

PITTPHARMACY

University of Pittsburgh School of Pharmacy | Spring 2020

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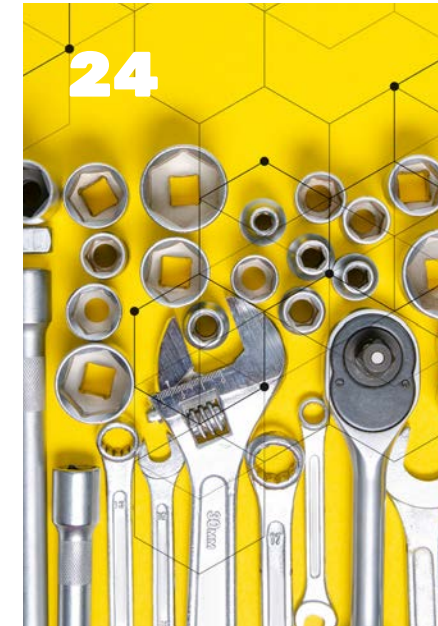
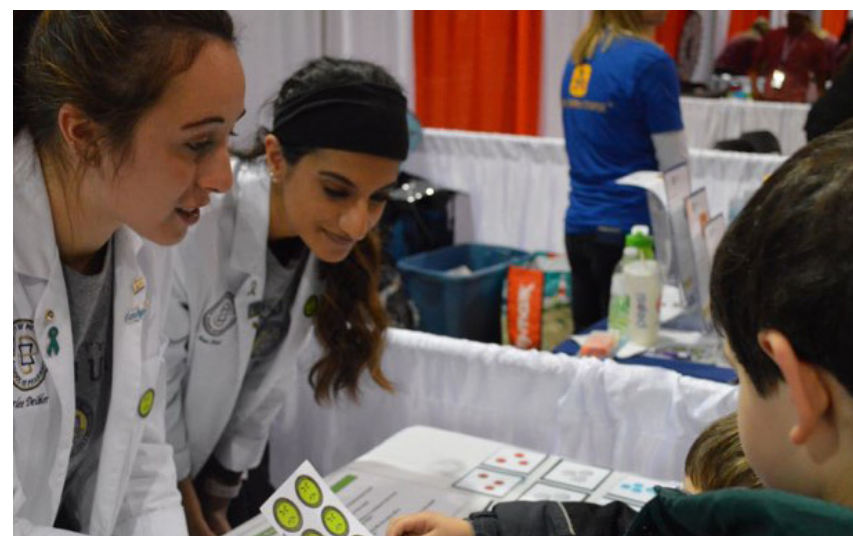
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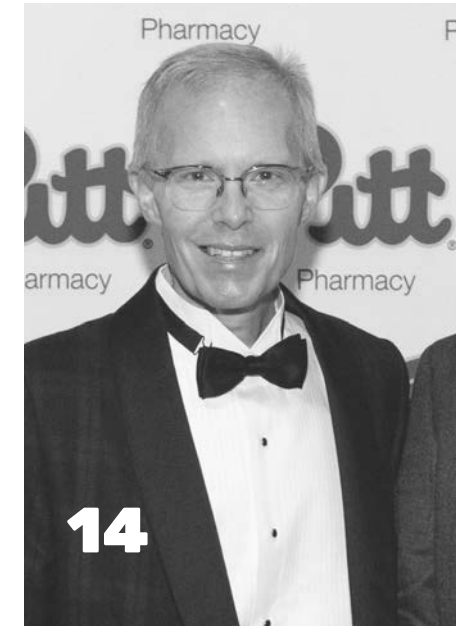
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Our pharmacy students are active in the community with Silver Scripts and Kidapalooza.

“April is the cruelest month, ... mixing memory and desire.”

—T.S. Eliot, *The Waste Land*



Dear Friends,

Twice in two different places this month, I read the quote from T.S. Eliot’s 1922 poem, *The Waste Land* that “April is the cruelest month.” Given our lives during April 2020, I found myself compelled to find and read the rest of the poem. I must admit, that without expert interpretation, I did not grasp that the poem was a reference to the devastation after World War I.

However, one of the next phrases in the poem continues... “April is the cruelest month, ... mixing memory and desire.” How aptly it describes this month. I work at my desk every day while like you, “staying at home,” having a memory of my life before April and having the desire to return to a former way of interacting with others.

As I looked through these pages of PittPharmacy News, the stories at first seemed like memories. To some extent, they are because they are about a slice in time; but they are so much more! These stories chronicle accomplishments that were driven by desire for making a difference. That desire continues well beyond April, bleeding into all the other months as well. The work described here and so many stories beyond this magazine about the agility of faculty, staff, alumni and students to find new ways of working make my heart swell with pride of being part of the PittPharmacy family where innovation and leadership are our cultural fabric.

I am also incredibly proud of being a pharmacist—a pride that has grown during this month of April. Years ago, I wrote in a PittPharmacy News letter that I dreamed of a time when community pharmacies would be recognized where people could seek care during times of public health crisis. This is what I see now as governments are recognizing that pharmacies are essential and that many will be our path to returning back to work.

Stay healthy... and Hail to Pitt!

Patricia D. Kroboth, Dean

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Awards & Accolades

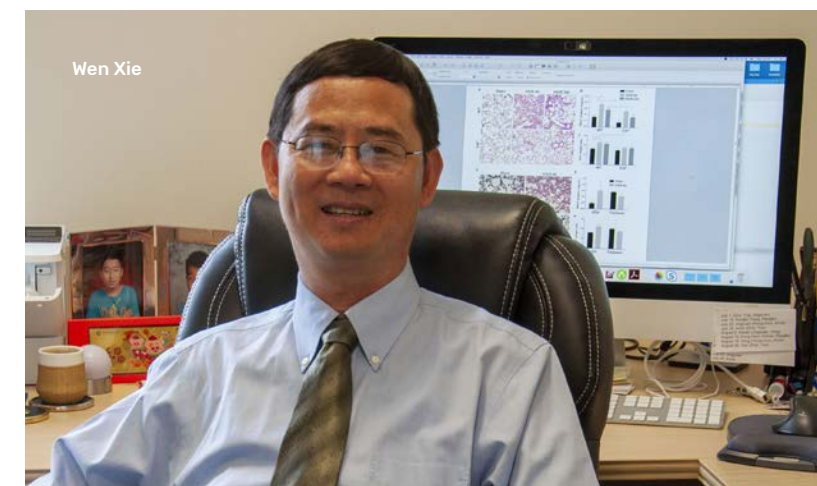
FACULTY, STUDENTS, AND ALUMNI



Lloyd Myers and Simone Myers Karp

University Honors Pharmacy with Two Distinguished Alumni Fellows

Sister and brother Simone Myers Karp '86 and Lloyd N. Myers, '84 were presented with 2019 Distinguished Alumni Fellow Award from the University of Pittsburgh this past October. The Distinguished Fellow Award recognizes graduates who transformed their industries and provided outstanding service to their alma mater. As the internet emerged, Karp and Myers recognized the opportunity and initially revolutionized continuing education for pharmacists and physicians through CECity, the company they cofounded in 1997. When it was sold in 2015, CECity was the leading provider of cloud-based quality reporting, performance improvement and lifelong learning platforms in the healthcare field. In 2001, CECity formed a partnership with the Pitt Pharmacy Alumni Society and began integrating continuing education materials into the PittPharmacy website. Lloyd's and Simone's legacy is continued by Premier, Inc, which provides online continuing medical and pharmacy education platforms to certifying boards, accrediting medical education organizations, professional medical societies, and health plans. Lloyd and Simone were highlighted as entrepreneurs in pharmacy in the 2017 book *Entrepreneurs in Pharmacy* (George S. Zorich; Outskirts Press). Prior to starting the company, each had established substantial recognition and credibility in their individual careers. Both are generous philanthropists.



Wen Xie

Wen Xie Receives Prestigious Outstanding Investigator Maximizer Award

Wen Xie, MD, PhD, received an 8-year NIH Revolutionizing Innovative, Visionary Environmental Health Research (RIVER) Award. The prestigious grant is intended to provide sustained support to outstanding investigators to allow them the freedom to pursue their research in novel directions in order to achieve a greater impact. Xie's research focuses on receptors that can bind xenobiotics, which come from outside the body, such as drugs and environmental chemicals. The same receptors can also bind endogenous substances that exist naturally inside the body, or endobiotics. Once activated, xenobiotic receptors can control the production of genes encoding drug metabolizing enzymes and drug transporters. In addition to breaking down and transporting drugs and environmental chemicals, the same enzyme and transporter systems are responsible for the production and elimination of endobiotics. Therefore, gene regulation by xenobiotic receptors can impact the course of many human diseases, such as liver diseases, endocrine disorders, obesity, type 2 diabetes, and cancer. The goal of Xie's research program is to better understand the effect of exposure to xenobiotics and the formation of human diseases.

Wen Xie was featured on the website of the National Institute of Environmental Health Sciences/NIH (<https://www.niehs.nih.gov/research/supported/success/2020/xie/index.cfm>). The title of the feature article is “Wen Xie, MD, PhD, Examining Xenobiotic Receptor-Mediated Gene Regulation in Metabolism and Disease.” He was featured for the prestigious RIVER award as well as his publication titled “Activation of pregnane X receptor sensitizes mice to hemorrhagic shock induced liver injury” (Xie et al., *Hepatology* 2019; 70: 995–1010).”



Janice Pringle

Excellence in Patient Care Award to Pringle

The National Association of Chain Drug Stores Foundation (NACDS) presented the “Excellence in Patient Care Award” to Janice L. Pringle, PhD, founder and director of the University of Pittsburgh School of Pharmacy Program Evaluation and Research Unit (PERU), for her innovative work to combat opioid abuse and improving individual and population health outcomes. Her collaborator Judy Rosser, executive director of Blair Drug and Alcohol Partnerships was also honored at the 21st Annual NACDS Foundation Dinner held December 2019, at the Sheraton New York Times Square in New York City. NACDS President Kathleen Jaeger said, “We look forward to honoring the community partnership and research of Dr. Janice Pringle. Their incredible work has helped to make a difference in Blair County and in the lives of those who have benefited from more than 4,000 screenings over the past year – in a way that seeks to remove the



Kathy Monangai

stigma of SUD while providing much-needed care. There is no greater tribute to their work than to announce that the NACDS Foundation is expanding Project Lifeline to Allegheny County to help even more Pennsylvanians now, and to provide the framework model that can make a positive impact across the nation.”

PittPharmacy Monangai Leading the Way with SNPhA

Kathy Monangai (Class of 2020) was elected as the National Vice President of the Student National Pharmaceutical Association (SNPhA) during the NPhA/SNPhA 72nd Annual National Convention July 2019 in Houston, Texas. SNPhA is a national student pharmacy organization whose mission includes serving the under-served and increasing minority representation within pharmacy and other healthcare professions. Monangai will served her 2019–2020 term on the National Executive Committee of the National Board. While in her new role as National Vice President, she coordinated both Regional and National Clinical Skills Competitions as well as the Chapter Achievement Partners (CAPs) Program. Monangai served as the Chapter President at PittPharmacy the year prior to her election. During her chapter presidency year, she led a group of students as the first

student pharmacy organization to represent the School of Pharmacy at the university-sponsored Community Engagement Center Homewood in Pittsburgh, Pennsylvania. These efforts resulted in winning a bid to host the 2020 SNPhA Region 1 and 2 Conference. The chapter’s efforts this past year were recognized by being named one of the top-three national finalists for the Rite Aid Chauncey I. Cooper Small Size Chapter of the Year and receiving honorable mention for participation in two national initiatives: Power to End Stroke and Operation Immunization. Both efforts were lead by Kaycie Gavin (Class of 2021) and Funto Babalola (Class of 2020), respectively.

PittPharmacy hosted the Region 1 and 2 SNPhA 2020 Conference in February. The 2019–2020 SNPhA National Theme is Lead Empower Generate Advocate Community Youth (LEGACY).



Krista Pedley

Pedley Promoted to Rear Admiral and Assistant Surgeon General

Krista M. Pedley, ’00 has been promoted to Rear Admiral and Assistant Surgeon General in the U.S. Public Health Service. Pedley is the Director of the Office of Pharmacy Affairs (OPA) in the Healthcare System Bureau, Health Resources and Services Administration (HRSA). Her office administers the 340B Drug Pricing Program, where over 700 drug manufacturers provide discounted outpatient drugs to over 46,700 hospitals and clinics, and more than 24,500 pharmacies that purchase over \$24 billion in 340B drugs annually. The 340B Program spans HHS and focuses on drug pricing transparency and reducing the cost of medications for the country’s most vulnerable safety-net patient populations.

RADM Pedley has participated in numerous deployments, including Hurricane Katrina, the Presidential Inauguration in 2005, and Hurricanes Frances, Ivan and Isabel. RADM Pedley was also a Contributor on the Report to the Surgeon General on Clinical Pharmacy and Co-Author on PHS Pharmacy Prevention Strategy.



Rebecca Wytiaz

Wytiaz Receives PPAG Young Investigator Award

PittPharmacy Alumna Rebecca Wytiaz ’18 was awarded the Young Investigator Award by the Pediatric Pharmacy Advocacy Group (PPAG) at the PPAG Annual Conference in Oklahoma City, April 2019. The award is given to a pharmacist with less than 5 years in practice. Wytiaz’s abstract “*Evaluation of the appropriateness of antifungal use in the pediatric and cardiothoracic intensive care units at a children’s hospital.*” was selected as the award recipient among the five finalists. The mission of PPAG is to promote safe and effective medication use in children through Collaboration, Advocacy, Research, and Education.



Sandra Kane-Gill

Kane-Gill Honored with WVU Commitment to Pharmacy Excellence Award

The 2019 Inaugural Commitment to Pharmacy Excellence Award was given to PittPharmacy Professor Sandra L. Kane-Gill, PharmD, MS, FCCM, FCCP by the West Virginia Hospitals Pharmacy Residency Program in June 2019.

The Commitment to Pharmacy Excellence Award is given an alumni of the WVU Hospitals Pharmacy Residency Program who have distinguished themselves by significantly advancing or contributing to pharmacy practice throughout their careers. Kane-Gill is 1996 alumna of the WVU program.

Kane-Gill was awarded the Commitment to Pharmacy Excellence Award due to her significant contributions to the field of pharmacy through her comprehensive collection of awards, honors, publications, and fellowships, her advancement of pharmaceutical education and initiation of new pharmacy services and her extensive mentorship and general impact on pharmaceutical care to a high degree.



Susan Meyer

Meyer Receives Distinguished Pharmacy Educator Award

Congratulations to PittPharmacy's Susan M. Meyer, PhD, winner of the American Association of Colleges of Pharmacy (AACCP) Robert K. Chalmers Distinguished Pharmacy Educator Award! The award recognizes an individual's excellence in teaching, scholarship, and service in pharmacy education. The Robert K. Chalmers Distinguished Pharmacy Educator Award is named for the late Robert K. Chalmers, former AACCP president and distinguished educator. This incredibly prestigious award has special significance for Dr. Meyer. The award recognizes the broad impact of her work on faculty, students, and programs and Dr. Chalmers was one of her mentors. Meyer received the award at the AACCP annual conference in Chicago, IL in July 2019. Meyer is Director, Inter-professional Center for Health Careers; Co-director, Center for Inter-professional Practice and Education; and Associate Dean for Education at PittPharmacy.

PittPharmacy Stakes Its Claim in Space

PittPharmacy is proud to be the FIRST pharmacy school in Pennsylvania and in the nation to have a pharmaceutical research project on an upcoming space mission!

The Student Spaceflight Experiments Program(SSEP) accepted a proposal project from the winning team of PharmD students David Katz, Anu Patel and Mohamed Kashkoush (Class of 2021). Their research proposal titled *Transcriptomic Analysis of Escherichia coli Response to Ciprofloxacin in Microgravity* investigated the antimicrobial resistance in a closed, high-touch environment aboard the ISS and other space vessels, combined with increased bacterial virulence and human immunosuppression during spaceflight under microgravity conditions. Specifically, the proposal aims to determine the tran-



Anu Patel, Mohamed Kashkoush, David Katz



scriptomic changes that occur in *Escherichia coli* with exposure to ciprofloxacin in microgravity.

Speaking for the team, Mohamed Kashkoush said, "Ad astra, or "to the stars", is the ultimate goal and motivation behind the work we are doing. We are chasing childhood dreams of exploring the universe, in a way that is meaningful to the well-being of astronauts and Earthlings alike."

Public Radio Station WESA interviewed our students recently. We are so proud of the work of our students. Read More: <https://www.wesa.fm/post/pitt-pharmacy-students-blast-antibiotic-resistance-experiment-space>



Sejla Jukic

Winning Legacy Continues at APhA-ASP Annual Meeting

Šejla Jukic (Class of 2021) showed her patient counseling skills and placed as one of the top 10 finalists in National Patient Counseling Competition representing PittPharmacy at the APhA-ASP annual meeting and exposition in Seattle, Washington. "I am so thankful for the education and the skill set I have received at Pitt Pharmacy that made me successful in this competition.", said Jukic.

Jukic joins PittPharmacy alumni TOP 10 finishers: Melissa McGivney (APhA 1997), Adam Welch (APhA 2002), Lucas Berenbrok (APhA 2012), Pamela Lyons (APhA 2013), and Adrienne Jantzi (APhA 2015).

The goal of the APhA-ASP National Patient Counseling Competition is to encourage student pharmacists in their efforts toward becoming better patient educators. The competition is designed to reflect changes that are occurring in practice, to promote and encourage further professional development of the student pharmacist and to reinforce the role of the pharmacist as a health care provider and educator.

More awards continue as Varsh Prakasam (Class of 2020) was selected as a semi-finalist for a APhA-ASP Presentation Merit Award during the 2019 APhA Annual Meeting.



Varsh Prakasam

PittPharmacy's chapter was selected as the 1st runner-up of the 2017-2018 APhA-ASP OTC Medicine Safety National Award and the 2017-2018 APhA-ASP Region 2 Generation Rx Regional Award.

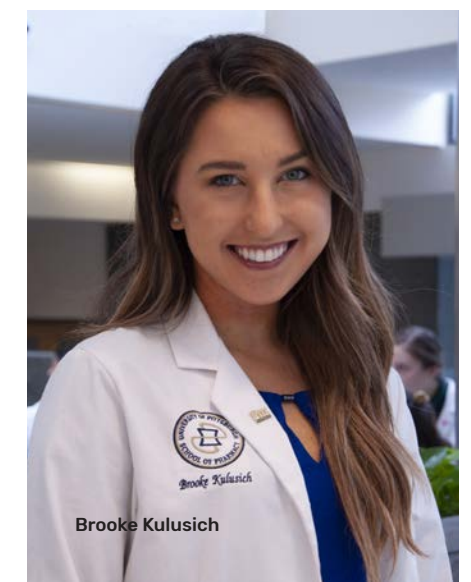
PittPharmacy Alum, Taylor Waterson, '17 won the Best Post-Graduate Podium Award from APhA-Academy of Pharmaceutical Research and Science. She is currently a PhD Candidate at the University of Wisconsin.

Single Honor For APhA Carl F. Emswiler Summer Internship to Kulusich

Brooke Kulusich (Class of 2022) has been selected as the Carl F. Emswiler Summer Intern in Association Management through the American Pharmacists Association (APhA) for the summer of 2020. Kulusich is the 1st student pharmacist from the University of Pittsburgh School of Pharmacy to receive this honor. Each year, one student pharmacist across the nation is selected to participate in an eight-week internship in Washington, D.C. at the APhA Headquarters. The internship is designed to offer student pharmacists experience in national association activities, pharmacy practice issues, educational programming, state services, scientific affairs, student affairs,



Kaitlyn Rudzik and Haley Fribance



Brooke Kulusich

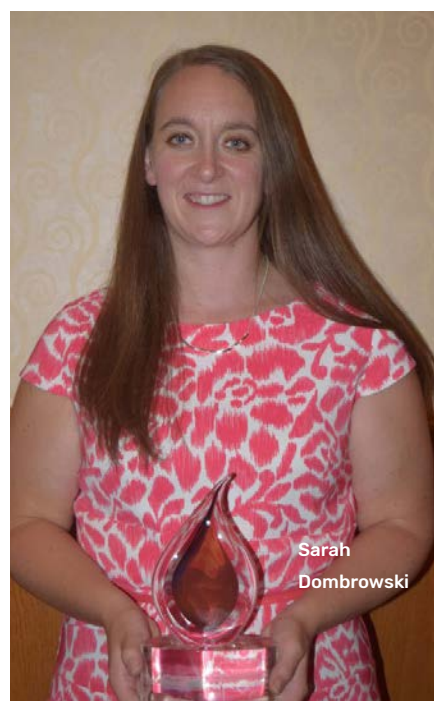
public relations and project management. Kulusich will have the opportunity to deepen her understanding of APhA operations, participate in leadership meetings of the Association, identify and analyze high priority issues in pharmacy practice, and develop communication and leadership skills.



Patricia
Kroboth



Peter
Kreckel



Sarah
Dombrowski



Sandy
Kane-Gill

Awards Abound for PittPharmacy from PPA

PittPharmacy was awarded multiple times from the Pennsylvania Pharmacist Association (PPA), with recipients including alumni, faculty and our Dean Patricia Kroboth!

The Pennsylvania Pharmacists Association (PPA) named Dean **Patricia Kroboth, PhD**, as the Mortar and Pestle Award winner during PPA's 2019 Annual Conference held at Seven Springs Mountain Resort, September 2019, in Seven Springs, PA. This award is one of special recognition presented solely at the discretion of the PPA Board of Directors recognizing lifetime outstanding service to the pharmacy profession. The award recognized her ongoing support and commitment to the future of pharmacy, her student and faculty support, and her commitment to professional organizations such as PPA.

Peter Kreckel, RPh, '81 was given the Preceptor of the Year Award. The Preceptor of the Year award is presented to a preceptor who demonstrates outstanding interaction, knowledge sharing, and who is

an exceptional pharmacy role model for students. Only PPA student members may nominate individuals for this award.

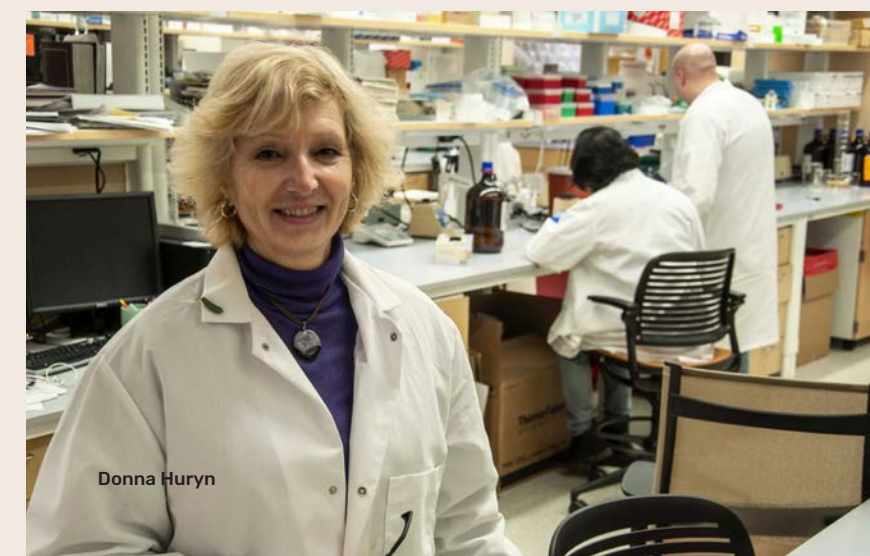
Sandra Kane-Gill, PharmD, MS, FCCM, FCCP, was presented with the NASPA Excellence in Innovation Award sponsored by Upsher-Smith Laboratories, Inc. The Excellence in Innovation Award recognizes and honors a qualified pharmacist who has demonstrated significant innovation in their respective practice, method or service directly or indirectly resulting in improved patient care and / or advancement of the profession of pharmacy.

PPA awarded PittPharmacy Alumnus **Christopher Antypas, PharmD '09** as the Pharmacist of the Year Award winner. This award is presented to the pharmacist who has demonstrated dedication to the profession of pharmacy, contributed time and effort to the various professional organizations, furthered the profession of pharmacy through community service and embodied those qualities of attitude and leadership which exemplify the profession.

Sarah Dombrowski, PharmD '12 was recognized as the Distinguished Young Pharmacist Awardee. The Pharmacists Mutu-

al Insurance Companies "Distinguished Young Pharmacist" Award recognizes new pharmacists for their dedication to and participation in pharmacy organizations, commitment to the practice of pharmacy and involvement in community activities.

LEADING THE WAY



Donna Huryn

Innovative Scientist and Remarkable Person Leads the Way for Women in Chemistry

"Hi Reddit! My name is Donna Huryn. I am a medicinal chemist at the University of Pittsburgh's School of Pharmacy. Ask me anything about medicinal chemistry / drug discovery in academia." Dr. Donna Huryn introduced herself to a live audience on August 8, 2017 where she answered a questions on the social media site, Reddit.

Huryn is eminently qualified to answer all of the participants' questions. She is Professor of Pharmaceutical Sciences at PittPharmacy with research expertise in the design, synthesis and optimization of small molecule probes of biological systems and drug candidates. Her work focuses on unmet medical needs, particularly interested in cancer, kidney disease, and neurodegenerative diseases. Huryn has numerous patents based on her discoveries, produced more than 75 research publications, co-authored a textbook, is a fellow of the American Chemical Society, and is the Chair of the Pharmaceutical Sciences section of the American Association for the Advancement of Science.

Prior to joining PittPharmacy, Huryn led large medicinal chemistry research teams, first at Hoffman La-Roche, then at Wyeth Research. As Huryn's career progressed, she observed that while there were relatively few women scientists involved on her teams, there were even fewer in leadership positions. After her election as Chair of the Division of Organic Chemistry of the American Chemical Society, she had an opportunity to see further examples of paucity of women in award winners, symposium speakers, and student fellowship nominations. She even published her observations in a paper entitled "Medicinal Chemistry: Where are all of the women?" (ACS Med Chem. Lett. 2017, 8, 900-902.)

Huryn is on a mission to support and encourage women in her field of medicinal and organic chemistry. She has participated in additional social media interviews and organized symposia at national meetings addressing women's careers in organic chemistry. She recently led a small team of women colleagues in developing a new annual professional chemistry conference: Empowering Women in Organic Chemistry (EWOC) (EWOChem.org). The first EWOC conference was held in July 2019 in Philadelphia and was a huge success with 175 attendees from 20 different states.

As one woman reflected on Twitter after the conference:

"There are many strategies to deal with being underrepresented in a field. One of the best showed at #EWOC2019 yesterday: recognizing we are not alone. And that we can support each other. Without having to make compromises regarding the quality of science we do."

And a male attendee tweeted:

"...really, every guy should have the experience of sitting in a room with just ten or so other guys and over a hundred women. They should understand vicerally what 10% or 20% representation means, how self-conscious it makes you."

Huryn's leadership in the field was recognized by the ACS, which invited her to speak at the "Remarkable Women in Organic Chemistry Symposium" in San Diego.

In the News

FACULTY, STUDENTS, AND ALUMNI



Heather Santa (center)

Best Professional Abstract Awarded to PERU Group

Heather Santa, MS, Senior Research Specialist, at PittPharmacy and PERU staff members, with project partners at the University of the Sciences Philadelphia College of Pharmacy presented an abstract entitled “Pharmacy Student’s Knowledge and Perceived Competency in Conducting SBIRT for Substance Use Disorders” at the American Public Health Association (APHA) annual meeting and expo.

The abstract presented results from the SAMHSA SBIRT training grant with the University of the Sciences with over 314 student pharmacists trained to proficiency. The abstract won the Best Professional Abstract award for the pharmacy section, which indicates the abstract was the highest scoring out of 74 abstracts submitted.



Blaine Laird and Jaehee Cho

Pitt Pharmacy’s Beta Kappa Chapter a Winner!

Pitt Pharmacy’s Beta Kappa Chapter of Kappa Psi showed great presence at the Mountain East Province conference hosted by the University of Maryland, October 2019. Beta Kappa won the 2019 Excellence in Academia Award in addition to the following individual awards and executive positions: Blaine Laird, (Class of 2022) was awarded the New Brother Scholarship; Jaehee Cho, (Class of 2020) was awarded the Pharmacy Experience Scholarship; Nicole Farrah, (Class of 2020) was awarded the F. Harvey Smith Grand Regent’s Letter of Recognition; Nicole Farrah, (Class of 2020) was elected the position of Vice Satrap; Jaehee Cho, (Class of 2020) as elected the position of Parliamentarian; Thai Nguyen, (Class of 2021) was elected the position of Webmaster.

PittPharmacy’s Beta Kappa Chapter was recognized as the 8th Collegiate Chapter out of 110 Chapters at the 59th Grand Council Convention in Washington, DC, July 2019. The fraternity is led by Class of 2021 members President Melanie Umbaugh and Vice-President Thai Nguyen along with advisors Dr. Lucas Berenbrok, Dr. Karen Hoang, and Dr. Joseph Napora.

The Beta Kappa Chapter has proudly represented the University of Pittsburgh School of Pharmacy in the Kappa Psi Pharmaceutical Fraternity, Inc. since 1913. They have worked diligently to earn this prestigious ranking and are excited to continue to strive for excellence in future endeavors.



Holly Graber and Emily Liu

PittPharmacy Wins Achieving Independence Competition

The PittPharmacy (Class of 2021) team of Holly Graber and Emily Liu with their faculty advisor Karen Pater, PharmD and their Independent Coach Lindsey Meston won the Pennsylvania Pharmacists Association’s 2019 Achieving Independence Competition during PPA’s 2019 Annual Conference held at the Seven Springs Resort on September 21, 2019 in Champion, PA.

This competition is designed to foster the budding entrepreneurial pharmacy students to one day own their own pharmacy. Students create a business plan based on either starting up a brand new pharmacy in Pennsylvania or purchasing an existing pharmacy and implement creative changes. The business plan is then developed into a poster and the students deliver an oral ten-minutes overview presentation followed by up to five minutes of questioning by the judges. Following the delivery of all presentations, the five judge panel critiques the presentations and assigns point values in various areas such as innovative concepts and creativity, feasibility, and format, to determine a winner.

The panel of judges included: Edward Bechtel – owner of Bechtel’s Pharmacy; Mike Fapore – President and Owner, The Medicine Shoppe in Somerset; Deron Shultz – Vice President of Professional Services and Director of Community Pharmacy at Minnich’s. This is the 7th time in 8 years that PittPharmacy students have won this award. Faculty member Karen Pater has been the faculty advisor for 7 of the years (2012–2019), and Bridget Walker (2016).



Sprando Continues the Legacy

Arianna Sprando (Class of 2021), was a Top Ten finalist in the APhA-ASP National Patient Counseling Competition. She competed in the final virtual round in April 2020 and follows a strong PittPharmacy legacy. Sprando was announced as our local winner in February and was mentored by Associate Professor Karen Pater and Assistant Professor Luke Berenbrock.

In her own words, “My late grandfather, Frank Sprando, is the reason patient care is so near and dear to my heart. He was the purest example of what it meant to be kind, empathetic, and compassionate. I would not be the caregiver I am today without his presence in my life.”

We proudly add Arianna Sprando to the list of NPCC finalists from the University of Pittsburgh!

Melissa McGivney (APhA 1997)

Adam Welch (APhA 2002)

Lucas Berenbrok (APhA 2012)

Pamela Lyons (APhA 2013)

Adrienne Jantzi (APhA 2014)

Šejla Jukic (APhA 2019)

Arianna Sprando (APhA 2020)



Luke Berenbrok

Berenbrok Defines Primary Care Pharmacist in JAPhA

A guest editorial written by Assistant Professor, Lucas A. Berenbrok, PharmD, MS, BCACP was recently published in the Journal of the American Pharmacists Association (JAPhA). His article summarizes and defines the “Primary Care Pharmacist.”

Berenbrok’s editorial is noteworthy because it encourages health care teams to recognize pharmacists, who assume the responsibility of a patient’s medication-related needs in primary care, as primary care providers. With an aging U.S. population, pharmacists who provide care including health promotion, disease prevention, health maintenance, counseling, and patient education will become increasingly important as the demand for primary care providers grows.

Pharmacy Recognition and Appointments Go to PittPharmacy’s Ruby

Christine M. Ruby, PharmD, BCPS, BCGP, FASCP was recently inducted as Chair for the American Association of Colleges of Pharmacy (AACP) Geriatric Special Interest

Group (SIG) in Chicago. As Chair she will serve to positively impact and improve geriatric care and pharmacy education through collaboration and communication of ideas among faculty across the country regarding innovative teaching, clinical practice, research, scholarship, and service activities related to geriatric pharmacotherapy topics. Ruby is an active member of AACP and served the Geriatric SIG as Secretary for a 2 year term (2014-15) and as a member of the SIG’s Scholarship, Programming, Webinar, and Bylaws Committees.

Ruby was also recently appointed to two national committees. She will serve on the Medication Safety & Transitions in Care Workgroup (TOC) and the Pharmacy Education and Research Committee (PERC) for the American Society of Consultant Pharmacists (ASCP). Her one-year terms will begin at the ASCP national meeting this November in Grapevine, Texas. She will be an invited speaker at the conference. Ruby is an active member and fellow of ASCP and serves as the faculty advisor for the student chapter of ASCP at the School of Pharmacy. She is also Co-Director of the Geriatric-Palliative Care Area of Concentration (GPC-ARCO) at the School.

Ruby is Assistant Professor, Pharmacy and Therapeutics at PittPharmacy.



Ravi Desai

PharmD Student Research Published in JAMA

A paper written by Ravi J. Desai PharmD Candidate 2020 of PittPharmacy was recently published in JAMA Open.

The purpose of the article, Varenicline and Nicotine Replacement Use Associated With US Food and Drug Administration Drug Safety Communications, was to examine the impact of early FDA drug safety communications on drug utilization. These warnings are often released prematurely or in very early stages of study in response to public outcry or negative media attention. Thus, they may not always be accurate or truthful about risks associated with the medication in question.

Desai’s study in particular looked at a very effective smoking cessation agent, varenicline, commonly known as Chantix. The study was done using prescribing data from Department of Veteran’s Affairs and Medicaid patients. Research found that there were marked decreases in varenicline utilization in close correlation with the release of FDA and other media/agency warnings. This was then compared to an observed increase in the alternative treatment of traditional nicotine replacement therapy, which is known to be less effective than varenicline for

helping people quit smoking. The data was extrapolated to estimate a possible number of deaths that were not prevented due to the decreased use of varenicline.

Beumer Editor in Chief Cancer Chemotherapy Journal

Jan H. Beumer, PharmD, PhD, DABT, PittPharmacy Professor of Pharmaceutical Sciences, has taken on the role of US Editor-in-Chief of “Cancer Chemotherapy & Pharmacology”, joining the European Editor Prof. Etienne Chatelut from Toulouse.

Cancer Chemotherapy and Pharmacology addresses a wide range of pharmacologic and oncologic concerns on both experimental and clinical levels. It is a high-quality journal that reports on the pre-clinical and clinical pharmacology of cancer therapeutics.

ALUMNI UPDATES

Sherri Lee Fisher Progar '77 wrote and published the novel: *A Mystery of Grace*.

Robert Abraham '81 began a new position as Chief Scientific Officer at San Diego Biotech.

Michael Einodshofer '97 was named President-elect of the National Association of Specialty Pharmacy (NASP).

Krista Pedley '00 was promoted to Rear Admiral and Assistant Surgeon General in the U.S. Public Health Service.

Suzanne Roland '04 was featured on ThriveSubscribe’s Sunday Spotlight Instagram in December 2019.

Sandeep Devabhakthuni '09 was named in the ASHP Member Spotlight Section of Inpatient Care Practice in October 2019.

Robert Snyder '10 was promoted to Executive Vice President, Strategy at PANTHERx Rare Pharmacy.

Julie Lauffenburger '10 was promoted Assistant Professor at Harvard Medical School. Her primary appointment is in the Division of Pharmacoepidemiology and Pharmacoeconomics.

Jennifer Bacci '11 was named 2019 Pharmacist of the Year from the Washington State Pharmacy Association.

Adam Martin '12 was named one of the Best of the Best for the Most Influential Pharmacists.

Justine Parker Russell '12 was named by the Erie Reader as one of Erie’s 40 under 40: Class for 2019 as a Clinical Pharmacy Specialist in St. Vincent Hospital’s Emergency Medicine Dept.

Jianqin Lu '14 was appointed Assistant Professor in pharmacetics/pharmacokinetics in the Department of Pharmacology and Toxicology at The University of Arizona College of Pharmacy.

Distinguished Alumni

For more information about our Distinguished Alumni: http://www.pharmacy.pitt.edu/alumni/distinguished_alumni.php

“There is nothing more that I love and am passionate about than teaching the next generation of pharmacists.” –Scott R. Drab



Scott R. Drab

Scott R. Drab PharmD, CDE, BC-ADM is an Associate Professor and Past Director of University Diabetes Care Associates. He received his Bachelor of Science degree in pharmacy from the University of Pittsburgh in 1989. Drab’s efforts in contributing to pharmaceutical care led to the creation of one of the first pharmacist-run diabetes care centers located in a community independent pharmacy. As a Certified Diabetes Educator and director of the clinic, he was responsible for care plan development, education, and patient follow up. He has managed the care of hundreds of patients with diabetes over the years, improving clinical health outcomes.

“I am a much better person for being here, learning here and for carrying out into the community what I have learned at PittPharmacy.” –Pamela D. Garzone



Pamela D. Garzone

Garzone earned a PhD in Clinical Science and MS in Pharmacy from the University of Pittsburgh. Garzone is a respected pharmaceutical executive and currently serves as Chief Medical Officer of Calibr, a division of Scripps Research. In this role, she leverages drug development expertise in the therapeutic areas of oncology, hematology, immunology, neuroscience, cardiovascular, and infectious disease to strategically guide Calibr to achieve its mission. Prior to joining Calibr, she was Vice President, Group Asset Team Lead at Pfizer, serving on multiple leadership teams in an early oncology clinical research department.

Since 1962, the School of Pharmacy has honored alumni with the Distinguished Alumni Award. Throughout the years over 125 men and women have been recognized for their educational, professional and university affiliated achievements by showing exemplary achievements over the course of their careers. A list of past recipients can be found at: http://pharmacy.pitt.edu/alumni/past_distinguished.php

“I would have never envisioned the career I would have and to practice pharmacy in so many varied settings.” –Laura Hungiville

Laura Hungiville

Laura Hungiville graduated summa cum laude from the University of Pittsburgh with a BS in Pharmacy in 1984. In 2004, she started at WellCare Health plans in the role of Director of Pharmacy. She was instrumental in the launch of WellCare’s PDP plan and was promoted to Vice President of Operations. In 2008, she became the head of the pharmacy department assuming the role of Vice President of Pharmacy and Chief Pharmacy Officer. In later years, she also assumed the general manager role for the stand alone PDP product. She was promoted to Senior Vice President, Chief Pharmacy Officer and currently holds that role.



“PittPharmacy was my catalyst. They invested in me, they invested in me and they positioned me to do what I am able to do today.” –Carla Y. White

Carla Y. White

Carla White graduated from the University of Pittsburgh School of Pharmacy in 1989 and is currently Associate Dean of Organizational Diversity and Inclusion at the UNC Eshelman School of Pharmacy. Her strategic leadership, versatility, and relentless drive for innovation have become hallmarks of her tenure at the University of North Carolina at Chapel Hill.

Under White’s vision to build innovative education and program models, she was able to craft a high impact institutional strategy. White has achieved national prominence for her work, including numerous invited speaking engagements and publication of a number of peer-reviewed articles on leadership, strategy development, health communication, diversity and inclusion.



Rising Stars

“I want to thank my mom and family, my colleagues, staff and students that made my journey possible. I am living out my dream as a teacher, clinician and researcher.” –Lucas A. Berenbrok

For more information about our Distinguished Alumni:
http://www.pharmacy.pitt.edu/alumni/distinguished_alumni.php



Lucas A. Berenbrok

Assistant Professor Lucas A. Berenbrok is a proud graduate of the University of Pittsburgh School of Pharmacy. In the last five years, Berenbrok has published over 10 peer-reviewed papers and has contributed to research supported by more than \$1,000,000 in grant funding.

In the PharmD curriculum, Berenbrok contributes to more than six PharmD courses. His teaching focuses on clinical skills including patient communication, motivational interviewing, and point-of-care testing. Furthering his passion for community pharmacy, Berenbrok created a Comprehensive Medication Management Benefit with the University of Pittsburgh Office of Human Resources, which makes medication management services available to over 13,000 faculty and staff at Pitt.

“Pharmacy was a perfect career fit for me. I cherish my friendships made at PittPharmacy. Three greatest words I know, Hail to Pitt!”

–Darem Dughri



Darem Dughri

Darem Dughri is the Senior Director of Pharmacy Operations at Walgreen Co. He received his Doctorate in Pharmacy from the University of Pittsburgh.

In his current role, Dughri is responsible for leading pharmacy operations across all Walgreens stores. In this position he is responsible for developing and deploying initiatives centered around patient care and outcomes. He works collaboratively with numerous teams to ensure that patients today are treated from a comprehensive and holistic view, shifting the focus from individual prescriptions to the patient’s long term health. Dughri has been a central part in developing and implementing Standard Operating Procedures and new pharmacy labor models for all Walgreens stores.

This award is given to individuals who have graduated between 5 and 15 years ago and who are making noteworthy contributions to the profession of pharmacy. These individuals have truly distinguished themselves in a short time.

“My role as a pharmacist goes beyond the role of drugs. It embraces a continual call to empathy.” –Yardlee Kauffman

Yardlee Kauffman

Yardlee Kauffman, PharmD, MPH, graduated from the University of Pittsburgh, School of Pharmacy in 2010. She subsequently completed a PGY1 community practice residency at the University of Pittsburgh Medical Center and a PGY2 residency in Ambulatory Care with an emphasis in underserved care and global health at the University of Pittsburgh School of Pharmacy. Kauffman is passionate about increasing access and providing care to vulnerable populations, both locally and globally, as well as creating and advancing opportunities for pharmacists and students in global health. Kauffman currently works for Médecins Sans Frontières (Doctors without Borders) as a project pharmacy manager. She was in Sierra Leone and her husband David Johnson, PharmD, accepted the award on her behalf.



“My goal is to pay it forward and inspire my own pharmacy students to find the career they love just as Dr. Gibbs did for me.”

–Jasmine A. Luzum

Jasmine A. Luzum

Jasmine A. Talameh Luzum, PharmD, PhD, BCPS earned her PharmD summa cum laude from the University of Pittsburgh School of Pharmacy in 2008.

Luzum is an Assistant Professor at the University of Michigan College of Pharmacy. She started a clinical & translational research lab, and her goal is to use precision medicine to improve cardiovascular medication outcomes. Her research has been funded by multiple organizations (e.g., NIH, American Heart Association, American College of Clinical Pharmacy); published in high-impact journals (e.g., Clinical Pharmacology & Therapeutics, Journal of the American Heart Association, Cell Metabolism); and presented at major conferences (e.g., American College of Cardiology Scientific Sessions).



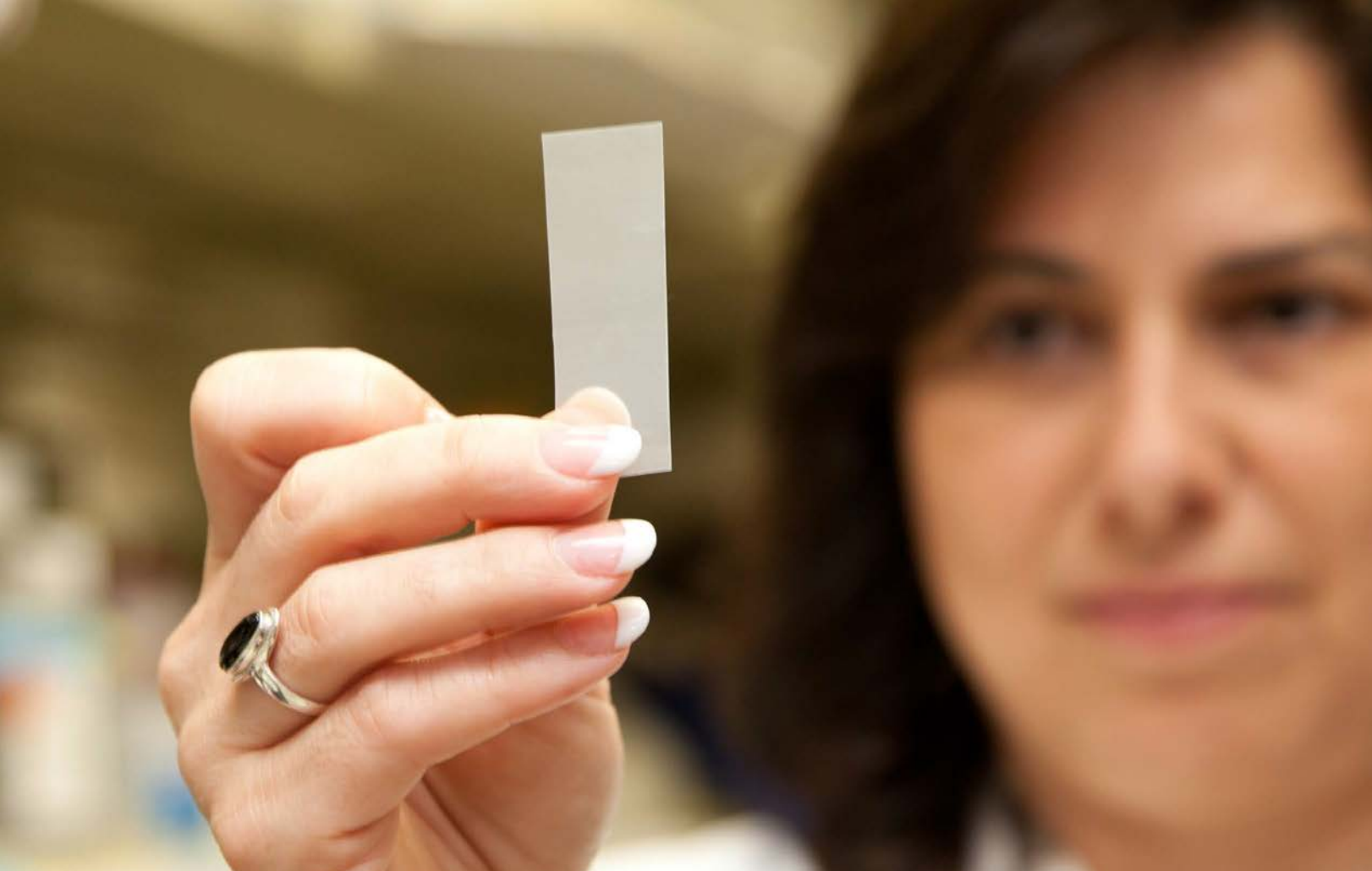
UNIVERSITY OF PITTSBURGH SCHOOL OF PHARMACY

CLASS OF 2020



P1 Class Photo Fall 2016





ACADEMIA MEETS INDUSTRY

Rohan lab develops products to tackle some of society's most challenging needs



Growing up in Pittsburgh, Lisa Cencia Rohan was the kind of kid who devoted her Saturday mornings to participating in the Westinghouse Science Honors Institute, a free program in which high school juniors spend October through March attending a series of lectures.

The experience sparked a lifelong passion for science and inspired her to earn an undergraduate degree in chemical engineering — something she wanted to do ever since the institute paired her with a chemical engineer who taught her about the field.

So it seems only fitting that Rohan, now a professor in the Department of Pharmaceutical Science at the University of Pittsburgh School of Pharmacy, would want to pay it forward by hosting students and trainees in her own lab. They included from students ranging from high school through doctoral candidates graduate work, in her own lab including residents, post-doctoral fellows and international visiting scholars. Her lab is — one of the largest in the school and home to several products in clinical trial as well as approximately 50 grants since its inception.

“I have a great deal of pride in the students I’ve worked with,” she says. “I’ve learned just as much from them as they’ve learned from me.”

Nineteen years and dozens of products later, Rohan’s pharmaceutical lab has taught more than 100 different trainees, “and I’ve enjoyed every single one of them.” The feeling seems to be mutual: most stay in touch, including one former student who just called about their son’s birthday. Another who trained under her while in high school is now sending their own students to

“I have a lot of pride in the students I’ve worked with. I’ve learned just as much from them as they’ve learned from me.” — Lisa Rohan

Rohan’s lab. At times, she has even brought in elementary school children to run experiments that help them get excited about science.

“I tell them when they come that they’re stuck with me forever,” she laughs.

A road less traveled

For someone who is so passionate about teaching, Rohan took a circuitous route to a career in academia, one that is uniquely informed by her extensive background in business. After earning her undergraduate degree, she took a job as a process engineer with Mobil Chemical, then moved to research and development in the pharmaceutical industry with what was then known as Sterling Drug.

As part of the novel drug delivery group, she helped troubleshoot problems that cropped up during product development, which broadened her experience significantly. She also worked on developing new products within the lab.

When Sterling was acquired by Kodak becoming Kodak Pharmaceuticals who was then acquired by Sanofi Rohan moved to a small contract research organization (CRO), which brought her back to her native Pittsburgh. While at the CRO, Rohan served as director for two departments (client services and marketing). Within her role as Director of Client Services she was responsible

for facilitating customers in transitioning products from the bench to the clinic. The team worked with those companies to ensure that their studies went smoothly. The CRO was a clinical testing group conducting clinical trials for not only generics but products under development as well. Her heart wasn’t really in the contract research organization environment. She decided to return to a larger company, but she also wanted to earn an advanced degree.

Initially, when she approached the School of Pharmacy about the possibility of applying to their doctoral program in pharmaceutical sciences, she was only looking for information. She credits Joe Knapp, now professor emeritus of pharmaceutical sciences, and Paul Schiff, professor emeritus of pharmaceutical sciences, with changing her mind: “By the time I left, I found myself enrolled in pharmacy,” she says.

The path to her Ph.D. was relatively swift, because Rohan walked in with a wealth of knowledge about working in a lab. She added a postdoctoral fellowship in mucosal immunology to supplement her pharmaceutical sciences and engineering background. Throughout her postgraduate education, she remained focused on returning to industry; but a project she did as part of a fellowship with Magee-Womens Research Institute changed her mind.

Women's health issues appealed to her because they were often ignored by the private sector. When Rohan talked to her male counterparts in industry who hoped to recruit her, they told her working in women's health was a waste of time.

But Rohan knew otherwise: there was actually a huge unmet need for the products she had the expertise to develop, and staying at the School of Pharmacy would open a pathway that the pharmaceutical industry couldn't duplicate: creating products that would make an enormous difference in the lives of women around the world.

The lab has shepherded at least a dozen products from the bench to Phase 1 studies, a feat she credits to the industry experience of her team and Lin Wang the Research Manager who also has a strong background in industry. "In our lab, we think a lot about what people want to use," she explains. "We take the handoff from the medicinal chemist who identifies a lead drug candidate and we subsequently generate preformulation data and develop drug delivery and formulation strategies to turn those promising new molecules into products that patients can use."

Shaped by industry

From its inception, the Rohan Pharmaceutical Laboratory has been fully funded, attracting grants from the NIH, FDA, foundations — even industry. Currently, she is juggling 13 grants, and to date, she has graduated 11 Ph.Ds, with four more in the lab. She serves as the principal investigator for the the Laboratory Center for the Microbicides Trial Network, an international team of investigators and community and industry partners which spans four continents. Their mission is to conduct clinical trials that seek to prevent the spread of HIV and AIDS.

"My industry background has shaped the mission and structure of our lab," says Rohan, who likens it to a mini pharmaceutical company within the school. "Really, what we're doing is translating products from the bench into the clinic."

Translation of products to the clinic is a very multi-disciplinary and iterative process. Rohan provided a recent example of

"My industry background has shaped how our lab is. Really, what we're doing is translating products from the bench into the clinic." — Lisa Rohan

how their group identified in preformulation studies that a protein drug candidate was susceptible to degradation which would drastically limit its shelf life. They worked together with the biopharmaceutical drug discovery team to make an amino acid change which stabilized the protein drug for formulation and the product is now in clinical trials.

Once the team finishes the pre-formulation, they conduct studies to decide how to pair it with a product that will get it into the body. Then they develop prototype products and set parameters for what they want those products to do; it is at this point that the team's understanding of consumer preferences comes into play.

Another exciting product being developed in the lab involves a thin film platform, similar to a breath freshening strip, which is being designed as a product that women can insert vaginally before sexual intercourse to prevent HIV infection. project involves a thin film similar to a mouthwash strip that women insert vaginally before sexual intercourse to prevent HIV infection. A number of early HIV prevention products were gel-based, but women found them messy to use, and the bulky applicator difficult to keep discreet. For women living in Africa, where multiple families might share a dwelling, or where a woman might need to keep her use of the product a secret from her sexual partner, the gels were problematic.

The film strip was evaluated for acceptability by women in several settings. In one study, focus groups of about 80 women offered feedback on color, size and texture. The lab partnered with behavioral experts who conducted extensive interviews and this information was used to design target product specifications.

Consumer preferences extend far beyond pharmaceutical efficacy: there are behavioral, religious, and ethical issues at play, both for active and inactive ingredients, all

of which must be considered in the product development.

A newly funded new project funded by the National Institute of Allergy and Infectious Diseases in which Rohan is the primary investigator combines HIV prevention with contraception in the film platform — but it would deliver drug for 30 days following insertion. She is excited about the creativity and innovation behind the prototypes, which they hope to move into animal studies sometime in 2020.

For products to move closer to being available for consumers, a private industry partner is many times needed to invest the significant resources required for manufacture of clinical trial product and conducting large scale clinical testing. Rohan's lab attempts to identify these partners early in the development process to ensure feasibility for advancement. translation of products to the clinic is a very multi-disciplinary and iterative process. Rohan provided a recent example of how their group identified in preformulation studies that a protein drug candidate was susceptible to degradation which would drastically limit its shelf life. They worked together with the biopharmaceutical drug discovery team to make an amino acid change which stabilized the protein drug for formulation and the product is now in clinical trials.

Kunal Jhunjhunwala, a doctoral student who recently defended his thesis and has accepted a full-time position as a reviewer with the U.S. Food and Drug Administration, praises Rohan for bringing a variety of disciplines into her lab, from medicinal and analytical chemistry to drug delivery and translational science.

"She never said no to anything," he says. "If you wanted to do something that you had a personal interest in that was not necessarily overlapping or specific to her lab, she wouldn't stop you."



Center Lisa Rohan; clockwise outer circle: Guru Valicherla, Doaa Alantary, Xin Tong, Haowei Sun, Prithvirajan Durairajan, Phillip Graebing, Mohammed Nammas, Vinayak Sant, Zongfang Zhang, Ruohui Zheng; clockwise inner circle: Junmei Zhang, Yun-Shan Chiang, Sravan Kumar Patel, Lin Wang

He recalls arriving at the school and knocking on doors when he looked up potential mentors; Rohan made time for him. At first, all she had room for was a volunteer position, but as Jhunjhunwala gained bench work experience, he was able to assist other graduate students.

"I liked the lab, the work culture, and her as a mentor," he says. "She is extremely driven to have better health care for women. She goes leaps and bounds to develop products and to help women in general in any way she can. That energy pulled me towards her."

Xin (Oliver) Tong, another doctoral student in the lab, agrees. When he joined as a master's student in 2016, he didn't think he asked very good questions; but he remembers how patient Rohan was with him.

"She really cares about our personal lives. If you have any questions, you can just go talk to her," says Tong.

His work in the lab currently focuses on HIV prevention, which he hopes to continue in industry when he graduates: "If I can get a job related to that, I will be super excited."

Jhunjhunwala was impressed by how easily the lab's research can be directly translated to pharmaceutical companies: "I saw my future there, and this seemed to be the bridge."

From bench to clinic

In Rohan's lab, the team conducts preformulation, develops prototypes, and assesses the products to determine whether they function as designed. Along the way, they contribute to the knowledge of basic sciences and create methods to predict how products will behave in the clinic.

"In women's health, there is a lack of understanding with respect to some of the of

basic knowledge in biology and physiology knowledge required to successfully design pharmaceutical products for women" says Rohan. For example, the field did not have a clear understanding of the role of metabolizing enzymes and transporters in on drug distribution in female reproductive tissues. To this end, the laboratory developed some of the first information in this area and has applied this knowledge to design and testing of products. The lab is not deterred by gaps in knowledge but instead fills those gaps to create safe, effective and acceptable products. In addition to bridging gaps in knowledge, the team also is involved with scale-up and development and application of novel manufacturing processes, including 3D printing. They have also been awarded grants through the FDA to develop test systems and models to facilitate drug development.

Throughout it all, Rohan prioritizes the training of her team, often to the point of what should be exhaustion. Jhunjhunwala finds her drive to solve problems that benefit humanity to be contagious.

At one point, when Rohan appeared not to have slept for days at a stretch, Jhunjhunwala told her, "Lisa, I don't know how you're doing this." She never responded, but he thinks he knows the answer: she wants to see her team succeed. She has seen her students move on to industry, academia — or, in Jhunjhunwala's case, the FDA — and "that is what keeps her going."

Rohan doesn't dispute that account. Her family has supported her work, but juggling all of her responsibilities has been challenging: "Balancing family and work can be challenging at times but with a great support system on both sides you can make it work," she says. Her sons have followed

in her scientific footsteps; one is earning a doctorate in geophysics, the other is studying nutrition.

One was a baby and the other was on the way when she decided to stay in academia, and she acknowledges that it was difficult to walk away from the financial lure of a return to the pharmaceutical industry.

"But I really don't have any regrets because what I've been able to do in the lab, I wouldn't have been able to do in industry," she says. "I've been able to work on products because they mean something."

She recalls one of her best moments in industry, when she worked on a product for burn wounds. It was a foam spray that was less painful for pediatric burn victims than the existing product. It's the same feeling she gets across multiple projects at the School of Pharmacy.

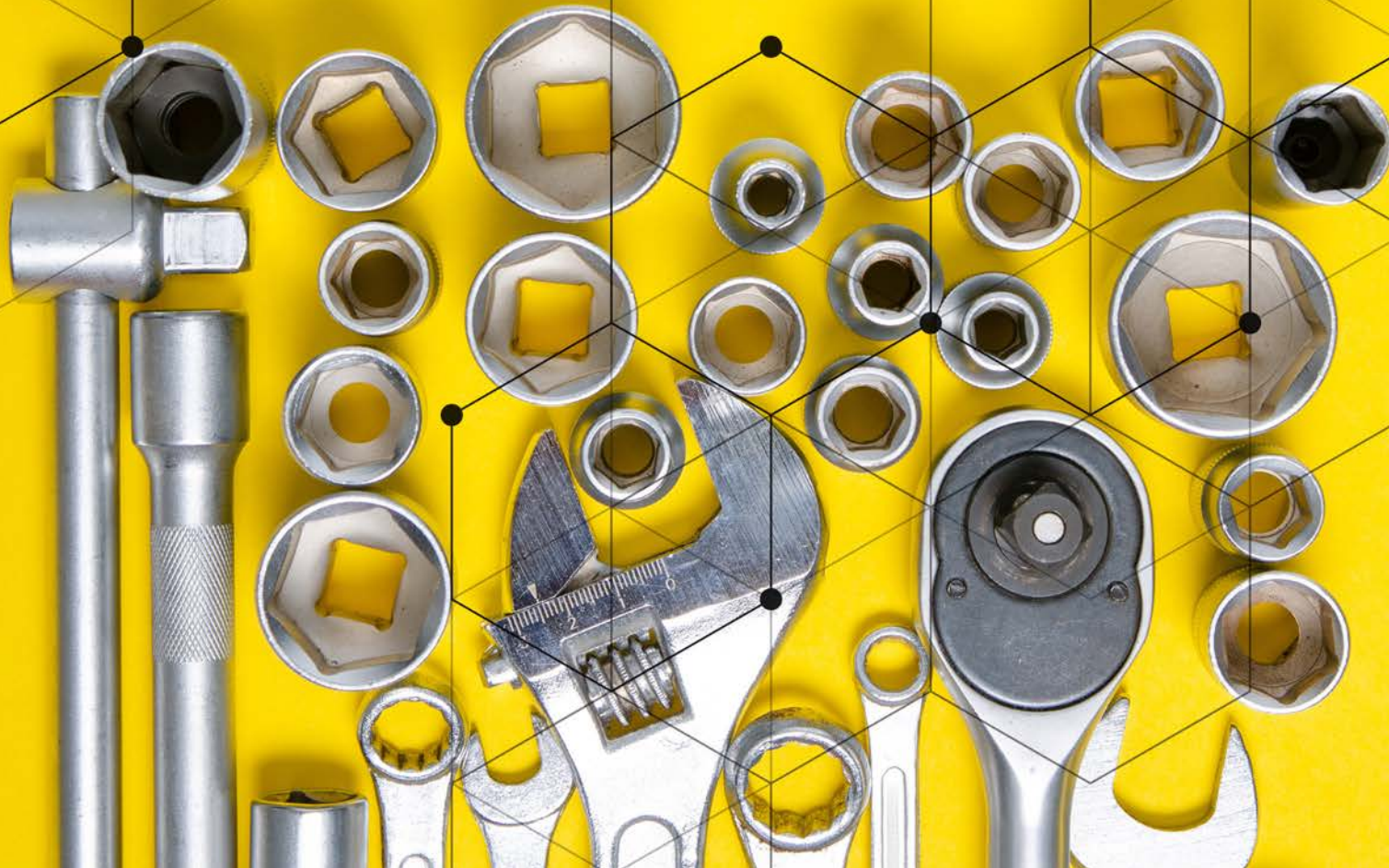
"Here, I've really had an opportunity to work on projects because they need to be done, and there needs to be research in that area," she says. "I'm very hopeful the HIV products that we're working on will be available for women, because they are desperately needed."

Already, work she has done in gynecological cancer is now the standard of care. When she goes to professional meetings and hears the stories of young women who thank investigators for the opportunity to participate in clinical trials, she sees the reality; she is giving them options they never thought they'd have.

But typical of Rohan, she credits her colleagues' contributions, paraphrasing advice she once heard: "Surround yourself with people who are smarter than you," she says. "And I've definitely done that."

BUILDING A BIGGER TOOLKIT

**Song Li combines biology, chemistry,
and medical background to create targeted
therapies and novel solutions**



When fighting a disease as complex and formidable as cancer, rarely does the answer lie in a single silver bullet. Rather, it is an arsenal of intricately designed tools, deployed with the precision of a symphony in a carefully timed, multipronged attack that interrupts the disease's progression.

Such are the front lines where Song Li, a professor in the Department of Pharmaceutical Sciences and director of the Center for Pharmacogenetics, works every day. In his world, understanding the disease at the molecular level is fundamental to his approach in developing ways to defeat it as effectively as possible, while doing the least harm to the patient.

In his native China, Li was a practicing physician, trained as a gastroenterologist with a specialty in treatments for gastric cancer. When he was earning his Ph.D. in his specialization, Li focused on using a monoclonal antibody to transport cancer drugs to tumors as a strategy for improving treatment while minimizing the impact on healthy tissue.

When he went into practice, Li saw a lot of patients whose liver disease had been triggered by Hepatitis B infection. At the time, gene therapy was a hot topic, and Li decided to go to the United States and train at the University of Pittsburgh to acquire greater expertise in the new technology as well as additional research experience.

As he prepared to leave China, patients' family members admonished him: "I hope you come back soon with a solution."

The words stayed with him; whatever he was doing, he wanted his work to lead to better care for people.

A shift in focus

In 1994, Li began postdoctoral training in novel gene delivery. After two years, he was promoted to instructor. His wife and young son had joined him, and they decided to change course and stay in the United States. At the time, China only allowed on child per family, and they hoped to have more.

"Also, I loved the work I was doing here at the time, so I decided to stay," Li recalls. "I never realized my career path would change

In his world, understanding the disease at the molecular level is fundamental to his approach in developing ways to defeat it as effectively as possible, while doing the least harm to the patient.

so dramatically ... because I was a physician, it was really my dream that one day, I'd discover something that would benefit a patient."

But it was also his background as a physician that made the likelihood of his discovery more possible.

Initially, Li started his lab to focus on pulmonary diseases such as fibrosis and hypertension, collaborating with Bruce Pitt from the School of Medicine. He won grants to help him develop a delivery system that would concentrate drugs in the targeted tissue, improving efficacy while decreasing toxicity. This equation would provide a common theme for the rest of his career. And while he was interested in technology, he was equally interested in the underlying biology, thanks to his medical background.

Because the targeted drug delivery occurs at the intersection of biology and technology, many labs focus entirely on one disci-

pline or the other; Li's approach is unique because of his expertise in both.

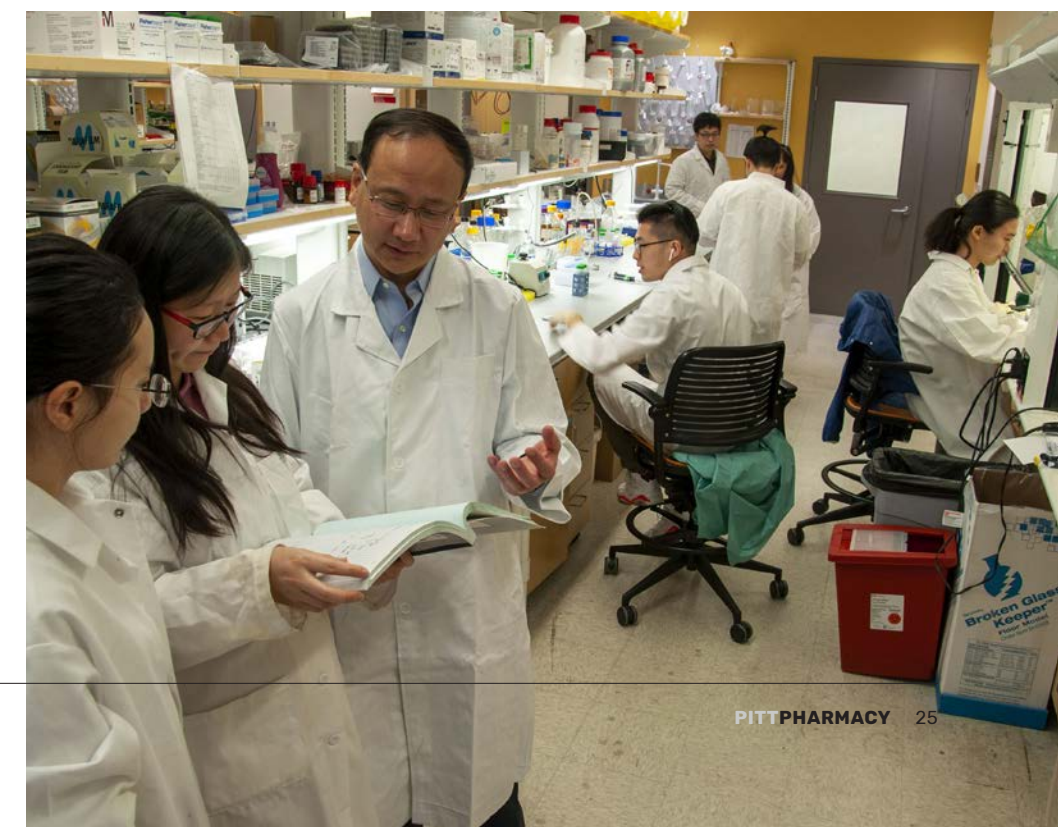
"I understand the medical question well, so I can focus on the problem there," he says.

A novel approach to cancer treatment

As nanotechnology rose in popularity during 1999 and 2000, Li began pivoting into improving delivery systems for cancer treatment. It was there that his expertise in biology again proved a differentiator.

"In most labs, the system they developed only serves the function of delivery. The carrier they develop does not have biological activity by itself," he explains.

The conundrum occurs when scientists use a lot of inert carrier material to deliver a small amount of therapeutics. By using carriers that are innate to human biological systems, Li reasons, he can improve the ef-



Because the targeted drug delivery occurs at the intersection of biology and technology, many labs focus entirely on one discipline or the other; Li's approach is unique because of his expertise in both.

ficacy and reduce the potential for toxicity. His system is based on the modification of existing cancer drugs.

His lab modifies the drug to become part of a, polymer-based carrier called a pro-drug. Li's system is unique in that it can deliver two drugs: one that is biologically part of the carrier, and a second one that is physically loaded into the carrier. This is particularly important in cancer treatments, which almost always use combination therapies. Once the prodrug reaches its target, the physically added drug is quickly released; the second drug that is integral to the carrier is then slowly released through the carrier's innate biological activity.

This system allows scientists to control the tempo of the release of each drug. In a combination immune-chemotherapy, for example, a chemo drug that is physically loaded into the carrier is quickly released and kills most tumor cells. As the cells die, they release an antigen that stimulates an immunoresponse. But tumors are stubborn, and they have feedback mechanisms that allow them to inhibit the immunoresponses and prevent complete eradication. The slower-releasing pro-drug helps attack the residual tumor cells.

In the past, putting two drugs in a single carrier has proven difficult because the drugs might have incompatible physical properties. By making one of the drugs part of the carrier itself, Li has simplified the loading process.

He also notes that cancer is highly individualized because patients will have different mechanisms of drug resistance and require different combinations. Li's lab can customize the drugs accordingly, something he believes can be adapted to diseases apart from cancer.

"We have a toolbox: you can choose," he says. "That probably will be the future of treatment, not just for cancer, but for other

diseases as well ... this is more personalized medicine."

A surprise solution

In addition to piggybacking two drugs in the same delivery method, Li's lab has also stumbled upon a potentially game-changing form of nanomedicine in cancer treatment that capitalizes on the differences in biology between tumors and normal tissue.

In healthy tissue and organs, the lining of blood vessels is intact and continuous, preventing micromolecules from traveling outside the vessel. This is particularly true in the brain, where the blood-brain barrier forms natural protection against the invasion of foreign bodies. Occasionally, if a micromolecule does escape a healthy vessel, the body depends on the lymphatic system to remove them.

However, tumors grow at hyper speed, and the blood vessels that feed them can't keep up with the pace of that growth. As a result, tumor vessels are porous instead of continuous; the size of the pores depends on the type of tumor. Because of this leaky vasculature, micromolecules can accumulate in a tumor. And because the lymphatic system of a tumor is poorly developed, it can't remove the foreign particle. This combined phenomenon is known as EPR, or Enhanced Permeability and Retention.

After many years of research, the field realized that EPR is not as significant a factor in humans as it is in animals. Pancreatic tumors, for example, have particularly tiny pores — making it difficult to develop a drug particle small enough to enter. If the particle size decreases, the drug loading capacity is also compromised — the scientist can't load the drug, or the drug's formulation won't be stable.

One possible solution Li and Jingjing Sun, PhD, an Instructor in the his lab tried was to use micelles, which are molecules that are

partially soluble in water. When wet, they create space for loading a water-insoluble drug. But while most cancer drugs are insoluble, some important drugs are soluble, such as gemcitabine, which is a key first-line treatment for pancreatic cancer that can help stimulate the immune system; the micelle system wouldn't allow for co-delivery of these two different types of drugs.

"In the beginning, we did not have a good solution," says Li, so his lab just followed protocols established by others and conjugated the soluble drug into their system, even though they did not believe it would work well.

To their surprise, they found that particle sizes decreased to the right size to enter the tumor vessels' tiny pores, and even more surprisingly, the drug loading capacity increased, allowing for delivery of two drugs at once.

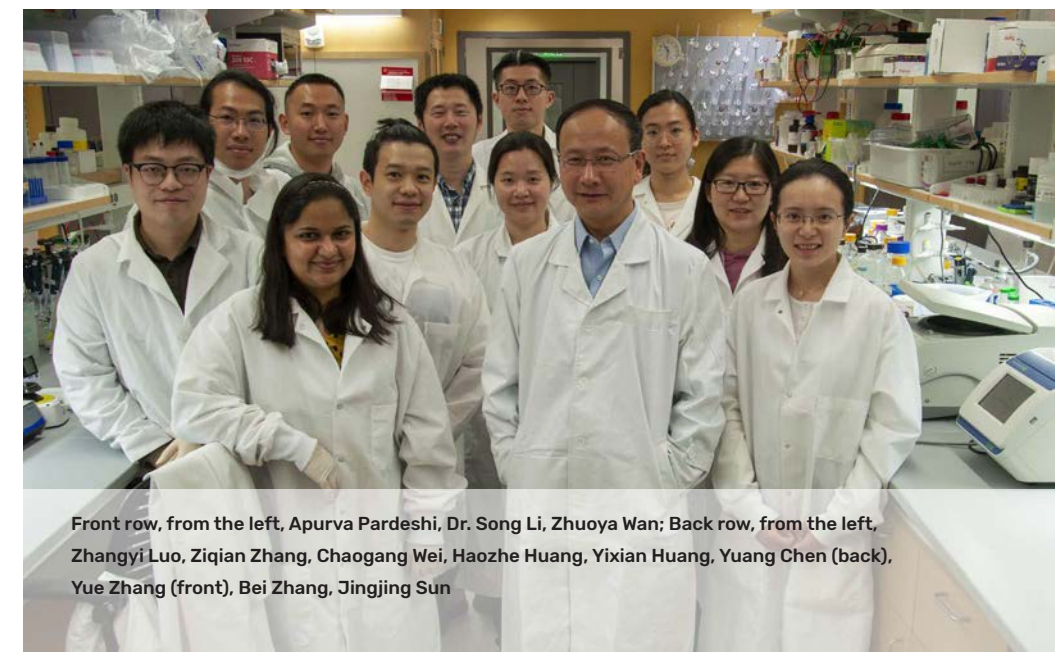
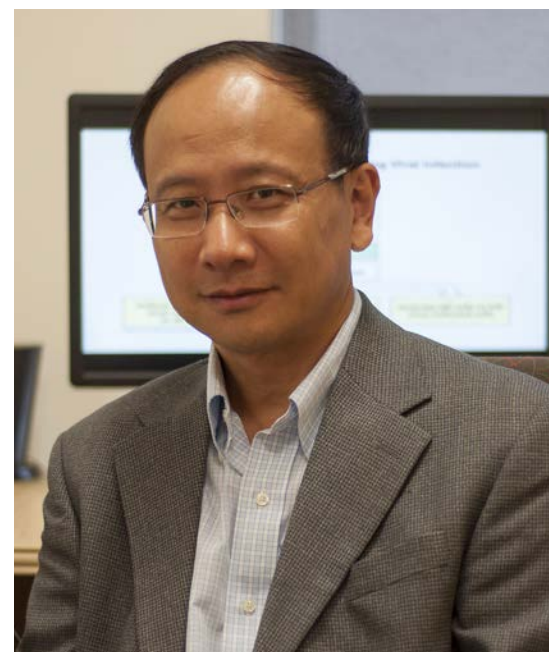
"We believe we may have found a potential solution to a big problem in our field," Li says.

In the two years since the discovery, Li's lab has been developing and optimizing the technology, as well as presenting it at conferences. It is now in the early stages of commercialization.

Targeting pancreatic cancer and beyond

Li's discovery is particularly important for pancreatic cancer, because the smaller drug particles are better able to penetrate the dense, fibrous tumors of the disease. He believes he can apply a similar technique to viruses, which — like tumor cells — rapidly replicate but need nucleotides to do so, a process that the tiny drug molecules can interrupt. Li has even been able to load three drugs into a single molecule at a time.

The lab has earned funding from the National Institutes of Health, U.S. Department of Defense, and various foundations, en-



Front row, from the left, Apurva Pardeshi, Dr. Song Li, Zhuoya Wan; Back row, from the left, Zhangyi Luo, Ziqian Zhang, Chaogang Wei, Haozhe Huang, Yixian Huang, Yuang Chen (back), Yue Zhang (front), Bei Zhang, Jingjing Sun

"We believe we've found a potential solution to a big problem in our field."—Song Li

abling Li to provide opportunities to a variety of trainees at the School of Pharmacy.

"The lab has been successful, funding-wise, and we have some hard-working students and post-docs," he says.

Among them is Alice (Zhuoya) Wan, a third-year doctoral student who appreciates Li's love of teaching as well as his encouragement of his students. For her current project on leukemia, Li found a clinician at UPMC Hillman Cancer Center who reviewed her progress and offered valuable suggestions.

"He believes that collaboration will lead to success, and he encourages us to be good teammates as well as team leaders," Wan says. "He constantly offers good ideas to make our work productive and interesting, and he also encourages us to have our own ideas ... He is my role model."

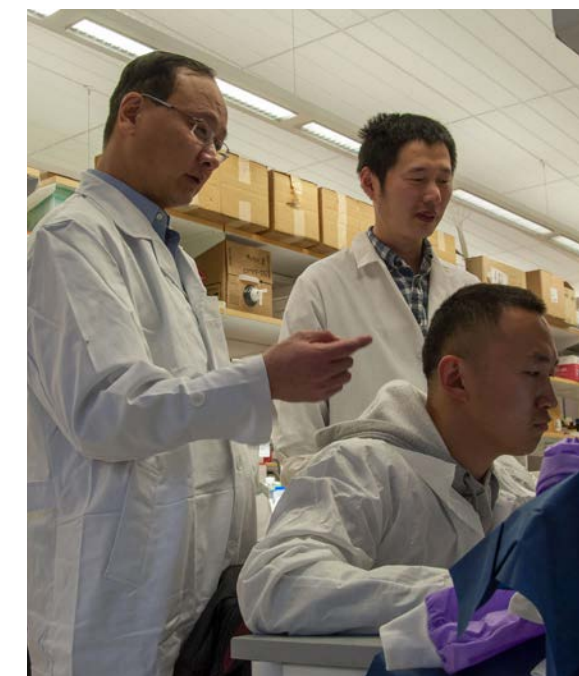
Zhangyi Luo, a first-year doctoral student who also completed his master's degree in Li's lab, agrees. During the application process for Ph.D. programs, Li encouraged him to explore many different programs. In the end, Luo stayed at Pitt, just like his mentor:

"I really appreciate the environment that Pitt provides to me in doing my research," he says, particularly the versatility of the carriers he is helping to develop for gene therapies.

According to Wan, Li "also encourages students to work from biology to chemistry, so you have comprehensive training for several years," she says.

Thinking back to his own years training under Leaf Huang, Li hopes to be as generous as his own mentor was.

"I'd like to do the same thing for my own trainees," he says. "I'm trying my best to support their careers."



Where We Are Going

INSIDE SALK HALL & RESEARCH PAVILION

PittPharmacy and Pennsylvania Pharmacists Care Network Receive Grant to Transform Community Pharmacies Across Pennsylvania

The University of Pittsburgh School of Pharmacy and the Pennsylvania Pharmacists Care Network (PPCN) are pleased to announce that they have received grant funding from the Community Pharmacy Foundation (CPF) to transform community pharmacies across Pennsylvania through the national Flip the Pharmacy (FtP) initiative. This two-year national initiative, which launched October 1st, 2019, funds Practice Transformation Teams from 20 states. The Practice Transformation Team in Pennsylvania is funded to support 40 community pharmacies to “flip” their businesses from prescription-focused to patient-centered models.

Over the intensive two-year experience, each of the over 500 participating pharmacies across the country will be supported by a Practice Transformation Team in their region with the help of the FtP Coordinating Center, CPESN USA. Each pharmacy will have a Practice Transformation Coach who will assist them in achieving FtP milestones. These coaches will provide support with implementation of patient-centered initiatives that are tailored to the specific needs of each pharmacy. The coaches in Pennsylvania will work in small teams that include expert community pharmacy owners and practitioners and school/college of pharmacy faculty. Pennsylvania pharmacies not amongst the 40 funded in the program are invited to ride along with the program by following the Flip the Pharmacy Change Package and implementing the six transformation domains independently.

Crisamore Awarded Clinical and Translational Science Institute Fellowship

Karryn Crisamore, PharmD was selected as a recipient of the NIH TL1 post-doctoral (Clinical and Translational Science) fellowship award from the Clinical and Translational Science Institute at the University of Pittsburgh. As part of the fellowship, she will participate in a multi-faceted career development program. Her fellowship will provide support for multidisciplinary clinical and translational research.

The long-term goal of Crisamore’s research is to improve medication-related outcomes in critically ill patients. Crisamore is a third year PittPharmacy graduate student in the Clinical Pharmaceutical Sciences track under the mentorship of Associate Professor Philip Empey, PharmD, PhD.



Karryn Crisamore

Hoshitsuki Receives Rho Chi Fellowship Award

Graduate student Keito Hoshitsuki, '17 was awarded the 2019-2020 Rho Chi - American Foundation for Pharmaceutical Education (AFPE) First Year Graduate Fellowship when he entered the PittPharmacy PhD program. This fellowship is awarded annually to a Rho Chi member and student beginning their first year of graduate study, who has demonstrated high potential for success in a graduate program. Awardees are selected based on the strength of their academic, research, and personal achievements.

Hoshitsuki was inducted into Rho Chi in 2015 and served as PittPharmacy’s Alpha Omicron Chapter President from 2015-16. The chapter was recognized as the winner of the national Rho Chi Chapter Achievement Award for its 2015-16 activities.



Keito Hoshitsuki

Hoshitsuki completed PGY1 pharmacy practice residency at Children’s Minnesota and PGY2 specialty residency in Clinical Pharmacogenomics at St. Jude Children’s Research Hospital. He is currently a first year PhD student in the Clinical.



Brian Kiesel

AFPE Fellowship to Kiesel

Brian Kiesel, MS, was selected to receive an American Foundation for Pharmaceutical Education (AFPE) Pre-Doctoral Fellowship in Pharmaceutical Sciences. This competitive fellowship is awarded to high performing graduate students with demonstrated research skills who have exceptional academic performance, communication, and leadership and is used to support an impactful research proposal. His research will investigate the translational pharmacology of DNA repair inhibitors in combination with radiation therapy for cancer treatment.

Kiesel is a PhD student at PittPharmacy under the mentorship of Jan H. Beumer, PharmD, PhD.

Local Schools of Pharmacy Partner to Create a Healthier Allegheny County (Expansion of Pharmacy Services with the Allegheny County Health Department)

The University of Pittsburgh School of Pharmacy and Duquesne University School of Pharmacy are proud to announce their partnership with the Allegheny County Health Department (ACHD) pharmacy services. “The goal of this partnership is to continue to expand the services provided by the ACHD pharmacy and serve as a connector between the ACHD and community pharmacies across Allegheny County to spread public health initiatives,” said Dr. Suzanne Higginbotham who currently serves as the Allegheny County Health Department’s Pharmacy Manager. “With nearly 300 pharmacies in Allegheny County, pharmacies can act as a critical access point for community members to receive care or be connected to other health care resources. Through this partnership, we will be able to connect more of our pharmacy partners to ongoing efforts at the health department, like the Overdose to Action Grant, to reach more Allegheny County residents,” said Dr. Joni Carroll.

NEW FACES: STAFF

Matt Altman
Computer Support

Nick Gaudreau
Director of Development

Amy Hayden
Post Award Administrator

Matt Iannazzo
Associate Major Gifts Officer

Samantha Young
Alumni Coordinator

Alison Zappa
Program Manager

NEW FACES: FACULTY

Poonam Alaigh
Part-time Professor of
Pharmacy and Therapeutics

Alexis Gaggini
Assistant Professor of
Pharmacy and Therapeutics

Catherine Rebitch
Associate Professor of
Pharmacy and Therapeutics

John Riley
Assistant Professor of
Pharmacy and Therapeutics

Kungho Suh
Assistant Professor of
Pharmacy and Therapeutics

Ying Xue
Assistant Professor of
Pharmacy and Therapeutics

Imam Shaik
Research Instructor,
Pharmaceutical Sciences

Jingjing Sun
Research Instructor of
Pharmaceutical Sciences

RETIREES



Barry Gold

Barry Gold was hired by PittPharmacy in 2005 as Professor and Chair of the Department of Pharmaceutical Sciences. He is an Emeritus Professor since May 2019. While he was chair, Barry grew and shaped the department through the people he hired and the culture he created. In 2017, he stepped away

from his administrative role. Barry is a Fellow of the American Association for the Advancement of Science and has been an active member of the University Senate and its committees.



Paul Schiff

Paul L. Schiff, PhD, joined the School of pharmacy as assistant professor in 1970 and in December 2019 became Emeritus Professor after 49 amazing years. For 26 of those years, he served as department chair, first of the Department of Pharmacognosy and ultimately as chair of the Department of Pharmaceutical Sciences until 1996. His excel-

lence and commitment to teaching earned him the title “teacher of the year” five times within the School of Pharmacy. Schiff was a contributing member and a leader of a number of national organizations. Today, he continues today as a member of the United States Pharmacopeial Convention, Botanical Dietary Supplements and Herbal Medicines Expert Committee.



John Smith

John Smith was first hired at the University of Pittsburgh in 1978 as a Staff Specialist in the Registrar’s Office, at a time when the Registrar used punch cards to register students for courses. In 1998, John transferred to the School of Pharmacy where he managed information technology hardware and software. His initial focus was installation and manage-

ment of desktop software that included Lotus 1-2-3, WordPerfect, and MS-DOS and eventually also included support for faculty and staff through transformational changes of mobile devices and simulation usage. John earned both the Bachelor of Science and Master of Science degrees from Pitt. As a season football ticket holder, John is truly a die-hard Pitt fan.



Kathy Stell

Kathy Stell was an integral part of the School of Pharmacy for 26 years, from 1993 to December 2019. She began her career in the School of Pharmacy’s Drug Information Center and since then, has touched all parts of the School through interaction with faculty, staff, alumni and students. Her portfolio of work includes administering highly

successful national continuing education programs, coordination of accreditation reporting, exemplary administrative support, hosting external visitors and exquisite event planning to name a few. Her attention to detail and constant professional manner are hallmarks of her work and her demeanor.

RESEARCH BY THE NUMBERS



Q&A

Marcia Borrelli

Director of Student Services

The PittPharmacy journey begins and ends at Student Services. Marcia Borrelli, Director of Student Services for 20 years, and her staff have helped hundreds of students on this journey.



Marcia Borrelli

Let's begin with recruiting, Marcia. Walk me through some preliminary steps to become a PharmD candidate:

We partner with the University's Office of Admissions Blue and Gold Day. This is a day of programs in different departments at the University for students that are rising eleventh and twelfth graders searching and visiting different colleges. They're ready to start that college search. Now, our goal for the Blue and Gold Day is to get them to apply to the University as a pre-Pharmacy student. Prospective students can also go online to register for a Friday, twelve o'clock tour at Salk Hall and Salk Pavilion with an RxAmbassador. Robie Gosney, our admissions specialist, will greet the student and family, along with a PittPharmacy student RxAmbassador, and take them on a tour of the School of Pharmacy. We offer them a packet, queue their information into our database, and just answer questions and give them a few, you know, fun facts about the school. We keep in touch throughout their decision-making process.

What makes PittPharmacy's recruiting unique?

I think what makes our recruiting unique is that we have the leadership of the School of Pharmacy onboard and that we have a leader, whether it is the dean, a senior associate dean, or an assistant dean, that will always be at one of our recruiting events to welcome the high school students and their families. I think that really resonates. I mean, I cannot tell you how many times we have students send us an email and say, "This was such a great opportunity, thank you so much, I learned so much. This is one of the best programs that I have been to in my college searches and the fact that your faculty took a Saturday and came in to meet me."

Has recruiting changed through the years?

It's definitely different, because now that there is a decline in high school graduates; we are reaching out to middle school students to spark that interest in pharmacy and share the different career paths of a Doctor

of Pharmacy. Our RxAmbassadors go back to their schools and surrounding schools to promote the "Pitt Pharmacy Experience."

Now, the application is complete and prospective students have made it through all the steps and are ready for the interview. What do you hope to discover about the student in this interview?

Our interview team conducts a holistic review of the candidate and, of course, academics are very important. The PharmD program is very rigorous. You have to be able to survive the curriculum. During this holistic review we look at who you are and what you can "bring to the table." Everyone does have something to bring to the table, so it is just finding out a little bit about them, their leadership ability and their ability to follow. Not everyone has to be a leader, but sometimes there are individuals that can lead without actually being THE leader. We look at those things; seeing how you fit in with a team.

It's not all recruiting in Student Services. So, tell me what's a typical day?

I will tell you, you wouldn't think it, but every day is different. Our office is busy with each member dealing with their specialty.

Lori Altenbaugh is the person who handles everything that has to do with the Master and PhD students in Pharmaceutical Sciences. She gets them here for orientation; she does their scheduling; she registers them; and, then, of course, she takes care of graduation and gets them out the door.

Then, we have experiential learning, which Anna Schmotzer handles all of the students and where they're going from their P1 year until their P4 rotations. Many times, students are in there talking about their clearances, their insurance, their immunization requirements, where they're going,

do they need a car. There are so many different questions that they need to find out and Anna seems to answer all their questions.

Cheryl Sorensen is the newest addition to Student Services and manages all the student records. She has also implemented online tools, some of which are used for student and faculty orientations. Cheryl actually creates the class schedule and schedules the rooms. She handles everything regarding students' registration, grades, and progression.

Robie Gosney advises prospective students, assists the Director of Admissions, coordinates PharmD interviews, and organizes the incoming class orientation. She is also a member of the RxTalent team and supports the PharmD students with the designing of the RxPlore Summer Camp.

Suzanne Mannino is involved with the students and student organizations. There are times when Suzanne will have 60 reimbursements to do involving students bringing in their receipts, going over making sure everything's accountable on that end, and submitting the forms for payment. We have over 15 organizations that Suzanne oversees along with the RxAmbassadors.

So, a typical day is like throwing up a deck of cards. You don't know what you will get.

Yes, Students Services isn't just recruiting. I feel that it's recruiting and then accompanying these students on this journey at Pitt Pharmacy.

What I really want our students to know is that they're not on this journey alone. We are with them every step, whether it's running to the airport to get a visa issue handled or walking them across the street to the emergency room because they're sick. Sometimes we have actually gone to bat for them when there is confusion about financial aid. We're not financial aid, but we certainly will take that extra step to contact financial aid on their behalf. There are things we do that go above and beyond because we want them to know that we're here for them when their family is out of town.

I think because our students are making a monetary investment and a time investment, they're taking a lot on, so whatever



L to R: Roberta Gosney, Anna Schmotzer, Suzanne Mannino, Marcia Borrelli, Cheryl Sorensen, Lori Altenbaugh

the staff of Student Services can do during this journey of becoming a Doctor of Pharmacy, we're here! You never know what speed bumps you're going hit on your journey. We're going to go through this with you. We want to get them in, we keep them here, and move them on to become successful alumni.

So, what do you know about your job now that you wish you would have known in the past?

So, one of the things I realize is that Pitt Pharmacy didn't choose me. I chose Pitt Pharmacy because there was a job. And then, once I was here I became knowledgeable of what a Doctor of Pharmacy really is. I actually went to school with Dr. Gordon Vanscoy and, at the time, I didn't know what he was doing. Researching? Pharmacy? Becoming a pharmacist? I had no clue what a pharmacy degree is and what a pharmacist provides to the community. But now, as a participant in a community and working with students, I find that anyone applying for a PharmD, a Doctor of Pharmacy, are more well-rounded. They're not just knowledgeable. They truly and sincerely want to help other people. And I don't think that I really knew that about pharmacies in my own community and about my own community pharmacist.

What can we look forward to from PittPharmacy's Student Service Department?

A new area! The renovations to Salk Hall! I feel that because we're here in Salk Hall during all this renovation that we are definitely the hub of the School of Pharmacy. I think the Student Service area will be more welcoming to prospective students and current students. The new area is going to be more defined and students will know exactly who is there to serve them and in what capacity.

What is your final message to Doctor of Pharmacy students at Pitt?

Basically, the school really does care about educating future Doctors in Pharmacy and providing the best experiences, whether it's providing them with a band aid or a pencil, to helping them schedule an international rotation. It's a team effort that begins with prospects and ends with a license to practice as a Doctor of Pharmacy.

IN MEMORIUM



Natalie M. Certo

Natalie M. Certo, PhD., a resident of O'Hara Township, passed away on July 27, 2019. Natalie was a graduate of the University of Pittsburgh School of Pharmacy, magna cum laude. Natalie was the Director of Pharmacy at Children's Hospital for over 25 years. She was devoted to her profession and was loved and respected by her staff and everyone with whom

she worked. Natalie served on the National Board of Trustees of the American Pharmacists Association and was a dedicated volunteer at St. Francis Hospital, West Penn Hospital and St. Margaret Hospital.



Robert J. Ertel

Robert J. Ertel, age 87, of Mt. Lebanon, passed away on Tuesday, December 10, 2019. Beloved husband of the late Ramona J. Ertel for 58 years. Robert earned a PhD in Pharmacology and achieved a long career as a Professor of Pharmacology at the University of Pittsburgh. Dr. Robert Ertel, Professor of Pharmaceutical Sciences, taught pharmacology

at the University of Pittsburgh for many years. He was a brother of Kappa Psi and went on to become the advisor (Grand Council Deputy), then emeritus advisor for the pharmaceutical fraternity. One alum affectionately referred to him as a gentle giant.



Salvatore Louis Gaetano, Jr.

Salvatore "Sal" Louis Salvatore, Jr., age 81, a resident of Peters Twp., passed away peacefully on Wednesday, April 10, 2019 under the care of Bethany Hospice. He grew up in Beechview and was the son of the late Salvatore (Sam), Sr. and Josephine (Jay) Gaetano. Married on October, 3, 1959 to his beloved wife Christina (Chris);

beloved father of Christi Gaetano, Rodney (Melinda) Gaetano, Leah (Kevin) Gryboski, Tiffany (Jon) Whaley and Annette Schulte; proud and loving grandfather of KJ and Kaylee Gryboski, Shelby and Sienna Gaetano, and Isabele and Nikko Whaley. For 60 years, he LOVED being a pharmacist; Sal had licenses in PA, FL and CA. In 1967, he opened Baldwin Court Pharmacy and Gaetano's Pharmacy in 1980. He treated everyone like family with care and compassion. Sal loved to help in any way possible; as a pharmacist and even more so as a person. Sal was a coach, mentor, entrepreneur and who was "The Main Man." Always excited about Pittsburgh sports, he was a diehard fan of the University of Pittsburgh (Golden Panthers) and Pittsburgh Steelers. Gaetano was honored with the PittPharmacy Distinguished Alumnus Award during the RxTravaganza 2006. Sal was the "idea man" behind the brick walkway.



William Frank Johnson, Jr

William Frank Johnson, Jr. of Brownsville passed away peacefully on June 1, 2019.

He graduated from Brownsville High School in 1943 and enrolled in pharmacy school at the University of Pittsburgh. He was drafted into the U.S. Navy in August 1944 and served during WWII at the Bainbridge Maryland Naval Hospital. He was honorably discharged in

1946, having served as Pharmacist Mate Second Class. After discharge, he resumed his studies at Pitt, graduating from the School of Pharmacy in 1949.

He and his wife Margaret (Fleming) were married in 1959 and owned several pharmacies in Brownsville over the years, most notably Central Pharmacy and Reeds Rexall Drug. He retired in 1996.

Johnson was probably most proud of his family and his pharmacy career (the Navy and his independent pharmacies). He was drafted into the Navy and practiced as a pharmacist before he even finished his pharmacy degree – a testament to how Pitt prepared him to that point! He was promoted to the point that actual pharmacists reported to him before returning to finish college.

William F. Johnson began a legacy of pharmacists from the University of Pittsburgh. His son William F. Johnson III is a class of 1985 graduate and his granddaughter Amanda S. Korenoski is a 2012 graduate.



William C. Kennedy

William C. Kennedy, entrepreneur, founder and inventor of Udderly Smooth® creams and lotions passed away on December 10, 2019 at the Inn at Poland Way in Poland, Ohio. He was married to Margaret Kelch for 62 years and enjoyed a lifetime full of adventure and hard work. After graduating from the University of Pittsburgh School of Pharmacy in 1961,

Bill worked for Thrift Drug, SuperRx Drug and King Drug throughout Ohio from 1961-1970. In 1971, Bill moved from retail to industrial pharmacy as Technical Director for United Cooperatives in Alliance, Ohio; overseeing Animal Health and producing veterinary pharmaceuticals throughout the US and Canada. In 1978, Bill and Marg Kennedy purchased the Animal Health manufacturing division of Universal Coop and founded Redex Industries, Inc., the makers of Udderly Smooth® Udder Cream. Redex Industries remains operated by 3 generations of the Kennedy family and distributes a family of products sold throughout the United States, Canada, Mexico, United Kingdom, Ireland, Brazil, Australia and Korea. Bill is a former Poland Township Trustee, a 32nd Degree Scottish Rite Mason, was a member of the Association of Ohio Commodores and in 2006, Bill was awarded Distinguished Alumnus from the University of Pittsburgh School of Pharmacy in 2006.

Recently Deceased School of Pharmacy Alumni

(As of October 2018)

Melvin Bassar - BS '52

Kenneth S. Bauer Jr. - PharmD '99

Robert K. Bickerton - PhD '56

Mark E. Bishop - BS '73

George F. Buerger - BS '57

Brad E. Campbell - PharmD '99

Natalie M. Certo - PhD '75

Autumn E. Colby - BS '44

Harry M. Corrin - BS '50

Robert Ertel

Neil A. Feinberg - BS '78

Salvatore L. Gaetano Jr. - BS '59

Robert Parker Halliday - MS '61

Ronald F. Howard - RPh '63

William F. Johnson Jr. - BS '49

William C. Kennedy Sr. - BS '61

Gary D. McClean - BS '76

Albert J. Mertz - BS '50

Silbert M. Moritz - BS '52

Helen P. Oakes - BS '50

Robert L. Powell - PhD '67

Richard E. Rho Sr. - BS '57

Raymond L. Stierer - BS '50

Thomas C. Wajert - BS '58

Henry E. West - BSPHR '43

Stephen R. Young - BS '62

IN MEMORY FUND

To establish an award in memory of an alumnus, family or friend that will provide a deserving pharmacy student needed funds please contact rxalum@pharmacy.pitt.edu.

Investing in the Future

Why I Give

Diane Ammerman '98

Medical Affairs Executive Director for Genentech, A Member of the Roche Group.

As a chemistry student in high school at Montour, Mr. Andrasko knew my interest in pharmacy and gave me the monthly newsletters from the Pennsylvania Pharmacists Association. It really demonstrated to me he believed in my dreams.

At Pitt, we all worked really hard to gain entry to the prestigious Bachelor and PharmD programs. Some of my most challenging classes from Dr. Knapp and Dr. Mo Schwartz in Immunology and Oncology are areas where I am working today. The concepts of 20 years ago are now a reality clinically for patients. My School of Pharmacy friends remind me of how we studied together, supported each other and evolved now as our families, and that relationships and professions all change on a daily basis.

I appreciated faculty who developed student research, like Dr. Kjell Johnson, and alumni who gave their time to teach the profession in round table discussions, such as Lisa Tate Davonsizer. The kindness of professors like Dr. Renee Juhl, Dr. Kim Coley and Dr. Terry Schwinghammer, shaped my love of drug knowledge, public speaking and patient care. As I continue to learn about hematology, I think back to Dr. Pulsonelli's expertise in red blood cells. Sabbaticals are a restorative part of professionalism, and Dr. Venkat's sabbatical helped me learn pharmacokinetics from Dr. Kroboth. Her leadership as Dean Kroboth has been an inspiration to success in medicine.

The beauty and elegance of Pharmacognosy with Dr. Schiff are areas that I have explored again in Aruvedic medicine at the Chopra Center in California. Pitt has embraced the history of pharmacy, as well as the innovation of the future. Funding is needed for technology and building infrastructure updates. Personalized education has been phenomenal to watch as a member of the Alumni Society Board. Our profession has evolved in many ways, and I love to see the leadership that our alumni are providing in life changing medicines in the pharmaceutical industry.

I could have never dreamed about the relationships that have evolved in being a pharmacist. To support a board member with lymphoma or to connect Dr. Howrie Schiff with my nephew at Children's Hospital is surreal. Because of Pitt School of Pharmacy, I met an individual who had my type of cancer, Wilm's tumor, at a random social interaction. The Universe brings people together in unexplainable ways.

I give to Pitt's School of Pharmacy because I am grateful for the scholarships I received as a student. Working for companies like



Jeffrey and Diane Ammerman
at RxTravaganza 2019

Bristol-Myers Squibb and Genentech/Roche who match my donations really helped to enhance my donations.

Pitt is home for me. It is nostalgic to spend time on campus for research purposes or for fun on a homecoming weekend. My children have learned about the bountiful offerings of education, athletic focus and joy. My husband and I have enjoyed Galas and meeting people in so many aspects of the University. My parents and grandparents supported my endeavors, but had no idea the potential for collaboration. As a community, we have so many students to help fulfill their dreams!

**INVEST IN THE FUTURE OF A
STUDENT PHARMACIST.**

**Contact Nick Gaudreau,
Director of Development**

**412- 383-4290
npg18@pitt.edu**



Celebration Time! Pitt Pharmacy a big winner in the Day of Giving Competition.

We are small and mighty!

We:

- Are 14 of 16 Pitt schools in size
- Came in #2 for total donors
- Increased participation by 80 percent
- Had 368 alumni and friends who made gifts
- Won the "Power Hour" for most gifts in one hour
- Received \$16,000 in bonus money from Pitt for participation



MEET PITTPHARMACY'S DEVELOPMENT TEAM

Nick Gaudreau

Director of Development

After recently settling in Pittsburgh, Nicolas comes to PittPharmacy with nearly 20 years of experience in community partnerships and Non-Profit Finance, ranging from a community garden in the Pacific Northwest and an art museum in the Sonoran Desert to a New York Dance Company and Pittsburgh's own Carnegie Museum of Natural History. He is thrilled to work with such an excellent group of educators, researchers, and students who influence public health through their love of pharmaceutical sciences and exemplary patient care. He looks forward to help support PittPharmacy's bold vision to lead the way

in Pharmacy education, practice, and research. Reach out to Nick at 412-383-4290, or npg18@pitt.edu with any questions!

Matt Iannazzo

Associate Major
Gifts Officer

Matt Iannazzo came to PittPharmacy from the PNC Financial Services Group, where he served as a Relationship Manager for Business Banking Clients in the Columbus, Ohio region. While in the role of Relationship Manager, he grew the relationships between Business Banking customers and their bank through conversations about deposit products, treasury management, and lending. As an undergrad at Pitt, Matt

played four years of baseball. During that time, he was awarded All-Big East three times (2010-2012) and currently holds the record for the most wins in school history. Matt is excited to join the PittPharmacy family. Reach out to Matt at 412-862-7429, or miannazzo@pitt.edu with any questions!

Samantha Young

Alumni Coordinator

Samantha Young came to PittPharmacy from the Physician Assistant (PA) Studies Program in the School of Health & Rehabilitation Sciences. While in the role of Program Administrative Assistant for the PA program she implemented many enterprises, including launching a social media campaign highlighting a specific medical initiative each month, organizing of outings in Pennsylvania, and being an integral part of orientation and graduation. She has a bachelor's in biology and a minor in chemistry from Pitt and completed her Masters in Higher Education Management with a track in Student Services in April 2020. She is Pitt through and through. Her talents will be put to good use here at PittPharmacy. Send your news and/or accomplishments to rxalumni@pitt.edu and introduce yourself to Samantha!



RxPlore Camp

RxPlore is a pharmacy camp for rising high school juniors and seniors interested in the healthcare professions and looking to integrate a breadth of knowledge of the sciences. The camp is also for those who want to learn more about the vast roles a pharmacist can play within healthcare. Current PittPharmacy students designed RxPlore high school summer camp to provide daily RxPloration throughout the field of pharmacy. More Information: <https://www.rxplore.pharmacy.pitt.edu/>

“The RxPlore camp exposed me to a wide range of pharmacy professions that I did not know existed and helped me confirm my future goal of becoming a pharmacist.”

“The RxPlore camp gave me the opportunity to confirm my interest in Pharmacy, and it made me fall in love with the University of Pittsburgh.”

“The camp was such a great experience for me. It solidified my major choice of pharmacy through the interactions with faculty, students and all the hands-on activities!”



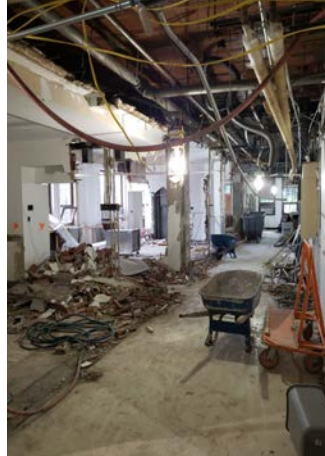
RxAmbassadors

RxAmbassadors is an organization of student pharmacists chosen to represent PittPharmacy in various recruitment scenarios. RxAmbassadors provide tours of the School of Pharmacy to prospective pharmacy students and their families. They also assist in recruitment programs such as the Admitted Student Days, and Blue & Gold Days. Our RxAmbassadors come from a variety of backgrounds, and all have different areas of interest. These students return to their high schools and promote the career paths and opportunities to follow a personalized education at PittPharmacy. The RxAmbassadors are the face of PittPharmacy, and as such are held to the highest standards to best represent our school.

EDUCATION BY THE NUMBERS



PittPharmacy
Offices @Baum
5700 Baum Blvd. Suite 303
Pittsburgh, PA 15206



Still Going Strong!
Still Moving Forward
with Salk Hall Renovations!

The PittPharmacy family wants to hear about your achievements and promotions. We want to share with alumni, faculty staff and students. Send us your news and keep in touch.

Linkedin: <http://tinyurl.com/PittPharmLinkedIn>

Facebook: www.facebook.com/PittPharmacy

Twitter: @pittpharmacy and @RxDeanKroboth

Keep In Touch: rxalumni@pitt.edu

Home Base: www.pharmacy.pitt.edu