

MAKING  
MEDICINES  
WORK **FOR**  
**PEOPLE**



Pitt  
Pharmacy

## The people of the School of Pharmacy thank you for your support.

### Mission

The School of Pharmacy is committed to improving health through excellence, innovation, and leadership in education of pharmacists and pharmaceutical scientists, in research and scholarship, in care of patients, and in service to our communities.

### Values

Integrity guides our daily work. We foster:  
Passion, commitment, and diligence;  
Creativity and personal growth;  
Collaboration and teamwork;  
A culture of respect for the individual.



Dear Friends,

The human element is the foundation upon which this School of Pharmacy is built. Your generosity supports faculty and students as they find their niches so that their professional creativity can take the form of innovations that impact the profession and the people we serve.

We are driven by our values. We foster passion, commitment, and diligence; creativity and personal growth; collaboration and teamwork; and a culture of respect for the individual. The stories and achievements shared in this publication reflect a small window into how each of these values is embodied by the people of our School.

For all the ways you share your gifts with the members of your extended School of Pharmacy family, I thank you.

Sincerely,

A handwritten signature in black ink that reads "Patricia Kroboth". The signature is written in a cursive, flowing style.

Patricia D. Kroboth  
Dean





**Your support  
helps to foster  
Passion,  
Commitment,  
& Diligence.**

**THANK YOU.**





Carolyn Thorpe with students Kaleen Hayes, Alyssa Kunkel, Meera Vachhani

### HPV Vaccine Prevents Cancer. Why Aren't We Immunizing?

Student pharmacists Kaleen Hayes, Alyssa Kunkel, and Meera Vachhani, with faculty mentor, Carolyn Thorpe, are asking Pitt students this question. They have designed and implemented an on-line survey to assess college students' health beliefs about the HPV vaccine and barriers to obtaining the vaccine. HPV immunization will drastically reduce rates of cervical, oral, and other cancers in both women and men and their ultimate goal is to increase the vaccination rates. Phase II of the project will implement customized solutions to overcome barriers identified and increase immunizations not only at Pitt but in the young adult community in Pittsburgh.

KALEEN HAYES, ALYSSA KUNKEL, AND MEERA VACHHANI, PHARMD STUDENTS, AND CAROLYN THORPE, ASSISTANT PROFESSOR

### Creating a Personalized Approach to Adherence

During his internship at Falk Pharmacy, student pharmacist Ukwen Akpoji observed that some of the rheumatology patients had pain and swelling because they were not adherent to their medications. He wanted to know why. To find out, he partnered with the physicians in the rheumatology clinic and created a computer-assisted patient survey. Information from his survey for each patient permitted Ukwen, with direction from his faculty mentor Kim Coley, to develop an intervention tailored to that patient's specific needs – truly personalized medication therapy that resulted in better patient adherence to medications and improved health for the patient.

UKWEN AKPOJI, PHARMD STUDENT, AND KIM COLEY, PROFESSOR

### U.S. Food and Drug Administration Advisor

Thomas Nolin, internationally recognized expert in medication therapy in renal patients, chaired the Kidney Health Initiative workgroup in partnership with the FDA. The group recommended that standardized assessment of pharmacokinetics be done in critically ill patients with acute kidney injury receiving continuous renal replacement therapy. The group also developed the corresponding national drug dosing recommendations for these patients.

THOMAS D. NOLIN, ASSISTANT PROFESSOR

### Impacting Opiate Abuse

Michael Zemaitis is working with the University of Pittsburgh Health Policy Institute to create policies and legislation that save lives by combatting the epidemic of prescription drug abuse and overdose deaths. He has worked to establish a Prescription Drug Monitoring Database for the Commonwealth. In addition, he championed the recent Good Samaritan legislation to increase availability of the opioid antagonist, naloxone, to reduce overdose deaths.

MIKE ZEMAITIS, PROFESSOR



Thomas Nolin and Michael Zemaitis



Ukwen Akpoji

# Passion, Commitment, & Diligence

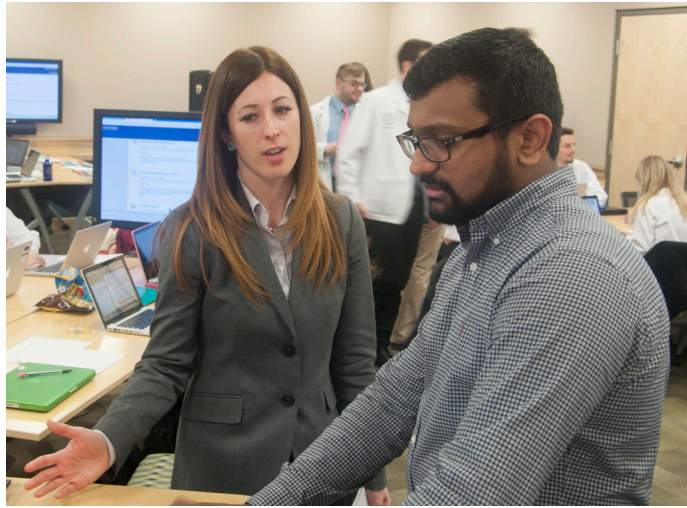




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Kacey Anderson and Hari Kaluri

### Reimagining a Drug Development Course

Kacey Anderson and Hari Kaluri with mentor, Randy Smith, created an active learning environment so that student pharmacists experienced the uncertainty and difficulty in developing drugs and obtaining FDA approval. Each student group worked as part of a “big pharma drug development team” to design their own clinical trials. Using simulation software, the groups assessed pharmacological response and pharmacokinetics and made data-driven decisions about the next step in the development process.

**KACEY ANDERSON AND HARI KALURI, PHD CANDIDATES,  
AND RANDALL SMITH, SENIOR ASSOCIATE DEAN**

### Award-Winning App

Student pharmacists with mentor, Philip Empey, created MEDivate—an app to decrease medication-related hospital re-admissions and expedite transitions of care through efficient medication reconciliation. The team won an Innovation Institute – Pitt Ventures 1st Gear Enterprise Creation Team Grant. The application is an innovative solution for sharing accurate medication lists with healthcare providers and caregivers.

**KELSEY MOSS AND CHRISTINA XIA, PHARM D STUDENTS**

### Test-to-Learn Pharmacogenetics

Solomon Adams and mentor, Philip Empey, developed a novel educational program—PGx Test2Learn™ to prepare student pharmacists and clinicians to meet the challenge of using pharmacogenomics to individualize medication regimens for specific patients. Each learner has the opportunity to explore pharmacogenomics using information from their own genome. Through this program, the team developed new teaching materials, custom software for analyzing genetic data, and a novel partnership with a direct-to-consumer genetic testing company.

**SOLOMON ADAMS, PHARM D, PH D STUDENT,  
AND PHILIP EMPEY, ASSISTANT PROFESSOR**

### Taking Cell Models to a New Dimension—Really

Shilpa Sant is improving the cell-based drug testing approach, which is based on two-dimensional (2D) cell monolayers which do not replicate the true microenvironment of tumors. Research in her laboratory aims to address this challenge by building three-dimensional (3D) microenvironments mimicking cell-cell/cell-matrix interaction, resulting in better prediction of drug response. One example is that she has developed size-controlled breast microtumors that recapitulate tumor size-induced hypoxic environments for drug testing.

**SHILPA SANT, ASSISTANT PROFESSOR**



Philip E. Empey, Kelsey Moss, Christina Xie,  
Kyle McCormick, James Coons



Solomon Adams



Shilpa Sant

# Creativity & Personal Growth





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& Teamwork.**

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Kim Coley, Janice Pringle, and Melissa McGivney

### Community Faculty Scholars Program

Melissa McGivney, Kim Coley, and Jan Pringle, with support from the NACDS Foundation, developed and lead the Community Faculty Scholars Program. This program, now in its third year, has trained 20 faculty members from 18 colleges of pharmacy about approaches to community-based research. The goal is to grow the number of quality research programs that innovate in community pharmacy settings to improve patient care.

**MELISSA MCGIVNEY, ASSISTANT DEAN FOR COMMUNITY PARTNERSHIPS, KIM COLEY, PROFESSOR, AND JAN PRINGLE, ASSOCIATE PROFESSOR**

### Chair of AACP Administrative and Finance Officers Group

Kellie Mitchell is the elected leader of administrative officers of schools of pharmacy in the AACP Administrative and Finance Officers Special Interest Group (AFO-SIG). The mission of AFO-SIG is to lead and partner with members to contribute financial/administrative expertise in a manner that supports the AACP and its membership who are advancing pharmacy education, research, scholarship, practice, and service to improve societal health.

**KELLIE MITCHELL, DIRECTOR OF FINANCE AND ADMINISTRATION**

### Million Hearts National Award

The Class of 2015 won the National Association of Chain Drug Stores (NACDS) nationwide competition to reach patients with the goal of reducing the number of heart attacks and strokes. As P2 students, the class implemented their project across 88 different community pharmacy sites throughout the Pittsburgh area, utilizing the efforts of 220 student pharmacists as part of the national Million Hearts Campaign. Through their coordinated efforts and quality patient interactions, the University of Pittsburgh won first place out of 48 universities and received \$5,000 for continuation of campaign efforts.

**TREY DRAUDE, KYLE MCGRATH, ANDREW NGUYEN, AND JOSH NIZNIK, PHARM D STUDENTS**

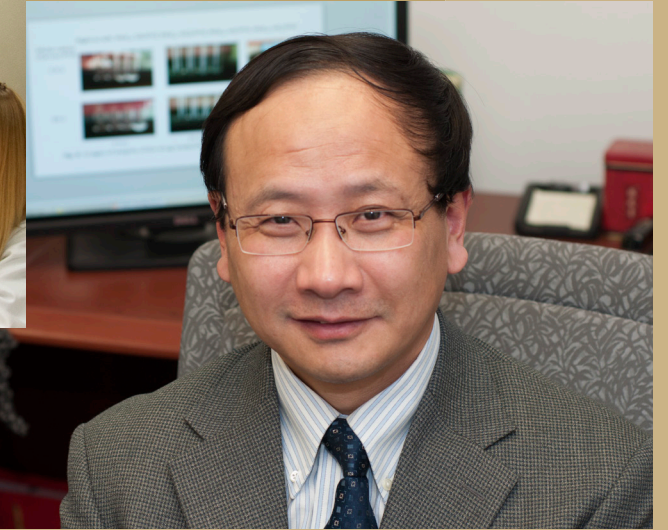
### New Formulation of Radiation Protection Agent

Song Li developed a unique liposomal formulation capable of coating the esophagus and used it to prevent irradiation-induced esophagitis, which is a serious complication of radiation therapy for patients with oral, nasopharyngeal, and lung cancer. To date, there has been no effective preventive treatment.

**SONG LI, PROFESSOR**



Ukwen Akpoji, Trey Draude, Gordon Watkins, Kyle McGrath, Andrew Nguyen, Joni Carol



Song Li



Kellie Mitchell

# Collaboration & Teamwork



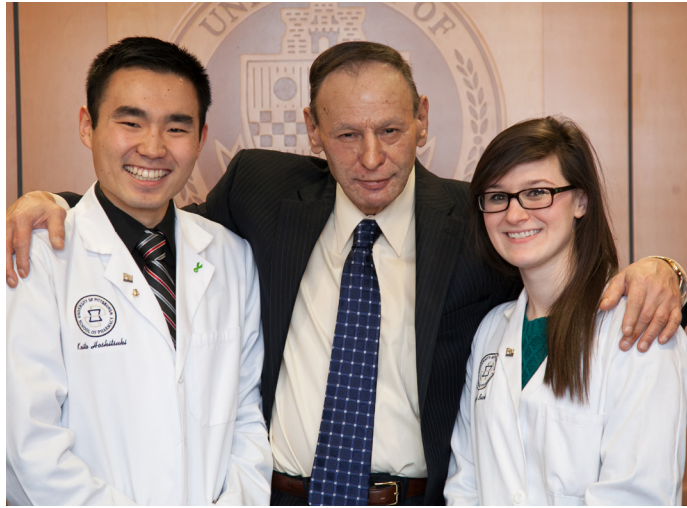


Staff members Kathy Stell, Kellie Mitchell, Janie Bradish, John Smith, Anna Stracci, Marcia Borrelli, Anna Schmotzer; Students Keito Hoshitsuki, Taylor Buck; seated Gary Haberle

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A Culture of  
Respect for the  
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Keito Hoshitsuki, Gary Haberle, and Taylor Buck

### Pharmacy Scholarships and Staff Support

Gary Haberle, who recently celebrated 50 years at the University, made a founding gift to establish The F. Gary Haberle Scholarship. The principal of the gift has continued to grow through the generous contributions of many alumni, faculty, and staff. He also demonstrated respect and appreciation for the staff by establishing the Haberle Staff Appreciation Award, which provides funds to support the children of staff who enroll at the School of Pharmacy.

GARY HABERLE, ASSISTANT DEAN FOR BUSINESS AND FINANCE

### Improving Care for Older Adults and Children

Funmi Odukoya is creating innovative sustainable strategies for engaging children and their caregivers in medication therapy management (MTM) services in community pharmacies. In addition, her research aims to determine the prevalence of unintentional misuse of over-the-counter sleep medication by older adults and their decision-making process in selecting and using these medications.

OLUFUNMILOLA K. ODUKOYA, ASSISTANT PROFESSOR

### Enhancing End-of-Life Care

Jennifer Pruskowski and her colleagues are improving drug prescribing while maintaining quality care in patients with life-limiting illness. The goal of this original and innovative intervention is to reduce unnecessary medications and the corresponding cost to patients. The project is known as DE-PHARM--Discussion to Ensure the Patient-centered, Health-focused, prognosis-Appropriate, and Rational Medication use.

JENNIFER A. PRUSKOWSKI, ASSISTANT PROFESSOR

### Personalizing Education: Research

Through participation in a research area of concentration, individual students work with faculty mentors on various types of research projects to expand their knowledge beyond the standard pharmacy curriculum. Each student develops a research question that aligns with academic interests and career goals. Whether the research question is about patients with kidney disease, viral infections in neonates, or metabolic pathways in stroke, students master the research process.

SHEA LIPUT, ERIN RESETAR, AND LINDSEY RIHTARCHIK, PHARM D STUDENTS

### Personalized Experiential Learning

James Pschirer and Anna Schmotzer guide students in the personalization of their education through their selection of Advanced Pharmacy Practice Experiences. They advise students as they select seven rotations from the approximately 535 preceptors and over 1000 sites available, including practice sites outside of the United States.

JAMES J. PSCHIRER, ASSISTANT PROFESSOR,  
AND ANNA G. SCHMOTZER, ASSISTANT DIRECTOR



Lindsey Rihtarchik  
and Shea Liput



Jennifer  
Pruskowski



Olufunmilola Odukoya

# A Culture of Respect for the Individual



James Pschirer, Dan Nelson  
Asmaa Debrri, Georgina Waldman,  
and Anna G. Schmotzer