



UPCOMING EVENTS

COLLEGE NEWS

ALUMNI NEWS

FACULTY SCHOLARSHIP

A MESSAGE FROM GARY M. POLLACK



December 2018

Dear Friends and Colleagues:

Although Thanksgiving has come and gone, the winding down of another calendar year is still an appropriate time for reflection and, in particular, expressions of gratitude.

First the reflection: 2018 likely will be remembered by many as a challenging year. News around the globe was dominated by disasters (both natural and human) and by a cycle of especially divisive politics.

Those of us in the academy are not insulated, of course, from the problems that exist just outside our walls. However, we have the option of focusing our energies and attention on things that are wholly positive: helping to prepare our students for careers and lives of consequence; discovering or creating solutions to some of the world's most significant problems; having a positive impact on the communities that host our programs. Being a part of an enterprise that refreshes itself with each new cohort of students, with each new offering of a course, with each new research project successfully launched is a gift to be treasured. It is at the top of my professional "to be thankful for" list.

There are numerous groups to whom I am especially grateful, this year and every year, as I reflect on my job:

- Our faculty, who are dedicated to their roles as educators, scholars, practitioners and members of the community
- Our staff, who are no less dedicated than their faculty colleagues to the mission of our college and the university
- Our students, who are committed to becoming outstanding clinicians, scientists and citizens
- Our students' families, for entrusting their loved ones to our care
- Our alumni, for remaining engaged with their program and supporting our goal to improve the world around us
- Our partners, without whom our program would not have the diversity of opportunities we currently enjoy
- Our university's leadership, for believing in the possibilities represented by a college of pharmacy and pharmaceutical sciences, and the value of a vibrant health sciences campus

Best wishes to all for a happy holiday season, regardless of which holiday you celebrate, and for a very happy 2019.



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

Editor's note: This is the final newsletter for the 2018 calendar year. The next CougaRx News will be published in February 2019. Happy Holidays!



UPCOMING EVENTS



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



Graduate Research Seminar
12:00 - 1:00 p.m.
PBS 101



Graduate Final Defense
2:00 - 3:00 p.m.
SNRS 105



Graduate Research Seminar
12:00 - 1:00 p.m.
PBS 101

[More college events >>](#)

COLLEGE NEWS

New partnership means opportunities for students at Spokane blood center

SPOKANE, Wash.—Patients who receive organ transplants must receive immunosuppressive drugs to prevent rejection, which is why pharmacists are an integral part of the multidisciplinary transplant team. For pharmacists seeking to practice in this area, most of the training and knowledge of transplant-related problems are acquired on the job after pharmacy school. While Washington State University has offered electives on immunology/transplantation to student pharmacists in the past, it is not part of the core curriculum of the program.

But now, starting in 2019, through a new partnership with Vitalant (formally Inland Northwest Blood Center), the WSU College of Pharmacy and Pharmaceutical Sciences (CPPS) will offer a special summer

internship for students in its Doctor of Pharmacy (Pharm.D.) program focused on providing education and experience in transfusion and transplantation medicine.

Ellen Klohe, who directs Vitalant’s transplant laboratory, envisions that the partnership will offer students an opportunity to see how genetics, immunology and cell biology translate into critical clinical services performed at the blood center. By providing a basis for understanding transfusion and transplantation medicine, students will extrapolate that knowledge to emerging cellular therapies.

“Students will see first-hand the integral role blood centers play in providing life-saving products and services for the medical community,” Linda Garrelts MacLean of WSU CPPS said.

According to MacLean, the eight-week internship is designed for student pharmacists in their second year of the Pharm.D. program. The goal of the student summer internship is to provide an opportunity for future pharmacists to gain early experience and familiarity with blood center operations, blood products and blood center-based clinical services. Student pharmacists will be able to see first-hand the relationship between community blood centers and the medical community, and the importance of blood products and services in medical practice.

“This internship will prepare them to take patient assessment and evaluation skills to a higher level, and introduce them to the role of pharmacists as important members of the medical community’s interdisciplinary team,” MacLean said.

The partnership between Vitalant and WSU CPPS is funded through the Blood Center Foundation of the Inland Northwest’s community grant program supporting education, research and technology.

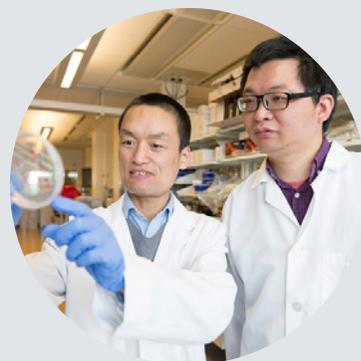
This is an example of how the WSU Doctor of Pharmacy program provides a transformative student experience and develops outstanding health care professionals and leaders in pharmacy. The college has a longstanding reputation of preparing the pharmacists of the future who will lead tomorrow’s health care solutions through innovation, collaboration and leadership.

Study shows promise in preventing heart disease in cancer survivors

[WSU Insider article by Judith Van Dongen](#)

After recurrence, heart disease is the number one cause of death among cancer survivors. A new study by College of Pharmacy and Pharmaceutical Sciences researchers could help change that.

[Read more »](#)



Pharmaceutical sciences professor named AAAS Fellow

[WSU Insider article](#)

Kathryn Meier and two other Washington State University faculty have been named Fellows of the American Association for the Advancement of Science (AAAS). Fellows are chosen to be awarded for scientifically or socially distinguished efforts to advance science or its applications.

[Read more »](#)



WSU and Pullman Regional Hospital form partnership

[WSU Insider article](#)

This November, Pullman Regional Hospital CEO Scott Adams and Washington State University President Kirk Schulz signed a memorandum of understanding that defines the collaborative effort, to be known as “Partners in Excellence.” This partnership signifies a formal continuation of long-standing collaboration between the two public entities.

[Read more »](#)



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LEGACY?

Show your support with planned giving. By including us in your estate and financial plans, you make a lasting difference and provide opportunities to future pharmacists.

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A MESSAGE FROM LINDA GARRELT'S MACLEAN



Greetings to our friends, colleagues and valued alumni,

What a year it has been for the WSU College of Pharmacy and Pharmaceutical Sciences! Our programs continue to make an impact nationally, and our alumni and friends in the incredible CougaRx Nation have been spotted all around the world, from Seattle to Glasgow, UK; Augusta, Georgia, to Stavanger, Norway; and right here in Spokane! I had the chance to visit with John Grunden, class of 1991, in New Jersey this fall; he and his Ol' Crimson network continue to wave WSU flags during College GameDay.

We have had some noteworthy success stories this year, including:

- Our NCPA Business Plan Competition champions Frank Nenninger, Chad Schmitt and Peter Tang. This success in turn provides them the opportunity to attend the NCPA Multiple Locations conference in Clearwater, Florida, in February. What a great place to present their plan again!
- Our national Student Compounding Competition champions Shauna Leggett, Katie Cashman and Megan Baker. Kudos to this motivated and inspiring team.
- The student-lead partnership with a local high school to address mental-health awareness that placed second in the national AACP Pharm4Me Innovation Challenge this last April.

The success of our college requires far more than just tremendous student pharmacists and graduate students. It requires great faculty and leaders, support programs such as the student-peer and student-

alumni mentor programs (thank you Fred Meyer), our career seminar speakers (thank you STCU), and PPSO student-lead events to provide our students with a world-class experience and the necessary tools for success. It also requires great support from the best alumni in all of WSU who help us provide our students with the resources needed to achieve their academic and personal growth goals.

While we are just rounding the half-way mark in our academic year, we are already interviewing for our next incoming class of student pharmacists and graduate students. Ultimately, we hope to once again offer a scholarship to every student who qualifies.

Your support has a real impact every day. Whether you mentor a student, serve as a preceptor, help with prospective student interviews or make an investment as a donor, you are making a difference. Thank you for being on this exciting journey with us.

For questions on making an end of year contribution to the College of Pharmacy and Pharmaceutical Sciences, please contact Kelly Sylvester at kelly.sylvester@wsu.edu, by phone at 509-358-7651, or you can find more information online at pharmacy.wsu.edu/alumnifriends/give.

There is no better time to be a Cougar pharmacist and with your help, we will continue elevating the profession to new heights, in the classroom and in our community.

With Cougar Pride,



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

ALUMNI NEWS



TWO CPPS FACULTY AWARDED BY WSPA

CPPS faculty Linda Garrelts MacLean and Kimberly McKeirnan received Awards of Distinction from the Washington State Pharmacy Association (WSPA).

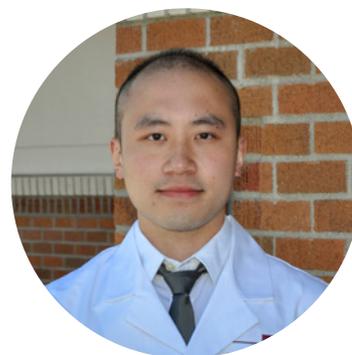
[Full story on page 6 »](#)



WSPA TOP STUDENT MEMBER

CPPS student pharmacist David Bunch received the 2018 Pharmacy Student of the Year Award from the Washington State Pharmacy Association (WSPA).

[Full story on page 7 »](#)



STUDENT SPOTLIGHT - A SUMMER AT NCPA

Student pharmacist Peter Tang spent 10 weeks last summer as an intern with the National Community Pharmacists Association (NCPA).

[Full story on page 7 »](#)

ALUMNI UPDATES

- **Cristina DuVall**, class of 2007, received the 2018 Cardinal Health GenerationRx Champions Award at the WSPA Annual Meeting on November 10 in Stevenson, Washington. The GenerationRx Champions Award recognizes a pharmacist who has demonstrated excellence in community-based prescription drug abuse prevention.
- **Holly Whitcomb Henry**, class of 1978, received the 2018 Distinguished Leadership Service Award at the WSPA Annual Meeting on November 10 in Stevenson, Washington. This award recognizes a WSPA member who has been instrumental over the course of their career in the development and growth of the profession, and who demonstrate a high level of influence and direction at their workplace, in the community and within the profession.
- **John Oftebro**, class of 1965, sent us a photo of him on the fishing trip he won at our Crimson Gala live auction on September 28. [View photo »](#)

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

Two faculty receive recognition from state association

SPOKANE, Wash.—Two Washington State University faculty members received Awards of Distinction from the Washington State Pharmacy Association (WSPA). The WSPA is the professional trade association representing pharmacists, student pharmacists and pharmacy technicians in all practice settings across Washington state.

Kimberly McKeirnan and Linda Garrelts MacLean were recognized during an awards luncheon at the [WSPA Annual Meeting](#) on Saturday, November 10, at the Skamania Lodge in Stevenson, Washington.

Kimberly McKeirnan received the Distinguished Young Pharmacist of the Year Award, which recognizes pharmacists who have been licensed in the profession less than 10 years and who have been innovators in pharmacy practice and enthusiastic participants in association activities.

“Dr. McKeirnan is a rising star,” said Leon Alzola, who presented her award and is the current WSPA treasurer-secretary. “In her first 10 years of practice, Kimberly has already made an amazing impact on our profession.”

McKeirnan is a clinical assistant professor in the Department of Pharmacotherapy at the Washington State University College of Pharmacy and Pharmaceutical Sciences. McKeirnan was selected because of her work in improving immunization rates in rural areas, developing a model for implementing chronic disease-state management services in community pharmacies, and developing a pharmacy technician immunization training program.

Linda Garrelts MacLean received the Bowl of Hygeia Award. The Bowl of Hygeia is the most widely recognized international symbol of pharmacy and derives from Greek mythology. This award recognizes pharmacists who have distinguished themselves in their careers through action.

“Linda is a passionate and active advocate for a future pharmacy practice where community pharmacists assess patients and are responsible for outcomes, communicating with other health care providers to ensure continuity of care,” said WSPA President Beverly Sheridan during the award ceremony.

MacLean is a clinical professor and the vice dean for external relations for the Washington State University College of Pharmacy and Pharmaceutical Sciences. She is a past-president of the WSPA and a

past trustee for the American Pharmacists Association. She currently serves as a board member and the vice-president for the Community Pharmacy Foundation, an organization dedicated to maximizing the community pharmacist's role in improved patient care.

"Thank you for allowing me to share in recognizing the accomplishments of a deserving recipient and one who epitomizes the principles of community service for which this award was developed," Sheridan said.

The WSPA advocates on behalf of its members to ensure pharmacy professionals are recognized, engaged and valued as essential to the health care team. Awardees are nominated by their peers and selected by a WSPA awards committee.

Bunch named top student member by WSPA

SPOKANE, Wash.—Washington State University student pharmacist David Bunch received the 2018 Pharmacy Student of the Year Award from the Washington State Pharmacy Association (WSPA). Bunch received the award on November 10, during the WSPA Annual Meeting in Stevenson, Washington. He was recognized for his consistent, sustained and outstanding contributions toward fostering student pharmacist participation in association activities on both a local and state level.

Bunch is passionate about patient care and advancing the profession of pharmacy through advocacy. He has served as the WSU liaison to the WSPA Board of Directors, American Pharmacists Association Academy of Student Pharmacists (APhA-ASP) chapter policy vice-president, APhA-ASP regional delegate, and as a member on multiple committees. Bunch is currently serving on the APhA-ASP National Policy Standing Committee and is a student representative for the WSPA Ambulatory Care Academy.

Bunch is from Oak Harbor, Washington. He completed his undergraduate coursework at Whitworth University and is in his final year of pharmacy school at WSU in Spokane. After graduation he plans to pursue a residency and continue his involvement in pharmacy associations.

The WSPA is the professional trade association representing pharmacists, student pharmacists and pharmacy technicians in all practice settings across Washington state. The WSPA advocates on behalf of its members to ensure pharmacy professionals are recognized, engaged and valued as essential to the health care team. Awardees are nominated by their peers and selected by a WSPA awards committee.

Student Spotlight: A summer at NCPA

YAKIMA, Wash.—Student pharmacist Peter Tang spent last summer as an intern with the National Community Pharmacists Association (NCPA). The program ran for 10 weeks and is located in Alexandria, Virginia.

"I was very excited about this opportunity to improve my leadership and management skills at a national level as well as expand my interests in independent pharmacy," Tang said.

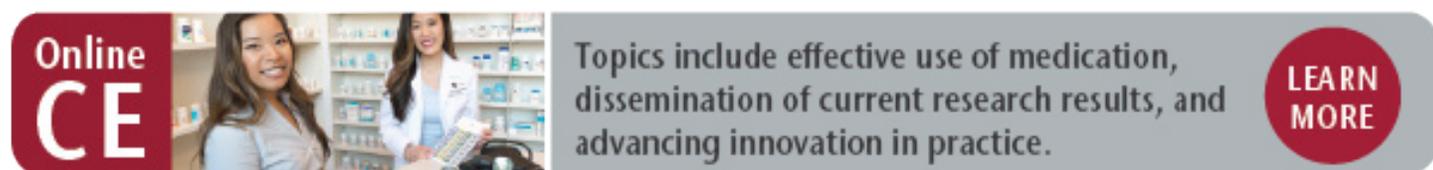
The NCPA Summer Internship Program is co-sponsored by the NCPA Foundation. There is only one candidate selected each summer, nationally.

Tang spent his summer working with the organization's Management Institute Department where he worked on several large projects, and completed a couple of his own. He participated in development of promotional content for NCPA programs, created resources for the NCPA innovation center, and completed a research project focused on identifying potential ways to leverage a community pharmacist to expand access to specialty health care needs. According to the NCPA, many independent pharmacies are the local health care access point for their communities, especially in rural and unreserved areas.

“The information from my project was used in one of the education sessions during the annual convention in Boston this year,” Tang said. “The internship experience was absolutely invaluable.”

Tang is part of the WSU Doctor of Pharmacy class of 2020 based in Yakima, Washington. He was born in Chongqing, China, and moved to Seattle in 2010. He completed his undergraduate coursework at the University of Washington. Tang is interested in pursuing pharmacy ownership after finishing his pharmacy degree.

Tang’s summer internship experience is just one example of how the WSU College of Pharmacy and Pharmaceutical Sciences cultivates a transformative student experience through supporting leadership development activities and participation in programs through national pharmacy organizations. The NCPA is a professional organization which advocates on public policy issues involving independent pharmacies and their patients, with the aim to promote the health and well-being of the public through the services provided at community pharmacies.



Online CE Topics include effective use of medication, dissemination of current research results, and advancing innovation in practice. **LEARN MORE**



FACULTY SCHOLARSHIP

Publications

- Postdoctoral Research Associate **Jin Gao** (Wang lab), Pharmaceutical Sciences Assistant Professor **Zhenjia Wang** and three co-authors published, “A facile approach for development of a vaccine made of bacterial double-layered membrane vesicles (DMVs),” in the peer-reviewed journal *Biomaterials* in December 2018. [Read article »](#)
- Pharmaceutical Sciences Associate Research Professor **Gang Chen**, Pharmaceutical Sciences Adjunct Professor **Joseph Ashmore**, Pharmaceutical Sciences Associate in Research **Christy J.W. Watson**, Pharmaceutical Sciences Professor and Chair **Philip Lazarus** and seven co-authors published, “Nicotine-N’-oxidation by flavin monooxygenase enzymes,” in the peer-reviewed medical journal *Cancer Epidemiology Biomarkers & Prevention* in October 2018. [View abstract »](#)
- Pharmacotherapy Clinical Assistant Professor **Kimberly McKeirnan** and Clinical Professor and Vice Dean for External Relations **Linda Garrelts MacLean** published, “Pharmacist, physician, and patient opinions of pharmacist-treated minor ailments and conditions,” in the peer-reviewed *Journal of American Pharmacists Association* in November 2018. [View abstract »](#)
- Allen I. White Distinguished Professor **Joshua Neumiller** published, “Diabetes Spectrum: past, present, and future,” in *Diabetes Spectrum*, a peer-reviewed publication from the American Diabetes Association in November 2018. [Read article »](#)

- **Joshua Neumiller** and one co-author published, “Sotagliflozin as adjunct therapy for people with Type 1 to increase time in target range,” in the independent online publication Diabetes in Control in November 2018. [Read article »](#)
- Pharmacotherapy Professor and Associate Dean of External Professional and Continuing Education **Danial E. Baker** published, “Drug evaluation – baloxavir marboxil: preliminary evaluation (Xofluza),” in Wolters Kluwer Health’s The Formulary Monograph Service (FMS) in November 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** and Pharmacotherapy Clinical Professor **Terri L. Levien** published, “Drug evaluation – lusutrombopag (Mulpleta),” in the FMS in November 2018.
- **Danial Baker** published, “Drug evaluation – patisiran (Onpattro),” in the FMS in November 2018.
- **Danial Baker** published, “Drug evaluation – iobenguane I 131 (Azedra),” in the FMS in November 2018.
- **Danial Baker** published, “Drug evaluation – lanadelumab-flyo (Takhzyro),” in the FMS in November 2018.
- **Danial Baker** published, “Drug utilization evaluation – lusutrombopag (Mulpleta),” in the FMS in November 2018.
- Pharmaceutical Sciences Research Associate **Anil K. Singh** (Ahmed lab), Pharmaceutical Sciences Associate Professor **Salah-uddin Ahmed** and three co-authors published, “Critical role of IL-1 α in IL-1 β -induced inflammatory responses: cooperation with NF- κ Bp65 in transcriptional regulation,” in the FASEB Journal, a scientific publication from the Federation of American Societies for Experimental Biology, in October 2018. [View abstract »](#)

Presentations

- **Danial Baker** presented the webinar, “USP Drug Classification System 2019 webinar for pharmaceutical manufacturers + beneficiaries/patient advocacy groups,” on November 8, 2018.
- **Danial Baker** presented, “Critical appraisal of systematic reviews,” at the Gulf Medical University College of Pharmacy on November 22, 2018, in Ajman, United Arab Emirates.
- **Anil Singh** presented the poster, “Epigallocatechin-3-Gallate (EGCG) suppresses systemic inflammation by inhibiting IL-6-induced STAT3 activation in cultured hepatocytes and in liver tissue of adjuvant-induced arthritis (AIA) rats,” co-authored with **Salah-uddin Ahmed** and two others, at the 2018 American College of Rheumatology (ACR) Annual Meeting in October 2018 in Chicago, Illinois.
- **Anil Singh** presented the poster, “Critical role of interleukin-1 α (IL-1 α) in IL-1 β -induced inflammatory responses: cooperation with NF- κ Bp65 in transcriptional regulation,” co-authored with **Salah-uddin Ahmed** and two others, at the 2018 ACR Annual Meeting.
- Pharmacotherapy Clinical Assistant Professor (Yakima) **Rustin Crutchley** co-authored with four others the paper, “Learning across borders: developing a pharmacist-driven continuing professional development program through the Baylor College of Medicine International Pediatric AIDS Initiative

Pharmacy Network (BIPAI-PN),” presented as an abstract at the American Association of Colleges of Pharmacy (ACCP) Global Conference on Clinical Pharmacy in October 2018 in Seattle, Washington.

Service

- Pharmaceutical Sciences Clinical Assistant Professor **Connie Remsberg** spoke to KREM 2 regarding a story about a Deer park woman sickened by her medications. [Learn more »](#)
- **Joshua Neumiller** was quoted in an article in Pharmacy Today discussing glycemic management in older adults. [Read article »](#)
- **Joshua Neumiller** served as a guest panelist for the KSPS Health Matters episode, “Type 2 Diabetes,” that aired on November 15, 2018. [Learn more »](#)
- **Kimberly McKeirnan** was appointed to serve as the director of the CPPS Applied Patient Care Lab (APC course sequence).
- **Salah-uddin Ahmed** served as an expert reviewer for the Arthritis and Musculoskeletal and Skin Diseases (AMS) study section meeting at the National Institute of Arthritis and Musculoskeletal and Skin (NIAMS) institute of the NIH held on October 14-15 in Bethesda, Maryland.
- **Salah-uddin Ahmed** served as an expert reviewer in the Autoimmune Diseases (AID) Integrated Review Panel assigned by the Department of Defense on October 29, 2018.
- Pharmacotherapy Academic Fellow **Nicole Perea** and **Kimberly McKeirnan** published the continuing education course, “Understanding common eye conditions and their treatments,” on the Pharmacy Times website in November 2018.
- **Rustin Crutchley** completed the AACP Academy Certificate Program, “Precision medicine: applied pharmacogenomics.”

Awards

- **Kimberly McKeirnan** received the Distinguished Young Pharmacist of the Year Award from the Washington State Pharmacy Association (WSPA) at the WSPA Annual Meeting on Saturday, November 10, 2018, in Stevenson, Washington.
- **Linda Garrelts MacLean** received the Bowl of Hygeia Award from WSPA at the WSPA Annual Meeting.
- **Joshua Neumiller** received the 2018 North Central High School Distinguished Alumnus award from North Central High School on November 30, 2018, in Spokane, Washington. A plaque and picture will be added to the “Honor Hallway” at the school.

Grants

- **Salah-uddin Ahmed** received an R01 grant in the amount of \$1,722,599 over five years from the National Institute for Arthritis and Musculoskeletal and Skin Diseases (NIAMS) for the project, “MicroRNA-based therapy for rheumatoid arthritis.” The study includes collaboration with researchers at University of Michigan, University of Toledo and University of Alabama-Birmingham.

- **Senthil Natesan** received \$125,376 over one year from Speragen Inc under an NIH small business technology transfer (STTR) grant for the project, “In silico identification of novel GHB receptor ligands for SSADH deficiency, a disorder of GABA metabolism.”

STUDENT ACHIEVEMENT

Doctor of Philosophy (Ph.D.) students

- **Panshak Dakup** (pharmaceutical sciences, Gaddameedhi lab) received a Pre-doctoral Fellowship from the American Heart Association. Dakup will receive \$53,688 over two years for the research project, “Harnessing the circadian clock to attenuate radiation-induced cardiotoxicity.”
- **Yadira Perez-Paramo** (pharmaceutical sciences, Lazarus lab) and **Shamema Nasrin** (pharmaceutical sciences, Lazarus lab) with faculty co-authors **Gang Chen**, **Joseph Ashmore**, **Christy Watson**, **Philip Lazarus** and five others published, “Nicotine-N'-oxidation by flavin monooxygenase enzymes,” in *Cancer Epidemiology Biomarkers & Prevention* in October 2018. [View abstract »](#)
- **Yadira Perez-Paramo** was awarded a dissertation scholarship (2018-2020) in the amount of \$28,000 each academic year over two years from the Science and Technology Mexican agency “CONACyT.”
- **Yadira Perez-Paramo** volunteered for American Society for Pharmacology and Experimental Therapeutics 2018 Health Professions Week. [View videos »](#)
- **Yadira Perez-Paramo** presented, “Nicotine detoxification by flavin monooxygenase (FMO) variants and their potential role in tobacco dependence,” at the 2018 Society for Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS) conference in October 2018 in San Antonio, Texas.
- **Xutong Catherine Shi** (pharmaceutical sciences, Z. Wang lab) successfully defended her doctoral dissertation titled, “Nanoparticle targeting of neutrophil improves cancer therapy.”
- **Sabrina Fechtner** (pharmaceutical sciences, Ahmed lab) with faculty co-authors **Anil Singh**, **Salah-uddin Ahmed** and one other published, “Critical role of IL-1 α in IL-1 β -induced inflammatory responses: cooperation with NF- κ Bp65 in transcriptional regulation,” in the *FASEB Journal* in October 2018. [View abstract »](#)
- **Sabrina Fechtner** presented the poster, “Characterization of the role of endocannabinoid system using JWH-133, a selective cannabinoid CB2 receptor agonist, in IL-1 β -induced inflammation in human rheumatoid arthritis synovial fibroblasts,” co-authored with faculty **Anil Singh** and **Salah-uddin Ahmed**, at the 2018 ACR Annual Meeting.
- **Sabrina Fechtner** received a \$500 ASWSU travel award and a \$500 Erwin and Jennie Foisy scholarship to present her work at the 2018 ACR Annual Meeting.
- **Mahamudul Haque** (pharmaceutical sciences, Ahmed lab) presented the poster, “Guanylate binding protein 5 (GBP5) inhibits rheumatoid arthritis synovial fibroblast mediated inflammation and tissue destruction,” co-authored with faculty **Anil Singh** and **Salah-uddin Ahmed**, at the 2018 ACR Annual Meeting.
- **Mahamudul Haque** received a \$500 travel award from the James and Diann Robbers Student Research Fund to present his work at the 2018 ACR Annual Meeting.

- **Ruby Siegel** (pharmaceutical sciences, Ahmed lab) presented the poster, “Elucidating the expression and role of heparan sulfate proteoglycan editing sulfatases in human rheumatoid arthritis synovium and rat adjuvant-induced arthritis model,” co-authored with **Solomon Agere** (pharmaceutical sciences, Ahmed lab) and faculty co-authors **Anil Singh** and **Salah-uddin Ahmed**, at the 2018 ACR Annual Meeting.
- **Sabrina Fechtner** co-authored with faculty **Anil Singh**, **Salah-uddin Ahmed** and one other the poster, “Epigallocatechin-3-Gallate (EGCG) suppresses systemic inflammation by inhibiting IL-6-induced STAT3 activation in cultured hepatocytes and in liver tissue of adjuvant-induced arthritis (AIA) rats,” presented at the 2018 ACR Annual Meeting.
- **Sabrina Fechtner** co-authored with faculty **Anil Singh**, **Salah-uddin Ahmed** and one other the poster, “Critical role of interleukin-1 α (IL-1 α) in IL-1 β -induced inflammatory responses: cooperation with NF-kBp65 in transcriptional regulation,” presented at the 2018 ACR Annual Meeting.

Doctor of Pharmacy (Pharm.D.) students

- **David Bunch** received the 2018 Pharmacy Student of the Year Award from WSPA at the WSPA Annual Meeting. [Learn more »](#)
- **Seema Badrbigi** with faculty co-author **Joshua Neumiller** published, “Sotagliflozin as adjunct therapy for people with Type 1 to increase time in target range,” in Diabetes in Control in November 2018. [Read article »](#)
- **Ashley Ta** and **Mark Nguyen** participated in the California Pharmacists Association Leader Development Weekend with their alumni mentor Patrick Tabon, class of 2012, in Monterey, California, November 3-4, 2018.



College of

Pharmacy and Pharmaceutical Sciences

WASHINGTON STATE UNIVERSITY

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