


PHARMACY ALUMNI ASSOCIATION  
& SCHOOL OF PHARMACY NEWS

# DAWG SCRIPTS

FALL 2016

## TOGETHER WE WILL

---



With a passion for breaking through barriers, Pharmaceutics' post doctoral researcher Katrina Claw, PhD, leads the way with a collaborative approach to pharmacogenetics and scientific discovery, working closely with Alaska Native people to make the results meaningful and practical.

SCHOOL OF PHARMACY  
UNIVERSITY of WASHINGTON

# W

# Dawg Scripts

Produced by the UW School of Pharmacy, with support from the Pharmacy Alumni Association (PAA)

**Editor and Writer:** Sarah C.B. Guthrie  
**Contributors:** Sean D. Sullivan, Nicole Angus, Sarah Egan, Claire Forster, Gary Harris, Alina Huyun

**Designer:** Sarah C.B. Guthrie

**Photographers:** Nicole Angus, Sarah Egan, Claire Forster, Sarah C.B. Guthrie, Matt Hagen, Tom Hazlet, Alex Levine Photography, Dillon Vibes (UO SOJC)

## PAA OFFICERS

**President:** Gary Harris, '72  
**Past President:** Jennifer Glasco, '09

## COMMITTEE LEADERS

**Alumni Recognition:** Scott Herzog, '03  
**Arizona:** David Bailey, '70  
**Class Representatives:** Judi Mar-Burbidge, '82, '00 (1980s), Ben Michaels, '97, '11 (1990s)  
**Eastern WA:** Michael Ayres, '11  
**Events:** Jennifer Glasco, '09  
**Katterman:** Adam Brothers, '06  
**Marketing:** Jenny Arnold, '03  
**Mentorship:** Christy Weiland, '07  
**WSPA:** Jeff Rochon, '99

## CONTACT PAA

UW School of Pharmacy  
Box 357631  
Seattle, WA 98195  
(206) 616-7613  
rxalumni@uw.edu  
sop.uw.edu/paa

## CONNECT:

**W** [sop.uw.edu](http://sop.uw.edu)

**f** [www.facebook.com/uwsop](http://www.facebook.com/uwsop)

**in** [www.linkedin.com](http://www.linkedin.com)\*

**Twitter** @UW\_Pharmacy

**Instagram** @UW\_Pharmacy

\*Join our UW School of Pharmacy "Graduate Programs Alumni and Friends" or "Pharmacy Practice Alumni and Friends" LinkedIn group.

## On the cover:

Pharmaceuticals' post doctoral researcher Katrina Claw, PhD, leads the way with a collaborative approach to pharmacogenetics and scientific discovery, working closely with Alaska Native people (shown pictured in the Turnagain Arm near Anchorage, Alaska).



## From the PAA President

OUR PAA MEMBERS HAVE A STRONG TRADITION OF GIVING. The UW School of Pharmacy regularly has the highest rate of alumni giving of any school on campus. That level of generosity makes a big difference to our students.

Since 2010, PAA has awarded scholarships to 13 students who now work in a variety of practice settings. PAA scholarships are awarded based on merit and leadership in the community.

By helping students cover their educational expenses, PAA scholarships empower students to take full advantage of our School's transformational student experience, whether it's more time to study for that therapeutics or med chem exam, volunteering or taking an active role as a student leader.

PAA Scholar Natalie Nguyen said it so well: "Receiving this scholarship encourages me to work even harder to maintain my GPA as well as grow professionally in leading our community toward better health and health literacy. Thank you for your confidence and investment to help me achieve my goals in my pharmacy endeavors! The financial assistance you provide will be of great help to me in paying my education expenses, and it will also allow me to concentrate on my studies."

How do we support students like Natalie? Through PAA memberships! If you're not yet a PAA member, I hope you'll join me and others in continuing to strengthen our alumni community by supporting today's Pharmacy students.

To join us, please visit the PAA website at [tinyurl.com/joinpaa](http://tinyurl.com/joinpaa). And please be in touch. I can be reached at [rxalumni@uw.edu](mailto:rxalumni@uw.edu).

Gary Harris, '72, President, Pharmacy Alumni Association

The Pharmacy Alumni Association (PAA) Gift Fund supports the UW PAA Scholarship, the PAA Professional Excellence Award, and other PAA programs. To make a gift, go to:

[sop.washington.edu/PAAFund](http://sop.washington.edu/PAAFund)



## From the Dean

THIS PAST YEAR HAS BEEN AN EVENTFUL ONE for the UW School of Pharmacy and you'll read about and see a few of those stories come to life in this issue of Dawg Scripts. We think of ourselves as having a passion for discovery and learning. This passion is best seen when our faculty work in cross-departmental, cross-discipline teams. Such collaborations allow us, for example, to advance our understanding of drug effectiveness in HIV research, the safety of medications in older adults, drug pricing, and to create innovative breakthroughs in fighting cancer (see pgs. 8 and 10).

We strongly believe in embracing diverse perspectives, beliefs and cultures. In this issue we showcase the work of Dr. Katrina Claw, a Navajo genetics scientist who joined the School of Pharmacy in 2015 as a post doctoral researcher (see p. 11). Katrina's work exemplifies what happens when you advance a new way of thinking about community partnerships in scientific research. She brings a passion that never rests to all of her work—from her equitable engagement with Alaska Native people to serving as a role model and mentor for the next generation of Native American scientists.

We were thrilled to announce the new Joy and Elmer Plein Center for Geriatric Pharmacy Research, Education, and Outreach (see p. 4). The Center's interdisciplinary nature will have great impact on the health of older adults through the alignment of basic, translational and applied science programs within pharmacy practice. As Dean, I'm particularly pleased that the Plein Center will create a host of strategic education and research opportunities.

We also are involved in an exciting partnership, supported by NACDS, with QFC Pharmacy and Bartell Drugs to increase immunization rates in western Washington (see p. 9). This demonstration project builds on our long commitment to improving population health in the communities we serve.

We have a host of celebrations, events and opportunities for you to stay connected to the School of Pharmacy this coming year. I hope to see you at one or more of these as we celebrate - TOGETHER (see back cover). Your gifts of time and financial support expand and leverage what we discover, who we teach and how we serve. And remember, the stories and impact shown here in Dawg Scripts are, in large part, because of your support. Go DAWGS!

**Sean D. Sullivan, BScPharm, Ph.D.**  
Professor and Dean, UW School of Pharmacy

## UPCOMING EVENTS

### **WSPA Annual Meeting & Scholarship Golf Scramble**

**October 7-8**

*Suquamish Clearwater Resort*

**Suquamish, WA**

### **Phil and Sandra Nudelman Endowed Lecture**

**November 9, 5-7 p.m.**

*Hogness Auditorium, 4th Floor  
UW Health Sciences Building*

**UW Campus, Seattle**

### **ASHP Midyear Clinical Meeting**

**December 4-8**

*Mandalay Bay Convention Center*

**Las Vegas, NV**

### **Plein Center Research Day**

**December 13**

*Save the date; details to follow.*

**Seattle, WA**



### **UW School of Pharmacy Alumni & Friends Reception in Hawaii**

**March 11, 2017, 6-8 p.m.**

*Sheraton Waikiki*

**Honolulu, HI**



# PHARMACY FOR THE PUBLIC GOOD

Plein Geriatric Pharmacy Center benefactors and pharmacy pioneers Joy and Elmer Plein pictured at Seattle’s iconic Space Needle

## Plein Geriatric Pharmacy Center addresses growing need

Center will be an advanced collaborative effort across UW School of Pharmacy

People live longer with chronic illnesses these days, using medication to manage conditions such as high blood pressure, high cholesterol and diabetes. It is unsurprising that, among older adults, medication-related problems—side effects, falls, overprescribing and improper adherence—are among the top causes of hospitalizations and the loss of independent living. With that backdrop, the UW School of Pharmacy announced the Plein Center for Geriatric Pharmacy Research, Education & Outreach earlier this year and recently announced the leadership team. The Center will promote the discovery and optimal use of medications in older adults. Faculty will collaborate on

research projects related to: medication management, adherence, and safety; the role of drugs in prevention

**“Our goal is to improve the lives of older adults by strengthening our research focus in geriatrics, increase collaborations among our School faculty and build new relationships with researchers across the UW. We are excited to expand the education and outreach mission of the School with the energy and resources devoted to the Plein Center.”**

**SHELLY GRAY, PLEIN CENTER DIRECTOR AND SHIRLEY AND HERB BRIDGE ENDOWED PROFESSOR OF WOMEN IN PHARMACY**

and treatment of health conditions affecting older adults – for example, falls, fracture, cognitive decline, dementia, diabetes, neurodegenerative disorders; ways to enhance pharmacists’ ability to care for older adults

and underserved populations. The Center also will encompass education programs in geriatrics for Pharmacy doctorate and other students. Foundational funding for the center and its director position was provided by Drs. Joy and Elmer Plein. Elmer joined the UW School of Pharmacy faculty in 1938. He led several initiatives, including the 1968 founding of the clinical pharmacy program – one of just two such programs in the western United States at that time. Joy is widely credited for creating momentum for senior-care pharmacy in Washington state, at a time when few pharmacists were geriatricians and far fewer advocates existed for older patients. In 1973, the couple developed a nursing home pharmacy

course, the foundation of what is now the School's Plein Certificate in Geriatric Pharmacy. "Our school is co-located with UW Medicine and the schools of Nursing and Social Work – each offering geriatric specialty education and highly regarded research centers," said Sean D. Sullivan, professor and dean of school. "With our

collaborative approach to education, the School of Pharmacy is positioned to fully participate in a comprehensive approach to healthy aging." The Pew Research Center reported that roughly 10,000 Americans turn 65 every day, and that by 2030, 18 percent of the U.S. population will be over age 65. As drug research advances and

medications become more personalized, the need grows for providers with expertise in medication choices and drug interactions. Clinics, health systems, residential communities and hospitals nationwide are turning to pharmacists for their medication knowledge to improve patient health, particularly for chronic illnesses.

## Get to know the Plein Geriatric Pharmacy Center leaders

Over the summer, Dean Sullivan announced the leadership for the Plein Geriatric Pharmacy Center and some of the early planning activities.

**Plein Center Director and Shirley and Herb Bridge Endowed Professor for Women in Pharmacy Shelly Gray** will assume responsibility for oversight, direction and vision of all aspects of the Center, including the research, training and service missions. Shelly will work with her leadership team to integrate the School's Geriatric Pharmacy Program activities, including the successful Plein Certificate in Geriatric Pharmacy, as part of the new Plein Center. Shelly earned her PharmD from the University of Michigan, held a geriatric pharmacy fellowship at the University of North Carolina, and earned a master's in Epidemiology from the UW. Her research focuses on the assessment of benefit and risk of medicines in older adults. She has been an investigator on numerous federally funded research grants and is the author of over eighty peer-reviewed publications. In 2014, Shelly was awarded Fellow status in the AGS.

**Assistant Director for Training Leigh Ann Mike** will coordinate the Center's training and educational missions, including the Plein Certificate in Geriatric Pharmacy. Leigh Ann

earned her PharmD degree from the University of Illinois at Chicago and completed her residency training at the University of Illinois Medical Center at Chicago. She has extensive experience for caring in older adults in the acute care setting, and more recently in assisted living communities.

**Assistant Director for Research Zachary Marcum** will work with Plein Center faculty to build out an interdisciplinary research mission for the Center. Zach joined UWSOP after completing his PharmD at Butler University and PhD at the University of Pittsburgh. His research focuses

on medication use and adherence in the elderly, especially amongst older adults with Alzheimer's Disease. Zach was recently awarded a three-year, highly competitive AHRQ-sponsored K12 Scholar position in the UW Patient-Centered Outcomes Research Institutional Training Program. This K12 award will complement and extend his work with older adults.

Shelly will convene a Center steering committee, to be chaired by **Associate Dean Andy Stergachis**, with representatives from all three UWSOP departments, in addition to external stakeholders.



Plein Geriatric Pharmacy Center leadership (L to R): Assistant Director for Research Zach Marcum, Assistant Director for Training Leigh Ann Mike, and Director Shelly Gray.

# RECOGNIZING *our donors*

We gratefully acknowledge the many generous alumni, faculty, staff, students, corporations, foundations, and friends that made gifts and pledges to our School and made donations to student events between July 1, 2015 - June 30, 2016. Giving remains strong, with 12% of our alumni giving back to the School, making UWSOP #1 at UW in the percentage of alumni giving back to their School. Your gifts truly make a difference for our students, faculty and programs. Thank you!

## INDIVIDUALS

### \$25,000+

David & Anita Bailey  
Lynn (D) & Geraldine (D) Brady  
Kenneth Euler  
Mitchell & Mandy Higashi  
Elmer (D) & Joy Plein  
Dana Hurley & Matthew Thomlinson  
Raymond Wilson & Cheryl Wright-Wilson

### \$10,000-\$24,999

Carl & Yekaterina Atienza  
Nancy Bittner  
Louis & Frances Garrison Jr.  
Florence Gibaldi  
Douglas & Areatha Mendenhall  
Ryan & Jessica Oftebro  
Bing-Bing Yang

### \$5,000-\$9,999

David & Kathleen Eaton  
Mark & Pamela Holzemer  
Stephen & Kathy Kushner  
Sean & Catrena Sullivan  
David & Julie Veenstra  
Larry & Margaret Wienkers

### \$2,000-4,999 (President's Club)

Kimberly Adkison  
Evelyn Arrigoni  
Thomas & Kathleen Baillie  
Anirban Basu  
Timothy Carlson & Luann Aki  
Rory Cavaille  
Jon Eisenberg & Soraya Madani  
Sallie & Brett Hartnett  
Paul & Chana Hiranaka  
John O'Connell Jr.  
Kathleen Kaa  
Siamak Khojasteh-Bakht  
Mark Holodniy & RoseAnn Kushner  
Craig & Sally Kvam  
Virginia Leland  
Malcolm & Diane McCallum  
Donavon & Nicole McConn II  
Scott & Ellen Ramsey  
Tove Ryman  
Beverly & Michael Schaefer  
Danny & Barbara Shen  
Dennis Shibata  
Cuyue Tang & Yongyi Luo  
Kenneth & Peggy Thummel  
Bettie Tomchalk

Herbert Tsuchiya  
Chris & Gail Whitley  
Donald & Arda Williams

### \$1,000-\$1,999 (Dean's Club)

Arnold & Gail Anderson  
Richard & Teresa Austin  
Jennie Best  
Jonathan & Christina Campbell  
Josh Carlson  
Weichao & Sandy Chen  
Janet & William Corriston  
Bonnie & Walter Davison  
James & Karan Dawson  
Stephanie Decker & George Guenther  
Emily Devine  
Leslie Dickmann  
Donald & Donna Dockter  
Donald & Anne Downing  
Michael & Margaret Faulkner  
Steven & Kim Fijalka  
Jackie Gardner & Gary Elmer  
Keli & Ryan Hansen  
Gary & Carrol Harris  
Thomas Hazlet  
Shiu-Lok Hu  
Lorraine Humm  
Richard & Janet Hunter  
Christene & Anthony James  
Brenda & Jess Kelly  
Paul & Mary Kuehn  
Linda & James Lang  
Sze Lau  
Albert & Sheila Linggi Jr.  
Anne Maideen & Peng Hsiao  
Michael Mohutsky  
David & Peggy Odegard  
Larry & Ellen Oliver  
Marla & Patrick Osinski  
Mary Paine  
Terry Podoll & Mary Kane  
Gregory & Gloria Pollock  
C. Rene & David Porubek  
James & Patricia Ramseth  
Shelby & Steve Reed  
James & Diann Robbers  
Joshua Roth & Meghann Glavin  
Shabir & Salma Somani  
Allan Rettie & Shannon Stewart  
Theodore & Akico Taniguchi  
Arvind Thakkar  
Bruce Wang  
Jennifer Wilson-Norton & Laurence Norton  
Edward & Kathleen Wong  
Bradley Wong

### \$500-\$999

Benny & Dana Amore  
William Atkins & Claudia Jochheim  
Jack Babcock Sr.  
Ronald & Kathleen Beil  
George Benson  
Ernest & Joanne Bush  
Konsik & Susie Chon  
Kevin Coe  
Collin Conway  
Karen Craddock  
James Cross  
Wanda Crow  
Tamara & Stephen Eide  
Maurice Emery  
Andrew & Claire Forster  
Donald & Margaret Forstrom  
David & Christine Gross  
John Harrelson & Shiela Lesh  
Kirk Henne  
Yvonne Hewett  
Vivian & Jeffrey Hiroo  
Gayle Hudgins & Tim Edwards  
Nina Isoherranen III & Alex Zelter  
Edward Kelly  
Brian Kirby  
Bojan Lalovic  
Young & Minja Lee  
Stephen Lenssen  
Jennifer Lill  
Sandra Mattson  
Barbara Muirhead  
Teresa & Donal O'Sullivan  
Miroslava & Ricardo Orozco  
Teresa & John Osborn  
Dominic & Natalie Poon  
Jon & Sandra Roberts  
Robert & Martha Satterthwaite  
Harry Schnepf II & Cameron Fosterling  
Vandana & J. Greg Slatter  
Julia Slejko  
Paul Tom  
Jizel & Steven Wanaka  
Mary Wingate

*Every effort has been made to represent the names of our donors accurately. We apologize for any errors or omissions. Please send any corrections to [rxalumni@uw.edu](mailto:rxalumni@uw.edu).*

# CORPORATIONS & FOUNDATIONS

## \$50,000+

Academic & Community Cancer Research United  
Allergan, Inc.  
Amgen  
Bayer AG  
Boston Scientific Corporation  
CTI BioPharma Corporation  
Cubist Pharmaceuticals, Inc.  
Eli Lilly and Company  
ERA Living  
Janssen Research & Development, LLC  
Mallinckrodt, Inc.  
Pfizer Inc.  
Southcentral Foundation

## \$25,000-\$49,999

Alnylam Pharmaceuticals  
Biogen Idec  
The Hearststone  
Ipsen Pharma  
Merck & Company, Inc.  
The National Academies  
Seattle Institute for Biomedical & Clinical Research

Shire Pharmaceuticals  
U.S. Pharmacopeial Convention

## \$10,000-\$24,999

Merck & Company, Inc.  
The Schwab Fund for Charitable Giving  
Walgreens

## \$2,500-\$9,999

The Bartell Drug Company  
The Boeing Company Cardinal Health  
Eli Lilly and Company  
General Electric Company  
JTB International, Inc.  
Kelley-Ross and Associates, Inc.  
The Kroger Company  
Microsoft Corporation  
Rite Aid Headquarters Corporation  
Robert W. Baird & Company, Inc.  
Roche Holding AG  
RP Healthcare, Inc.  
Society of Infectious Diseases Pharmacists  
Valley Medical Center  
Walter & Hazel Hinman Foundation  
Washington State Pharmacy Foundation

## \$500-\$2,500

Abbott Laboratories  
AstraZeneca PLC  
Bill & Melinda Gates Foundation  
Cerberus Capital Management L.P.  
CVS Caremark  
Evergreen Treatment Services  
GlaxoSmithKline  
The Kroger Company  
Mercury Pharmacy Services  
National Community Pharmacists Association Foundation  
Network for Good  
The Northern Trust Company  
Phi Lambda Sigma  
Premera Blue Cross  
Safeway Stores, Inc.  
Scholarship Foundation of Northshore State of Washington  
Takeda Pharmaceutical Company Limited  
Target

## New Medicinal Chemistry Faculty Member & Promotions

Medicinal Chemistry welcomes Assistant Professor **Miklos “Mike” Guttman**, PhD, to the department. Mike earned his BS in Chemistry at University of California, Irvine, and went on to complete his PhD in Chemistry/Biochemistry at University of California, San Diego. He received a NIH Ruth L. Kruschstein F32 award to work with Kelly Lee’s group as a post doc to apply structural mass spectrometry to understand how antibodies recognize the viral surface glycoprotein of HIV. More recently he has worked with the Global Health Vaccine Accelerator Platform (GH-VAP) through the Bill and Melinda Gates Foundation to characterize emerging biotherapeutics.

Mike’s research interests include investigating structural and biophysical properties governing antigen recognition by the humoral immune system and the development of structural mass spectrometry techniques for mapping protein glycosylation.



## PHIL & SANDRA NUDELMAN ENDOW NEW LECTURE SERIES

Phil Nudelman graduated from the UWSOP in 1964 and then earned an MBA and PhD from Pacific Western University. He went on to lead Kaiser/Group Health and The Hope Heart Institute, and has served on several high profile Boards, including CTI Biopharma.

In the 1990s, he served as an advisor to the White House Task Force

on Health Care Reform and later was the President’s advisor on the Commission on Consumer Protection and Quality in Health Care.

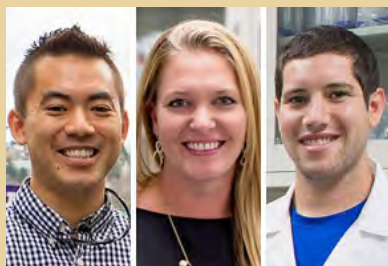
The lecture series showcases the leadership, management, communication and entrepreneurship that have been characteristic of Phil’s career as a leader in pharmacy and management.

The inaugural Phil and Sandra Nudelman Endowed Lecture features Thomas E. Menighan, Executive Vice President and CEO of the American Pharmacists Association (APhA).

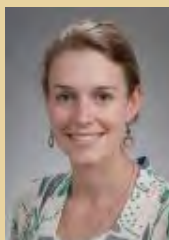
**November 9, 5-7 PM**  
**Hogness Auditorium**  
**Health Sciences Building**  
**UW Seattle Campus**



UW Health Sciences NewsBeat, the *Wall Street Journal*, and *Science* covered **Nikki Klatt's** research with Pharmaceuticals



grad student **Ryan Cheu** (left) and post doc **Alex Zevin** (right). The team found a key piece in the HIV drug effectiveness puzzle: Tenofovir, in the form of a topical vaginal gel, is metabolized by the common bacterium *Gardnerella vaginalis*.



A study published in the May issue of *Health Affairs* and authored by **Caroline Bennette** and **Sean Sullivan**, illuminates the complexity of anticancer drug pricing and several market forces that underlie large price increases in the years after a drugs' launch.

**Kelly Lee's** lab in Medicinal Chemistry uses 3D electron microscopy to visualize influenza virus invasion, showing how a virus pries its way past host membranes. The research was published in *Journal of Virology* and was picked up by UW Health Sciences NewsBeat and *Gizmodo*.



**Jenny Bacci** authored/co-authored three articles in the *Journal of the American Pharmacists Association* (JPhA) on collaborative practice agreements, prescription opioid use, and community pharmacies.

Pharmacy's **Melissa Barker-Haliski** is first author and **H. Steve White** is senior author on "Acute cognitive impact of antiseizure drugs in naive rodents and corneal-kindled mice," published in *Epilepsia*.

**Al Ellsworth**, PharmD, PA-C, was awarded the 2016 MEDEX Pioneer Award. <http://ow.ly/MT1w303JJL>

Medicinal Chemistry's **Rheem Totah** published "The role of cytochrome P450 BM3 phenylalanine-87 and threonine-268 in binding organic hydroperoxides" in *BBA-Molecular and Cell Biology of Lipids*.

**Allan Rettie** was a keynote speaker at the Gordon Research Conferences: "Drug Metabolism Contributions to 'Precision Medicine': Past, Present, and Future," and Dean Emeritus **Tom Baillie** lead a panel, "Targeted Covalent Inhibitors--Risks, Benefits, and Promise for Precision Medicine," at the Gordon Research Conferences.

What's that on the cover of *Kidney International*? None other than the "Kidney on a Chip" of Pharmaceuticals' **Ed Kelly** and UWSOP fame! (See Student Notes on page 13 for more information about the research highlighted.)



**Catherine Yeung** collaborated with colleagues from Universities of Georgia and Florida on a poster at the AACP meeting, "Translational Pharmaceuticals: Impact on Pharmaceuticals and the Practicing Pharmacist."

**Terri O'Sullivan** was presented the Award of Excellence in Experiential Education 2016 winner by American Association for Colleges of Pharmacy.



**Tracey Heymann Meyers** is the winner of the Wayne A. Kradjan Excellence in Clinical Teaching Award for 2016, given annually to one or two preceptors. One of her students wrote: "Tracey maintained a very welcoming atmosphere that was conducive to learning and created opportunities to expose us to the different clinical roles of the pharmacist."

**Gary Nicolas** of Swedish's Ballard Campus was awarded UWSOP's Introductory Pharmacy Practice Experience (IPPE) Preceptor of the Year in May. One of Gary's students wrote, "He made sure I got opportunities to work with others. I got work with the surgeon, anesthesiologist, nurses, and social worker in the hospital."

**Aastha Bansal** was awarded Best Poster Presentation: New Investigator and **Joshua Roth** earned Best New Investigator Podium Research Presentation at ISPOR's International Meeting.

Congratulations to **Lingtak-Neander Chan** on his election as a Fellow of the American College of Nutrition (ACN) in recognition of his outstanding contributions in the field of nutrition science; **Anirban Basu**, recently selected as an American Statistical Association (ASA) Fellow; and **Amy McQuary** for receiving one of UWMC's Spring 2016 UW Medicine Cares Awards!

**Peggy Odegard** was named Lynn & Geraldine Brady Professor of Pharmacy. **Shelly Gray** was named Shirley & Herb Bridge Endowed Professor of Pharmacy. **Lingtak-Neander Chan** was promoted to Professor of Pharmacy and named Vice Chair of the Department of Pharmacy. **Yvonne Lin** was promoted to Associate Professor of Pharmaceuticals. PORPP's **Josh Carlson** was promoted to Associate Professor of Pharmacy.





Pharmacists in Washington state are able to practice at the top of their license, consulting with patients and providing immunizations, thanks to the advocacy of UWSOP faculty. This demonstration project will identify ways to increase pharmacy-based immunizations.

## UW, Bartell & QFC collaborate to increase vaccinations

Partnership funded by grant from National Association of Chain Drug Stores

UWSOP, Bartell Drugs, and QFC Pharmacy will partner with Washington State Health Care Authority in a unique demonstration project that aims to foster healthcare collaboration across the care continuum to increase

pharmacy-based immunizations.

The demonstration project is one of three that aim to fulfill the goals of an \$800,000 Centers for Disease Control and Prevention (CDC) grant to the National

Association of Chain

Drug Stores (NACDS). The project will examine innovative healthcare collaborations designed to demonstrate increased rates of pharmacy-based immunizations including influenza, pneumococcal, pertussis and herpes zoster. It also focuses on improving pandemic planning among pharmacies and state health departments and improving access to vaccine resources and education for pharmacists. The healthcare entities will work together to develop and implement a value-based payment model that is scalable and replicable to improve immunization rates for a targeted population that are recorded in the state registry. The models

will innovate methods for sharing immunization information among the participating health plans or systems, accountable care organizations, community pharmacies and patients. The grant teams

also will collaborate with public health agencies to improve pandemic vaccine preparedness. Increasingly, pharmacists are recognized as the front line of health care in communities. The state

**“We are excited to bring together top community pharmacy providers and our faculty to build on our legacy of improving community access to pharmacist-administered vaccinations and evaluating the impact of these important services on population health outcomes.”**

SEAN D. SULLIVAN, PROFESSOR & DEAN, UW SCHOOL OF PHARMACY

of Washington has led the way when it comes to pharmacists practicing at the top of their license, thanks to the advocacy of UW pharmacy faculty. Pharmacist-provided vaccines were among the first of many practice innovations begun at the UW. This project brings together faculty researchers and practitioners who will tap into the diverse expertise at the UWSOP, from patient care implementation to emergency preparedness, including principal investigator, Peggy Odegard, co-principal investigator, Jenny Bacci, along with investigators Andy Stergachis, Ryan Hansen, Aastha Bansal, and WSPA Director Jenny Arnold as a key consultant.



## Sid Nelson's legacy lives on in science & collaboration

Busulfan is one of our oldest anticancer drugs. Today, it is often used to prepare a patient's body for a bone marrow transplant (hematopoietic cell transplant [HCT]) to fight various cancers. Busulfan kills some of the patient's blood cells to ensure the donor cells will be accepted. But busulfan is toxic. The work to mitigate that toxicity has become central in three labs across UWSOP—a collaboration that would have brought cheer

to the late Dean Sid Nelson. "Sid was fascinated by the biological and toxicological implications of chemistry," shared Bill Atkins. The collaboration began when

Pharmacy Professor Jeannine McCune reached out to Bill in Medicinal Chemistry. For twenty years, Jeannine has studied the effects of busulfan on HCT patients to improve its efficacy and lower its toxicity: "Busulfan is a 'goldilocks' drug," she said. "The dosing has to be just right." She approached Bill about using metabolomics, a new field that characterizes the small molecule metabolites in biological systems. She asked him to look at the data because of his expertise in the protective molecule glutathione, an antioxidant. (Glutathione is important to busulfan because it is metabolized by the glutathione S-transferases.) Bill saw the potential for novel protein modifications. In some classic cases, including examples studied by Sid, drugs or their metabolites are toxic because they stick on

to proteins covalently. But with busulfan, it reacts with the proteins, changes them, and then disappears—having changed the chemical nature of the protein. "To my knowledge, it's unprecedented," said Bill. Busulfan converts cysteines in proteins into dehydroalanine. These reactions also may have utility in protein engineering or nanotechnology. "If you could get other things to react with the

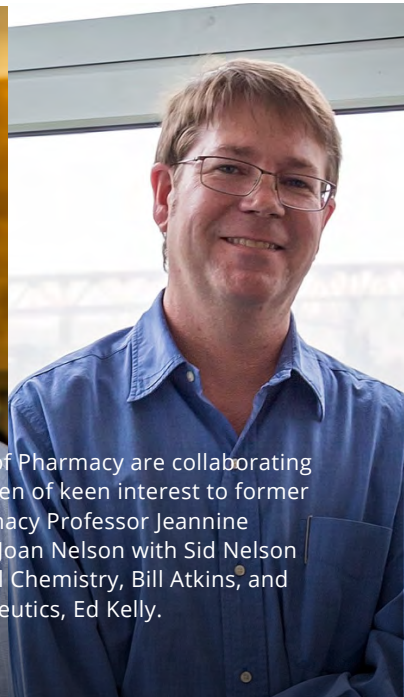
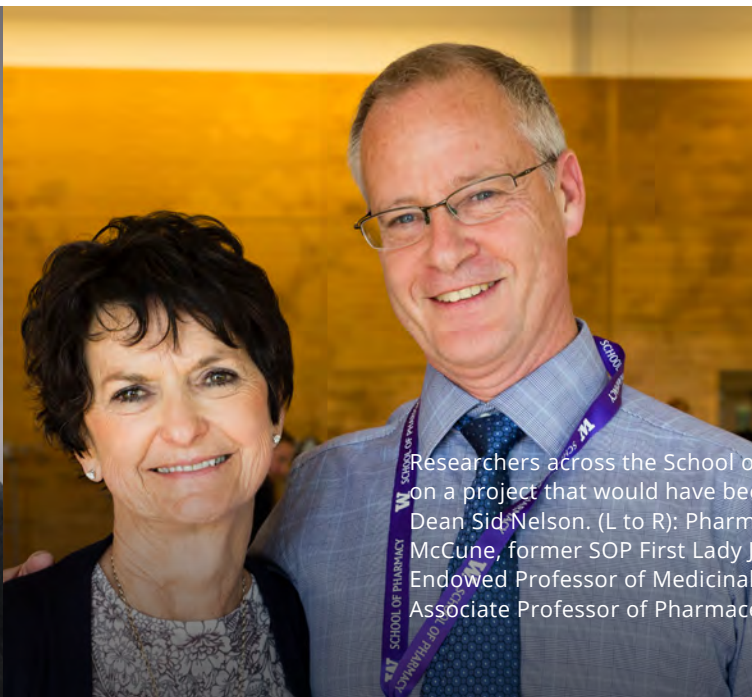
dehydroalanine, you could expand how proteins are used—including application of functional probes, drugs, or targeting moieties."

The collaboration has expanded. Understanding the toxicity of busulfan

**"Sid might have called it 'strange chemistry.' Normally when a toxic drug modifies a protein, the drug stays around which makes it toxic—but busulfan modified a protein and then disappeared. It's really awesome! I kept wondering why no one had studied this before."**

**BILL ATKINS, SID NELSON ENDOWED PROFESSOR OF MEDICINAL CHEMISTRY**

led Jeannine and Bill to Ed Kelly in Pharmaceutics, whose work with the organ on a chip project is making him a leader in Toxicology. "Busulfan is a legacy drug, with a mechanism of action based on World War I chemical warfare agents, but it's still a frontline drug in pediatric cancer therapy," said Ed. He is working to create a liver on a chip that integrates vascular cells so they can start identifying pathways, proteomics, metabolomics, and chemistry, specifically for busulfan toxicity in this example. Jeannine, Bill, and Yvonne Lin (Associate Professor in Pharmaceutics) have an ongoing NIH R01 grant trying to improve the efficacy and lower the toxicity of busulfan. The team is eager to continue this project which embodies the collaborative spirit and science that were hallmarks of Sid's leadership.



Researchers across the School of Pharmacy are collaborating on a project that would have been of keen interest to former Dean Sid Nelson. (L to R): Pharmacy Professor Jeannine McCune, former SOP First Lady Joan Nelson with Sid Nelson Endowed Professor of Medicinal Chemistry, Bill Atkins, and Associate Professor of Pharmaceutics, Ed Kelly.



Dr. Katrina Claw's research builds on a six-year UW Northwest-Alaska Pharmacogenomics Research Network (NWA-PGRN) and University of Alaska Fairbanks Center for Alaska Native Health Research (CANHR) collaboration.

## Navajo genetic scientist Katrina Claw bridges cultures to advance research and underrepresented scientists

As a Navajo scientist trained in genomics, UWSOP post doctoral researcher Katrina Claw is on a two-fold mission to make a difference: As a scientist, she seeks to understand the role genetics play in Vitamin D insufficiency in Alaskan Native populations. As a Native American, she wants to increase the number and impact of indigenous people pursuing science as a career. "It's not enough just to get admitted to a program or school," she says. "There are significant burdens on underrepresented students. We need mentors who can provide support, and guide us through the system, particularly to find funding. I was fortunate to find faculty mentors like Drs. Wiley Burke and Kenneth Thummel who believed in me." Katrina also found support in organizations like the Society for Advancement of Chicanos/Hispanics and Native Americans in Science

(SACNAS). "When high school students meet me, they realize they can pursue science as a career and I want to encourage them in that work." Her life experiences inform her research. Working with tribal partners in the Northwest-Alaska Pharmacogenetic Research Network (NWA-PGRN), Katrina's NIH fellowship research seeks to identify and functionally characterize variation in genes related to vitamin D metabolism. Vitamin D deficiency is a public health problem, particularly for northern latitude indigenous populations. Limited sunlight exposure and a shift to Western diets may be some of the driving causes of insufficiency,

**"I am like a bridge. I connect Native knowledge and Western science, but I am also walked over. It can be hard to connect the multiple cultures and ways of knowing, but I am sure this is the best path forward."**

**KATRINA CLAW, POST DOC, PHARMACEUTICS**

but gene variation modifies individual risk. With all that's known, there remains inter-individual variability that is not completely understood. As more Alaskan Native people suffer from vitamin D insufficiency, there may be increases in pathologies like cancer, heart disease, and bone disease. Knowledge of genomic variation associated with Vitamin D levels will be key to achieving optimal intervention strategies that reverse the insufficiency. Another aspect of Katrina's research is to actively engage the with Native American partners,

exploring their expectations for genomic medicine research. In the past, some Native communities lost trust in researchers who used tissue samples and data without permission. "It needs to be a transparent, meaningful partnership. In

particular for genomics, it is all about how you generate, store and share data," said Katrina. "The core of UW's NWA-PGRN mission is to form and deepen connections with the communities with whom they work." She wants to partner with more tribes in the future to help them benefit from health research. One possible outcome: a return to a more traditional diet that may improve Vitamin D levels and also support tribal efforts to keep traditions alive in the community. "How we communicate findings is important. We have to go beyond academic papers and work with tribal leaders to inform the community."



## UWSOP, Era Living Partner for Patient-Centered Care

UW School of Pharmacy offers a novel approach to student training and patient care in Era Living retirement communities. The program is a mutually beneficial one: in addition to their regular pharmacy services, Era Living residents receive supplemental medication expertise for which UW pharmacy faculty and students are well-known and student pharmacists

have opportunities to enrich their training through supervised resident consultations and more. "As integrated members of the health care team, UW faculty practitioners and our registered nurses, social workers, and care staff are able to share valuable information centered around enhancing the health and well-being of our residents," said Jacob Almo, Vice President of operations at Era Living.

The program benefits UW Pharmacy students by creating opportunities to work alongside faculty pharmacists. On a regular basis, students enhance their training by giving important presentations to residents on a range of topics including drug safety and how to prevent the flu, reduce insomnia, and manage diabetes, osteoporosis and more.

**"I learned to see more than the medication list, but to think about how the residents live their lives and the factors that matter to them the most, including medication cost, feasibility, side effects, and tolerability."**

SARAH BUTERBAUGH, PHARMD, '16

By being on-site regularly and under faculty supervision, students are available to meet with residents. UW student pharmacist Sarah Buterbaugh helped a resident who had a host of prescriptions, including oral medications, inhalers, and topical products. Working with faculty pharmacist Jennifer Wilson Norton, Sarah helped organize and explain

the medications, including what was mandatory, optional, and how best to store them. "The resident to this day still keeps Sarah's organization system," notes Jennifer.

Era Living offers "a unique environment and a wonderful experience for students," said Sarah. "The geriatric population brings both curiosity and concern in the questions they have and each preceptor had time to discuss with me both the therapeutic options as well as to emphasize considering the resident as a whole. I learned just as much from the residents as the information we delivered to them. This rotation emphasized to me that the pharmacy profession is not just about medications but more importantly is about providing patient-centered care."

Introducing the 30th class of UW Geriatric Pharmacy Certificate graduates (LtoR): Jack Ho, Emily Chang, Susie Gannaw, Joseph Christopher Clifton, Sarah N. Buterbaugh, Amy Midori Munekiyo, Sei-Jung Megan Lee, Lindsey Berg, James Lin, Clara Park, Czarina Lauren Viado Franco, Hannah DeMeritt, and Ashley Hummel Warcola (not pictured: Ingrid Lee, Trisha Mow, Kelsey B. Rasmussen, and Jessica L Shih).

# STUDENT NEWS

Pharmaceutics graduate student **Elijah Weber** and a host of UWSOP graduate students and faculty authored: "Development of a microphysiological model of human kidney proximal tubule function," appearing in *Kidney International*.

Pharmaceutical Outcomes Research and Policy Program (PORPP) PhD student **William Canestaro's** paper on the Companion test Assessment Tool (CAT) was selected to be the 2015 *Journal of Managed Care & Specialty Pharmacy* (JMCP) Award for Excellence!

Pharmaceutics grad student **Ryan Cheu** and post doc **Alex Zevin** helped unlock a key piece in HIV drug effectiveness puzzle working with **Nikki Klatt**. Nikki presented the findings at the AIDS 2016 Conference in Durban, South Africa and the story was picked up by UW Health Sciences NewsBeat, the *Wall Street Journal*, and *Science*. The team found Tenofovir, in the form of a topical vaginal gel, is metabolized, or broken down, by the common bacterium *Gardnerella vaginalis* which may be treated with antibiotics.

Med Chem grad student, **Michelle Redhair**, was an author on, "Membrane Interactions, Ligand-Dependent Dynamics, and Stability of Cytochrome P4503A4 in Lipid Nanodiscs," published in *Biochemistry*.

**Danny Quach** presented his poster, "An Economic Evaluation of Dinutuximab for "High-risk Neuroblastoma from a Societal Perspective," at the Academy of Managed Care Pharmacy (AMCP) conference.

Every year, third year PharmD students take the Pharmacy Curriculum Outcomes Assessment (PCOA), administered by the National Association of Boards of Pharmacy. In 2016, 17 students scored at the  $\geq 90$  percentile on the examination, placing UW students well above the national average.

At the annual ISPOR meeting, two PORPP students, **Blythe Adamson** ("Smartphone-enhanced rapid influenza test: A cost-effectiveness analysis") and **Amy Tung** ("Characterizing healthcare utilization, direct costs, and comorbidities associated with interstitial cystitis: A retrospective claims analysis"), were selected for Poster Finalist Awards.

Congratulations to UW PharmD students, **Krystal Ngo**, **Lauren Chin**, **Ngan Pham** and **Jon Pham**, whose team was in the top 8 in the National Pharmacy & Therapeutics (P&T) Competition at the AMCP Annual Meeting in San Francisco.

**Nick Larned**, **Phoebe Stracener**, and **Arianne Duong** organized a UW Health Sciences Interprofessional Education Health Fair.

UWSOP's team placed in the NCPA Pruitt-Schutte Student Business Plan Competition Top 10.

Congratulations to **Matthew Chui**, **Taylor Voth**, **Matthew Elamparo**, **Nick Larned**, **Mackenzie Brederbeck**, and **Tanner Roberts**.

PORPP graduate student **Devender Dhanda** was named UWSOP's 2016-2017 Magnuson Scholar. Devender's research focus is the development of analytical frameworks for quantitation of evidence from genomic testing technologies

Pharmaceutics graduate student **Gabriela Patilea-Vrana** is part of the 2016 cohort of TL1 pre-doctoral trainees. Her project is: "Disposition Studies of  $\Delta 9$ -tetrahydrocannabinol (THC) to Predict Drug Exposure During Pregnancy."

**Kevin Lidberg** is one of the Institute of Translational Health Sciences (ITHS) TL1 Summer Multidisciplinary Predoctoral Clinical Research Trainees. His project is: "Evaluation of antisense oligonucleotide nephrotoxicity using a novel 3D microphysiologic system."



Congratulations to Pharmaceutics grad student **Michael Liao** on the birth of his future Husky, Leona (shown in her UWSOP onesie). Would you like a onesie for your new baby or grandbaby? Just email Nicole at [angusnm@uw.edu](mailto:angusnm@uw.edu).

Follow us on Facebook ([facebook.com/UWSOP](https://facebook.com/UWSOP)) and Instagram ([instagram.com/UW\\_Pharmacy](https://instagram.com/UW_Pharmacy)) to stay up to date on our students' accomplishments!



We are so proud that PharmD student Phoebe Wright, future neuropsychopharmacologist, made the cut for the 800m finals in her pursuit of an Olympic berth. Look up the *Seattle Times* story: "With big kick, UW grad student Phoebe Wright narrowly makes 800 finals cut" to learn more. *Photo: Dillon Vibes/UO SOJC*



# From C.W. to Home: Four Generations of UW Pharmacy

Jean (Hammarlund) Home grew up in a pharmacy. Her father, Edwin Hammarlund, owned a pharmacy in Green Lake that served as the community center. "It had a soda fountain, which we all loved," remembers Jean, "and we lived just four blocks away—so it was easy to come and go between the pharmacy, school and our home." A child during the Depression, Jean remembers how vital the pharmacy was to the neighborhood. "There were times people didn't have the money to pay for their prescriptions, but my father never turned anyone down. He used to get calls in the middle of the night from people who needed his help. He would get up and go to open the pharmacy to take care of them," she continued.



Charles Willis "The C.W." Johnson, Dean of UWSOP from 1902-1939 and Jean (Hammarlund) Home's grandfather

"I'm sure it was stressful for my parents, but it was a great time to grow up." Edwin was not the only pharmacist in Jean's family. Her grandfather was none other than Charles Willis "The C.W."

Johnson, Dean of the UW School of Pharmacy from 1902 to 1939. Her step-grandmother, Francis Edith Hindman Johnson, earned her BS in 1912 and was the very first master's degree graduate from UWSOP in 1914. Francis served for several years as a faculty member and as Assistant State Chemist/Bacteriologist, before her marriage to Dean Johnson. Both of Jean's parents were pharmacists—Kathleen Johnson Hammarlund (PhG, 1921) and Edwin Hammarlund (certificate, 1917)—as were her aunt, Estell (Koozin) Johnson (BS, MS, and

PhD, 1940) and uncle, Frederick F. Johson (BS, MS, and PhD, 1938). Her brother, Roy Hammarlund, earned his MS and PhD (1952) at UWSOP, after serving in WWII, where he fought and was injured in the Battle of the Bulge. Roy was part of the UWSOP Pharmaceuticals faculty from 1960-1983. All told, there are eight pharmacists in four generations of

Jean's family. The C.W. was a chemist and pharmacist who idolized his granddaughter, Jean. Through his leadership and extraordinary work ethic, he transformed the UW

**"In the Great Depression, my father accepted chickens, eggs, milk, even a doll house (that my great-granddaughter still has) as payment. We looked out for each other."**

**JEAN (HAMMARLUND) HOME, UWSOP ALUMNA CLASS OF 1949**

School of Pharmacy, detangling it from the Department of Chemistry and turning it into one of the nation's top schools of pharmacy. During The C.W.'s long tenure, the School received the administrative stability and guidance to achieve national recognition for its endeavors. He was the first Dean who was primarily a pharmacist, and also the

State Chemist. During his administration, The C.W. directed the development of the curriculum from two to three and then four years and introduced graduate studies leading to the master's and doctoral degrees. In the last years of his tenure, in the middle of the Great Depression, a new building, Bagley Hall, was constructed courtesy of



At home with Jean and Jerry Home who celebrate 69 years of marriage in 2016, and a lifetime of family and pharmacy.

the federal Public Works Administration, a home that lasted until the mid-1990s. Jean and her husband Jerry marked 69 years of marriage in 2016. "I proposed to Jean while she was still in college," said Jerry. "Her parents were ok with me, but everyone was nervous to tell The C.W.—what was he going to say?" The C.W. wanted Jean to follow in his footsteps and be a pharmacist.

In the end, with reassurances from Jerry that he would support Jean being a pharmacist, The C.W. gave his blessing. Jerry and Jean married two weeks later, with all the UWSOP

faculty in attendance. Jerry went on to serve in the Navy towards the end of World War II, and even served as Executive Officer to Herb Bridge, husband of legendary UW pharmacist, Shirley Bridge. Jean and Jerry built a life together: children,

traveling adventures, and making a difference in their community. Jerry upheld his promise to The C.W. and Jean worked as a pharmacist her whole career—an opportunity that allowed her to balance her time with family. The family health care tradition continues: Jean's daughter Debbie is nurse and her granddaughter is a physical therapist.

## **Florence Liberty Turbitt Squier, '39**

Born on April 6, 1918 to Robert and Sarah Turbitt from Belfast, Ireland, Florence spent her entire life in the Seattle area. She graduated cum laude in Pharmacy in 1939 and later that year married Paul Squier whom she met at UWSOP. They spent 62 years together working in their pharmacy, Whittier Pharmacy. Paul passed away on March 7, 2001. Florence was active in the Women's Pharmacy Auxiliary. Alumna and UWSOP faculty member Karan Dawson writes, "Florence was a dear lady, friend, and educator. She and Paul were long-term volunteers. Whether on campus or at their home, Florence and Paul shared their time, expertise, and love of people through pharmacy. Florence didn't retire, she continued to work as a relief pharmacist well into her 80s. For decades they made a positive difference in the lives of countless people: patients, friends, students, pharmacists, and the greater community." Florence passed away on Thursday April 14, 2016. She spent her final days surrounded by her family. She is survived by two children, four grandchildren, and four great-grandchildren.

## **Ronald Dartnall, '43**

Ron was born in Seattle on August 27, 1920, to Edgar and Annie Dartnall of Omak, WA, and graduated from the UW where he shone as one of the top wrestlers in the region, winning the Pacific Northwest Division Championship. After serving in the Merchant Marines during World War II, he became a life-long career pharmacist, owning three pharmacies. After building his own home and while raising his family in Kirkland, WA, he was an avid outdoorsman, hiking extensively and climbing many of the major mountains in the region. For the past twenty years, ballroom dancing kept him active, as well as traveling with family and close friends. Ron was a fantastic father and a generous friend who encouraged those who knew him. Many have said our world would be a much better place with more people like him. He passed away peacefully in his sleep in West Richland, Wash., May 28, 2016, where he was living with his son and daughter-in-law. He was preceded in death by his wife, Dona and sons, Stan and Jay; and survived by his son, David, and daughter, Becky. He has six grandchildren and four great grandchildren.

## **Calvin Teruo Machida, '52**

A long time Cupertino resident, Calvin was a WWII veteran, UW Husky, registered Pharmacist, devoted family man and retiree. Born in Fresno on March

11, 1927, to Rev. Thomas Jonathan & Helen Kasumi Machida. Moving with his parents to their different congregations, he learned life skills in compassion and communication with early Japanese immigrants. While living in Seattle, Calvin's life was interrupted by World War II and relocation to Minidoka, Idaho. Calvin enlisted in the Army, serving in Italy while his family was released to Washington DC. Upon return to civilian life, Calvin relocated with his family to Seattle, attended the UW and earned his degree in Pharmacy. To pay for school, Calvin worked in the fishing canneries of Alaska and later in the season, picked fruit in Fresno. While working as a Pharmacist at Walters Pharmacy, Calvin met Betty Wake from Fresno. They were married in July 1957 and soon settled in Cupertino. Calvin worked nearly 40 years for Thrifty Drug. He died on July 29, 2015, at home after a brief illness. He is survived by his wife Betty, sister Joyce, four children, and five grandchildren.

## **Willis Charles "Barney" Barnhouse, '53**

Born November 20, 1931 in Olympia, WA, Barney graduated from UWSOP in 1953. He was very proud to be an alum! He went on to serve in the Air Force in Germany before marrying the love of his life, Shirley Moulton, in 1957. Barney died peacefully in his home of the past 40 years in Hawaii Kai.

## **Dean Ross Baxter, '58**

Dean was "born out the Wishkah" on December 8, 1932 in a house built by his father. Before starting his college education, he proudly served his country by enlisting in the United States Navy. He attended Grays Harbor College and graduated with the UW Pharmacy class of 1958. In 1957, he married his high school sweetheart, Sarah "Sally" Louise McPhee. They raised six children in Montesano and celebrated over 58 years of marriage. He owned and operated a community pharmacy outside Seattle, providing home delivery of prescriptions in a flashy red Volkswagen Beetle. Returning to Grays Harbor in 1968, he continued his pharmacy career for 44 years, representing his profession with integrity and serving his patients with compassion. A serene little spot on the north shore of Lake Quinault in the Olympic National Forest was his piece of paradise. Here, with the help of his brother Keith, he built a rustic lakefront cabin. The family cabin still stands today as a result of his quality craftsmanship. He is survived by his wife Sally, his five children and three grandsons. He is preceded in death by his son Bruce. He died on April 8, 2016 with his family at his side.

# 10 THINGS YOU DIDN'T KNOW ABOUT NANCI MURPHY

1. My pharmacy heroes are Joy Plein, Milo Gibaldi, Sid Nelson and Wayne Kradjan. They excelled in their respective fields and were the best mentors!
2. One of my favorite quotes is from William Arthur Ward: "The adventure of life is to learn. The purpose of life is to grow. The nature of life is to change. The challenge of life is to overcome. The essence of life is to care. The opportunity of life is to serve. The secret of life is to dare. The spice of life is to befriend. The beauty of life is to give."
3. If I had unlimited research funding, I would encourage innovations that increase access to quality care, advance health equity, and improve population health.
4. My favorite book is *You Don't Need a Title to Be a Leader* by Mark Sanborn.
5. I have two favorite films: *Love Story* and *Star Wars, Episode IV*. I saw *Star Wars* in 1977, just after I had taken my pharmacy boards.
6. My husband is my high school sweetheart and our song, "Precious and Few," is still my favorite.
7. My favorite place to travel is anywhere with my family.
8. My favorite dessert is s'mores: the original s'mores with marshmallows roasted over a fire—as well as s'more milkshakes, s'more cookies, and s'more cupcakes.
9. My favorite beverage is Dilettante hot chocolate.
10. For fun, I love spending time with my two year old grandson. My husband and I look forward to our weekly adventures with Colin!



PAA President Gary Harris presents the Distinguished Alumni Award to Nanci Murphy

## Nanci Murphy and Mitch Higashi receive Distinguished Alumni Awards

**NANCI MURPHY's** career had a major turning point just as you might expect—out of a conversation with a student. Nanci had been working in community pharmacy and had a UW intern working with her. One day, he mentioned there was an opening at UWSOP as an Instructor in pharmacy practice and suggested she apply for it. She held that position for two years and then joined the Office of Academic and Student Programs in 1990,

under the direction of Dr. Lynn Brady. Her interest in pharmacy began in high school in Moses Lake, Washington. She knew she wanted a career in health care. In pharmacy, she saw a great opportunity to help patients receive better care in a career that continued to change and grow. She went to WSU to earn her BPharm degree. Nanci practiced for thirteen years before coming to the UW where she also earned her PharmD. At the start of her career, Nanci had worked in pediatrics, general medicine and

ambulatory care pharmacy, but after meeting with Joy and Elmer Plein, she gained an interest in geriatric pharmacy. "I was at an outreach event and was immediately struck by both of them and how they embodied who pharmacists are to our older patients," Nanci recalled. She pursued the Plein Certificate in Geriatric Pharmacy (which itself celebrated 30 years this year). "Joy is my mentor and I'm so very grateful to her,"

said Nanci. "I consider this a collaborative award with all the people with whom I've worked here at UWSOP,

**"I was so honored to be selected as the Distinguished Alumni Award. I consider it a collaborative award."**

**NANCI MURPHY, ALUMNA & FORMER ASSOCIATE DEAN OF UW SCHOOL OF PHARMACY**

in the UW health sciences, and in the Washington State Pharmacy Association, American Association of Colleges of Pharmacy, and the American Pharmacists Association," shared Nanci. This summer, after 25 years of service, Nanci retired from UWSOP. In addition to spending more time with her grandson, Nanci will work part time as a collaborative practice specialist at the School of Nursing.

## LEADERS IN HEALTH CARE



**MITCH HIGASHI** was working for a biotech company in Vancouver, B.C. In meetings with potential investors he found they always asked what the benefits were to patient outcomes and value for the heart medications his company had in clinical trials. But he and his team didn't have an answer. "I didn't have the training to know how to get that information for them," he admits. That gap led him to the UW after

seeking references from colleagues in the field. "At that point, I was willing to travel anywhere in North America to find a program and

it turned out the best program was right next door in Seattle," he said. He contacted (then PORPP Director) Sean D. Sullivan and a few months later became one of three PhD students in the inaugural cohort in 1997. It's a time and experience he remembers fondly—most especially a career-changing meeting with his mentor and advisor, Dave Veenstra: "We were in the UW Health Sciences Library and I was trying to narrow down my thesis topics. Mitch settled

**"We are seeing amazing advances in cancer therapy. Every week I use tools I learned studying health economics and research methods at UW to communicate the value and benefit to patient care."**

**MITCH HIGASHI, UW SCHOOL OF PHARMACY ALUMNUS**

on research in pharmacogenetics, focused on warfarin and the gene variant CYP269. It was a robust project and led to National Institute of Environmental Health Sciences (NIEHS) funding and an article in the *Journal of the American Medical Association (JAMA)*. His passion for precision medicine stemmed from lunch seminars in the Pharmacy department and hearing faculty

speakers in Health Sciences. He said he was humbled and overwhelmed to be named a Distinguished Alumnus. "I encourage current students to

take advantage of getting grounded in the fundamentals: being a strong researcher in conducting best practice health outcomes research that is a hallmark of UW's PORPP program; improving your communication skills to showcase the benefit to patients; and demonstrating character and integrity. If you come out of UWSOP with those three, then it's up to you to see where you want to go, whether to academia, industry, government or non-profit."

PAA President Gary Harris presents the Distinguished Alumni Award to Mitch Higashi



## 10 THINGS YOU DIDN'T KNOW ABOUT MITCH HIGASHI

1. Outside of the UW faculty, my health econ idols are Peter Neumann, Mike Drummond, and Shelby Reed. Coincidentally, Peter plays keys in our band, Mike sings, and Shelby is a great dancer. So I guess you could say they are rock star researchers.
2. If I had unlimited research funding, I would endow professorships to support other researchers.
3. A favorite book is *Buffalo Nation* by Valerius Geist. I love the *Game of Thrones* series which I read while I was a graduate student at UWSOP—long before it was an HBO hit.
4. My favorite game is Monopoly which I play with my kids.
5. I'm listening to jazz these days. Diana Krall is my all time favorite and I'm currently listening to Cyrille Aimee's latest album.
6. I like my morning coffee with fat-free Lactaid, honey and Equal. My afternoon coffee is black with Equal.
7. I traveled to Iceland a few years ago. It was so memorable, like going to another planet.
8. Soft shell tacos with guacamole and lots of salsa is my favorite meal.
9. Our band, the Monte Carlos began as a jam band with Sean D. Sullivan, Eric Bell and other PORPP faculty and students. We started small, but now play for 1,000 people and have 10 people on stage with us.
10. For fun, I love to garden. I'm really good with growing cucumbers and aspire to flowers. I also love to fish for large mouth bass and watch my kids play hockey and soccer.





**Roger Woolf**, '85, was named the 2016 Distinguished Leadership Service Award Winner by the Washington State Pharmacy Association (WSPA). Roger is an experienced healthcare leader with extensive knowledge on the use of pharmaceuticals and a progressive vision for pharmacy practice. He is recognized for his application of system based thinking to improve the medication use process and the overall delivery of patient care. The Distinguished Leadership Service Award is presented to WSPA members who have been instrumental over the course of their careers in the development and growth of the profession, and who demonstrate a high level of influence and direction at their workplace, in the community and within the profession as a whole.

Medicinal Chemistry alumna, **Brenda Kelly**, '03, has been promoted to Provost at Gustavus Adolphus College.



Pharmaceutics alumna Dr. **Amber Dahlin**, '08, received notification that she will be getting a NIH K01 award—a first research award for young faculty scientists. She is an Instructor and Associate Epidemiologist in the Harvard School of Medicine. In April, her research, "Genome-wide association study of leukotriene modifier response in asthma," was published in the *Pharmacogenomics Journal*.



American College of Apothecaries Fellow **Dawn Ipsen**, '01, was featured in *The Herald Business Journal* story, "Snohomish pharmacy thrives in a world of giants."

Watch the Future of Pharmacy presentation given by alumni **Ryan Oftebro**, '95, '03, (President,

Kelley-Ross Pharmacy) and **Jeff Rochon**, '99, (CEO, WSPA), along with faculty members **Peggy Odegard**, **Don Downing**, and **Jenny Bacchi**, and Amanda Bishop of Virginia Mason. Watch here: <https://vimeo.com/162855901>

Five UWSOP faculty & alumni have been/are/will be President of International Society of Pharmacoeconomics and Outcomes Research (ISPOR) : **Sean Sullivan**, **Lou Garrison**, **Shelby D. Reed**, '99, **Dan Malone**, '92, and **Scott Ramsey**.



After 33 years of service, **Cheryl Zimmerman**, '83, retired as Distinguished Teaching Professor in the Department of Pharmaceutics at University of Minnesota.

Many thanks to our alumni who have come out to talk with prospective students at grad school fairs around the country. Would you like to help out just like **Jason Lin**, '16, and **Paul Choi**, '10, at Berkeley?



Email Cher at [cherelyn@uw.edu](mailto:cherelyn@uw.edu).

Congratulations to **Collin Conway**, '05, and his family, which now includes Grayson James, born May 15 and weighing in at 7 lbs. 12 oz.



## Class of 2006 Reunion at Magnuson Park, August 27, 2016

Members of the Class of 2006 gathered in Magnuson Park for a great afternoon reunion with a taco bar, fun and games! Alumni shown (L to R): Dan Juergens, Kristin Johnson, Alla Frolov, Ellen Wright, Jessica Lancaster, Jenny Arnold, Jennifer Pak, Quynh-Anh Nguyen, Kristin Dimond, Sarah Menig, Ronda Machen and Beth Arnold (front). Not pictured: Dele Akao.

Is it time for your class reunion? We can help with planning and PAA funding! Contact Nicole Angus: (206) 616-5371 or [angusnm@uw.edu](mailto:angusnm@uw.edu).

## Celebrating 50+ years as Pharmacy alumni



### UWSOP graduates from the classes of 1946-1966 marked 50+ years as alumni this summer

Attendees included: Ralph Alexander, '62, Bennett Anderson, '56, Marilyn Arnett, '70, Otis Malcolm Blair, '60, Richard Blakney, '56, Mike Bloom, '66, June Bozanich, '52, Carol Chervenak, '78, Louise Chervenak, '49, Bonnie Davison, '60, Walter Davison, '57, Ruth Ghormley, '46, Judy Harlick, '60, Jean Home, '49, Nancy Horst, '62, Mike Jonas, '66, Charles Kahler, '66, Stan Kieszling, '60, Ron Konopaski, '55, Billie Kutzera, '53, Alan Lomax, '56, Jack Manning, '64, Ann Massie, '59, Duwain McBride, '56, Jean McLauchlan, '54, Maria Melvin Terrenzio, '66, Jack Nash, '61, Jay Newkirk, '66, Linda Newkirk, '65, Joy Plein, '51, '57, Thad Pound, '65, Dick Ramsey, '56, Gerald Van Pevenage, '65, Kenneth Strieby, '66, Theodore Taniguchi, '49, Louise Thome Warren, '66, Frank Vincenzi, '62



### Katterman Lecture and Dean's Recognition Reception, May 12, 2016

L to R: Alumnae Bev Schaefer, '70, and, Kathleen Beil, '71, reconnected at the annual Dean's Recognition Reception held after the Katterman Lecture. Bev was selected for the UW Pharmacy Practice Distinguished Alumni Award in 2000.



### Dean's Club Night at the Seattle Mariners Baseball Game, July 19, 2016

Dean's Club members had a great evening out to celebrate research, connect and watch the Mariners. (L to R: Kathryn White with her husband, Pharmacy department chair H. Steve White, Al Linggi, '71, and his wife, Sheila Linggi.



Box 357631  
Seattle, WA 98195-7631



**ALOHA!** Join Dean Sean D. Sullivan for a UWSOP alumni & friends event Saturday, March 11, 2017, 6 PM @ Sheraton Waikiki, Honolulu, Hawaii. RSVP to [sgegan@uw.edu](mailto:sgegan@uw.edu)

## PHARMACY RALLY

# TOGETHER

Rally TOGETHER with Pharmacy alumni and friends at a one-of-a-kind pep-rally style reception!

FRIDAY, OCTOBER 21, 2016, 5-6 PM  
Foege Building Vista Café

Light appetizers and beverages will be hosted.

Families are welcome.

We will provide parking on campus for the Pharmacy Rally Together event.

RSVP's strongly preferred for the Pharmacy Rally TOGETHER: <http://tinyurl.com/soprally>

(PS—There's no obligation to attend the larger UW Together event to attend our Pharmacy gathering!)

After our rally, we will then walk over as a School to Hec Ed to celebrate at the UW TOGETHER Event (doors open at 6:30 PM).

This event launches the most ambitious fundraising campaign to support our stellar students. We will share more about our fundraising goals in the months to come. We invite you to join us for this one-of-a-kind multimedia event. For more details, please visit [www.washington.edu/Together](http://www.washington.edu/Together).