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FACULTY SCHOLARSHIP

A MESSAGE FROM GARY M. POLLACK



November 2016

Dear Friends and Colleagues:

Sustainable excellence. The Chicago Cubs. Those phrases do not appear often in close proximity to each other. For the uninitiated, baseball's "loveable losers" last went to the World Series in 1945, and won the whole thing most recently in 1908. The Cubs have been in their current position (as I write this), in specific need to win one of two games to reach the World Series, only two other times in the last 71 years. It did not end well for them, or for their fans, in either 1984 or 2003. But this year is different. Not because they likely will win, but because they have rebuilt the organization so that they likely will be a credible contender most years for the foreseeable future. Sustainable excellence.

Academic organizations also aspire for sustainable excellence, although it often is identified with different words, on multiple levels. For example, we expect our faculty to demonstrate that they can lead a sustainable and impactful program of scholarship in order to qualify for promotion, particularly if the promotion step confers permanent tenure. Our college intends, and is working diligently towards, being recognized as one of the top ten pharmacy programs in the country, which is our definition of excellence. Washington State University, under the leadership of our new president Kirk Schulz, aspires to be recognized as one of the top 25 research-intensive public universities in the nation. These programmatic goals are not intended to be short lived; once we achieve them we intend to maintain them. Sustainable excellence.

Perhaps most importantly, we intend to help our students (professional, graduate, and postdoctoral) build a foundation that will support their individual career goals. We emphasize to them the need for a life-long commitment to learning, growing, and improving because we understand that it is only through that commitment that they will be successful. Many of the recent changes we have implemented in our program, most notably rejecting normed grading approaches and embracing an active- and collaborative-learning model in our professional degree program, have been designed to model and incentivize behaviors that are associated with a positive career trajectory. In short, sustainable excellence.

I will close with two requests, keeping in mind the season and the particular year we are in. First, unless you are a fan of either the Los Angeles Dodgers or the Cleveland Indians, root for the Cubs if they are still playing (yes, even you Cardinals fans...with apologies to the Pittsburgh Pirates, it's been a long time since the Cards have had a meaningful rivalry). Second, make sure to vote.

As always, Go Cougs!



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

UPCOMING EVENTS

NOV.

4

125th Anniversary Gala
Spokane Club
5:30 p.m.
[Register](#)

NOV.

11

CougaRx Nation Reception
Honolulu, HI
6:00 p.m.
[RSVP](#)

NOV.

12

Football Watch Party
Honolulu, HI
Game time TBA
[RSVP](#)

DEC.

5

ASHP Midyear Meeting
CougaRx Reception
Las Vegas, Nev.
[RSVP](#)

[More college events »](#)

COLLEGE NEWS



Vergara receives top prize for research

Spokane-based pharmacy graduate student Ana Vergara won first place for the Best Poster presentation competition at the International Symposium on Microsomes and Drug Oxidations (MDO) in Davis, California. Vergara was presented the award at the closing session of the conference on October 6.

“It is great performing research and publishing our data, but it is even better to be able to share your knowledge with others to advance the field. I am very honored that I was able to present my research,” said Vergara.

The conference brings together science professionals in the fields of drug metabolism and transport, pharmacokinetics, drug development, clinical pharmacology, and toxicology.

Vergara is a graduate student in the Ph.D. in pharmaceutical sciences program at Washington State University in Spokane. She works in the research lab of Dr. Philip Lazarus.

“Ana has been working on our NIH-funded grant and has been doing a fantastic job examining the

regulation of carcinogen metabolizing enzymes,” said Lazarus, who also serves as chair of the Department of Pharmaceutical Sciences at the College of Pharmacy.

According to Lazarus, Vergara’s work has shown that certain enzymes are important in the metabolism of major carcinogens in the lung and other aerodigestive tract tissues and that there may be differences between people in how these enzymes are regulated, which would influence an individual’s risk for certain cancers.

“Her award at the MDO meeting is definitely a reflection of her outstanding work and dedication to her studies,” he said.

Vergara graduated from Columbia Basin College and from WSU Tri-Cities with a Bachelor of Science in biology and a minor in chemistry. She chose the WSU pharmaceutical sciences program in Spokane because it gave her the opportunity to be close to her family and still get a great graduate research setting.

“I enjoy how we have a diverse set of research interests in the College of Pharmacy, and I felt that pharmaceutical sciences would be a good fit for me. I was specifically excited to study metabolism and carcinogenicity in the laboratory of Dr. Lazarus who specializes in studying tobacco carcinogen metabolism. He is an outstanding scientist and a great mentor,” said Vergara.



Pharmacy ‘Boot Camp’ comes to WSU Health Sciences Spokane

SPOKANE, Wash.—Student pharmacists at Washington State University got a deep-dive into the art of medication customization in a weekend-long compounding “boot camp” hosted at WSU Health Sciences Spokane.

Drug companies produce medicine in standard doses. Compounding is the term used to describe when pharmacists customize prescriptions to better fit the individual. This can involve converting a medicine from a tablet to a liquid form, or adjusting the dosage or dosage form. For example, many drugs are not produced in dosages

appropriate for children. Pediatric medicine is something that is often compounded by a pharmacist.

The boot camp ran over the first weekend in October. Instruction was provided by the Professional Compounding Centers of America (PCCA), a membership based company committed to help pharmacists and prescribers create personalized medicine through educational programs, professional resources and access to high quality compounding supplies.

“This is a tremendous opportunity for our students. Participation in the boot camp allows them to learn about compounding in a more in-depth level than we can cover in our curriculum. Ultimately, it is a step in preparing our students for a future career in compounding,” said Dr. Connie Remsberg, who teaches compounding as clinical assistant professor at the College of Pharmacy.

During the two day event, WSU student pharmacists learned about compounding various dosage forms in the classroom then got to apply their skills in the compounding lab. They compounded 11 types of dosage forms including gels, foam cleansers, lip balms, lollipops, suppositories, troches, suspensions, and capsules using a capsule filling machine.

Usually a couple students each year travel to participate in a compounding boot camp hosted by the PCCA, a Houston-based company, but the costs prohibit more students from participating. This year, donations from WSU pharmacy alumni and community brought the PCCA boot camp to the WSU Spokane campus for the first time in six years. Donators included Wayne and Pamela Clemens, Grant Kinn and RxPlus Pharmacy Scholarship Foundation, and R. Keith Campbell. Additional funds came directly from the College of Pharmacy and from the sale of baskets at silent auctions.

A total of 28 WSU Doctor of Pharmacy students from Yakima and Spokane were able to participate this year.

Not all pharmacies provide compounding services, which makes it an ideal niche for pharmacy entrepreneurs interested in owning their own stores.

“Compounding is about problem solving,” said WSU alumnus Wayne Clemens. “It allows a pharmacist to provide a correct dosage to a patient when they don’t fit the ‘one size fits all’ standard.”



WSU scientists collaborate on ‘gene therapy in a box’

By Eric Sorensen, WSU Office of Research

SPOKANE, Wash. – Washington State University Spokane researchers have collaborated on a tabletop device that can genetically manipulate blood to treat cancer, HIV and other diseases without expensive processing facilities.

The technology, led by researchers at the Fred Hutchinson Cancer Research Center in Seattle, stands to bring gene therapy to developing nations.

Grant Trobridge, an associate professor in the WSU Department of Pharmaceutical Sciences and School of Molecular Biosciences, performed bioinformatics for the study, out this week in the journal Nature Communications. Helping with the study was Jonah Hocum, a research technologist.

Read the paper [here](#).

Read the Fred Hutch news release [here](#).



College of
Pharmacy
WASHINGTON STATE UNIVERSITY

Join us to celebrate our past, present
and future on November 4, 2016!



Dear Alums, Colleagues and Friends of Pharmacy,

October is American Pharmacist month. Our student pharmacists have been active this past month, as they are throughout the year, participating in our professional pharmacy student organizations (PPSO) to serve our community, raise awareness about what all pharmacists can do, and educate patients about the role pharmacists can play to impact their individual wellness.

We have also spent some time this October visiting our local hospitals and care clinics in the Spokane area to say “thank you” to the pharmacists working in our community to help their patients achieve their health goals. [View photos »](#)

There are now only three days until our college’s 125th Anniversary Gala on November 4. I am looking forward to gathering with the Cougar pharmacy family to honor our past, celebrate our success and contribute to our college’s future. I look forward to seeing you there!

If you are not able to make it this Friday, please consider making a donation to our [Dean’s Endowed Professorship](#) because we need your help to propel the college toward its strategic goals and elevate our position as a top-tier pharmacy school.

With Cougar pride,



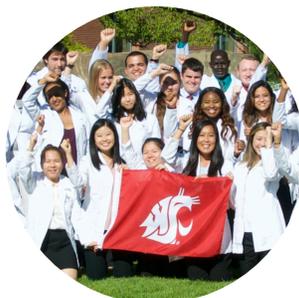
Linda Garrelts MacLean, BPharm, RPh
Vice Dean of External Relations
Clinical Professor

ALUMNI NEWS



DIABETES EDUCATION

R. Keith Campbell has set an example of what one person can do to impact the quality of life for so many living with a chronic disease state, specifically, diabetes. [Read the article »](#)



SCHOLARSHIPS

The College of Pharmacy is awarding a record of \$381,250 in scholarships to Pharm.D. and Ph.D. students this year. Thank you to our alumni, community partners and donors who made this possible.



GENEROSITY

Wayne, class of 1970, and Pamela Clemens recently donated to our Dean’s Endowed Professorship and Professional Compounding Centers of America (PCCA) compounding boot camp.

ALUMNI UPDATES

- **Robert**, class of 1957, and **Judy Higgins** stopped by the College of Pharmacy on September 29 as they made their way to the WSU Foundation Gala in Pullman. We had a great time catching up and showing them around the new Pharmaceutical and Biomedical Sciences Building! The Higgins’ were recognized this year as WSU Benefactors. Thank you for everything you do for the WSU College of Pharmacy!
- **Bill**, class of 1969, and **Felicia Gaskins** were at the WSU Foundation Gala in September. Bill was honored with a Heritage Legacy Award. [View photo »](#)
- Many alumni and faculty were honored during the 2016 WSPA Awards of Distinction. [View photos »](#)
 - **Liz Rankos**, class of 2015, Cardinal Health Generation Rx Champions Award

Cris DuVall, class of 2007, won the Distinguished Young Pharmacist of the Year Award

Roger Woolf, class of 1983, won the Distinguished Leadership Service Award

Joshua Akers, class of 2007, won the Innovative Pharmacy Practice Award

Julie Akers, class of 2000, won the David Almquist Award

R. Keith Campbell, class of 1964, won the Bill Mueller Outstanding Mentor Award

- **Manpreet Chahal**, class of 2008 and 2010, and Lindsey Fischer got married in October. Congratulations!

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

- Experimental and Systems Pharmacology Clinical Professor **Jean-Baptiste Rouillet**, Allen I. White Distinguished Professor and Experimental and Systems Pharmacology Chair **K. Michael Gibson**, and four co-authors published, "Correlation of blood biomarkers with age informs pathomechanisms in succinic semialdehyde dehydrogenase deficiency (SSADHD), a disorder of GABA metabolism," in the November issue of the Journal of Inherited Metabolic Disease, the official journal of the Society for the Study of Inborn Errors of Metabolism. (39(6):795-800). [Read article](#)
- **K. Michael Gibson** and two co-authors published, "mTOR inhibitors rescue premature lethality and attenuate dysregulation of GABAergic/glutamatergic transcription in murine succinate semialdehyde dehydrogenase deficiency (SSADHD), a disorder of GABA metabolism in the November issue of the Journal of Inherited Metabolic Disease (39(6):877-886. [Read article](#)
- **K. Michael Gibson** and two co-authors published, "A pharmacokinetic evaluation and metabolite identification of the GHB receptor antagonist NCS-382 in mouse informs novel therapeutic strategies for the treatment of GHB intoxication," in the journal Pharmacology Research & Perspectives, a publication of the British Pharmacological Society and the American Society for Pharmacology & Experimental Therapeutics (doi: 10.1002/prp2.265). [Read article](#)
- Pharmaceutical Sciences Associate Professor **Grant Trobridge** and seven co-authors published, "Semi-automated closed system manufacturing of lentivirus gene-modified haematopoietic stem cells for gene therapy" in Nature Communications, a Nature Research journal, available online on Oct 20, 2016. [Read article](#)
- Pharmaceutical Sciences Assistant Professor **Zhenjia Wang** published the invited review article, "Imaging nanotherapeutics in inflamed vasculature by intravital microscopy," in Theranostics, a multidisciplinary peer-reviewed journal from Ivyspring International (2016;6(13):2431-2438). [Read article](#)
- Pharmacotherapy Professor and Chair **John R. White, Jr.** and one co-author published, "Advances in basal insulin therapy," in the Journal of Pharmacy Technology, a peer-reviewed journal from SAGE (doi: 10.1177/8755122516667128).
- Pharmacotherapy Professor and Associate Dean for Professional and Continuing Education **Danial E. Baker** published, "Surrogate markers and drug approvals," in the independent, peer-reviewed journal Hospital Pharmacy in September 2016 (2016;51(8):611-614).
- Pharmacotherapy Clinical Assistant Professor **Anne P. Kim** and **Danial Baker** published, "Elbasvir/grazoprevir," in the journal Hospital Pharmacy (2016;51(8):665-686).
- **Danial Baker** and two co-authors published, "Therapy update for metastatic castration-resistant prostate cancer," in the October 2016 issue of The Consultant Pharmacists, the official journal of the American Society of Consultant Pharmacists (2016;31(10):581-592).
- **Anne Kim** and **Danial Baker** published, "Drug evaluation – Daclizumab (Zinbryta): updated evaluation," Wolters Kluwer Health's The Formulary Monograph Service (FMS) in August 2016. 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** published, “Drug evaluation – Bezlotoxumab (Zinplava): preliminary evaluation,” in the FMS in August 2016.
- **Danial Baker** and one co-author published, “Drug evaluation – Andexanet alfa: preliminary evaluation,” in the FMS in August 2016.
- **Anne Kim** and **Danial Baker** published, “Drug evaluation – Obeticholic acid (Ocaliva),” in the FMS in August 2016.
- **Anne Kim** and **Danial Baker** published, “Drug evaluation – Atezolizumab (Tecentriq): updated evaluation,” in the FMS in August 2016.
- **Danial Baker** published, “Drug utilization evaluation – Brivaracetam (Briviact),” in the FMS in August 2016.
- **Danial Baker** and one co-author published, “Drug evaluation – Buprenorphine implant (Probuphine),” in the FMS in September 2016.
- **Danial Baker** and one co-author published, “Drug evaluation – Cholera Vaccine,” in the FMS in September 2016.
- **Danial Baker** and one co-author published, “Drug evaluation – Baricitinib: preliminary evaluation,” in the FMS in September 2016.
- **Danial Baker** and one co-author published, “Drug evaluation – Sarilumab: preliminary evaluation,” in the FMS in September 2016.
- **Danial Baker** and one co-author published, “Drug evaluation – Sofosbuvir/velpatasvir (Epclusa): updated evaluation,” in the FMS in September 2016.
- **Danial Baker** published, “Drug utilization evaluation – Sofosbuvir/velpatasvir (Epclusa),” in the FMS in September 2016.
- **Danial Baker**, Pharmacotherapy Clinical Professor **Terri Levien** and one co-author published, “Drug evaluation – Lifitegrast (Xiidra): updated evaluation,” in the FMS in October 2016.
- **Danial Baker** and one co-author published, “Drug evaluation – Methylnaltrexone bromide oral (Relistor),” in the FMS in October 2016.
- **Danial Baker** and two co-authors published, “Drug evaluation – Solithromycin,” in the FMS in October 2016.
- **Danial Baker** and **Terri Levien** published, “Drug evaluation – Lixisenatide (Adlyxin): updated evaluation,” in the FMS in October 2016.
- **Terri Levien**, **Danial Baker** and one co-author published, “Drug evaluation – Calcifediol (Rayaldee),” in the FMS in October 2016.
- **Danial Baker** published, “Drug utilization evaluation – Lixisenatide (Adlyxin),” in the FMS in October 2016.

Service

- **Zhenjia Wang** served as a reviewer for the NIH study section of Biomaterials and Biointerfaces, October 13-14, 2016.

Grants

- Pharmacotherapy Associate Professor **Joshua J. Neumiller**, Pharmacotherapy Clinical Professor and Associate Dean for Professional Education **Brian J. Gates** and two others received \$13,488 from the Empire Health Foundation for the project, “Preserving self: empowering older persons who take multiple medications.”

STUDENT ACHIEVEMENT

Doctor of Philosophy (Ph.D.) students

- **Faya Zhang**, pharmaceutical sciences (Zhang lab), presented, “Chronic alcohol consumption accelerates iNKT cell dysfunction: the role of TNF- α ,” as part of the Graduate Research Seminar Series on October 7, 2016.
- **Solomon Agere**, pharmaceutical sciences (Ahmed lab), presented, “Role of RANTES/CCL5 in tissue remodeling in Rheumatoid Arthritis: Novel mechanism and potential therapeutic regulation,” as part of the Graduate Research Seminar Series on October 14, 2016.
- **Mahamudul Haque**, pharmaceutical sciences (Ahmed lab), presented, “Guanylate Binding Protein 5 (GBP5): A novel regulatory protein in the pathogenesis of Rheumatoid Arthritis,” as part of the Graduate Research Seminar Series on October 21, 2016.
- **Sabrina Fechtner**, pharmaceutical sciences (Ahmed lab), presented, “Cytokine Modulation of the Endocannabinoid System in Human Synovial Fibroblasts,” as part of the Graduate Research Seminar Series on October 28, 2016.

- **Ana Vergara**, pharmaceutical sciences (Lazarus lab), received Best Poster award at the International Symposium on Microsomes and Drug Oxidations (MDO) in Davis, California, on October 6.

Doctor of Pharmacy (Pharm.D.) students

- The WSU College of Pharmacy chapter won the Operation Immunization award for region seven at the American Pharmacists Association (APhA) Midyear Regional Meeting October 21-23, 2016, in Salt Lake City, Utah.
- **David Bunch** was elected as a 2017 regional delegate for the APhA Academy of Student Pharmacists (ASP) region seven.
- **Vivianne Nguyen** was elected as a 2017 member-at-large for the APhA-ASP region seven.
- **Mark Nguyen** was elected as 2017 midyear regional meeting coordinator for the APhA-ASP region seven.
- **Eric Kim** received a \$2,000 National Community Pharmacists Association (NCPA) Foundation scholarship at the NCPA Annual Conference in New Orleans October 15, 2016.
- **Derek Matlock** received a \$2,000 NCPA Foundation scholarship at the NCPA Annual Conference in New Orleans October 15, 2016.
- **Kimberly Paulson** received a \$2,000 NCPA Foundation scholarship at the NCPA Annual Conference in New Orleans October 15, 2016.
- **Jared Cavanaugh, Shariq Hamed, Eric Kim, and Eric Verduco** placed in the top 10 nationally in the Good Neighbor Pharmacy NCPA Pruitt-Schutte Student Business Plan Competition.
- **Jesse Dinh** with faculty co-author **Danial Baker** and one other published, “Therapy update for metastatic castration-resistant prostate cancer,” in the October 2016 issue of The Consultant Pharmacists. 2016;31(10):581-592.
- **Alice Knotts** and faculty co-author **Danial Baker** published, “Drug evaluation – Cholera Vaccine,” in the FMS in September 2016.
- **Alice Knotts** with faculty co-authors **Danial Baker** and **Terri Levien** published, “Drug evaluation – Lifitegrast (Xiidra): updated evaluation,” in the FMS in October 2016.
- **Uzoma Mbogu** and faculty co-author **Danial Baker** published, “Drug evaluation – Methylalntrexone bromide oral (Relistor),” in the FMS in October 2016.
- **Uzoma Mbogu** with faculty co-author **Danial Baker** and one co-author published, “Drug evaluation – Solithromycin,” in the FMS in October 2016.

JOBS

- Postdoctoral Research Associate
Pharmaceutical Sciences - Wu Lab, Spokane, Washington
Experimental & Systems Pharmacology - Gaddameedhi Lab, Spokane, Washington
Experimental & Systems Pharmacology - Natesan Lab, Spokane, Washington
Experimental & Systems Pharmacology - Clarke Lab, Spokane, Washington
- Clinical Assistant Professor
Pharmacotherapy - Yakima Valley Memorial Hospital
College of Pharmacy - Yakima



125TH ANNIVERSARY TRIVIA

Congratulations to our final trivia winner Julie Akers, class of 2000, who correctly answered that Dean Allen I. White wrote a book on the history of WSU College of pharmacy. Thank you to all who have participated in our trivia over the last few months. We hope you are able to come to our 125th Anniversary Gala on November 4!