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A MESSAGE FROM GARY M. POLLACK



November 2018

Dear Friends and Colleagues:

With Halloween in the rearview mirror, we are looking forward to Election Day (please take the time to vote, as it is intrinsic to government of, by, and for the people). November 6 also is important to us for another reason: we will be hosting President Kirk Schulz and Provost Dan Bernardo for the annual town hall meeting.

This event provides an important opportunity for our students, staff and faculty to hear directly from the university's leadership. Given the geographic separation of the Health Sciences campus from the Pullman campus, the town hall meetings for the Spokane-based colleges are perhaps of special importance and we very much appreciate the time and effort the president and provost invest in communicating their perspectives and priorities directly to our community.

A likely focal point for the town hall meeting will be WSU's goal of becoming one of the nation's top 25 public research universities by 2030 (the [Drive to 25](#) initiative), and how the College of Pharmacy and Pharmaceutical Sciences is contributing to that goal. Because we are a relatively small college (in context of the university as a whole), our quantitative contributions to D25 are correspondingly modest. However, the trajectory with which our college is contributing to university goals and priorities has been simply outstanding:

- We have had strong year-over-year increases in research expenditures and enrollment in our Ph.D. program.
- Our expansion of the Pharm.D. program resulted in CPPS accounting for an astonishing fraction (nearly 40%) of the doctoral degrees awarded by WSU in 2017.
- Our extension to Yakima addressed important issues with respect to diversity and outreach.
- Our educational initiatives have resulted in a demonstrably transformative experience for our students.
- Our faculty are increasingly productive as scholars.
- Our students and faculty are increasingly recognized for their excellence through external awards.

In short, CPPS is punching above its weight. The national reputation of our college and its programming is correspondingly improving. We continue to look to the future with optimism and excitement.

Wishing each of you a happy Thanksgiving as we slide towards the end of the fall semester.

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



UPCOMING EVENTS



Yakima Career Fair
November 6-8
Red Lion Hotel, Yakima



Spokane Career Fair
9:00 a.m. - 6:00 p.m.
CCRS, Spokane



CougaRx Holiday Party
5:00 p.m.
WSU Health Sciences
Spokane, Wash.



CougaRx at ASHP
4:30 - 6:00 p.m.
nFuse Bar & Kitchen
Anaheim Marriott, Cali.

[More college events >>](#)

COLLEGE NEWS

WSU student pharmacists win national competition

SPOKANE, Wash. – A team of Washington State University pharmacy students demonstrated their business acumen this month as they captured the championship title in the National Community Pharmacists Association’s 2018 Good Neighbor Pharmacy Pruitt-Schutte Student Business Plan Competition.

WSU’s College of Pharmacy and Pharmaceutical Sciences has a longstanding tradition for training practice-ready pharmacists



who are prepared to lead tomorrow's health care solutions. This was demonstrated on Oct. 6 when WSU student pharmacists Frank Nenninger, Chad Schmitt and Peter Tang presented their plan to leverage technology to meet niche health care needs in Washington state to the National Community Pharmacists Association (NCPA).

The trio competed at the NCPA Annual Convention in Boston and beat finalist teams from University of Missouri Kansas City and Ohio Northern University. Their first place prize includes \$3,000 to WSU's NCPA student chapter and \$3,000 contributed to the school in the dean's name to promote independent pharmacy. The team's members, advisor and dean also will receive complimentary registration, travel and lodging to NCPA's 2019 conference.

"It seemed like a good chance to push myself and learn something new," Schmitt said. "It was a great experience."

National and international beginnings

All three students are part of the WSU College of Pharmacy and Pharmaceutical Sciences class of 2020 based in Yakima, Washington. Peter Tang was born in Chongqing, China, and moved to Seattle in 2010. He completed his undergraduate coursework at the University of Washington. Chad Schmitt is from Kalamazoo, Michigan, and completed his undergraduate coursework at Western Michigan University. Frank Nenninger was born in Frankfurt, Germany, and moved to South Florida at the age of 10. He attended Florida State University before starting the pharmacy program at WSU.

"When I had my interview at WSU, I immediately loved the program. The culture of support and teamwork was pretty clear to see!" Nenninger said. "The business plan competition was a great experience. Peter knew that I was working on an MBA and asked me to join the team."

Nenninger completed his MBA at WSU through the college's Pharm.D./MBA program.

Merging innovative, old-fashioned strategies

Their business plan focuses on using both innovative and old-fashioned strategies to expand access to health services and specialty care in the Yakima Valley. Innovatively, the plan leverages technology to provide patients in rural and underserved areas access to self-service options online and through a mobile app for custom compounding, diabetes therapy management and education services. They plan to maintain trust and familiarity of their pharmacy name in the community through old-fashioned customer service and community engagement.

"Advancing patient care and supporting entrepreneurial aspirations have long been key areas of emphasis for our program. We are so proud to have such exemplary students representing both of these elements on a national stage," Linda Garrelts MacLean said. MacLean served as a WSU faculty advisor to the team.

Third title in 15 years

This is the third time in the 15-year history of the competition that WSU has come out on top, taking first place also in 2006 and 2011.

Providing these types of opportunities for students to engage with leaders in the profession and gain recognition nationally are examples of how the WSU College of Pharmacy and Pharmaceutical Sciences is dedicated to developing outstanding health care providers through a transformative academic experience. In at least 10 of the last 15 years, a team from WSU has placed in the top 10 or better, nationally.

The goal of the NCPA-sponsored program is to promote interest in independent community pharmacy ownership, which in Tang's case aligned well with his own professional motivations.

"My personal goal is to gain ownership without a question. I will use the experience that I learned from our business plan to prepare myself as an owner in the future," Tang said.

The 2018 competition drew participants from 34 schools and colleges of pharmacy across the U.S. and were judged by more than 50 NCPA members, Good Neighbor Pharmacy Business Coaching consultants, and various business leaders from across the country. The WSU team was selected as one of three finalists in July 2018.

Team faculty advisers were Clinical Assistant Professor Damianne Brand-Eubanks in Yakima and Vice Dean for External Relations Linda Garrelts MacLean in Spokane.

Pharmacy program welcomes back alumna as professor

SPOKANE, Wash.—Clinical Pharmacist Megan Undeberg rejoined the Washington State University College of Pharmacy and Pharmaceutical Sciences this August as a clinical associate professor.

Undeberg's position is co-located on the WSU Health Sciences campus in Spokane within the Department of Pharmacotherapy and at the Sacred Heart Medical Center and Children's Hospital also in Spokane, Washington.

At WSU she will teach in the Doctor of Pharmacy program and work to expand rural health research, looking at transitions of care (especially to rural areas) and the role of the pharmacist in internal medicine, as well as integration of pharmacy and other health care providers in education and experiential experiences.

At the hospital she will work and train with the next generation of physicians and pharmacists through an inpatient, internal medicine clinical practice where she will provide informal clinical instruction to medical students and residents, and supervise student pharmacists on clinical rotations. Through integrating the teaching and learning with patient care, she plans to focus on interprofessionalism within the team-based practice setting and transitions of care from inpatient to outpatient.

"I look forward to helping students understand we need to work as a team to meet goals and outcomes of care for the patient," Undeberg said.

Undeberg is from Lind, Washington. She received a Bachelor of Science with honors in general biology and a Bachelor of Arts in Spanish from WSU. She continued at WSU and obtained her Doctor of Pharmacy degree in 2001, receiving both the Merck Leadership Award and the Eli Lilly Ethics, Scholarship and Leadership Award in her final year of pharmacy school.

She is a board certified ambulatory care pharmacist (BCACP), and a registered pharmacist in Minnesota and Washington. Undeberg was first hired by WSU in 2004 as the second-year pharmaceutical care lab director.

"I taught the lab, which was the precursor to the institutional IPPE (introductory pharmacy practice experiences), and immunizations. Around 2006 I started investigating MTM (medication therapy management), as it was an element that I always wanted to pursue," Undeberg said.



Which she did in 2008 when she accepted a position with the University of Minnesota (UMN) in Duluth, a rural branch of the main UMN College of Pharmacy in Minneapolis. For the last 10 years Undeberg has served as an assistant professor of pharmacy practice and pharmaceutical sciences in the UMN program, as well as working with family medicine residents and student pharmacists in the hospital and clinic settings in both Duluth and rural Cloquet, Minnesota. In her tenure at UMN, she has received seven student-nominated UMN teaching awards, two Dean’s Merit Service Awards, and an AACP Award of Excellence in experiential education.

“My second journey back to WSU is my current adventure,” Undeberg said. “I have been watching from a distance the developments and advancement of practice here in Spokane, especially with the move of the entire program from Pullman to Spokane, and with the addition of the med school.”

Part of the CPPS mission is to develop practice-ready graduates who will lead tomorrow’s health care solutions. The college partners with community organizations like Sacred Heart in order to provide outstanding pharmacists, who are experts in their field of practice, opportunities to contribute to the delivery of care to patients in meaningful and impactful ways, and contribute to developing the next generation of outstanding health care professionals at WSU.

“It’s my chance to give back to the program of which I am very fond!” Undeberg said.

Student moves from India for Ph.D. program in Spokane

[Article published in the WSU Health Sciences Spokane Extra](#)

Arman had never been to America, never heard of Washington State University, nor had she ever imagined that her education in biotechnology would fit into a pharmaceutical sciences program. Now she is entering her third year of the pharmaceutical sciences Ph.D. program.

[Read more »](#)



BECOME A MENTOR!

One of the great things about being a Cougar pharmacist is getting to learn & develop within the WSU community.

LEARN MORE

A MESSAGE FROM LINDA GARRELTS MACLEAN



Greetings to our friends, colleagues, and valued alumni,

As we enter November and the season of Thanksgiving, I would like to take a moment to reflect on how grateful we are to so many! We celebrated pharmacy appreciation week in October, so I would like to highlight the critical role preceptors serve in our Doctor of Pharmacy program. Through their teaching and mentorship during pharmacy practice rotations, they directly contribute to our mission of developing outstanding health care professionals. They are at the front lines of patient care, and are the reason we produce practice-ready graduates and leaders in pharmacy.

CPPS Director of Experiential Services Anjie Bertramson and Clinical Assistant Professor Taylor Bertsch were able to visit several sites within the Providence Health Systems last month to thank our preceptors personally. Being able to visit sites one-on-one continues to be a valuable opportunity to hear from our pharmacy community and find further opportunities to strengthen our relationships. While we could not visit all our partnering sites during pharmacy appreciation month, we continue to find ways to recognize and appreciate our many partners.

We honored our two Preceptors of the Year during the Crimson Gala in September: Monica Graybeal, class of 2008, with the Yakima Valley Farm Workers Clinic in Spokane; and Chris Greer, class of 1991, with Spokane St. Luke's Rehabilitation Institute. Both were nominated by student pharmacists to receive this honor.

Monica's nominator wrote that she exemplifies, "exactly what they teach us in school of what we should push ourselves to be. Monica strives to help everyone she comes into contact with."

Chris' nominator was equally enthusiastic about his influence on—and contributions to—our students, saying, "Chris is by far the best preceptor I've had during my time at WSU. He is great at teaching things to us in a way that's easy to understand. He's patient, kind, makes every day at the rotation fun, and teaches us more than just the basics that we need to know."

Going into the Thanksgiving season, it is evident how important it is for us to stay connected. I am grateful that we are able to accomplish so much through the simple act of coming together as colleagues, preceptors, student pharmacists, collaborators, and friends.

With warmest regards and much appreciation,

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

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

ALUMNI NEWS



DR. UNIVERSE TALKED TO JENNIFER ROBINSON

When speaking about allergies Dr. Universe consulted CPPS Clinical Associate Professor Jennifer Robinson.

[Read more »](#)



OL' CRIMSON

John Grunden, class of 1991, sent us this photo waving Ol' Crimson during College Game Day at State College—the 214th consecutive appearance of Ol' Crimson at College GameDay!

[View photo »](#)



HOMECOMING WEEKEND

If you missed your chance to pick up your Crimson Gala photo booth pics, we have them posted. We also added more Tailgate photos.

[Crimson Gala photo booth »](#)
[Homecoming Tailgate photos »](#)

ALUMNI UPDATES

- **Gerald G. Briggs**, class of 1968, received the Russell R. Miller Award at the American College of Clinical Pharmacy (ACCP) 2018 Global Conference awards and recognition ceremony on October 21, 2018, in Seattle. The award recognizes an ACCP member who has made substantial contributions to the literature of clinical pharmacy, either in the form of a single, especially noteworthy contribution or in sustained contributions over time.
- **Patrick Stolz**, class of 2016, recently checked in with us from just outside Washington, D.C., where he is working as a behavioral health pharmacist at Fort Belvoir Community Hospital. His patients include active duty service members, their family members, and retirees.

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

- Visiting Scholar **Shaman Luo** (Lazarus lab), Pharmaceutical Sciences Associate Research Professor **Gang Chen**, Pharmaceutical Sciences Associate Research Professor **Zuping Xia**, Pharmaceutical Sciences Professor and Chair **Philip Lazarus** and two co-authors published, "Identification and quantification of novel major metabolites of the steroidal aromatase inhibitor, exemestane," in the peer-review scientific journal *Drug Metabolism Disposition* in September 2018. [View abstract »](#)

- Pharmaceutical Sciences Adjunct Professor **Joseph Ashmore**, **Shaman Luo**, Pharmaceutical Sciences Associate in Research **Christy J.W. Watson** (Lazarus lab) and **Philip Lazarus** published, “Carbonyl reduction of NNK by recombinant human lung enzymes: identification of HSD17β12 as the reductase important in (R)-NNAL formation in human lung,” in *Carcinogenesis* in May 2018. [View abstract »](#)
- Pharmacotherapy Professor and Associate Dean of External Professional and Continuing Education **Danial E. Baker** published, “Drug evaluation – cannabidiol (Epidiolex),” in Wolters Kluwer Health’s The Formulary monograph Service (FMS) in October 2018. 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** published, “Drug evaluation – omadacycline: preliminary evaluation,” in the FMS in October 2018.
- Pharmacotherapy Clinical Professor **Terri L. Levien** and **Danial Baker** published, “Drug evaluation – elagolix (Orilissa),” in the FMS in October 2018.
- **Danial Baker** published, “Drug evaluation – galcanezumab (Emgality): preliminary evaluation,” in the FMS in October 2018.
- **Danial Baker** with two co-authors published, “Drug evaluation – binimetinib (Mektovi) and encorafenib (Braftovi),” in the FMS in October 2018.
- **Danial Baker** published, “Drug utilization evaluation – elagolix,” in the FMS in October 2018.
- Allen I. White Distinguished Professor **Joshua Neumiller** with one co-author published, “Oral semaglutide,” in the peer-reviewed journal *Clinical Diabetes*, a publication from the American Diabetes Association in October 2018. [View abstract »](#)
- Pharmacotherapy Clinical Assistant Professor **Kim McKeirnan** published, “Academic fellowships: a new addition to traditional pharmacy residencies,” in *Pharmacy Times* in October 2018. [Read article »](#)

Presentations

- **Philip Lazarus** was the keynote speaker at the American Cancer Society Annual Event, Spokane Chapter in August 2018.
- Pharmacotherapy Clinical Assistant Professor **Julie Akers** presented, “Utilization of pharmacists as patient care providers for hepatitis C patients,” at the 78th International Pharmaceutical Federation (FIP) World Congress of Pharmacy and Pharmaceutical Sciences in September 2018 in Glasgow, Scotland.
- **Julie Akers** presented, “Efforts of pharmacists in Washington state to screen patients at risk for HCV,” at The Pharmacy/Public Health Issues Conference in September 2018 in Glasgow, Scotland.
- **Julie Akers** co-chaired the session, “Better outcomes for hepatitis C patients in your community,” at the 78th FIP World Congress.
- **Kim McKeirnan** and one other delivered the podium presentation, “Training pharmacy technicians to administer immunizations,” at the 78th FIP World Congress.
- **Kim McKeirnan** and **Julie Akers** presented the poster, “Training student pharmacists to perform rapid strep, influenza and HIV point-of-care testing,” co-authored with Pharmacotherapy Clinical Assistant Professor **Jennifer (Czapinski) Miller**, Pharmacotherapy Clinical Assistant Professor **Taylor**

Bertsch and Pharmacotherapy Clinical Assistant Professor **Christina Buchman** at the 78th FIP World Congress.

- **Kim McKeirnan** presented the poster, “Identifying drug-related problems through patient home visits,” co-authored with Pharmacotherapy Instructor **Kyle Frazier** at the 78th FIP World Congress.

Service

- Pharmacotherapy Clinical Assistant Professor **Jeffrey Clark** is the incoming president-elect for the Washington State Chapter of the American Society of Consultant Pharmacists (ASCP). He will be president-elect for two years, then president for two years before moving into their advisory role for an additional term.

STUDENT ACHIEVEMENT

Doctor of Philosophy (Ph.D) students

- **Sihan Wang** (pharmaceutical sciences, Z. Wang lab) with faculty co-authors Jin Gao, **Zhenjia Wang** and two co-authors published, “A facile approach for development of a vaccine made of bacterial double-layered membrane vesicles (DMVs)” in *Biomaterials* in December 2018. [Read article »](#)
- **Panshak Dakup** (pharmaceutical sciences, Gaddameedhi lab) delivered the platform presentation, “The impact of circadian clock disruption on solar UVB-induced DNA damage signaling in SKH-1 mice,” at the Environmental and Mutagenesis Genomics Society (EMGS) annual meeting on September 26, 2018, in San Antonio, Texas.
- **Panshak Dakup** presented, “Role of the circadian clock- and sex-related mechanisms in UVR signaling and melanomagenesis,” for the Center for Reproductive Biology Seminar Series on October 10, 2018, in Pullman, Washington.

Doctor of Pharmacy (Pharm.D.) students

- **Vinh Bui** with faculty co-author **Joshua Neumiller** published, “Oral semaglutide,” in *Clinical Diabetes* in October 2018. [Read abstract »](#)



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