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 the 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

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COLLEGE NEWS

College of Pharmacy celebrates graduates success
Thursday, May 3, the Washington State University College of Pharmacy celebrated the accomplishments of one Ph.D. and one master of pharmaceutical sciences, and 132 Doctor of Pharmacy graduates at its 2018 Commencement Ceremony. Read more »

Two faculty make the move to associate dean
In January 2018, Jennifer Robinson and Angela Stewart were named associate deans for the college. Read more »
Part 3: WSU leads in expanding scientific knowledge of natural products
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. Read more »

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
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. 
Read more »

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

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 new 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

FACULTY SCHOLARSHIP

Publications

- Pharmaceutical Sciences Research Professor and U.S. Transuranium and Uranium Registries (USTUR) Director Sergei Tolmachev with 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 and USTUR Associate in Research Stacey McComish with 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 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
### 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** 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** (pharmaceutical sciences, Lazarus Lab) 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 N–oxide 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

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**College of Pharmacy**

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