



From
College of Pharmacy Dean
Gary Pollack, Ph.D.

November 2015

In This Issue...

- Dr. Philip Lazarus
- Solomon Agere
- Dr. Angelo Ballasiotes
- Other news

Dear Friends and Colleagues:

As November rolls around, our thoughts turn from pre-Halloween frights (the Chicago Cubs finally making the post-season, only to face the Mets and be swept in the National League Championship Series...really, why the Mets?!) to pre-Thanksgiving, well, thanks.

It's easy at this time of year to express gratitude for the things or occurrences we are thankful for. This has been a good year for our program, and there are many things related to our college for which we are grateful: successful reaccreditation, a smooth launch of our Doctor of Pharmacy program extension in Yakima, continued enrollment growth in both our professional and graduate programs, continued growth in our research funding, just to name a few.

It's more important, perhaps, to focus on the people who have made good things happen during the year, and I would like to express my thanks for all of their contributions (if not by name, because there are so many, at least by group):

- Our faculty, who have moved deftly from one big-ticket activity to the next over the last few years: moving our operations from Pullman to Spokane, going through reaccreditation, changing the way we assess student performance, changing the way we educate our students, launching our Yakima extension. Each one of these was a heavy lift, and the faculty have come through like champs.
- Our staff, without whom the faculty likely would be lost. They are innovative, dedicated, and truly the operational backbone of our college.
- Our students, who are a phenomenally talented group of young professionals. I would especially like to thank our inaugural group of students in Yakima, who are truly pioneers and are providing a service to our university and state in addition to pursuing their education.

- Our alumni, who are increasingly engaged with our program and have set the bar for our students. The quality of the alumni base is a reflection of the quality of the program from which they graduated; given our group of alumni, our program has no worries.
- The friends of our college, including our advisory committee, who are unbelievably generous in their support of our students and activities. We would not have been able to make the progress we have over the last few years without their contributions.

This is, of course, just a partial list. The things for which we are grateful, and the people who have made those things a reality, are too numerous to include in this word-limited commentary. I trust, however, that they all know who they are, that they share my pride in our college, and that they know how much I appreciate their efforts.

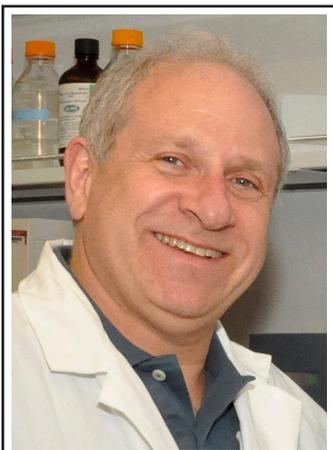
Happy Thanksgiving to all, and Go Cougs!



Gary M. Pollack
Dean
Washington State University College of Pharmacy

Dr. Philip Lazarus

Pharmacy researcher received \$2.6M to study tobacco carcinogens



Dr. Philip Lazarus

Philip Lazarus, a distinguished professor and chair of pharmaceutical sciences, has received a \$2.6 million federal grant to study the body's ability to keep tobacco smoke components from causing cancer. He will look for genetic markers in enzymes that indicate an increased risk of developing lung, head and neck cancers from exposure to the carcinogens commonly found in tobacco smoke.

UGT proteins are a major family of enzymes in the body that detoxify and eliminate carcinogens. They bind sugar molecules to carcinogenic targets, like polycyclic aromatic hydrocarbons from tobacco smoke, to make them more water soluble and easier for the body to excrete.

"The liver is the main filter of the body, but localized metabolic detoxification and elimination also occurs in tissues outside the liver," said Lazarus. "For lung and head and neck tissue, this may be an important mechanism for reducing internal carcinogen exposure."

The five-year grant is from the National Institutes of Environmental and Health Sciences, a division of the National Institutes of Health. It is grant number R01ES025460.

In earlier work, Lazarus found genetic variants of certain UGT enzymes that reduced the body's ability to detoxify carcinogens, increasing the risk of cancer. The new study will focus on similar UGT enzymes recently identified as important in carcinogen detoxification.

The research team will also look at different forms of UGT proteins expressed by the UGT gene produced by a process called "alternative splicing." These UGT forms may not work as enzymes and even appear to knock out the detoxifying activity of normal UGT proteins.

The UGT enzymes play a major role in drug response and metabolism, so a better understanding of the detoxification pathway will help researchers develop personalized approaches to medicine and the treatment of disease.

"This could be important in how genes are regulated, which means it could be a 'new horizon' for science as it relates to how we understand susceptibility to cancer," said Lazarus. "My research examines why some people get cancer and some don't, and how we can use differences in individual susceptibility to develop personalized treatments."

Lazarus and Anna Vergara, a WSU pharmaceutical sciences graduate student, are working with the research labs of Dave Christiani, a professor at Harvard Medical School who studies lung cancer, and Qingyi Wei, a professor at Duke University who studies head and neck cancer. Both collaborators are experts in molecular epidemiology – the study of molecular markers and their role in disease.

Lazarus has been studying tobacco smoke carcinogens since 1990. He has a Bachelor of Science in human genetics and a doctorate in experimental medicine from McGill University in Montreal, Canada. He came to WSU in 2013 from Penn State University where he served as an associate director of the Penn State Cancer Institute for nine years.



Solomon Agere

Ph.D. student earns national award to study inflammatory diseases



Solomon Agere

Solomon A. Agere is a doctoral candidate at the Washington State University College of Pharmacy pursuing his Ph.D. in pharmaceutical sciences. He grew up in Addis Ababa, the capital city of Ethiopia. His parents, both health professionals, emphasized the importance of education and encouraged Agere's interests in human medicine.

Agere received his bachelor's degree in chemistry and master's degree in biochemistry from Pune University in India. He then returned to Ethiopia and spent eight years at the University of Gondar teaching biochemistry and nutrition before joining the administrative faculty at Hayat Medical College where he served as an assistant dean for four years. He came to the College of Pharmacy in Spokane, Washington, in 2014.

Agere's main research interests are understanding the signaling mechanisms and identifying novel therapeutic targets in autoimmune diseases including rheumatoid arthritis.

Agere is working under Pharmaceutical Sciences Associate Professor Salah-uddin Ahmed, on a research project that seeks new insights into the role of chemokines, which are a family of small, molecular-weight proteins that help draw inflammatory cells from the blood to the site of an infection or inflammation. He is looking to discover how the presence of a specific chemokine (called RANTES/CCL5) plays a role in activating enzymes that have previously been shown to break down collagen during the healing process and contribute to the tissue destruction observed in osteoarthritis and rheumatoid arthritis. The research team is hoping to eventually identify and test a treatment that targets the RANTES/CCL5 protein in order to slow, or even stop, the reduction in cartilage and bone destruction.

"The research that Solomon is pursuing in the lab is novel," said Ahmed. There have not been any prior studies that look specifically at the relationship between the RANTES/CCL5 protein and the enzymes that wreak havoc on collagen, cartilage and bones, he said.

This past year, Agere received the Health Professional Research Preceptorship Award from the Rheumatology Research Foundation. The award came with a \$3,500 stipend and a \$2,000 grant for lab supplies to do research in rheumatic disease under the mentorship of a faculty preceptor. Agere also received a \$1,000 travel grant to attend the American College of Rheumatology Annual Meeting this November in San Francisco where he will be recognized for the award.

Agere is the second student from Ahmed's lab to receive this training award.

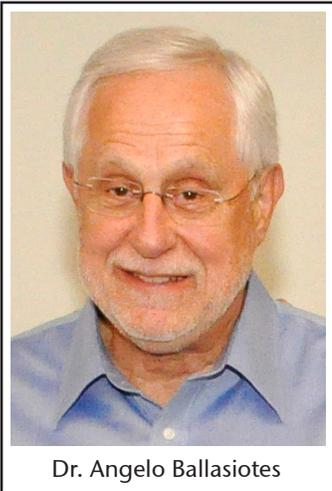
The Rheumatology Research Foundation is the largest private funding source of rheumatology research and training programs in the United States. It has awarded more than \$100 million in its 30-year history to support research that advances patient care and accelerate discoveries to provide relief to more than 50 million Americans affected by rheumatic diseases.

Agere also serves as a teaching assistant for the WSU Doctor of Pharmacy program's compounding lab and was voted by the students to receive the 2014-15 Teaching Assistant of the Year award.



Dr. Angelo Ballasiotes

Yakima pharmacist recognized for excellence in practice, teaching



Dr. Angelo Ballasiotes

Angelo Ballasiotes, a clinical pharmacist at Central Washington Comprehensive Mental Health, has been named the 2015 Preceptor of the Year by the College of Pharmacy at Washington State University.

Ballasiotes was surprised with the award Thursday, August 27, just before the WSU Doctor of Pharmacy White Coat Ceremony in Yakima, Wash. The white coat ceremony was a formal welcome for the student pharmacists entering the WSU professional program and Ballasiotes was the keynote speaker at the event this year.

“The profound impact Dr. Ballasiotes has on our program and student pharmacists is immeasurable,” said Luke Rice, assistant director for the college’s experiential services. “Preceptors like him genuinely care for and prepare our student pharmacists to be exceptional patient care providers and leaders who advance the profession of pharmacy to unprecedented levels.”

The award was presented by Rice and WSU College of Pharmacy 2015 graduate Glen Chase, who submitted a nomination for Ballasiotes to receive the recognition.

“He is an example to us as students that if we work to rise to the very top of what our license allows us to do, we can open new areas for the profession of pharmacy,” wrote Chase in his nomination letter. “It was impressive to me that he has set a precedent for pharmacists as primary mental health care providers and shown that our background and knowledge can make us uniquely qualified to serve these populations.”

The Preceptor of the Year Award is given annually to a WSU pharmacy preceptor for outstanding contributions to the educational development of future pharmacists by demonstrating high standards of professionalism, ethics and clinical practice within the experiential training environment. Ballasiotes was selected for his consistent commitment to mentoring and empowering student pharmacists on rotation, and his continuous efforts to creatively expand pharmacy services and care to patients at Central Washington Comprehensive Mental Health, said Rice.

“He is candid and honest, and is extremely genuine with people, which I think is a noteworthy trait—especially in health careers with patient interactions,” said Chase. “He understands the importance of training the next generation of pharmacists. He expects a lot of his students, but he gives them an amazing opportunity to rise to the occasion.”



Other College News

FACULTY SCHOLARSHIP

Publications

- Pharmacotherapy Professor **Tracy L. Skaer** and one co-author published, “Opioid prescribing laws and emergency department guidelines for chronic non-cancer pain in Washington state,” in the September 2015 journal *Pain Practice*, a publication by the World Institute of Pain. [read article](#)
- **Tracy Skaer** published, “Research findings using mindfulness-based interventions for chronic pain,” in the October 15, 2015, open-access journal *Pain Studies and Treatment* (2015;3(4):38-45). [read article](#)
- Pharmacotherapy Professor and Associate Dean for Professional and Continuing Education **Danial E. Baker** and one co-author published, “Drug evaluation – Cangrelor (Kengreal): updated evaluation,” in *Wolters Kluwer Health’s The Formulary Monograph Service (FMS)* in September 2015. 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 Research Associate and Specialty Resident in Drug Information **Anne P. Kim** and **Danial Baker** published, “Drug evaluation – Lesinurad: preliminary evaluation,” in the FMS in September 2015.
- **Danial Baker** and one co-author published, “Drug evaluation – Talimogene: preliminary evaluation,” in the FMS in September 2015.
- Pharmacotherapy Research Associate and Specialty Resident in Drug Information **Ross J. Bindler** and **Danial Baker** published, “Drug evaluation – Lumacaftor/ivacaftor (Orkambi),” in the FMS in September 2015.
- **Anne Kim** and **Danial Baker** published, “Drug evaluation – Brexpiprazole (Rexulti),” in the FMS in September 2015.
- **Danial Baker** published, “Drug utilization evaluation – Cangrelor (Kengreal),” in the FMS in September 2015.
- **Danial Baker** published, “Volunteerism & Professional Development,” in the journal *Hospital Pharmacy* (2015;50(8):655-656).
- **Danial Baker**, Pharmacotherapy Clinical Assistant Professor **Shannon G. Panther** and one co-author published, “Secukinumab,” in the journal *Hospital Pharmacy* (2015;60(7):619-634).
- **Danial Baker** published, “Approvals, submission, and important labeling changes for U.S. marketed pharmaceuticals,” in the journal *Hospital Pharmacy* (2015;50(8):731-738).
- Pharmaceutical Sciences Associate Professor **Grant D. Trobridge** co-authored with four others, “Modified genomic sequencing PCR using the MiSeq platform to identify retroviral integration sites,” in the October 20, 2015, issue of the multidisciplinary, peer-reviewed journal *Human Gene Therapy Methods*. [read abstract](#)
- Pharmaceutical Sciences Associate Professor **David Liu**, Pharmaceutical Sciences Research Associate **Eugene Kim** and one co-author published, “ATF5 is an essential protein in the centrosome,” in the August 27, 2015, issue of the peer-reviewed journal *Cell Cycle*. [read article](#)
- U.S. Transuranium and Uranium Registries (USTUR) Associate Research Professor **Sergei Tolmachev** co-authored with College of Pharmacy Professor Emeritus **Ronald Kathren** the article, “Natural uranium tissue content of three Caucasian males.” published in the journal *Health Physics*, a publication of the Health Physics Society (2015;109(3):187-197). [read abstract](#)

- **Sergei Tolmachev** co-authored with 26 others the article, “EURADOS 241Am skull measurement intercomparison,” published in the journal Radiation Measurements 2015;82:64-73. [read abstract](#)
- Pharmacotherapy Clinical Assistant Professor **Kimberly C. McKeirnan**, **Shannon Panther** and Pharmacotherapy Clinical Assistant Professor **Julie M. Akers** published, “Redesigning the traditional community health screening model to provide blood glucose screening and Interdisciplinary health education,” in the fall 2015 journal Clinical Diabetes.

Presentations

- Pharmacotherapy Associate Professor and Director of Experiential Services **Joshua J. Neumiller** presented a live webinar titled, “Beyond the basics: improving quality of care – insulin titration,” for the American Association of Diabetes Educators (AADE) on October 16, 2015.
- Pharmaceutical Sciences Clinical Assistant Professor **Travis T. Denton** co-authored with two others the abstract, “A survey of high resolution AChBP X-ray structures reveals details of tertiary and quaternary movements of the protein, both real and imagined, upon ligand binding,” and presented a poster with one co-presenter at the event, “Nicotinic Acetylcholine Receptors as Therapeutic Targets: Emerging Frontiers in Basic Research and Clinical Science,” a satellite to the 2015 Meeting of the Society for Neuroscience on October 14-15, 2015, in Chicago, Illinois. The poster was also presented at the 2015 Meeting of the Society for Neuroscience.
- **Travis Denton** co-authored with two others the abstract, “Structure-activity guided design and analysis of arylidene anabaseines and myosmines reveal two distinct binding modes with the acetylcholine binding protein,” and presented a poster at the 2015 Meeting of the Society for Neuroscience.
- **Travis Denton** co-authored with 11 others the abstract, “Interactions of diminished mitochondrial metabolism and mitophagy in Alzheimer’s disease,” which was presented as a poster at the 2015 Meeting of the Society for Neuroscience.
- Pharmaceutical Sciences Professor and Associate Dean for Graduate Education **Kathryn E. Meier** presented, “Science advocacy: why your voice matters,” as the invited speaker to faculty and student members of the Nebraska Physiological Society at the University of South Dakota in early October, sponsored by the American Physiological Society.

Service

- **Kathryn Meier** participated in a panel discussion of science publishing, along with two editors-in-chief of major biomedical journals, and helped to judge a graduate student poster session at the Nebraska Physiological Society at the University of South Dakota, sponsored by the American Physiological Society.
- **Danial Baker** was appointed to serve on U.S. Pharmacopeial Convention’s Medicare Model Guidelines.

STUDENT ACHIEVEMENT

Doctor of Philosophy (Ph.D.) students

- **Dustin Rae** (Trobridge lab, pharmaceutical sciences) and **Diana Browning** (Trobridge lab, molecular biosciences) with faculty co-author **Grant Trobridge** and two others published, “Modified genomic sequencing PCR using the MiSeq platform to identify retroviral integration sites,” in the October 20, 2015, issue of Human Gene Therapy Methods. [Read abstract](#)

Doctor of Pharmacy (Pharm.D.) students

- [James Leonard](#) with faculty co-author [Danial Baker](#) published, “Drug evaluation – Talimogene: preliminary evaluation,” in The Formulary Monograph Service in September 2015.

Coming Events

- November 4, 2015
The College of Pharmacy will host Dr. Javier Ochoa-Repáraz from Eastern Washington University to present, “Harvesting therapeutics from the gut: role of the microbiota regulating inflammatory demyelination,” as part of the College of Pharmacy Research Seminar Series, at 12:10 p.m., in the Walgreen’s Auditorium, PBS 101.
- November 12, 2015
The WSU Doctor of Pharmacy program will host Dr. Michael Johnson from Confluence Health to present, “Informatics of Bust,” as part of the Preparing for Your Career in Pharmacy Seminar Series, at 12:10 p.m., in the Walgreen’s Auditorium, PBS 101.

JOBS

- [Clinical Assistant Professor](#)
Pharmacotherapy, Spokane, Washington
- [Assistant Research Professor](#)
Pharmaceutical Sciences, Spokane, Washington
- [Postdoctoral Research Associate](#)
Experimental and Systems Pharmacology, Spokane, Washington



College of Pharmacy

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