

October 2020

MESSAGE FROM THE DEAN

Dear Friends and Colleagues,

September has been a tremendous month with many milestones to celebrate. While most of us continue to operate virtually, we have made some significant strides in moving our college forward. Though virtual learning and meetings are the new normal, it has truly galvanized everyone to be creative in our teaching, interactions, and outreach.

First, I send my heartiest congratulations to our preceptors of the year. This year has not been without its challenges and on behalf of the college, I thank all our preceptors and rotation sites for their commitment to providing our students excellent hands-on learning experiences—especially during these challenging times. To recognize our preceptors' important roles, the college asks fourth-year student pharmacists to nominate preceptors who go above and beyond in educating the next generation of Cougar pharmacists. This year's responses have been overwhelming. The college received over 260 nominations for over 155 individuals. Within this impressive pool of nominees, two stood out: Daniel Healy (class of 2015) from MultiCare Deaconess Hospital and Aleksander Heyfetz (class of 2014) from Genoa-1st Avenue Pharmacy. Join me in congratulating our preceptors of the year. [You can read more on how they have contributed to our student pharmacists' personal and professional growth.](#)



I also congratulate Dr. Mary Paine for receiving a highly coveted \$10.9 million grant from the National Institutes of Health. This is the largest grant ever awarded to a researcher in the college, and an incredible milestone for the college. Dr. Paine leads the [Center of Excellence for Natural Product-Drug Interaction](#). She and a team of researchers across various institutions will continue their [groundbreaking exploration](#) into how natural products interact with conventional medications. The WSU College of Pharmacy and Pharmaceutical Sciences exceeded \$10 million in research funding for the 2020 fiscal year, and thanks to this grant, Dr. Paine and her team have set us on a very positive trajectory for the future.

As many of you may know by now, our faculty ensure that our student pharmacists have been trained and certified to administer vaccines this flu season, and when a COVID-19 vaccine becomes available. This was a big [operational undertaking](#), particularly during the pandemic, but we are proud to announce that we managed to certify over 120 students by [face-to-face training](#). In addition, two of our professors, Kimberly McKeirnan and Jennifer Miller, have led the way in designing the training for pharmacists to administer immunizations for pediatric patients. The [American Pharmacists Association \(APhA\)](#) has [partnered with WSU](#) to design a new program for immunization-certified pharmacists to administer vaccinations to children 3–18 years of age, in compliance with new guidelines issued by the U.S. Department of Health and Human Services (HHS). [You can learn more about the trainings or sign up here.](#)

Finally, I recently had the privilege to sit down (virtually) with our Dean's Advisory Council. What an impressive crew! Their commitment to and guidance for the college was invaluable and much appreciated. Our discussions

centered on future-proofing our curriculum and giving our students skills they need for the evolving pharmacy profession. The half-day Advisory Council meeting carried over to a very memorable virtual social hour to raise funds for our student pharmacists with a wine auction. The wine was created by me and a team of engineers. Julie Akers, professor and Auctioneer in Chief, helped fetch a hefty price tag for the wine, which will go towards helping our students during these challenging times. I thank everyone who attended the event. It was an action-packed 45 minutes and I'm so grateful to see new and familiar faces on the screen. I look forward to the day we can all meet in person for the Crimson Gala and a good old-fashioned tailgate. Until then I'll be working hard to concoct next year's collection of wines for the auction.



Mark Leid, Professor and Dean
WSU College of Pharmacy and Pharmaceutical Sciences

Top Stories

WSU awarded distinguished NIH grant to study natural product-drug interactions

The botanical dietary supplement that you're taking may be natural, but is it safe? It was 2006 when Dr. Mary Paine, a professor at the WSU College of Pharmacy and Pharmaceutical Sciences, first published her clinical research study on the interaction between grapefruit juice and felodipine, a medication used to treat high blood pressure. Her work builds on the foundation laid by Dr. David Bailey from the University of Western Ontario, who discovered the "grapefruit juice effect" approximately 30 years ago. Through years of research, multiple investigators, including Dr. Paine and her post-doc mentor Dr. Paul Watkins, both while at the University of North Carolina at Chapel Hill, determined the mechanism of the grapefruit juice-felodipine interaction. Specifically, constituents in the juice, furanocoumarins, were identified as major inhibitors of the metabolism (breakdown) of felodipine in the intestine. By inhibiting its metabolism, felodipine levels increase, which can lead to any number of symptoms including low blood pressure, rapid heartbeat, and/or dizziness. The research was a groundbreaking moment for her and highlighted the deficient guidelines in evaluating commonly used natural products and their interactions with everyday medications.

"Natural products, including grapefruit juice and the dietary supplement St. John's wort, have this common perception that because they're natural, that means they're safe," said Paine. "However, if you're taking natural products with your medication(s), how do you know that these products don't have interactions with your medications? Just because they're natural doesn't necessarily mean they're safe."

More needs to be done to study natural products and their interactions with drugs, according to Paine, who directs the [Center of Excellence for Natural Product Drug Interaction Research \(NaPDI Center\)](#). She and her team of researchers from various institutions across the nation just renewed their competitive U54 grant in September, awarded by the National Institutes of Health, specifically the National Center for Complementary and Integrative Health and in part by the Office of Dietary Supplements. This prestigious and nearly \$11 million grant will allow Paine and her team to continue their groundbreaking work for the next five years on these relatively under-studied precipitants of drug interactions. This is the largest grant ever awarded to a researcher at the WSU College of Pharmacy and Pharmaceutical Sciences.

"CPPS faculty brought in over \$10 million in FY20 that ended on June 30, 2020. This milestone is highly significant and should allow us to move up in the national rankings of pharmacy schools. Dr. Paine's \$10.9 million award ensures that FY21 will keep us moving up in those rankings and I could not be more proud of her, her research



Dr. Mary Paine (center) with her team of researchers (left to right) Deena Hadi, Sabrina Judson, Rakshit Tanna, Karen Vo, James Nguyen, and Ketii Bardhi.

team, and her collaborators in the college,” said Dean of the WSU College of Pharmacy and Pharmaceutical Sciences Mark Leid. “They have done a fantastic job.”

For Paine, this work is more than just a milestone; it’s a personal mission to ensure the safety of natural products and represent the interests of taxpayers, who are the ultimate funders of the research.

“I don’t want to be perceived as anti-natural product,” said Paine. “As a pharmacist, researcher, and educator, I want to make sure people are taking these products with their drugs in a safe manner, robust guidelines are developed to study natural product-drug interactions optimally, and that definitive information is disseminated to students in the health care professions. Meeting these goals will ensure we are being financially and scientifically responsible to the taxpayers.”

Current regulatory guidance to evaluate drug-drug interactions are not sufficient for natural product-drug interactions. One of the main hurdles in studying natural products as precipitants of drug interactions is the large variation in product composition, as well as concerns about contamination of the product, whether intentional or unintentional. “With drugs, we know everything about them. With natural products, we don’t always know every ingredient in them. Because they’re not regulated like drugs, manufacturers need not put them through the ringer for efficacy and safety like regular drugs,” said Paine. “Relative to drug-drug interactions, we are in an embryonic stage when it comes to understanding natural product-drug interactions.”

Paine and her team will select and prioritize 3-5 natural products to study based on their innovative approach that considers, amongst other sources, chemical structural alerts, clinical case reports, regulatory alerts, scientific meeting reports, and top-selling natural product reports. The data generated by the NaPDI Center will be deposited into an established database that serves a diverse group of researchers interested in assessing natural product-drug interactions. Researchers will be able to access scientific results, raw data, and recommended approaches to assess the clinical relevance of how a natural product may impact the disposition of drugs throughout the body.

The published recommended approaches are significant for an industry that continues to grow exponentially. According to Grand View market research, the global supplements market size is estimated at \$123 billion.

Student pharmacists on COVID-19 testing in Pullman

When Misty Lefler and Shayne Fontes got the urgent call from Associate Dean of Professional Education Jennifer Robinson that volunteers were needed for COVID-19 testing at WSU’s main campus in Pullman, the third-year pharmacy students scrambled to organize their peers over one weekend. Only one week into the fall semester, and Pullman was already experiencing a spike in COVID-19 cases despite going to virtual learning for the semester.

“I get really excited saying ‘I get to help out with this and I get to help our community,’” said Lefler. “As health care providers all we want to do is educate, immunize, and help provide those services.”



Misty Lefler and Shayne Fontes volunteered to help with COVID-19 testing on the WSU Pullman campus

█ “As health care providers all we want to do is educate, immunize, and help provide those services.”

The students volunteered in the mobile unit operated by Range Health, the nonprofit academic health care network led by executives from the colleges of Medicine, Nursing and Pharmacy and Pharmaceutical Sciences.

Lefler and Fontes share what it was like to administer COVID-19 vaccines in an [interview with the college](#) and how it has impacted their perspectives as future pharmacists. Fully garbed in PPE (personal protective equipment) and working alongside faculty, the students administered nasopharyngeal swabs on WSU students who were experiencing symptoms or may have been exposed to the virus. Between COVID-19 testing, they would tuck themselves away to attend virtual class and labs in the President’s Suite.

“It was cool to apply some of the stuff we learned in school and having students ask us basic questions about signs and symptoms and false negatives and what not. So I thought it was cool to have that hands-on experience,” said Fontes.

The [Washington National Guard](#) has since taken over COVID-19 testing in Pullman. The increase in COVID-19 cases in Whitman County has been primarily traced by authorities to off-campus gatherings in privately owned housing in the Greek Row area. Students who fail to follow state mandates, whether on or off campus, not only risk potential [law enforcement action](#) but can face disciplinary hearings under WSU’s [Community Standards](#) process.

In the meantime, Lefler and Fontes will be working with their student organizations to help administer flu vaccines around Spokane in partnership with the Regional Health District.

HealthChats: Managing diabetes through lifestyle changes

In the United States over 34 million people live with diabetes. Of those 34 million, somewhere in the range of 90-95% have type 2 diabetes while the remaining 5-10% have type 1 diabetes.

“For some patients who maybe have been living a really busy lifestyle with lots of stress going on and maybe haven’t been paying as much attention to their health as some other aspects of their life, getting the diagnosis of diabetes can be a real wake-up call to re-evaluate their priorities and maybe their lifestyle and might be kind of that extra push that they need to get them on a healthier path,” explained Pharmacotherapy Assistant Professor Cheyenne Newsome at [last month’s HealthChats seminar](#).



Joshua Neumiller (left) and Cheyenne Newsome (right) shared their professional insights on diabetes at the Health Chats Seminar September 23

The HealthChats seminar series was created to inform the community on current topics related to health. Allen I. White Distinguished Associate Professor Joshua Neumiller and Assistant Professor Cheyenne Newsome shared their expertise on diabetes in a panel discussion including what people can do to protect themselves from this growing disease.

Treatment for people living with diabetes can come in a variety of forms depending on their progression and type of diabetes. For type 1 diabetes, often called insulin dependent diabetes, patients need insulin injections or a pump to manage blood sugar. However, since the more common type 2 diabetes is greatly based on lifestyle and weight, a change to lifestyle can reduce the risk of developing type 2 diabetes in the first place. In studies of patients with prediabetes – who have started to experience elevations in blood glucose but have not yet developed diabetes – it was found that lifestyle changes significantly reduced the risk of developing diabetes. Newsome explained that just 150 minutes a week of activity to the equivalent of walking briskly, enough to get your heart rate up, can have significant benefits.

“You really have to hone-in on those lifestyle factors because you can’t change your genetics, but you can certainly change how active you are and your eating habits,” said Neumiller.

Newsome added, “If you do have people in your family with diabetes you may be at increased risk, but you can still take action to reduce your risk.”

While medications are recommended when a patient is diagnosed with diabetes, some people also change their lifestyle to help manage their diabetes, sometimes without medication.

Even though the American Diabetes Association and other organizations do not recommend any specific diet, they do recommend an emphasis on healthy foods; based on healthy staples such as whole grains, legumes, nuts, vegetables, and fruits while cutting out refined sugars and processed foods. However, both Newsome and Neumiller emphasized the importance of discussing any lifestyle changes with the health care team to make sure changes are being made safely.

“I never discourage people from any lifestyle or dietary changes that are interesting to them because if that motivates them to lose weight it’s going to help with their diabetes,” said Neumiller. “But I want that open communication, to talk about some of the potential pitfalls and other things we need to consider.”

One such potential pitfall is hypoglycemia, or low blood sugar. Particularly if a patient is taking insulin or other medications that can lower blood sugar. If people with diabetes are taking these medications, changes in diet and/or the amount of physical activity they are engaging in daily can contribute to hypoglycemia. For these reasons watching blood sugars closely, especially when making lifestyle changes, can be extremely important for people living with diabetes.

Luckily, over time tools have developed to help make managing blood sugar easier for people living with diabetes. One such development is the continuous glucose monitor. The monitor is usually worn on the arm or abdomen, stays on for approximately two weeks, and checks glucose levels every few minutes. Individuals without continuous glucose monitors may need to poke their finger multiple times a day, going through a 3-5 minute process every time they want to check their blood sugar. With a continuous glucose monitor, however, blood sugar information is at the patient’s fingertips and visible through a device or phone app. Individuals can set alarms to go off at certain blood sugar thresholds and the devices have been proven to improve glucose management.

During the current COVID-19 pandemic this becomes even more important. Individuals living with diabetes who have less optimal blood sugar control have been seen to have much higher risk of negative outcomes from the virus.

“It’s very important that people really control their blood sugar well during the COVID-19 pandemic in case they do develop it so that they have the best outcomes possible,” said Neumiller.

Some hospitals have also begun to utilize continuous glucose monitors during the pandemic for patients with the virus. The monitors can be placed outside of the hospital room door to allow for glucose monitoring while limiting potential exposure to the virus.

HealthChats is an ongoing panel series by the Washington State University College of Pharmacy and Pharmaceutical Sciences. Videos of past events and live virtual panels can be found on the college [YouTube](#). To learn more about our future HealthChats events please visit: <https://pharmacy.wsu.edu/health-chats/>

A NOTE FROM LINDA GARRELTS MACLEAN

Dear Friends and Colleagues,

It has been an eventful month and thank you to the many people who showed up for our virtual social hour in celebration of Dean Leid’s homecoming. As Dean Leid mentioned, Julie Akers, our auctioneer for the evening had us on the edge of our seats as friends of the college and alumni were in a bidding war for cases of Dean Leid’s homemade wine. While we know many of you were unable to make it to our virtual social hour this time around, I hope we will have a chance to meet again next time!



As we continue on in our virtual environments, the college is looking to strengthen our connections with the community through our monthly HealthChats. This is a new online series, presented by the college to discuss the latest hot topics and trends in health care. This month, I will be on a panel with Associate Professor Kim McKeirnan and Assistant Professor Nicole Rodin to discuss vaccines, what we can expect this flu season, and the pharmacist’s role when a COVID-19 vaccine comes to market. This is an open Q&A discussion on October 28, from 1-2 pm, so please feel free to invite anyone who you think might be interested in this topic.

As many of you may know, I am currently serving as the president of BAVI Health, the organization which operates the mobile health unit, Range Community Clinic. Earlier last month, our WSU campus in Pullman experienced a spike in COVID-19 cases. Several students and faculty across the colleges of Pharmacy and Pharmaceutical Sciences, Nursing, and Medicine, quickly sprang into action and managed to set up COVID-19 testing operations until the National Guard was able arrange their own testing sites on campus. Our students and faculty across all disciplines continue to do amazing work in helping various communities across eastern Washington. The mobile unit will continue to work with the most underserved populations and with those in need of COVID-19 testing and other health necessities.

As we work through these challenging times, thank you all for always supporting our students, faculty and community efforts.

With best regards and much respect,



Linda Garrelts MacLean, Vice Dean of External Relations
WSU College of Pharmacy and Pharmaceutical Sciences

Spotlight on Success

Flu season is here: Time to get vaccinated

Originally posted in the [WSU Insider](#) on September 23, 2020

In no other year has a flu shot been more important.

Immunization experts at the WSU College of Pharmacy and Pharmaceutical Sciences warn that the addition of another respiratory illness such as the flu on top of COVID-19 could overburden health care systems, strain local testing capacity and increase the risk of complications from either disease.

“Even for young and healthy college students, COVID-19 can put a lot of stress on the respiratory system,” said Kimberly McKeirnan, a vaccines expert in point of care training and associate professor of pharmacotherapy. “So, if we can decrease the incidence of respiratory complications from the flu, it is going to increase our overall quality of care.”

Washington State University is doing its part to help.

Starting Sept. 25, Cougar Health Services at WSU Pullman will again be offering free flu shots to faculty, staff and students every Friday through Nov. 6. All visitors will be required to complete an [attestation form via myWSU](#) prior to arrival. This week, [Flu Shot Friday](#) is being held from 9 a.m. to 4 p.m. at the Elson S. Floyd Cultural Center. Students in Pullman who cannot make it to one of the Friday events can make an [appointment for a flu shot online](#) or by calling Cougar Health Services at 509-335-3575.

Flu shots are covered 100% by most insurance plans and are also offered at Walmart, RiteAid, CVS, and other major pharmacies. Immunization events at other campuses across the WSU system will be announced as they become available.

Nicole Rodin, a clinical assistant professor in the College of Pharmacy and Pharmaceutical Sciences, said that is important for everyone, regardless of age, to get vaccinated early in the flu season, which peaks from December to February.



Student pharmacist Olivia Hiskey practices administering an intramuscular injection on Tristan Hilton using a sponge. At the end of the hour, every student pharmacist is required to perform three types of injections on their partners using a saline solution.

“Even if you personally wouldn’t get that sick from the flu, getting a flu shot strengthens your immune system so that you are less likely to give it to someone else,” she said. “The people who are most at risk from the flu are the elderly, the very young and those with underlying conditions.”

Rodin is currently leading the WSU College of Pharmacy and Pharmaceutical Sciences’ efforts to certify second-year pharmacy students to administer flu shots at pharmacies across the state. The training also includes preparation for administering COVID-19 shots if and when a vaccine becomes available. She said certification this year was a bit unusual because it required a combination of both virtual learning and in-person evaluation both at WSU Spokane and other partner pharmacies. To date, more than 120 student pharmacists have been certified.

“Our students are giving vaccines all over,” she said. “In addition to working in pharmacies such as Walgreens, CVS and RiteAid, they will also be going to different high schools and community health centers to provide a variety of vaccines. The more people we can get vaccinated the better.”

Precepting the next generation

For the 1,440 hours spent on rotation during the fourth year of a pharmacy student’s degree, 240 hours are spent with any one preceptor over 6 weeks. In those 240 hours, pharmacy students are taken under a preceptor’s wing to learn first-hand what it means to be a pharmacist. Through teaching and mentorship, preceptors guide pharmacy students as they work with patients in a variety of health care settings. These experiences are pivotal in determining a pharmacy student’s future career.

To recognize the importance of preceptors, every year the college asks fourth-year pharmacy students to nominate preceptors who go above and beyond in their education of the next generation of Cougar pharmacists for the college’s annual Preceptor of the Year award. The response this year has been overwhelming. Class of 2020 students submitted more than 260 nominations for over 155 individual preceptors.

Within this impressive pool of nominees, two preceptors stood out. Daniel Healy (class of 2015) from MultiCare Deaconess and Aleksander (Alex) Heyfetz (class of 2014) from Genoa-1st Avenue Pharmacy have set themselves apart through their outstanding contributions to educational development by demonstrating high standards of professionalism, ethics and clinical practice within the experiential training environment. Added together, they have precepted over 80 WSU pharmacy students.

HERE’S WHAT SOME OF THEIR NOMINATIONS HAD TO SAY:

Daniel Healey, MultiCare Deaconess

Dan was a fantastic preceptor. He always took time out of his day to answer any and all questions I had and if he was busy, he would take me along and talk while he went to go to wherever. I appreciate Dan’s commitment to making my experience as good as could be and I would love to work with him at some point in the future.



Daniel Healey

Alex Heyfetz, Genoa-1st Avenue Pharmacy

Dr. Heyfetz provides a challenging and unique learning environment. I had more unique patient care interactions at 1st Avenue Pharmacy than I have ever had in any other setting... I learned valuable lessons about caring for patients with mental health disorders that I will carry with me throughout my career and that will help to guide my perceptions no matter what setting I am working in. On top of my patient care responsibilities I was also provided with projects to benefit the pharmacy and treated like a valuable team member.



Alex Heyfetz working with a student

REFER A FUTURE COUGAR PHARMD!

Pharmacy alumna lands executive fellowship at WSPA

By Kelly Sylvester, director of advancement and alumni relations

Brandy Seignemartin, class of 2020, landed her dream job after graduation and is working as an Executive Fellow for the Washington State Pharmacy Association (WSPA) in Renton, Washington. During her time at the College of Pharmacy and Pharmaceutical Sciences, Seignemartin was instrumental in helping to secure passage of state legislation in Olympia that allows health science professionals to precept across different professions.



Brandy Seignemartin, class of 2020, works as an Executive Fellow for the Washington State Pharmacy Association (WSPA)

Seignemartin has been working on a variety of activities and issues for the WSPA, including the COVID-19 response, immunization training, and communication strategies. However, she says her favorite part is working with WSPA's leadership and consultants on plans for the next legislative session in Olympia.

"I absolutely love it. I'm learning so much in terms of advocacy for all realms of advancing pharmacy," said Seignemartin. "I have the best mentors in Jenny Arnold [Director of Pharmacy Practice Development at WSPA] and Jeff Rochon [WSPA CEO], so this is the perfect place to be."

In addition to her busy fellowship, Seignemartin is making time to mentor three current WSU pharmacy students. "My mentors, such as Dr. Julie Akers, made such a difference in my educational experience, I want to help my Cougar phamily by mentoring current students." One student she mentors is second-year pharmacy student Colin Beauvais, who serves as Vice President of Legislative Affairs for the Associated Student Body of WSU Health Sciences Spokane, a position Seignemartin herself once held.

"I am so happy for others to have the same experience I had, which opened so many doors and opportunities for me," said Seignemartin.

What the future holds, she is not sure. But for now, she encourages all student pharmacists and alumni to get involved. She said she urges them to "join WSPA and other organizations that are fighting against the unfair practices of PBMs [pharmacy benefit managers] and to increase patient access to pharmacist provided services," as well as working on DIR fee (direct/indirect remuneration) practices. She and others at WSPA and all-around pharmacy anxiously await the United States Supreme Court ruling on the PBM issue. Seignemartin said it's the public health advocacy, as well as the community service, that makes her current role so exciting.

"I couldn't have asked for a better experience as a PharmD fellow than I have at WSPA. Every day I'm learning something new and also helping others learn. WSU helped me learn how to be an advocate for the pharmacy profession and the future of pharmacy practice through my fellowship at WSPA. It doesn't get any better than this. I'm so glad I chose a career in pharmacy."



PHILANTHROPY FOCUS

During the past few months, Manpreet Chahal, '08, '10, and Lindsey Fischer Chahal, have been working out the details to establish a new Doctor of Pharmacy Class of 2010 Scholarship Endowment. This new endowment will benefit a WSU student pharmacist who is recognized as a leader and will become a proud member of the CougaRx Nation. Donations from members of the class of 2010 and other alumni are welcome. How to give: <https://bit.ly/37jeOnK>



And more good news for the Chahal family...

Manpreet and Lindsey welcomed their first child into the world and it's a boy! Alexander Amar Singh Chahal was born on Monday, September 28 weighing 4 pounds 6 ounces. Congratulations to the Chahal family and their future Cougar!

Alumni News

- Dr. **Jim Wernz**, class of 1968, and his partner Ralph Pellecchio were the first couple to be married by Supreme Court Justice Ruth Bader Ginsburg in the US Supreme Court after same-sex marriage was deemed constitutional. Jim, a WSU pharmacist and MD who graduated from UW after getting his pharmacy degree from WSU, has been with his partner Ralph for almost 40 years. Ralph clerked for RBG and they become lifelong friends. When she passed on September 18, 2020 at the age of 87, a local television station in New York City where Jim and Ralph reside, wanted to tell their story. We thought it was worth sharing their story and their connection to RBG and WSU. [Read more](#)



Jim Wernz and Ralph Pellecchio with Supreme Court Justice Ruth Bader Ginsburg

- We heard from **Mylinh Nguyen**, class of '13, who recently gave birth to her first child. Mylinh, who is employed at Bartell Drugs, had a baby girl she named Sophia and this darling little girl recently turned four months old. Outside of her work and family responsibilities, Mylinh also organizes an annual trip to Vietnam for volunteers to provide health care in rural areas, but the clinic is on hold this year due to COVID 19. She is hopeful that the health clinic will resume in 2021. You can email her at mylinhn@vnhealth.org for more information about the health clinic or just to say hello.



Mylinh Nguyen's daughter, Sophia

- **Lisa Chamberlain**, class of 2004, was recognized on the WSU System social media for her work on the frontlines of COVID-19 as a critical care pharmacist at Virginia Mason. [View Tweet](#)
- **Janell Krack**, class of 2003 was recognized on the WSU System social media for her work on the frontlines of COVID-19 as a critical care clinical pharmacy specialist at the National Institutes of Health (NIH). [View Tweet](#)
- **Huy Hoang**, PharmD, class of 2014, is the Coordinator of Experiential Advancement and an Assistant Professor at Pacific University Oregon. Dr. Hoang's focus is community pharmacy practice, and he is currently a float pharmacist for CVS/Target. He currently serves on the HealthNet P&T Committee and is a former CVS/Target Pharmacy Manager in the heart of downtown Portland. He has served as part of the Clark College Pharmacy Technician Advisory Committee. He has also worked on various healthcare projects for Horizon Continuing Medical Education (CME) Pharmacy. Dr. Hoang currently serves as the Treasurer for Oregon State Pharmacy Association (OSPA). In his free-time, he enjoys learning new basketball moves, smashing tennis balls, and consistently trying to correct his golf-swing. He has a passion for learning about people from different ethnic backgrounds through food, and likes to relax from the soothing voices of Bob Ross and Mr. Rogers.
- **Ken Webert**, class of 1988, was hired in March as Immunology Ecosystem Partnership Lead at UCB. Ken has previously held positions of increasing responsibility at Lilly, Pfizer, Amgen and Regeneron.
- We are launching a new program to highlight outstanding alumni in the CougaRx Nation! We are now accepting peer-to-peer nominations and hope you will take the time to nominate a classmate who is a trailblazer in pharmacy or any realm of the health care field. [Submit a nomination](#)

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

Other News

Look for opportunities: women pharmacists discuss work-life balance

The number of women in pharmacy has grown exponentially over the past decade, with women now making up the majority of new pharmacy school graduates; however, men still hold the majority of leadership positions. In recognition

of Women Pharmacists Day on October 12, a [multigenerational panel of 5 women](#), including Vice Dean of External Relations Linda Garrelts MacLean, discussed how the pharmacy field has changed and is still changing for women.

[Read more from Pharmacy Times](#)

How to successfully implement pharmacist provider status

The Pharmacy Quality Solutions: Quality Corner Show chatted with Julie Akers about pharmacy provider status and the challenges in expanding the scope of practice.

[Listen to the podcast](#)

Dr. Universe: Why do we get pins and needles when we don't move for a long time?

Darrell Jackson of the WSU College of Pharmacy and Pharmaceutical Sciences and Elson S. Floyd College of Medicine helps explain why our arms and legs sometimes “fall asleep.”

[Read more from Dr. Universe](#)

APhA and Washington State University prepare pharmacists for pediatric immunizations

A new program from APhA and the WSU College of Pharmacy and Pharmaceutical Sciences prepares state-licensed immunizing pharmacists to meet the education requirements to administer vaccinations to children aged 3 to 18 years, in compliance with the recent HHS guidelines.

[Read more from APhA](#)

WSU pharmacy students get certified to give vaccines in time for flu season, eventual COVID-19 vaccine

With classes being virtual this semester due to the pandemic, instructors had to quickly figure out a way to get students safely certified to administer vaccines in time for flu season, or COVID-19 shots, if and when that comes to market.

[Read more from KXLY](#)

Preparing for potential ‘twindemic’: Local pharmacy students pressed into flu, COVID-19 vaccine education

Second-year pharmacy students saw their professors in-person for the first time in 6 months to receive their vaccination certifications and prepare to help with immunizations during this year’s flu season and when a COVID-19 vaccine is available.

[Read more from The Spokesman-Review](#)

WSU pharmacy doctoral students in Yakima earn certification to administer vaccines

Thanks to their vaccination certification, WSU second-year pharmacy students are prepared to work with the Yakima Health District to administer flu shots at mobile community clinics across the Yakima Valley this flu season. WSU pharmacy students say they want to be ready to serve the community for when a COVID-19 vaccine comes to market.

[Read more from the Yakima Herald](#)

COVID-19 cases have quadrupled in Whitman County in just 2 weeks

The Range Health mobile unit was in Pullman in September with pharmacy students and faculty onboard and ready to help test WSU Pullman students for COVID-19.

[Read more from The Spokesman-Review](#)

Dr. Universe: How are gummies made?

Have you ever wondered how gummy worms and gummy bears are made? Dr. Universe talked to College of Pharmacy and Pharmaceutical Sciences Assistant Professor Connie Remsberg to find out.

[Read more from Dr. Universe](#)

Faculty Scholarship

PUBLICATIONS

United States Transuranium and Uranium Registries (USTUR) Assistant Professor **Maia Avtandilashvili**, USTUR Director and Professor **Sergei Tolmachev**, and three co-authors published, "[Long-term retention of plutonium in the respiratory tracts of two acutely-exposed workers: estimation of bound fraction,](#)" in Health Physics in August 2020.

Pharmaceutical Sciences Associate Professor **Bhagwat Prasad**, Pharmaceutical Sciences Assistant Professor **Abdul Basit** and ten co-authors published, "[Characterization of differential tissue abundance of major non-CYP enzymes in human,](#)" in Molecular Pharmaceutics in September 2020.

Bhagwat Prasad, Pharmaceutical Sciences Scientific Assistant **Matthew Karasu** and nine co-authors published, "[P-glycoprotein substrate assessment in drug discovery: application of modeling to bridge differential protein expression across in vitro tools,](#)" in the Journal of Pharmaceutical Sciences in September 2020.

Pharmaceutical Sciences Postdoctoral Research Associate **Jeevan GC**, Pharmaceutical Sciences Assistant Professor **Senthil Natesan** and seven co-authors published, "[Mechanisms of herb-drug interactions involving cinnamon and CYP2A6: focus on time-dependent inhibition by cinnamaldehyde and 2-methoxycinnamaldehyde,](#)" in Drug Metabolism and Disposition, a peer-reviewed scientific journal published by the American Society for Pharmacology and Experimental Therapeutics, in October 2020.

J. Roberts and Marcia Fosberg Distinguished Professor of Pharmacotherapy **Danial Baker** published, "Drug evaluation – mitomycin for pyelocalyceal solution (Jelmyto)," in Wolters Kluwer Health's The Formulary Monograph Service (FMS) in August 2020. 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.

Pharmacotherapy Clinical Professor **Terri Levien** and **Danial Baker** published, "Drug evaluation – tanezumab: preliminary evaluation," in the FMS in August 2020.

Drug Information Center Resident **Brittany Craft**, **Danial Baker**, and **Terri Levien** published, "Drug evaluation – opicapone (Ongentys)," in the FMS in August 2020.

Terri Levien and **Danial Baker** published, "Drug evaluation – selumetinib (Koselugo)," in the FMS in August 2020.

Danial Baker published, "Drug utilization evaluation – opicapone (Ongentys)," in the FMS in August 2020.

Danial Baker published, "Drug evaluation – selpercatinib (Retevmo)," in the FMS in October 2020.

Danial Baker published, "Drug evaluation – sacituzumab (Trodelvy)," in the FMS in October 2020.

Brittany Craft and **Danial Baker** published, "Drug evaluation – fostemsavir (Rukobia)," in the FMS in October 2020.

Danial Baker published, "Drug utilization evaluation – remimazolam (Byfavo)," in the FMS in October 2020.

Pharmacotherapy Assistant Professor **Lauren Marcath** and co-authors published, "[Improvement initiative to develop and implement a tool for detecting drug-drug interactions during oncology clinical trial enrollment eligibility screening,](#)" in the Wolters Kluwer September 2020 Journal of Patient Safety.

Pharmacotherapy Associate Professor (Yakima) **Rustin D. Crutchley** and six co-authors published, "[Vitamin D assessment over 48 weeks in treatment-naive HIV individuals starting lopinavir/ritonavir monotherapy,](#)" in Current HIV Research in August 2020.

Allen I. White Distinguished Associate Professor of Pharmacotherapy **Joshua Neumiller**, Pharmacotherapy Assistant Professor (Yakima) **Anne Kim**, Pharmaceutical Sciences Assistant Professor **Connie Remsberg**, and two co-authors published, "[The effect of pharmacy students' attendance on examination performance in two sequential active-learning pharmacotherapy courses,](#)" in the American Journal of Pharmaceutical Education in September 2020.

PRESENTATIONS

Danial Baker presented the webinar, “Mechanism and indications for furosemide,” on Therapeutic Pearls for Interprofessional Care-Furosemide for the Gulf Medical University and Thumbay University Hospital in Ajman, United Arab Emirates on September 1, 2020.

Josh Neumiller and Pharmacotherapy Assistant Professor **Cheyenne Newsome** led the WSU panel discussion, “[HealthChats: Diabetes 101](#),” on national trends in diabetes, what causes this chronic condition, and strategies for diabetes prevention on September 23, 2020.

SERVICE

Josh Neumiller and three others published the online Continuing Education, “[Navigating the crowded space of diabetes medications](#),” on the American Pharmacists Association website.

GRANTS

Pharmaceutical Sciences Assistant Professor **John Clarke** received \$191,250 from the National Center for Complimentary and Integrative Health for a research project titled “Enteric and hepatic transporter mechanisms for pharmacokinetic natural product-drug interactions.”

Senthil Natesan received \$1,162,800 from the National Institute of General Medical Sciences (NIH) for a research project titled, “Molecular biophysics of integrin activation by oxysterols and rational discovery of small-molecular modulators.”

AWARDS

Pharmacotherapy Associate Professor **Kimberly McKeirnan**, Pharmacotherapy Assistant Professor **Jeffrey Clark**, Pharmacotherapy Professor **Brian Gates**, Pharmacotherapy Research Associate **Loan Lam**, and Pharmacotherapy Research Associate **Meredith Matsen** will be awarded Top Poster for their poster, “A pharmacist led quality improvement team to improve medication – reconciliation and evaluation in home healthcare,” at the ASCP annual meeting in November 2020.

Pharmacotherapy Assistant Professor **Cheyenne Newsome** was appointed the Commission on Gender Identity/Expression and Sexual Orientation (GIESO). Her term will run through August 15, 2022.

Student Achievement

DOCTOR OF PHILOSOPHY (PHD) STUDENTS

Justin Chen (pharmaceutical sciences, Natesan lab) with faculty co-authors **Jeevan GC** and **Senthil Natesan** published, “[Mechanisms of herb-drug interactions involving cinnamon and CYP2A6: focus on time-dependent inhibition by cinnamaldehyde and 2-methoxycinnamaldehyde](#),” in Drug Metabolism and Disposition, a peer-reviewed scientific journal published by the American Society for Pharmacology and Experimental Therapeutics, in October 2020.

DOCTOR OF PHARMACY (PHARMD) STUDENTS

Ashley Ta with faculty co-authors **Joshua Neumiller**, **Anne Kim**, **Connie Remsberg**, and two co-authors published, “[The effect of pharmacy students’ attendance on examination performance in two sequential active-learning pharmacotherapy courses](#),” in the American Journal of Pharmaceutical Education in September 2020.

Li Wei Chen with faculty co-authors **Terri Levien** and **Danial Baker** published, “Drug evaluation – ozanimod (Zeposia),” in the FMS in August 2020.

Jeremiah Salmund with faculty co-authors **Brittany Craft** and **Danial Baker** published, “Drug evaluation – remimazolam (Byfavo),” in the FMS in October 2020.

Vanessa Tuy with faculty co-authors **Brittany Craft** and **Danial Baker** published, “Drug evaluation – lurbinectedin (Zepzelca)” in the FMS in October 2020.

Tracie Comer and faculty co-author **Joshua Neumiller** published the case study, "[SGLT2 Inhibitors for Kidney Disease](#)," on Diabetes In Control.

Kayla Leland was selected as the 2020 Fall semester recipient of the Gaskins Scholars Program Award from the Pullman Regional Hospital Foundation. The award program was founded by Bill Gaskins, a beloved and now retired Pharmacist for Pullman Regional Hospital. The \$2,500 award is available to eligible applicants seeking to practice pharmacy in a rural environment or provide services to underserved populations. Funds may be used to assist with tuition, fees, books, travel and living expenses.

Brian Wu was recognized on the WSU System social media for his work on the frontlines of COVID-19 volunteering at testing sites in Yakima, Washington. [View Tweet](#)

Doctor of Pharmacy students who volunteered to help with COVID-19 testing on the Pullman campus were recognized on the WSU System social media for their work on the frontlines of COVID-19. [View Tweet](#)

Jackie Labonite was recognized on the WSU System social media for her work on the frontlines of COVID-19 as an intern at Providence Holy Family Hospital. [View Tweet](#)

Sabrina Fischer was recognized on the WSU System social media for her work on the frontlines of COVID-19 volunteering with COVID-19 testing in Pullman. [View Tweet](#)



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