stated in our April 2017 issue. The ceremony will take place at 1:00 p.m. Thursday, May 4.