A NOTE FROM LINDA GARRELTS MACLEAN

Dear Friends and Colleagues:

October has been an exceptional month with many wins for the college. As many of you know, Bill Gaskins (class of ’69) received the R. Keith Campbell Lifetime Achievement Award at this year’s Crimson Gala. From starting off as a football and track star for the Cougars to becoming a beloved mentor and leader as the Director of Pharmacy for the Pullman Regional Hospital, Bill won the hearts and minds of everyone around him. We have made great progress in honoring Bill and are pleased to announce that third year student pharmacist, former Army combat veteran, and full-time mother, Monica Sines, received the first ever William and Felicia Gaskins Scholarship. This is a momentous step in honoring Bill and his legacy. Should you also want to make an investment in advancing the ongoing education of future pharmacists at WSU, we have kept the link open so that you can contribute.

Equipping students with the right combination of hard and soft skills will prepare our future pharmacists for the ever-evolving workplace. Measuring progress and ensuring that students leave CPPS as lifelong learners is a paramount goal for us. That is why I’m pleased to announce that this month, we will launch the Situational Judgment Test (SJT), a pilot program to assess our students on a variety of skills needed in health care and to ensure their success as pharmacists. Self-awareness, leadership, innovation, entrepreneurship, and professionalism are qualities that we want to instill in our students. Implementing this assessment will be a significant step forward for us as a college and our students as they adapt to a fast-changing workplace.

We want our students to learn from the best. This means not only having expert faculty, but also an enriching student environment. Recruiting the best students with promising futures will right-size our classes and improve the peer-to-peer learning experience. I am proud to say that our incoming cohort for 2019 is 132 strong, with 27 based in Yakima.

As we approach the Thanksgiving holiday, and students, faculty and alumni take a moment to cherish the people most important to them, I would like to express my sincere gratitude to all of you. The College of Pharmacy and Pharmaceutical Sciences and everything that we do would not be possible without your support that you give day-in and day-out. From conducting exit interviews, to your generous contributions, the Drive to 25 to become one of the top research universities and pharmacy schools would not be possible without your support. Thank you all for moving forward our mission at CPPS and WSU.

With much respect,

Linda Garrelts MacLean, interim dean
WSU College of Pharmacy and Pharmaceutical Sciences
Annual Crimson Gala Celebrates William Gaskins, college mentor and community leader

Year-round, alumni, faculty and friends of the College of Pharmacy and Pharmaceutical Sciences (CPPS) work tirelessly to innovate and advance the student pharmacist experience. Through regular meetings, generous contributions, and thoughtful preparation and guidance, CPPS has managed to advance its program with many wins this year. The annual Crimson Gala is one of the ways the college thanks their up-front and behind-the-scenes supporters.

This year’s gala honored William (Bill) Gaskins (class of ’69) with the first-ever R. Keith Campbell Lifetime Achievement Award. Bill’s ongoing commitment to advising and mentoring student pharmacists has made a significant impact on the outcomes of many lives, as well as the pharmacy profession. In his 43-year tenure as director of pharmacy for the Pullman Regional Hospital, Gaskins served as a mentor and preceptor to over 300 WSU student pharmacists who gained invaluable knowledge through clinical experience and the hospital pharmacy. Proceeds from the Crimson Gala will fund the William and Felicia Gaskins Scholarship.

“I could never have imagined that this [award] would be given to me... All my life, I’ve always had people help me and guide me with everything I’ve done,” said Gaskins in his thank you speech upon receiving the award.

“I appreciate that there are people holding me up all the time. They are really the ones that are responsible for this recognition.”

The first student to ever receive the William and Felicia Gaskins Scholarship was third year, Monica Sines, an Army combat veteran and mother. To a crowd of CPPS alumni and supporters, Monica shared her aspirations of providing the best care for anyone, regardless of social class, through effective communication.

“As a pharmacist, I hope to work in urban areas with low-income populations to increase their understanding of medications, and empower them to improve their health,” Sines said in her acceptance speech at the Crimson Gala.

“Monica is one of the most amazing students I’ve ever had the good fortune to teach. [We] have been working together to ensure that Monica is aware of just how many career opportunities are open to her as she is far more talented than she gives herself credit for,” said Sue Marsh, director of graduate studies at CPPS.

The following individuals were also recognized for their exceptional service in moving forward the college’s vision and mission to advance the student experience:

2018 ALUMNUS OF THE YEAR

Manpreet Chahal, class of 2010

Chahal has been exemplary in practice and in influence. Helping students set up service organizations related to oncology, Chahal also serves on the WSU Inland Empire Chapter of the Alumni Association as well as chair of the CougaRx Nation.

2019 MENTOR OF THE YEAR AWARD

Erin McCarthy, class of 2017

Skye McKennon, class of 2007

Five years ago, CPPS established a mentoring program with Fred Meyer, which pairs alumni mentors with students to navigate through their four-year pharmacy education. Alumni contribute their real-world experiences to inspire, illuminate and prepare students for careers in pharmacy.
2019 PRECEPTOR OF THE YEAR AWARD

Michael Marr, class of 1980

Mike Tews, class of 2004

The Preceptor of the Year Award is given annually to WSU pharmacy preceptors who demonstrate high standards of professionalism, ethics and clinical practice. Student pharmacists nominate preceptors for the award based on their experiences during rotations at their practice sites.

WSU and Yakima Valley College create new path for pharmacy students

YAKIMA, Wash. – College students in Yakima can now complete prerequisite courses for a Doctor of Pharmacy degree (PharmD) without leaving the area.

WSU College of Pharmacy and Pharmaceutical Sciences (CPPS), part of WSU Health Sciences, an upper-division undergraduate, professional and graduate campus based in Spokane, Washington, and Yakima Valley College (YVC), a public, two-year institution in Yakima, entered an agreement formalizing the pre-pharmacy track on Friday, Oct. 4.

The program allows qualified YVC students to take prerequisite courses for the CPPS Doctor of Pharmacy program at Yakima Valley College. The collaboration means students could remain in Yakima throughout their schooling, first at Yakima Valley College, then at WSU College of Pharmacy and Pharmaceutical Sciences Yakima.

“This exciting new partnership offers a unique opportunity to enter the challenging and rewarding pharmacy profession. It is gratifying knowing we are giving students a head start on their professional careers,” said CPPS interim dean, Linda Garrelts MacLean. “We are delighted and honored to join with Yakima Valley College in carrying out our college’s mission to advance human health through excellence in collaborative research, scholarship and clinical education.”

“We are very pleased to join WSU College of Pharmacy and Pharmaceutical Sciences in creating this innovative pathway for students; one that saves them time and money on the way to a PharmD degree,” said YVC president, Linda Kaminski. “Many YVC students and graduates are committed to remaining in the Yakima area, so we expect this program to add to the pool of local health professionals, helping fulfill the college’s goal to enrich and enhance individuals and our communities by delivering accessible, student-centered education.”

The Doctor of Pharmacy does not require a bachelor’s, but does require the prerequisites. YVC chemistry instructor, Sam Mazhari, and CPPS clinical assistant professor, Damianne Brand-Eubanks, were seminal in the past four years in developing the streamlined path. In preparation for program launch, CPPS sent down a medicinal chemist and instructor to help lay the framework for a biochemistry class needed to allow fulfillment of all prerequisites.

The signing event and celebration took place at Pacific Northwest University of Health Sciences to an audience comprised of college stakeholders, community partners and media.

WSU to collaborate with UAE’s Gulf Medical University on education, training and research

Last month, the WSU College of Pharmacy and Pharmaceutical Sciences (CPPS) signed a memorandum of understanding with the United Arab Emirates’ (UAE) Gulf Medical University (GMU) to collaborate through faculty and student exchanges. In the agreement, the two schools will have joint educational training and research activities as well as share expertise on drug information services.

“Through this exchange, I hope that students and faculty from both our universities are able to broaden their horizons on the practice of pharmacy,” said Linda Garrelts MacLean, interim dean at CPPS, who led the WSU
delegation and signed the agreement with Sherief Ibrahim Khalifa, dean for College of Pharmacy, and Hossam Hamdy, chancellor for GMU. “The professional landscape for pharmacy is changing, and we want our student pharmacists to be at the forefront of this change.”

WSU delegation represented by Linda Garrelts MacLean, Danial Baker, Julie Akers and Kimberly McKeirnan take part in a signing ceremony at Gulf Medical University on September 22.

Along with in-person student and faculty exchanges, the two universities will also learn from each other via regular video lectures. In addition, Danial Baker, professor in pharmacotherapy at WSU and one of the delegates in the exchange with GMU, will assist in the establishment of the Center for Drug Information and Evidence-Based Pharmacy at the Thumbay Hospital in the UAE.

“I truly appreciate the opportunity to get to know and understand what fellow students and professors in other countries are doing in pharmacy education. Everyone involved in this collaboration is committed to advancing the pharmacy practice to improve health for the citizens of our two countries, and people around the world,” said Dr. Baker.

Linda Garrelts MacLean, Julie Akers, Kimberly McKeirnan and Danial Baker were part of the WSU delegation visiting the UAE to present in a symposium covering a range of topics including pharmacist prescriptions for minor illnesses (Dr. Akers), flu vaccinations (Dr. McKeirnan), and preparing pharmacists for the future (Dr. Baker).

**Spotlight on Success**

**WSU study identifies new target for treatment of gout**
By Judith Van Dongen, Office of Research, WSU Health Sciences Spokane

SPokane, Wash. – Researchers at Washington State University Health Sciences Spokane and elsewhere have identified a new therapeutic target for the treatment of gout, a common type of arthritis that causes episodes of painful and stiff joints. Published in the journal *Cellular and Molecular Immunology*, their study suggests that blocking a signaling molecule known as TAK1 can suppress inflammation caused by gout. Their work lays the foundation for the development of potential new treatment strategies that could significantly improve the quality of life of millions of people around the world who suffer from the condition. In the United States alone, gout affects an estimated 8.3 million people, or about 4 percent of the population.

Gout is caused by high blood levels of uric acid, a natural waste product from the digestion of foods that contain purines, such as red meat, seafood, dried beans, and beer. These elevated uric acid levels can lead to the formation of monosodium uric acid (MSU) crystals that accumulate in joints. The immune system will perceive these crystals as a threat and launch an immune response against them that increases the production of interleukin-1-beta (IL-1-beta), a cytokine protein that causes inflammation and triggers the intense pain and swelling people experience during gout attacks.

“It’s kind of a vicious cycle that starts with these crystals, which cause IL-1-beta to be produced, inducing inflammation and activating a lot of other proteins to produce more inflammation,” said Salah-Uddin Ahmed, a professor of pharmaceutical sciences in the WSU College of Pharmacy and Pharmaceutical Sciences and senior author on the study.

One of those proteins activated by IL-1-beta—TAK1—caught the interest of Ahmed’s research team when their previous study suggested its key role in the regulation of IL-1-beta inflammation in rheumatoid arthritis. They
designed a study to identify the molecular mechanism by which MSU crystals produce IL-1-beta inflammation and the role of TAK1 in this process. Using two different cell lines of human macrophages—immune cells that play a key role in inflammation—they found that MSU crystals could directly activate TAK1 and other proteins that were previously thought to be dependent on IL-1-beta signaling for activation.

“We already knew that MSU crystals activate what is known as the inflammasome pathway, which produces IL-1-beta,” Ahmed said. “However, our study found that MSU crystals also use an alternate pathway that triggers inflammation through TAK1, which is a new finding related to how gout develops.”

Next, they showed that the use of a chemical that inhibits, or blocks, TAK1 could completely suppress any inflammation caused by MSU crystals, both in healthy human macrophage cells and in a rodent model of gout.

Ahmed said their discovery has opened the door towards the development of new treatment strategies for gout.

One current treatment he said scientists have experimented with is Anakinra, a drug that blocks the binding of IL-1-beta to its receptor. Though it has shown promise, Ahmed said the drug is not clinically used for gout, because it is given by infusion—which requires hospitalization; its effectiveness is limited; and it comes with a potential risk of infections when used long term. Developing TAK1 inhibitor drugs that could be taken by mouth would allow patients with gout to manage flare-ups of the disease at home.

The team’s next goal is to confirm their findings in cells taken from patients with gout. They are currently pursuing federal funding for this project, which they plan to conduct in collaboration with clinical scientists at the University of Alabama Birmingham and the University of Michigan Ann Arbor. If their findings hold up, this may eventually lead to clinical trials to test TAK1-inhibitors in patients.

Ahmed said their finding could also eventually be tested in other diseases that involve IL-1-beta mediated inflammation, such as multiple sclerosis, inflammatory bowel disease, and type 1 diabetes.

Ahmed’s coauthors on the study include primary author Anil K. Singh followed by Mahamudul Haque, and Kayla O’Sullivan of Washington State University’s College of Pharmacy and Pharmaceutical Sciences; Mukesh Chourasia of Amity University’s Institute of Biotechnology in India; and Madhu M. Ouseph of the Stanford University School of Medicine.

The study was selected as a Research Highlight in Nature Reviews Rheumatology, which has been published online and will be included in the November 2019 print issue.

Support for the study came from startup funds given to Ahmed by Washington State University.

**WSU professor awarded by United States Pharmacopeia**

The College of Pharmacy and Pharmaceutical Sciences is proud to announce that Danial E. Baker, professor of pharmacotherapy, received the United States Pharmacopeia (USP) Thomas S. Foster Award in recognition for his significant contributions to global public health. Dr. Baker is one of more than 800 experts who volunteer their time to ensuring the safety and quality standard of the nation’s formularies.

“I volunteer my time with the USP because I know that this time and our contributions will impact the health and safety of the general public. Many countries follow the USP standard so the impact is not just in the US, but around the world,” said Dr. Baker.

Each year, the USP develops and revises a drug classification system that Medicare Drug Benefit plans use to develop a list of medicines to reflect changes in therapeutic uses. Besides setting standards for medicines, food
ingredients and dietary supplements, the USP develops a drug classification system used to assess the drug formularies offered by health care programs, especially for Medicare. Being the only independent, non-profit, non-governmental pharmacopeia in the world, the USP relies on volunteers like Dr. Baker, who come from academia, health care, and government agencies to lend their expertise to the organization. Members generously volunteer their time to ensure the medicines, food ingredients and supplements are held to a safe and high quality standard.

“I look forward to continuing my work with USP. It has been an honor to serve among the best in the field,” said Dr. Baker.

The USP’s award is only one of several acknowledgements which Dr. Baker has received. Earlier this year, Dr. Baker was named the J. Roberts and Marcia Fosberg Distinguished Professor in Pharmacy in recognition of his outstanding contributions to the Department of Pharmacotherapy, the Drug Information Center and CPPS. Serving as the director of WSU’s Drug Information Center since 1983, Dr. Baker is internationally recognized for his expertise in gastrointestinal disorders, drug information and evidence-based medicine. WSU’s Drug Information Center serves as a reference resource for drug-related questions from health care providers and has a dedicated request line to respond to inquiries from pharmacists, physicians, nurses and other allied health care professionals regarding drug interactions, side effects and drug-related topics.

**Japanese pharmacy students take part in compounding exercise at WSU**

Have you ever wanted to make your own gummy bears? Last month, pharmacy students from Mukogawa Women’s University (MWU) in Japan had the opportunity to do just that while visiting Washington State University College of Pharmacy and Pharmaceutical Sciences (CPPS).

Every year, students from the Mukogawa pharmacy program travel from Nishinomiya, Hyōgo, Japan to visit the university’s Spokane extension, the Mukogawa Fort Wright Institute. This four-week visit allows fifth year students to learn about differences between the United States and Japan in pharmacy practice.

The trip included a day spent at the CPPS learning about pharmacy education at the college and taking part in compounding, simulation and health screening activities. During the compounding activity, Japanese students mixed ingredients into alternate forms. This common practice makes medication more palatable -- for example, children who are unable or unwilling to swallow large pills, can be given medication in the form of gummy bears. Mukogawa students were guided by CPPS students in the creation of gummy bears (without medication) and lip balm to take home.

**PHILANTHROPY FOCUS**

The BECU/WSU stocking caps at our Crimson Gala were a big hit! Thank you to BECU for supporting our event as a Gray Sponsor and for providing the caps.

Didn’t get one? Please stop by BECU’s Spokane Valley location on Sullivan to see Wanda Buddrius to get yours (while supplies last).
Alumni Updates

– We were happy to see Former Senator Linda Evans Parlette on campus for a tour on October 2. She is a class of 1968 pharmacy alum and was our commencement speaker two years ago.

– We caught up with class of 2017 grad, Shelby Williams recently. Since graduating she’s completed a clinical veterinary pharmacy residency at NC State College of Veterinary Medicine and is currently the pharmacy manager at UW Veterinary Care, the Veterinary Teaching Hospital at the University of Wisconsin School of Veterinary Medicine. She also is the residency director for the Clinical Veterinary Pharmacy Residency program, teaches a Veterinary Pharmacy Therapeutics elective course at the University of Wisconsin School of Pharmacy, and is a preceptor and clinical instructor for the University of Wisconsin School of Pharmacy and Concordia University School of Pharmacy. She still teaches the WSU Veterinary Pharmacy Elective that started in Spring 2017 as well. Approximately 300 student pharmacists have taken the course over the past three years.

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

Other News

No more need for injections?
Pharmacotherapy Chair & R. Keith Campbell Distinguished Professor in Diabetes Care wrote a piece in Health and Home Magazine, a publication from The Inlander about a novel treatment for Type 2 diabetes.
Read more from The Inlander

WSU unveils mobile unit that will bring doctors, medical students to rural communities that need them
The program will eventually be a part of interprofessional curriculum for nursing, pharmacy and medical students learning to work as a team.
Read more from the Spokesman Review

Yakima project in interprofessional education is successful – and growing
When students from different health care professions learn together, they’re better at working in teams once they graduate. That’s why four universities in Washington’s Yakima Valley launched the Yakima Valley Interprofessional Practice and Education Collaborative (YVIPEC) five years ago. The collaboration allows WSU pharmacy and nursing students to work with students from Pacific Northwest University of Health Sciences, Central Washington University, and Heritage University to gain team-based experience in interprofessional education.
Read more

Events

Career Fair
November 6 | Yakima
November 7 | Spokane

CougaRx Nation Holiday Party
December 6 | WSU Health Sciences Spokane, Washington

ASHP Alumni & Friends Reception
Dec. 9 | MGM Grand, Lobby Bar Las Vegas, Nevada
Faculty Scholarship

PUBLICATIONS

Pharmaceutical Sciences Assistant Professor Zhaokang Cheng and Postdoctoral Research Associate Peng Xia with six co-authors published, “Genome-wide RNAi screen identifies regulators of cardiomyocyte necrosis,” in ACS Pharmacology & Translational Science, a peer-reviewed open-access journal from the American Chemical Society in September 2019. View abstract »

Pharmaceutical Sciences Associate in Research Christy J.W. Watson, Pharmaceutical Sciences Professor and Chair Philip Lazarus, Pharmaceutical Sciences Assistant Professor Travis T. Denton and six co-authors published, “The novel CYP2A6 inhibitor, DLCI-1, decreases nicotine self-administration in mice,” in the peer-reviewed The Journal of Pharmacology and Experimental Therapeutics in October 2019. View abstract »

Allen I. White Distinguished Associate Professor Joshua Neumiller and one co-author published, “How does CREDENCE inform best use of SGLT2 inhibitors in CKD?” in the CJASN, an official publication of the American Society of Nephrology in October 2019. Read article »


J. Roberts and Marcia Fosberg Distinguished Professor Daniel Baker published, “Drug evaluation – polatuzumab vedotin-piiq (POLIVY),” in Wolters Kluwer Health’s The Formulary Monograph Service (FMS) in September 2019. 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 Assistant Professor (Yakima) Matthew Thomas with three co-authors published, “The effect of heparin infusion intensity on outcomes for bridging hospitalized patients with a trial fibrillation,” in Clinical Cardiology in September 2019. Read article »

PRESENTATIONS


Daniel Baker presented, “Preparing pharmacists for practice in 2035,” at the Symposium on Advances in Pharmacy Practice: USA & UAE Perspectives at the Gulf Medical University in Ajman, United Arab Emirates on September 22, 2019.

Damianne Brand-Eubanks and Pharmacotherapy Research Associate (Yakima) Emily Darst gave the oral presentation, “The pharmacy compounding lab as a destination for student-led interprofessional education and personalized medicine,” at the Collaborating Across Borders Conference (CAB). CAB is an international conference
focused on interprofessional education that is hosted every two years between the US and Canada. Their presentation focused on the interprofessional cocurricular collaborative experience that we have been developing between our Yakima Compounding Club pharmacy students and the Doctor of Osteopathic Medicine students in the Dermatology Club at PNWU. The collaboration is a student-developed and student-taught experience, which gives students wonderful opportunities to develop leadership skills and practice provider education. They have hosted this experience between the two programs for 4 consecutive semesters.

Emily Darst will give a talk about the new USP <800> guidelines (Hazardous Drugs – Handling in Healthcare Settings), as well as recent revisions to the USP <795> (Pharmaceutical Compounding – Nonsterile Preparations) and <797> guidelines (Pharmaceutical Compounding – Sterile Preparations) at the upcoming WSPA Annual Meeting in Cle Elum on November 9. The presentation will qualify for pharmacist Continuing Education credit for those that would like to attend!

AWARDS

Danial Baker received the Thomas S. Foster Award from USP. This award recognizes his dedication and significant contributions to the achievement of USP standards-setting priorities or the improvement of USP’s standards-setting processes in a specific area within the EC portfolio.

GRANTS

Zhaokang Cheng received $449,098 from the National Heart, Lung, and Blood Institute for a research project titled, “Mechanisms of cardiac chemosensitivity.”

Student Achievement

PHARMACEUTICAL SCIENCES (PH.D.) STUDENTS

Panshak Dakup (pharmaceutical sciences, Gaddameedhi lab) presented the poster and invited talk, “Circadian clock disruption impairs the skin’s DNA damage response to solar UVB and increases mutagenicity,” to the DNA repair Special Interest Group of the Environmental Mutagenesis and Genomics Society on September 20, 2019. Co-authors on the poster include Pharmaceutical Sciences Research Technologist Kenneth Porter, Pharmaceutical Sciences Assistant Professor Shobhan Gaddameedhi and Rajendra Gajula.

Soumyadeep Sarkar and Panshak Dakup (pharmaceutical sciences, Gaddameedhi lab) and faculty co-authors Kenneth Porter and Shobhan Gaddameedhi with Rajendra P. Gajula gave an oral and poster presentation on “Circadian clock protein BMAL1 regulates melanin synthesis through MITF,” for the PanAmerican Society for Pigment Cell Research (PASPCR) 2019 meeting in Bar Harbor, Maine on October 2, 2019.

Jing Wang (Denton lab, Pharm.D. Honors Student) with faculty co-authors Christy J.W. Watson, Philip Lazarus, Travis T. Denton and five other authors published “The novel CYP2A6 inhibitor, DLCI-1, decreases nicotine self-administration in mice,” in the peer-reviewed The Journal of Pharmacology and Experimental Therapeutics in October 2019. View abstract »

Madalyn Brown (pharmaceutical sciences, Gibson/Roullet labs) presented the poster, “Detection of succinic semialdehyde dehydrogenase deficiency in newborn dried blood spots,” at the American Society of Human Genetics Annual Meeting in Houston, Texas on October 17, 2019. This abstract scored in the top 10% and received Reviewers’ Choice designation.

Madalyn Brown presented the poster, “Novel detection of succinic semialdehyde dehydrogenase deficiency (SSADHD) in newborn dried blood spots,” at the National Organization for Rare Disorders Annual Summit in Washington, D.C. on October 21, 2019. Madalyn received a travel award to present the poster.

Panshak Dakup received a $750 merit-based Alexander Hollaender travel award from the Environmental Mutagenesis and Genomics Society to attend the annual meeting in Washington D.C. In addition, he received $500 from the WSU College of Pharmacy and Pharmaceutical Sciences (CPPS) Department of Pharmaceutical Sciences.
Soumyadeep Sarkar won second place in poster competition at PASPCR 2019.

Soumyadeep Sarkar received a $700 travel award from PASPCR.

Soumyadeep Sarkar received a $500 travel award from the CPPS Sue Harriet Monroe Mullen Graduate Fellowship.

**DOCTOR OF PHARMACY (PHARM.D.) STUDENTS**