Dear Friends and Colleagues:

The lay press recently has seen an increase in the number of commentaries suggesting that pursuing a college degree no longer makes economic sense for many students. This thesis runs counter to long-standing research that documents the value, in terms of lifetime earning potential, of higher education.

The crux of the “college education is not worth much anymore” argument seems to be this: a large proportion of students who start college, and incur education-related debt, never complete the degree. Although from the standpoint of lifetime earning potential some college is better than none, the economic benefits for students who fail to progress to the degree are marginal. This marginal benefit for a large segment of matriculated students (according to the National Center for Education Statistics more than 40 percent of students who enter four-year degree programs now fail to earn their degree within six years) influences the estimated economic impact of college education when all students are averaged (which, by itself, is a questionable approach in treating this type of data, one that can lead to significant misinterpretation). Racial, ethnic, and socioeconomic factors covary with degree completion rates.

Why is this issue important for postgraduate or advanced degrees, such as the PharmD, MS, and PhD programs that compose “academic pharmacy?” Delayed degree completion, or failure to complete the degree at all, is associated with much higher economic consequences (loss of the tuition investment; lost earning potential) for advanced-degree, as compared to baccalaureate-degree, programs. Addressing the causes of attrition in a meaningful way is at the center of assuring that students gain the maximum economic benefit of their educational endeavors.

The WSU College of Pharmacy and Pharmaceutical Sciences aspires to help students become professionals of consequence. Consistent with the values and mission of the university itself, our college seeks to improve the lives of students with challenging economic backgrounds, from families who have not previously produced college graduates and for whom life in the United States might be a relatively new experience. Student cohorts with this profile often have relatively weak public school preparation, are economically insecure and so must work to support themselves or their families while pursuing a degree, and are less than fluent in our language of instruction. In short, these students—who are bright, talented and focused—often require a different pedagogical approach, and a different menu of support options, to achieve their potential.
One initiative our college has pursued is adopting a competency-based approach to curricular delivery in the PharmD program. Over the five years of experience we have with this approach, the effect on attrition (falling behind the matriculated cohort or failing the program) has been profound. Attrition during the first professional year, for example, has been less than one percent (compared to approximately 10 percent prior to making this change). For the two cohorts of students who have completed their degree under the competency-based model, four-year attrition has been approximately three percent, nearly four-fold lower than the national average in academic pharmacy.

There are, of course, other things that we can and must do to ensure that all of our students have an adequate opportunity to succeed. Perhaps the most important is for faculty to recognize, and indeed to celebrate, the fact that today’s students are different from our former-student selves. They have been prepared differently, they learn and communicate differently, and in many cases they face different challenges than we experienced. Our teaching approaches, our student support systems and our academic culture must adapt or face the risk of becoming irrelevant.

Best wishes to our future success,

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

UPCOMING EVENTS

**JUNE 2**  
CougaRx & Fred Meyer Alumni-Student Mentor Program Reception

**JUNE 12**  
TIPed Institute  
June 12-14  
Spokane, Wash.

**AUG. 10**  
Research Day  
August 10  
Spokane, Wash.

**AUG. 13**  
PharmD Orientation  
August 13-17  
Spokane, Wash. & Yakima, Wash.

More college events >>
College of Pharmacy celebrates graduates success

Thursday, May 3, the Washington State University College of Pharmacy celebrated the accomplishments of one Ph.D., one master of pharmaceutical sciences and 132 Doctor of Pharmacy graduates at its 2018 Commencement Ceremony. Family, faculty and friends gathered at the Fox Theater in downtown Spokane to honor the new alumni of the college.

Former Washington Senator Linda Evans Parlette gave the keynote address and shared insights as a pharmacist advocating for public health while serving in the state legislature.

“The pharmacist of today will be known as part of a patient management team, and not just in hospital or clinical settings,” Parlette said.

As a WSU alumna, Parlette expressed pride that the college’s graduates have been prepared to practice “at the top of their profession,” and that in places like Washington state pharmacists are formally recognized as health care providers. In 2015, Parlette sponsored legislation that made Washington the first state in the country to require insurance carriers to recognize pharmacists in the same way as other providers. Not all states have this kind of legislation in place and insurance companies routinely refuse to reimburse pharmacists for the growing number of services they provide.

“I am inspired about all of the opportunities that the future holds for each and every one of you,” Parlette said.

She challenged the graduates to be open to change, have courage and the right attitude, and to “keep a song in your heart.”

Student speakers at the ceremony were Ph.D. graduate Solomon Agere, and pharmacy graduate Karl Nacalaban.

Senior awards were given out at a special luncheon the previous day, following the commencement rehearsal. The 2018 Doctor of Pharmacy student awardees were:

**James Kent: APhA-ASP Senior Recognition**
For the greatest contribution to advancing the pharmacy profession through outstanding service to the American Pharmacists Association Academy of Student Pharmacists.

**James Kent and Kathryn Rand: College of Pharmacy Faculty Award**
For outstanding grades, membership and participation in pharmacy organizations, and work characteristics as evidenced in the laboratory, classes and internships.

**Elizabeth D’Andrea: Lilly & Co. Achievement**
For superior scholastic achievement in the professional curriculum, leadership qualities, and strong professional attitude.

**Juliet Nguyen: Facts and Comparisons Excellence in Clinical Communication**
For being in the top 25 percent of the class and demonstrating superior verbal and written clinical communication skills.
Haleigh Miller, Lauren Wagner, Shauna Leggett, and Megan Lenz: Merck Award for Outstanding Students
For students with the highest GPA in the class.

Jihan Haji: Mylan Pharmaceuticals Excellence in Pharmacy
For being in the top 25 percent of the class and demonstrating high professional motivation and the intent to enter practice upon graduation.

Haleigh Miller: Larry G. Bettesworth Pharmacy Student Award
This award, in honor of Larry G. Bettesworth, is given to an outstanding WSU College of Pharmacy student pursuing training in a health-system residency program. The award was presented by Sean Dobbin, regional director of pharmacy at Providence Health Care.

Two faculty make the move to associate dean
In January 2018, the Washington State University College of Pharmacy announced two updates to positions in its college leadership. Jennifer Robinson and Angela Stewart have been named associate deans for the college.

Robinson joined the college faculty in 2008 and was previously assistant dean for recruitment and student success. She now serves as associate dean for professional education and will continue to oversee the Doctor of Pharmacy (Pharm.D.) degree program. This degree makes up the majority of the college’s educational offerings.

“Jennifer has done truly outstanding work in the areas of recruitment, admission and student success, and is uniquely prepared to lead our professional degree program,” Dean Gary Pollack said in an internal announcement earlier this spring.

Stewart joined the college faculty in 2013 after serving as an adjunct faculty in Yakima for several years. She served previously as assistant dean in Yakima providing on-site leadership for the establishment and launch of the extension of the college’s Doctor of Pharmacy program located on the Pacific Northwest University of Health Sciences campus. Stewart will continue in this role as associate dean for the Yakima extension of the Doctor of Pharmacy program.

“Given the growth and stability of Yakima under Angie’s leadership, it is important to elevate the position title to communicate an appropriate level of authority and autonomy,” Pollack said.

Robinson is based in Spokane, Stewart is based in Yakima.

This change supports the college’s commitment to the transformation and innovation of the way it educates health care professionals and scientists. The college strives to provide a transformative experience with a focus on student-centered learning that will contribute to the patient-centered care teams of the future, and to challenge the status quo in order to develop practice-ready graduates who will lead tomorrow’s health care solutions.
Part 3: WSU leads in expanding scientific knowledge of natural products

Welcome back to the final segment of our three-part series on the Center of Excellence for Natural Product-Drug Interaction Research (NaPDI Center). Interactions between natural products and conventional drugs are a concern because of their potential impact on drug effectiveness or toxicity.

In case you missed Parts 1 and 2: The NaPDI Center is a multidisciplinary effort involving clinical pharmacologists, natural products chemists, and health informaticists to provide leadership in the study of these complex interactions.

This effort is being led by Mary Paine, who is a pharmaceutical sciences researcher and associate professor at the Washington State University College of Pharmacy and Pharmaceutical Sciences.

Read Part 1: expanding scientific knowledge
Read Part 2: the NaPDI Center

Public health impact

Part 3 (of 3)

The NaPDI Center is working on a set of recommended approaches that will detail the steps for studying pharmacokinetic interactions between natural products and drugs. That is, studies on how a natural product can alter the absorption, distribution, metabolism, or excretion of a drug. If a scientist wants to study natural products but needs to know how to select a natural product to study, or how to source and chemically characterize a natural product, or which in vitro assays to use, or how to run a clinical study, “We will have a recommended approach for that,” Paine said.

By providing recommended approaches that researchers can follow when setting up their studies, future studies on natural products will be more reproducible and should provide reliable, high-quality data.

“Collectively, the efforts of the NaPDI Center are expected to lead to improved design of future research and ultimately, improved decisions regarding the optimal management of clinically relevant interactions,” Paine said.

While this project is unique for natural products, it is not entirely novel. These types of recommended approaches exist and have been followed for decades in other areas. For example, the FDA guidances used in the studies of pharmacokinetic interactions between drugs (drug-drug interactions), among others, are what pharmaceutical companies follow to get new drugs approved. Paine would like to have the suite of recommended approaches available to researchers through the center’s online portal, similar to resources currently available for drug-drug interaction studies.

Outputs from the NaPDI Center surrounding interactions between natural products and drugs could contribute on multiple levels when it comes to decision making on policy, regulation, best practices, and the individual adoption and integration of natural products into the medication therapy of patients.

In the future, the NaPDI Center hopes to expand access to its online database to include health care practitioners. The center would then be both a resource for the proliferation of quality science and a functional data repository for the health care community.
Sourcing natural products for clinical studies can be a major challenge for the center. One example of a natural product that is challenging to source for this purpose is kratom. Kratom is a tropical tree from which its leaves are used as an opioid substitute to treat chronic pain, manage opioid withdrawal symptoms, and even treat post-traumatic stress disorder. There is currently no evidence that kratom is effective or safe as an herbal alternative medicine, despite its known use. According to the National Institute on Drug Abuse, commercial forms of kratom are sometimes laced with other compounds that have caused deaths. While currently not an illegal substance, kratom has come under FDA scrutiny for its use as an ingredient in marketed natural products, raising uncertainty in the feasibility of conducting a clinical study.

With the center’s green tea studies concluded and goldenseal studies in progress, the NaPDI Center is setting up for the next natural product on its list, which may prove to be the most challenging yet: cannabis.

Cannabis is listed as a Schedule I controlled substance by the Drug Enforcement Administration (DEA), which in turn leads to significant barriers to studying it. The NaPDI Center is in the process of obtaining the required legal (DEA) and regulatory (FDA) approvals in order to have access to federally provided cannabis. Through existing and new collaborations with the University of Washington and Johns Hopkins University, the NaPDI Center will overcome these barriers, at least for its currently planned studies.

“The legal and regulatory hoops are substantial, but this is when we need the scientific information to be reliable,” Paine said.

In a July 2016 letter to the governors of Washington and Rhode Island regarding the regulation of cannabis, the DEA sited lack scientific knowledge that was well-controlled, reproducible and “widely available.” A short time later the DEA announced changes to its rules with the aim to expand access to cannabis for scientific study.

Reliable, high-quality data on clinical interactions between cannabis and drugs remains scarce, which makes the NaPDI Center’s recommended approaches to studying natural products an important project to complete as more and more attention gets turned toward the rigorous study of the plant. The NaPDI Center will be focused on evaluating its potential impact on the pharmacokinetics of select drugs.

This NaPDI Center project aligns with the Washington State University’s land-grant research mission to untangle complex problems to enrich quality of life for us all, specifically surrounding sustaining health. The center also contributes to the College of Pharmacy and Pharmaceutical Sciences mission to advance human health through excellence in collaborative research, and its vision to be a leader in advancing, promoting and protecting human health. Expanding scientific knowledge of the potential risks associated with natural products increases safety, which is important for people across the nation who are just trying to do what they can to live their best, healthy life.
Dear Alums, Colleagues and Friends of Pharmacy,

Thanks to all of you who attended our Celebrating Generosity reception at the Columbia Tower in Seattle on May 11th! We thank each of you for attending!

Earlier in the day, our Dean’s Advisory Council met. The council expressed interest in gaining insight about the impact of the transformational educational experience provided by the College of Pharmacy and Pharmaceutical Sciences. Council Chair Merrie Kay Alzola, class of 1993, asked us about the real world impact of our students who come through our program, beyond the “statistics.” How are we living up to our promise to educate our students to be leaders in advancing, promoting and protecting human health? To provide this perspective, Mylinh Nguyen, class of 2013, joined the group for lunch.

Mylinh is an outstanding example of the service-oriented community of the CougaRx Nation that leads tomorrow’s health care solutions. While a student at WSU, Mylinh developed a passion for improving health in Vietnam and became involved with the work of the Vietnam Health Clinic (VHC).

Mylinh volunteered as a student pharmacist, traveled to Vietnam multiple times, and then went on to set up an Advanced Pharmacy Practice Experience (APPE) for our college. Many of our students have had life changing experiences after serving as a member of mobile health clinics. Mylinh continues to mentor our WSU student pharmacists who participate in this elective during the fourth professional year.

I thought you would be interested in seeing some of the opportunities afforded our student pharmacists:

• **VHC Immunization Project**
  - Research current immunization schedule in practice (pediatrics, adults)
  - Determine vaccines in need in the rural communities in central Vietnam
  - Connect/work with PATH for grant government proposals

• **Education/Teaching at Vietnam National University (VNU)**
  - Present a healthcare topic or public health issue to medical/pharmacy students and university faculty members
  - Round table discussion of pressing healthcare related issues (metropolitan vs. rural)

• **Mobile clinic at a local orphanage or woman’s shelter**
  - Preventative health: dental, vision, public health

• **Maintain partnerships with local businesses in Vietnam**
  - Thuan Thao Pharmacy in Hue (help streamline medication ordering process)
  - Da Nang Eye Hospital (follow-up cataract surgery care)
Dr. Mylinh Nguyen is making a difference in her current practice in the Seattle area, through her volunteer work with VHC, and as an adjunct faculty member teaching our students about their future roles as global health care providers and pharmacists. The story would not be complete unless I provide you with one last piece of information. Mylinh was the first recipient of The Oftebro Scholarship, generously endowed by Deborah and John Oftebro, class of 1965. John was able to reconnect with Mylinh on May 11 and he was able to hear first-hand how his investment in students impacted so many!

With Cougar Pride,

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

ALUMNI NEWS

CHANCELLOR’S AWARDS
Yaoyi (Peyton) Xiao, Thomas Maslo, Kathryn Rand, and Shannon Kozlovich received 2018 WSU Spokane Chancellor’s Awards.

Full story on page 9

RXIMPACT DAY
Wearing a white pharmacist’s coat in the congressional buildings of our nation’s capital gets one a lot of attention.

Full story on page 10

DONOR EVENT PHOTOS
We hosted our annual Celebrating Generosity event at the Columbia Tower in Seattle to recognize the amazing support that our alumni and friends give to our students and programs.

View photos »

ALUMNI UPDATES

• **Carmela Guangorena Severin**, class of 2018, just accepted a position with Genoa Healthcare. As an example of how advocacy for the profession can also be good for your career, Carmela was introduced to her now boss at Genoa while participating in the RxIMPACT Day in Washington, D.C., this past spring.

• **Kurt Schanzenbach**, class of 1976, stopped by our campus in Spokane for a visit. Kurt, who recently retired as the director of pharmacy for Queen’s Hospital in Honolulu, was in Washington state to visit family and classmates, including David Bell. In 2015 and 2016, Kurt was instrumental in helping with the CougaRx Nation Hawaii events and putting us in touch with Hawaii pharmacy alumni.
• Another WSU alum will take over as hospital pharmacy director at Queen’s Hospital in Honolulu: congratulations to Marcy Matsukawa, class of 2007, on her new promotion!

• Jim and Diann Robbers, class of 1957, along with John Oftebro, class of 1965, had a chance to visit personally with WSU President Kirk Schulz on May 23 in Mukilteo, Washington. President Schulz also met with Sue Merk, class of 1976, in Seattle, and last month the president met with Gerald Danquist, class of 1965. The reason for these visits? So President Schulz could thank each of them for their continued investment in WSU and the college, and share his vision for the future. If you would be interested in learning more about this opportunity, please contact Kelly Sylvester, Director of Development, at kelly.sylvester@wsu.edu.

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

Four College of Pharmacy Students Receive Chancellor’s Awards
On April 17 College of Pharmacy students Yaoyi (Peyton) Xiao, Thomas Maslo, Kathryn Rand, and Shannon Kozlovich received 2018 Washington State University (WSU) Spokane Chancellor’s Awards.

This award is an honor bestowed annually to students for their demonstration of exceptional leadership and service to the university and community. Recipients are identified by the WSU Spokane Chancellor Daryll DeWald and supporting committee.

Doctor of Philosophy in Pharmaceutical Sciences student Shannon Kozlovich received the award for her advocacy and work as the Associated Students of Washington State University (ASWSU) Director of Legislative Affairs.

One nominator said, “Shannon is passionate about advocating for those that may not otherwise have a voice. I have no doubt that she will continue to advocate for the underserved even after she leaves WSU Spokane and I am excited to see where she goes in life.”

Third year Doctor of Pharmacy student Thomas Maslo received the award for his work on access to mental health care on our campus and in the community.

“He has been a diligent partner in helping to develop a course that did not follow the standard template found in other College of Pharmacy courses. This course incorporated non-pharmacological tools that could be utilized to support individuals who could be suffering from acute or chronic episodes of mental health disorders,” according to his nomination letter.

Fourth year Doctor of Pharmacy student Kathryn Rand was awarded for her leadership and participation as an executive member of the student ambassador group at the College of Pharmacy.

One nominator said, “Kathryn was tasked with organizing orientation and introducing the new cohort of student pharmacists to the culture and community of the college. She modified the previous orientation schedule to provide more active engagement between student pharmacists.”

Lastly, second year Doctor of Pharmacy student Peyton Xiao received an award for her outreach activities to the Yakima area.

“Peyton has done extensive research on programs in the community to bring better understanding in areas including needle exchanges and drug rehab programs,” said her nomination letter.
Students received their awards from the chancellor and College of Pharmacy Dean Gary Pollack during a special reception in the Pharmaceutical and Biomedical Sciences Building Lobby on the Spokane campus. Photos of the ceremony can be viewed online.

**NACDS RxIMPACT Advocacy Day**

**By: Carmela Guangorena Severin, 2018 WSU Doctor of Pharmacy graduate**

Wearing a white pharmacist’s coat in the congressional buildings of our nation’s capital gets one a lot of attention. As I rushed from meeting to meeting as a member of Washington state’s advocacy team, I could feel the buzz that our presence generated.

I had the opportunity to participate in RxIMPACT Day this last March. This annual event is sponsored by the National Association of Chain Drug Stores (NACDS), and provides the opportunity for student pharmacists to share critical patient access issues with our legislative representatives. This was the 10th anniversary of the NACDS day of advocacy, and we once again took a stand for better health care by advocating for our profession in Washington, D.C.

Our day on Capitol Hill started with a breakfast briefing, where we reviewed the issues we would discuss and received some tips for how to make the most of a short meeting with a busy legislative representative and/or their staff. We got to know our regional team members, developed our strategy with the guidance of an experienced team leader, and then headed to the heart of our democratic process.

My team of student pharmacists and leaders from Washington state met with seven offices of our state’s congressional representatives including Washington’s newest congresswoman, Rep. Pramila Jayapal of the 7th District. We also met with the staff of Sen. Maria Cantwell, Rep. Dennis Heck of the 10th District, Rep. Rick Larsen of the 2nd District, and Rep. Suzan DelBene of the 1st District, who herself attended part of our meeting with her staff. I must admit, I’m a supporter of Sen. Patty Murray and was most thrilled to shake her hand and receive her support after so many years of pride in being represented by her.

We asked for support on four main bills or congressional letters:

1. **Pharmacist provider status with H.R. 592/S. 109, the Pharmacy and Medically Underserved Areas Enhancement Act** to provide access for Medicare Part B beneficiaries to receive covered services from pharmacist care-providers.

2. **Four proposals to address the nationwide opioid abuse crisis:**
   1. A proposal supporting H.R. 3528/S. 2460, the Every Prescription Conveyed Securely Act, requiring electronic prescribing of all controlled substances, computer-to-computer rather than on paper.
   2. A proposal setting a seven-day supply limit for the first prescription of an opioid medication when a patient is inexperienced with the medication for the documented diagnosis. This was also an ask for clarity on Drug Enforcement Administration laws which, in their current verbiage, restrict pharmacists from filling a partial supply even when required by payers or local law.
   3. A proposal creating a national prescription drug monitoring program (PDMP) so that a pharmacist in any state can access all of a patient’s recent controlled substance records regardless of the prescriber, pharmacy, or state in which they’ve received these medications.
   4. A proposal establishing a manufacturer-funded mail-back opioid envelope program to facilitate patients sending unused, potentially hazardous narcotics back to the company for safe destruction without passing the burden of cost and liability to the patient or the pharmacy.
3. A congressional letter to the Secretary of Health and Human Services requesting reform for Medicare Part D direct and indirect remuneration (DIR) fees which are increasingly opaque, unpredictable, and often revoked from the pharmacy months or sometimes years after the medication has been dispensed and the reimbursement amount has been agreed upon.

4. The creation of a working group by the Department of Defense as urged by a congressional letter to the Defense Secretary to improve access to pharmacy services for TRICARE beneficiaries who are currently restricted to receiving their prescriptions only from a military treatment facility or mail-order pharmacy, or paying extra out-of-pocket costs at their local community pharmacy.

This year’s RxIMPACT Day in Washington, D.C., was my first time advocating for my profession at a national level, and it was one of the most important activities of my career thus far. It’s crucial for students to participate in pharmacy advocacy, on both a local and national level, because we are the future of health care in this nation and we are eagerly passionate to leverage the extensive patient-care skills we’ve spent years developing. It may seem intimidating to enter the offices of such important elected members of our government, but their role is to serve us. As much as it is our responsibility to advocate for our patients’ health on an individual level, it is our duty to advocate for the future of our profession and our ability to provide safe, convenient and affordable care.

For pharmacists and students who wish to get involved, connect with NACDS, talk to your school or employer about advocacy opportunities, and make sure to pay close attention to local advocacy efforts, elections, and legislation. More white coats at the Capitol equals stronger representation for our profession and better access for our patients.

FACULTY SCHOLARSHIP

Publications

- Pharmaceutical Sciences Research Professor and U.S. Transuranium and Uranium Registries (USTUR) Director Sergei Tolmachev and two co-authors published, “The importance and quantification of plutonium binding in human lungs,” on March 28 ahead of print in Health Physics, a peer-reviewed journal in the field of radiation safety. This paper will be included in the USTUR special issue of Health Physics. View abstract »

- Sergei Tolmachev, USTUR Associate in Research Stacey McComish and four co-authors published, “The pseudo-Pelger Huët cell as a retrospective dosimeter: analysis of a radium dial painter cohort,” in Health Physics on March 28 ahead of print. This paper will be included in the USTUR special issue of Health Physics. View abstract »

- USTUR Assistant Research Professor Maia Avtandilashvili, Sergei Tolmachev and two co-authors published, “USTUR case 0785: modeling plutonium decorporation following complex exposure,” in Health Physics. This paper will be included in the USTUR special issue of Health Physics.


- Pharmaceutical Sciences Staff Scientist Anil K. Singh (Ahmed lab), Pharmaceutical Sciences Associate Professor Salah-uddin Ahmed, and five co-authors published, “Ursolic acid facilitates apoptosis in
rheumatoid arthritis synovial fibroblasts by inducing SP1-mediated Noxa expression and proteasomal degradation of Mcl-1,” in The Federation of American Societies for Experimental Biology (FASEB) Journal, a peer-reviewed open-access journal of Experimental Biology. View abstract »

• Pharmaceutical Sciences Associate Professor Grant Trobridge and 14 co-authors published, “Rapid immune reconstitution of SCID-X1 canines after G-CSF/AMD3100 mobilization and in vivo gene therapy,” in the May 8 issue of Blood Advances, a peer-reviewed open-access journal. View abstract »

Presentations

• Pharmaceutical Sciences Assistant Professor Shobhan Gaddameedhi presented the new investigator award lecture, “Emerging roles of the circadian clock in photocarcinogenesis and skin cancer prevention,” at the American Society for Photobiology 2018 biennial meeting on May 12, 2018, in Tampa, Florida.

• Pharmaceutical Sciences Research Technologist Kenneth Porter, Shobhan Gaddameedhi and two co-authors presented the poster, “Circadian clock regulates melanogenesis through MITF in mouse and human,” at the Society for Research on Biological Rhythms 2018 meeting on May 13, 2018, in Amelia Island, Florida.

• Kenneth Porter, Shobhan Gaddameedhi and one co-author presented the poster, “Circadian clock protects against radiation-induced dermatitis and cardiomyopathy in mice,” at the Society for Research on Biological Rhythms 2018 meeting on May 13.

• Shobhan Gaddameedhi presented the invited talk, “Circadian clock regulates melanin pigmentation in mouse and human,” in the American Society for Photobiology 2018 biennial meeting on May 15, 2018, in Tampa, Florida.

Service

• Sergei Tolmachev has been appointed as vice chairman of the new National Council on Radiation Protection and Measurements (NCRP) Scientific Committee 6-12, Development of Models for Brain Dosimetry for Internally Deposited Radionuclides.

• Maia Avtandilashvili has been appointed as a member of the new NCRP Scientific Committee 6-12, Development of Models for Brain Dosimetry for Internally Deposited Radionuclides.

• Allen I. White Distinguished Associate Professor and Pharmacotherapy Vice Chair Joshua J. Neumiller has been appointed to a two-year term on the American Diabetes Association (ADA) Scientific Sessions Planning Committee. He will serve as co-chair in the therapeutics/new technology content area and will be responsible for developing the scientific program in this area for the ADA Scientific Sessions meetings in 2019 and 2020.

• The USTUR received recognition from the associate undersecretary for environment, health, safety, and security at the U.S. Department of Energy for being the longest-running domestic radiation health study in the United States.

• WSU Professor Emeritus and Former USTUR Director Ronald Kathren was recognized at a ceremony in the WSU Tri-Cities campus library for the donation of a radiological book collection valued at more than $250,000.
Awards

• **Grant Trobridge** received the WSU Spokane Faculty Excellence Award for 2017 during the WSU Spokane Commencement Ceremony on May 5, 2018.

• **Shobhan Gaddameedhi** received the American Society for Photobiology (ASP) New Investigator Award in May 2018. This award recognizes promising quality research performed at a relatively early stage in an investigator’s career. The award is given once every two years throughout the world.

• **Shobhan Gaddameedhi** received the Environmental Mutagenesis and Genomics Society (EMGS) Newly Independent Investigators Engagement Program Award in May 2018. This award will cover costs to attend up to three EMGS annual meetings over a five-year period.

Grants

• **Shobhan Gaddameedhi** received $366,053 over two years from the National Cancer Institute of the National Institutes of Health for the project, “Chronotherapy as a strategy to attenuate toxicity associated with cisplatin and radiation treatment for triple-negative breast cancer.”

STUDENT ACHIEVEMENT

Doctor of Philosophy (Ph.D) students

• **Yadira Pérez-Páramo** (pharmaceutical sciences, Lazarus lab) received a $500 travel award from the Society for Research on Nicotine & Tobacco (SRNT) to attend its annual meeting in February 2018.

• **Yadira Pérez-Páramo**, with faculty co-author Boeing Distinguished Professor and Pharmaceutical Sciences Chair Philip Lazarus and two others presented, “Characterization of flavin monoxygenase (FMO) variants and their potential role in nicotine dependence,” at the 2018 SRNT conference in Baltimore, Maryland, on February 22.

• **Ana Vergara** (pharmaceutical sciences, Lazarus lab) received a $300 Travel Award to attend Science Talk 2018, an annual science communication conference in Portland, Oregon, March 1-2, 2018.

• **Yadira Pérez-Páramo** received a $300 travel award from Burroughs Wellcome Fund and NASA Astrobiology to attend Science Talk 2018.

• **Shannon Kozlovich** (pharmaceutical sciences, Lazarus lab) presented the poster, “Civic engagement as a way of life and leadership,” at the Partners in Campus and Community Engagement event in Seattle, Washington, on March 16, 2018.


• **Ana Vergara** presented, “My journey from dreaming it to making it happen: obstacles and successes,” at Diversi-Tea on March 29.

• **Shannon Kozlovich** served as a co-organizer for the Perspectives in Transgender Healthcare Panel campus event on April 3, 2018. The event included Cheyenne Newsome from the WSU College of Pharmacy, a healthcare expert from WSU Speech and Hearing Sciences, a local physician, and an EWU social work student who runs sensitivity training with local medical groups.
• Shannon Kozlovich presented the poster, “Inhibition of the major tobacco carcinogen, NNAL,” at the Inland Northwest Research Symposium in Spokane, Washington, on April 10, 2018.

• Shannon Kozlovich presented the poster, “Involvement in all areas of life: getting involved and staying that way,” at the Community Engagement Symposium in Spokane, Washington, on April 10.

• Shannon Kozlovich was one of three speakers at the March For Science Spokane Rally on April 14, 2018, speaking about the research conducted at WSU Health Sciences and how important it is to increase funding levels for scientific research.

• Ana Vergara with faculty co-author Philip Lazarus and two others presented the poster, “Detoxification of polycyclic aromatic hydrocarbons (PAHs) by UDP-glycosyltransferase 3A2 (UGT3A2) variants using alternative sugars,” at the Experimental Biology 2018 ASPET conference in San Diego, California, on April 22, 2018.

• Shannon Kozlovich presented the poster, “UGT1A10 drives tissue-specific differences in the clearance of the chiral tobacco carcinogen, NNAL,” in the metabolic enzyme category at the Experimental Biology 2018 ASPET conference on April 22.

• Irina Teslenko (pharmaceutical sciences, Lazarus lab) presented, “Role of glutathione-S-transferases in the metabolism of the anti-cancer agent and aromatase inhibitor, exemestane,” at the session Daily Datablitz at the Experimental Biology 2018 ASPET conference on April 22.

• Irina Teslenko presented the poster, “Role of glutathione-S-transferases in the metabolism of the anti-cancer agent and aromatase inhibitor, exemestane,” at the session Anticancer Drug Response at the Experimental Biology 2018 ASPET conference on April 22.

• Yadira Pérez-Páramo with faculty co-author Philip Lazarus and two additional co-authors presented the poster, “Identification of the enzyme isoforms responsible for the N-oxide detoxification pathway in tobacco specific nitrosamines (TSNAs),” at the Experimental Biology 2018 ASPET conference on April 22.

• Aimee Sutliff (pharmaceutical sciences, Lazarus lab) presented the poster, “Regulation of UGT2A1 by miR-196a & miR-196b and its implications for cancer risk,” at the Experimental Biology 2018 ASPET conference on April 22.


• Yadira Pérez-Páramo with faculty co-author Philip Lazarus and two additional co-authors received 3rd place Best Poster Presentation Award in the drug metabolism and disposition category for the poster titled, “Identification of the enzyme isoforms responsible for the Noxide detoxification pathway in tobacco specific nitrosamines (TSNAs),” at the Experimental Biology 2018 ASPET conference.

• Yadira Pérez-Páramo with faculty co-author Philip Lazarus and two additional co-authors received 2nd place Best Poster Presentation Award in the Dolores C. Shockley category for the poster titled, “Identification of the enzyme isoforms responsible for the N-oxide detoxification pathway in tobacco specific nitrosamines (TSNAs),” at the Experimental Biology 2018 ASPET conference.

• Aimee Sutliff received a $500 travel award from the WSU College of Pharmacy.
Doctor of Pharmacy (Pharm.D.) students

- **Kathryn Rand** received a WSU Spokane Chancellor’s Award for her leadership and participation as an executive member of the student ambassador group at the College of Pharmacy.

- **Thomas Maslo** received a WSU Spokane Chancellor’s Award for his work on access to mental health care on our campus and in the community.

- **Yaoyi (Peyton) Xiao** received a WSU Spokane Chancellor’s Award for her outreach activities to the Yakima area.

- **James Kent** received the American Pharmacists Association Academy of Student Pharmacists Senior Recognition at the college senior luncheon on May 2, 2018.

- **James Kent** and **Kathryn Rand** received the College of Pharmacy Faculty Award at the college senior luncheon.

- **Elizabeth D’Andrea** received the Lilly & Co. Achievement Award at the college senior luncheon.

- **Juliet Nguyen** received the Facts and Comparisons Excellence in Clinical Communication Award at the college senior luncheon.

- **Haleigh Miller, Lauren Wagner, Shauna Leggett, and Megan Lenz** received the Merck Award for Outstanding Students at the college senior luncheon.

- **Jihan Haji** received the Mylan Pharmaceuticals Excellence in Pharmacy Award at the college senior luncheon.

- **Haleigh Miller** received the Larry G. Bettesworth Pharmacy Student Award at the college senior luncheon.

JOBS

- Clinical Assistant Professor: Kootenai Health

- Clinical Assistant Professor: Pharmacotherapy, Providence St. Peter Hospital Olympia

- Clinical Assistant Professor: Pharmacotherapy, Virginia Mason Memorial Hospital