

# PITT PHARMACY

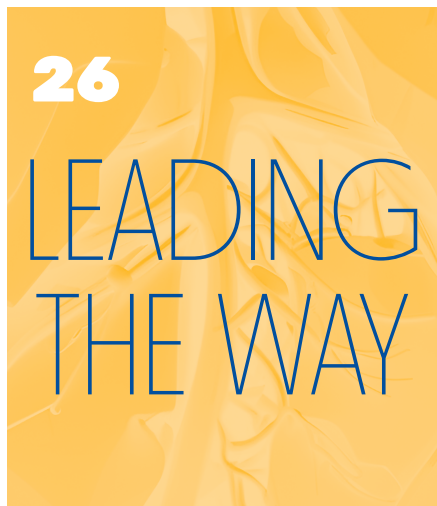
University of Pittsburgh School of Pharmacy | Spring/Summer 2024



**THE GRAD ISSUE**  
**WHAT STARTS HERE CHANGES THE WORLD**



UNIVERSITY OF PITTSBURGH  
**SALK HALL & PAVILION**  
SCHOOL OF PHARMACY  
SCHOOL OF DENTAL MEDICINE



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**Welcome to the Spring/Summer 2024 edition of Pitt Pharmacy magazine!** I am absolutely thrilled to share the incredible work happening at Pitt Pharmacy as we passionately pursue our mission of developing pharmacists and pharmaceutical scientists as innovators and leaders to improve the health and well-being of the world around us.

Through inclusive excellence, innovation, and leadership, we achieve pioneering and exemplary:

- Pharmacy and pharmaceutical sciences education,
- Research and scholarship, and
- Patient care and service.

As you read the inspiring narratives within this edition, you'll witness the extraordinary difference that members of the Pitt Pharmacy community are making every day. Together, we are transforming lives! We are immensely grateful for the privilege to meaningfully contribute to the University of Pittsburgh, the pharmacy profession, and to your personal journey.

Our Pitt Pharmacy family is a shining example of engagement, thoughtfulness, and impact, and it is an honor to stand alongside each of you as colleagues, fellow alumni, and friends. Thank you for your unwavering dedication; your presence and contributions are deeply cherished and celebrated. Please continue to share your professional accomplishments with us. I hope to see you on campus soon. Hail to Pitt!



**Pictured: Dean Amy Seybert, Chancellor Joan Gabel, Provost and Senior Vice Chancellor Joseph J. McCarthy, and Vice Provost for Faculty Diversity and Development John M. Wallace Jr. at the 2024 Faculty Honors Convocation. The School of Pharmacy had several honorees including Dean Amy Seybert, Dr. Sandra Kane-Gill, Dr. Luke Berenbrok, Dr. Neal Benedict, and Dr. Raman Venkataramanan. The convocation also had the distinction this year of the installation of Joan Gabel as the 19th chancellor of the University of Pittsburgh, marking a new era of leadership, as well as a celebration of achievements.**

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# RXPERIENCES

## How Clinical Rotations Impact Students Beyond the Classroom

As students embark on clinical rotations, they encounter a diverse array of experiences that inevitably shape their understanding of healthcare delivery and patient care. Pitt Pharmacy offers students an impressive selection of interesting practice sites throughout the profession. From serving marginalized communities to delving into the pharmaceutical industry, each rotation offers unique challenges and opportunities for growth. Here, former students reflect on their journeys, sharing anecdotes that highlight the invaluable lessons learned and the insight gained regarding the impact of their contributions.

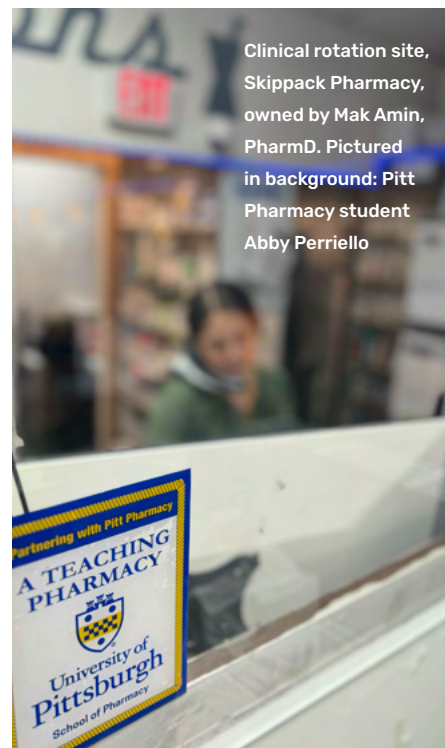
During my elective rotation at a clinic serving the LGBTQIA+ population of Pittsburgh, I worked on an interprofessional team with Nurse Practitioners and Physicians who staff the clinic. During my five weeks, I learned about Pre-Exposure Prophylaxis (PrEP) for HIV and its importance especially within this patient population. To provide the community and new patients with additional information about PrEP, I built a website and designed a business card with a QR-code for the website on it, so patients could easily and discreetly access the website. This experience was valuable because I was able to combine my passions of education and technology to take ownership of this project during my rotation. – Steven Astrachan

During my acute care APPE rotation on the dual diagnosis unit at an inpatient psychiatric facility, I rounded daily with a team of physicians, medical students, nurses, and social workers to care for patients who had both mental health disorders and substance use disorders. One memorable experience was when I helped the team to interpret a patient's EKG and prioritize medication recommendations based on the results. I also enjoyed leading independent Medication Education groups – patients would find me in

the hallway on the unit and ask to continue the conversation! Every interaction I had on this rotation helped me to understand how crucial interprofessional relationships are to providing excellent patient care. Inpatient acute care pharmacy is an exciting, dynamic field in which pharmacists can truly make an impact and save lives. – Roisin Sabol

During my ambulatory care APPE at an independent pharmacy, I created a series of educational videos that demonstrated proper usage of inhalers and blood glucose monitors. These videos were shared via text message to any patient who had picked up one of these devices in the last year. Patients were asked to fill out a survey following the video, and the feedback was positive, with most patients saying they learned something new from the video or had never been counseled on their device in the past. Overall, it was a unique way to reach patients and provide counseling, as well as a fun way to take on an additional project at my site and build stronger relationships with the pharmacy staff and patients. – Alyssa Vogel

I was granted the opportunity to watch a surgery during my Acute Care rotation in a Surgical ICU. Since my interests lie in transplant, they allowed me to observe a liver transplant. Once I got to the OR, I realized this was more than just a transplant, it was a live liver donation and transplant between a father and son. The surgeon was so kind in talking us through some of what he was performing and allowing us to look into the abdominal cavity just before he was going to pull the liver out. Once the liver was out of the patient, we followed it into the neighboring OR and watched the completion of the transplant. When I came in the next morning, I was surprised to learn that my newest patient in the Surgical ICU was the liver donor I just watched the procedure for! Being able to see the patient from start to finish made me ap-



Clinical rotation site, Skippack Pharmacy, owned by Mak Amin, PharmD. Pictured in background: Pitt Pharmacy student Abby Perriello

preciate all the moving parts within interprofessional teams that ensure patient care is kept to the highest standard. – Janine Abate

Through their varied clinical rotations, students at Pitt Pharmacy exemplify the transformative power of hands-on learning in healthcare. Each experience, whether in an independent pharmacy or a surgical ICU, leaves an indelible mark, shaping not only their professional skills but also their outlook on patient care and interprofessional collaboration.

As they embark on their careers, these students carry with them a wealth of experiences that will guide them in making meaningful contributions to the field of pharmacy and beyond. Their stories serve as a testament to the importance of experiential learning in preparing the next generation of healthcare leaders.

## Silver Lining

### Celebrating 20 Years of Silver Scripts, Pitt Pharmacy's Innovative Approach to Pharmaceutical Care



Pitt Pharmacy student participating in Silver Scripts in 2004, the program's first year, at the Morningside Senior Center



Pitt Pharmacy students participating in Silver Scripts in 2011

Two decades ago, faculty and students at the University of Pittsburgh School of Pharmacy embarked on a pioneering journey to bridge the gap between classroom education and real-world pharmacy practice. The result? Silver Scripts, an introductory pharmacy practice experience (IPPE) that has since become a beacon of excellence in providing pharmaceutical care to elderly patients.

#### A Vision for Change

In the early 2000s, faculty at Pitt Pharmacy recognized the pressing need to empower future pharmacists with hands-on experience in delivering pharmaceutical care, particularly to the elderly population. With this vision in mind, the Silver Scripts program was born. Led by dedicated faculty mentors, first-year pharmacy students dove headfirst into the world of medication management for seniors attending senior centers in Pittsburgh.

#### Learning Through Experience

The cornerstone of Silver Scripts lies in its immersive approach to learning. Prior to joining the program, students undergo thorough training in the pharmaceutical care process within the classroom. Armed with this knowledge, and under the guidance of experienced preceptors, student pharmacists conduct comprehensive medication reviews for elderly patients.

#### A Positive Impact

Over the past two decades, Silver Scripts has garnered much praise. Students often reminisce about the invaluable educational and personal growth opportunities afforded by the program; feedback from senior center staff underscores the genuine appreciation expressed by patients for the interaction with these budding pharmacists. It's a testament to the mutual benefit and impact that meaningful engagement can have on both students and patients alike.

#### Looking Ahead

As Silver Scripts celebrates its 20th anniversary, its legacy extends far beyond the confines of Pitt Pharmacy. This innovative model of experiential learning serves as a blueprint for other colleges and schools of pharmacy seeking to enrich their communities while equipping future pharmacists with the skills and compassion needed to thrive in the field.

In a world where the healthcare landscape is ever-evolving, Silver Scripts stands as a shining example of the transformative power of education and empathy. Here's to another two decades of excellence in pharmaceutical care for our seniors, courtesy of Pitt Pharmacy's unwavering commitment to innovation and service. In reflecting on two decades of Silver Scripts, it's evident that the program has not only enriched the lives of the seniors it serves but has also served as a impactful experience for our students. Today, we celebrate not only a program but a legacy of compassion, innovation, and excellence in pharmaceutical care.

# Biochemical Brilliance

## Thinking Outside of the (Zoom) Box

By: Rhea E. Bowman, PharmD



Prema Iyer, PhD, pictured with AACP Excellence in Teaching Award

In the whirlwind of virtual education, adapting to and thriving in the digital classroom can be a daunting task. Four years ago, during the height of the pandemic, our 2024 graduates were tasked with navigating pharmacy school virtually, taking many of their classes digitally. During their first year of studies, they were positively impacted by the creativity and innovation of Dr. Prema Iyer, who taught their Biochemistry class. With a commitment to student success that transcended virtual barriers, Dr. Iyer revamped course structures and revolutionized the student-teacher relationship.

As the class of 2024 prepares to embark on new journeys, they do so with gratitude for the transformative impact of Dr. Iyer's guidance. During that first year, in the midst of uncertainty, they raved about their experience in her (digital) classroom. Below, a full-circle moment, as we look back in time to see what some of those students had to say.

Shay Roth, a first-year student at the time, attested to the vibrant energy of Dr. Iyer's Zoom sessions, where participation was not just encouraged but celebrated, emphasizing her unparalleled dedication to student engagement.

"Dr. Iyer has gone above and beyond this year to connect with her students. She sets up casual meetings with her students to see how life is going outside of virtual school and has even set up individual meetings just to get to know her students better. She has even met up with students in person if they felt comfortable and gotten meals with them to better know them. She is constantly looking to improve her course in any possible way to benefit her students, and supplies her class with the tools, resources, and assessments to be successful. She is truly and inspirational professor and we appreciate everything she has done for us this year!" – Shay Roth, 2021

Arjun Narain reflected on the way that Dr. Iyer navigated the challenges posed by virtual learning by ensuring that her students were not just passive recipients of information but active participants in their own education.

"I think one of the best things Dr. Iyer has done for students is to engage with us despite everything being virtual, she frequently checks to make sure we're following along with content, and has had the most active zoom sessions of any class I've been in. However, I really think the most special thing she does is all the behind-the-scenes stuff we don't see. I recently had a zoom call with her where she helped me and some classmates through some material and she shared some of her story with us and why she's so motivated to help students. [She is] by far one of the best teachers I've had in all of my time at college!" – Arjun Narain, 2021

Delaney McCarthy reflected on Dr. Iyer's unwavering support and encouragement, which not only bolstered confidence, but also fostered a sense of belonging among her students.

"Dr. Iyer is always there for her students and wants them to succeed. She is passionate about teaching and making sure that students really understand the material. She

is also very encouraging and has made my classmates and I much more confident in our abilities as student pharmacists. I feel very lucky to have had her as a professor!" – Delaney McCarthy, 2021

Behind the scenes, Dr. Iyer's dedication to educational innovation also shines brightly. Her proposal, "Bridging the gap: Game-based learning as a strategy to integrate biochemistry principles and clinical concepts in pharmacy education," garnered recognition and funding, underscoring her tireless efforts to enhance learning experiences for her students. During the time that the class of 2024 was in pharmacy school, she was the recipient of the national Excellence in Teaching Award from the American Association of Colleges of Pharmacy (AACCP), further solidifying her reputation as an innovator in the field of education.

For Dr. Iyer, teaching is not just a profession but a passion—a passion that permeates every facet of her interactions with students, and makes her an invaluable asset to the academic community.

**BY THE NUMBERS**

**#9**

**IN THE NATION**

**#1**

**IN PENNSYLVANIA**

**BEST PHARMACY SCHOOLS**

**U.S. News & World Report Rankings**

# Out with the Old, in with the News

Pitt Pharmacy is leading the way in developing innovators, making discoveries, and solving complex medication-based problems of today and tomorrow. Recently, we have celebrated being in a new building, we have welcomed new students, faculty, and staff, and we have started new initiatives to continue our legacy of leading the way. Read ahead to see what's new at Pitt Pharmacy lately.

## New Mission

Pitt Pharmacy embarked on a collaborative revision of our Mission statement. The statement reflects input from faculty, staff, students, alumni, and other contributors within and connected to Pitt Pharmacy.

### School of Pharmacy Mission Statement:

*The School of Pharmacy develops pharmacists and pharmaceutical scientists as innovators and leaders to improve the health and well-being of the world around us.*

*Through inclusive excellence, innovation, and leadership, we achieve pioneering and exemplary: Pharmacy and pharmaceutical sciences education, Research and scholarship, and Patient care and service.*

## New Programs

### Graduate Program: PharmacoAnalytics and Pharmaceutical Outcomes Research

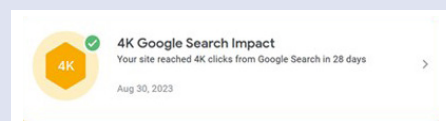
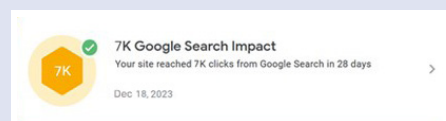
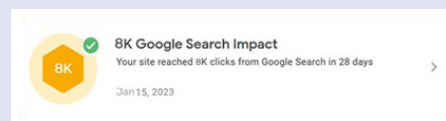
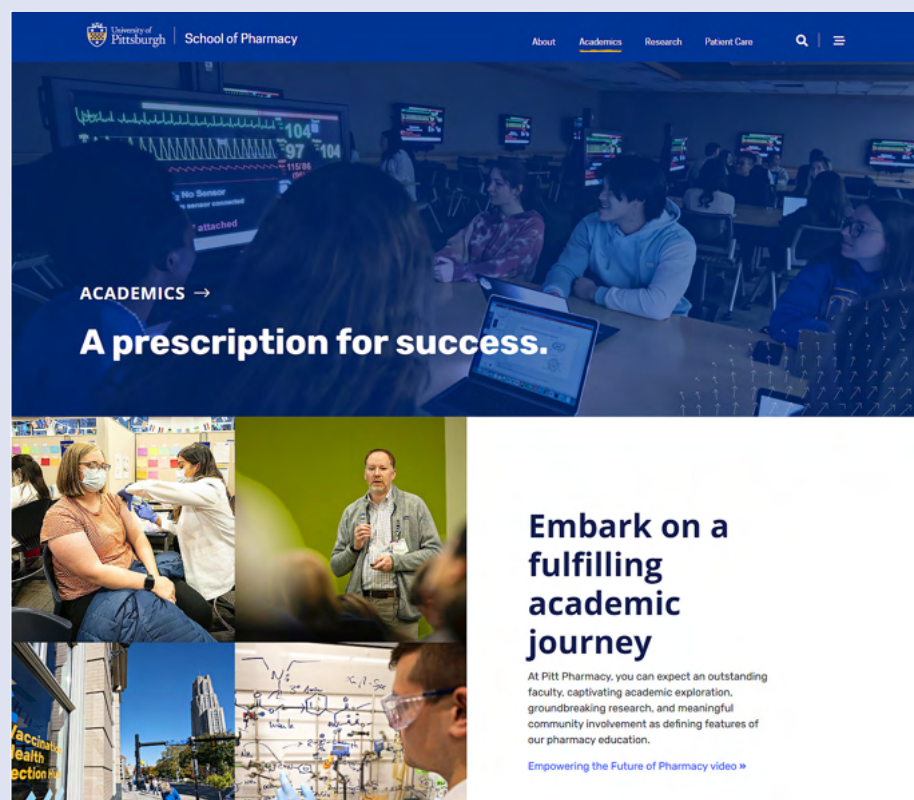
This year, Pitt Pharmacy formally launched the PharmacoAnalytics Master of Science (MS) program. The University of Pittsburgh School of Pharmacy is now offering an online, competency-based, graduate program in PharmacoAnalytics and Pharmaceutical Outcomes Research. This program provides students with tools and skills necessary to analyze large, healthcare datasets and apply data analytic and pharmacoepidemiology concepts to enhance pharmaceutical use and outcomes.

A key feature of this program is competency-based learning, which requires students to demonstrate application of di-

dactic learning through hands-on analysis of real-world data and evidence. Students will develop core competencies related to study design, data collection, data management, data organization, data analysis, and data visualization/communication. Completion of this program will equip students to assume employment and leadership positions related to pharmacoanalytic and pharmaceutical outcomes within various healthcare sectors such as the pharmaceutical industry, health insurance companies, governmental agencies, and other healthcare and data organizations.

## New website

We are thrilled to announce the much-anticipated deployment of our new website. After months of planning, designing and development, we are excited to present a modern design website that reflects the excellence and innovation at the school. The new website aims to enhance the overall experience for students, faculty, staff and all our contributors and partners. The new site provides easy access to information, school news and program offerings. Visit us at: [www.pharmacy.pitt.edu](http://www.pharmacy.pitt.edu) to keep up with what's happening at Pitt Pharmacy!





## RETURN OF THE RXTRAVAGANZA!

The RxTravaganza takes place at the Cathedral of Learning every other year. The first post-pandemic gala was held in November 2022. It was a large, in person gathering that served as a joyful reunion for many in the Pitt Pharmacy family. The event honored six Distinguished Alumni and eight Rising Star Award Recipients, recognizing those who would've received awards in 2020, as well as 2022. The bi-annual event has served as the school's dedicated event for class reunions and alumni award recognitions.

### Awards Honoring Rising Stars

- Sajid Ahmed '14
- Jennifer Bacci '11
- Corey DeLuca '11
- Sandeep Devabhakthuni '09
- Joe Fiore '14
- Megan Langer '11
- Margie Snyder '06
- Michael Tortorici '07

### Awards Honoring Distinguished Alumni

- Mehul Mehta '86
- Robert Monte '79
- Krista Pedley '00
- Lisa Rohan '95
- Virginia (Ginny) Schmith '89
- James Steck '72

SAVE THE DATE!

Pitt Pharmacy  
*RxTravaganza*

Saturday,  
 November 2,  
 2024



## Pharmacy Pioneer

### Recognizing the Remarkable Journey of Ella P. Stewart

By: Kara Henderson



Pitt Pharmacy students Hailey Baxter (left) and Rena Reid (right) led the initiative to publicly honor and recognize Ella P. Stewart.

Doctoral pharmacy students Hailey Baxter and Rena Reid are on a mission to honor a trailblazer from University of Pittsburgh history: Ella P. Stewart, the first Black woman to earn a degree from the School of Pharmacy.

Their journey began in 2020, when Reid stumbled upon Stewart's story on Instagram.

"I follow several Black pharmacist pages to get inspired by what Black people are doing within pharmacy and saw one post about 'Ella from the University of Pittsburgh,'" recalled Reid, a native Jamaican who is concentrating on global health. Yet she'd never heard Stewart's name. She texted her classmate Baxter immediately.

As they sought to learn more, they found out that, after initial rejection, Stewart was admitted to the University in 1914. She graduated with high marks in 1916 and went on to become Pennsylvania's first Black woman to practice pharmacy and one of the first in the U.S.

Inspired, Baxter and Reid, who both earned their bachelor's degrees from Pitt in 2022, launched an initiative to ensure Pitt's proper recognition of the pioneer. That plan came to fruition March 21, when the University commemorated Stewart with the unveiling of a portrait by local artist Douglas J. Webster and name a conference room on the fifth floor of Salk Hall in her honor.

"You never hear that the first African American female pharmacist graduated from this school," said Baxter, who aims to practice in underserved rural communities. "How do we not know this history?"

#### Stewart's remarkable life

Stewart (known as Phillips Myers while enrolled) lived a purpose-filled life. She established a drugstore in Pittsburgh before marrying fellow Pitt pharmacy graduate William Stewart (PHARM 1916) in 1920. After moving to Ohio, she became the first Black pharmacist and employee to work at Youngstown City Hospital. She and her husband then opened Toledo's first Black-owned and operated drugstore.

Stewart held many prestigious positions, including president of the Ohio Association of Colored Women; member of a U.S. Department of Labor Women's Advisory Committee; executive board member of the United Nations Educational, Scientific and Cultural Organization and more.

A Pitt biological sciences award and a school in Ohio are named after the civic leader and social activist who died in 1987.

#### Present-day perseverance

As Black women following in Stewart's footsteps, Reid and Baxter felt called to amplify her story, as well as their own.

Reid, a member of Pitt pharmacy's diversity, equity and inclusion committee, used an invitation to write for a school newsletter to share Stewart's accomplishments and her personal thoughts on Black women's erasure from history. Her words struck a chord with dean emeritus and distinguished service professor Patricia D. Kroboth (PHARM '80G, '83G), who initiated conversations between Baxter, Reid and the school's inaugural associate dean for equity, engagement and justice, Mario Browne (SPH '05G).



A portrait honoring the late Ella P. Stewart is unveiled by Dr. Anantha Shekhar and Douglas Webster, the local artist who created the piece.

“Two students found Ella’s story and questioned why she was not front and center in the school’s history,” said Browne. “It’s vital to recognize we have struggled with our diversity efforts within the school and the field of pharmacy and honor those who have gone unnoticed despite doing amazing things in our country. It’s incumbent upon us to tell the whole story, uncover truths and amplify stories so those coming behind – students, young people – can see themselves, catch a glimpse of their greatness and strive.”

The group’s discussions focused on researching Stewart and ensuring their actions weren’t performative. The latter was a concern for both students based on personal experiences, which Baxter said, to an extent, likely resembled discrimination Stewart faced while a student.

“There’s not many Black faculty, so it’s hard to express your worries or fears about what it means to both be Black and in pharmacy; what it means to attend to patients and look like them and have that connection where there’s more or less trust because you’re Black,” Baxter said.

These obstacles have only persuaded the pair to continue on their course in the hopes that hearing about Stewart will inspire future students the same way it inspired them.

“It matters to know there were people here who looked like you,” Baxter said.

“I’m excited for those after us to enter that room and know her presence and legacy are not forgotten,” said Reid. “It’s important for students to investigate these things and push for their identities, to make spaces more inclusive. I hope this does put the wheels in motion. I don’t want it to end with Black woman representation.”

# BY THE NUMBERS

## NAPLEX

First Time Pass Rate

**91.5%**

National Average: 78.6%

## MPJE

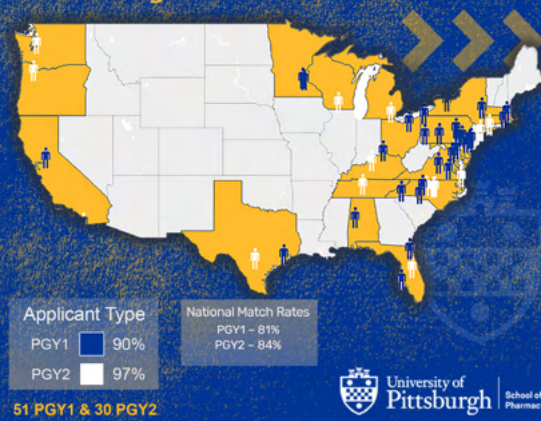
First Time Pass Rate

**84%**

National Average: 74.4%

## Match Day Results Are In!

Pitt Pharmacy ASHP Phase Two Match Rate  
*Congratulations Students!*



2024



# Dr. Gordon J. Vanscoy 22nd Annual White Coat Ceremony

Congratulations to our first-year student pharmacists, who celebrated a pivotal point in their professional journey at the 2024 Vanscoy White Coat Ceremony! Our students greatly appreciate Dr. Gordon and Bethann Vanscoy for their support of this milestone event.

Pitt Pharmacy faculty Dr. Sharon Connor and Dr. Martha Ndung'u with Emma Carrock at the Birmingham Clinic.



Dr. Neal Benedict is an Associate Professor of Pharmacy and Therapeutics and Director of Assessment at the University of Pittsburgh School of Pharmacy. He is a Critical Care Pharmacist at UPMC-Presbyterian hospital. Here he is pictured with Adeji Adeyiga.

## Beyond the Counter: The Evolution of Pharmacy Practice

By: Rhea E. Bowman, PharmD

In the fast-evolving landscape of healthcare, the role of pharmacists has transcended the confines of traditional settings, emphasizing the profound impact they make on both their communities, and their patients' lives. No longer are pharmacists defined solely by the buildings they work in. Whether hospitals, retail outlets, or the multitude of practice areas in between – it is the transformative work they do that is characterizing modern practitioners.

Pharmacists today are not limited to dispensing medications; they play pivotal roles across various domains of healthcare – from community pharmacy practice to public health initiatives, underserved care to global health endeavors. Moreover, they specialize in catering to specific patient populations, showcasing not only their adaptability, but their unique expertise in addressing healthcare needs.

Beyond clinical practice, pharmacists are emerging as influential business leaders, spearheading independent pharmacies, driving innovation in healthcare delivery models, and serving in leadership roles across the field. Their proficiency extends to managing the intricate medication distribution system at community pharmacies, hospital pharmacies, mail-order services, and beyond. They even help

communities to navigate public health emergencies, which is a testament to their versatility and resilience.

The changing landscape of pharmacy practice is further underscored by recent legislative changes, with many states now recognizing pharmacists as providers or granting prescribing privileges. These developments highlight a paradigm shift, focusing more on the quality of care provided by pharmacists, and less on their physical location.

As the profession continues to evolve, there's a pressing need to redefine how we frame the narrative of pharmacy. The story should spotlight the impactful work pharmacists do across diverse settings and specialties, showcasing the breadth of their contributions.

Read on to discover the stories of our new grads and where they will be going; be inspired that the list is not just a narrative of buildings, but rather a story of pharmacists – the patients they will serve, the communities they will uplift, and the undeniable impact they will make on healthcare.

# Prescription for Success

## Pitt Pharmacy Students Discuss Their Aspirations and Inspirations

By: Matt Popchock



A glimpse back in time. The Class of 2024, celebrating at the “P3 Send-Off Celebration” at the end of the last week of class before rotations started.

Last year, before they set out to experience the field of pharmacy through clinical rotations, we sat down with the Class of 2024 (and a few other Pitt Pharmacy students) to discuss their aspirations and inspirations. Read on to learn more about how our new grads view the profession and its’ limitless potential.

What makes a pharmacist? Furthermore, what makes a scholar of modern medicine want to become one? Merriam-Webster defines “pharmacy” primarily as “the art, practice, or profession of preparing, preserving, compounding, and dispensing medical drugs” and secondarily as “a place where medicines are compounded or dispensed.” According to the dictionary, the first known use of the term was recorded in 1651, or 227 years before the establishment of what was then called the Pittsburgh College of Pharmacy.

The current student body has come a long way from that original, far less voluminous group of 20—only 11 of whom received degrees. A total of 115 PharmD graduates comprised the Class of 2023 alone. Those who enroll in Pitt Pharmacy do not define themselves merely as pill pushers. They enter as students and earn the right to exit as prospective caretakers, advocates, decision makers, and even, in some cases, policy makers.

For some, like Annie Weyand, who received a mini-grant for her research on medication adherence packaging services (MAPS), pharmacy is a path to developing a sense of autonomy, and a sense of self-worth.

“I am inspired by my desire to become a strong and independent professional woman who can make a difference for my patients. Ultimately, becoming a professional

pharmacist will allow me to live a meaningful life, where I am able to offer quality health-care to my patients, while making myself and my family proud,” says Weyand.

“My career goal is to bring value to the lives of all my patients through meaningful interactions with them about their health and well-being.”

Alyssa Mekel, who collaborated with Weyand and shared the grant from the Pennsylvania Pharmacists Association (PPA), came to Pitt Pharmacy wanting to use her education to later impact public education on important healthcare matters.

“Pharmacy is a constantly evolving field that has endless opportunities to impact patient care,” Mekel says. “I am passionate about empowering patients to take responsibility for their health.”

For others, the decision to pursue pharmacy is based on the formative experiences of their childhood. Shay Roth, who made the familiar two-hour drive from her native Johnstown to attend Pitt Pharmacy, was exposed to the profession in a very personal way at a very early age.

“I grew up visiting the city of Pittsburgh and always wanted to pursue a career in the medical field following treatment at the Children’s Hospital of Pittsburgh when I was young,” Roth explains. “I always knew I wanted to help others and truly found a passion for health equity, public health, literacy, policy and access. I knew Pitt Pharmacy would give me a unique opportunity in a city I already knew I loved to be able to combine these passions and pursue my education.”

With the blessing of Senior Associate Dean Dr. Randall Smith, Roth literally drew upon those experiences to illustrate and co-write a pair of children’s books, *All Aboard the Rx-Express!* and *Diabetes, Pharmacy, and Me! Understanding Childhood Diabetes*, with classmate Jaccie Hisashima while working toward their degrees.



Class representatives Samantha Freiter, Shay Roth, and Abby Stewart with their superlative awards at the Send-Off Celebration before their rotations started. Pictured with Dean Amy Seybert.

Hisashima recalls her mother, an elementary school teacher, showing a particular fondness for reading to her students. Necessity being the mother of invention, the opportunity to team up with Roth to promote Pitt Pharmacy in this manner was uniquely appealing.

"My mom was able to read [the first book] to her first-graders, and their responses were, 'I had no idea a pharmacist could do that!'" she says. "That is the reason we wrote the books, and I'm glad they were able to enjoy them while learning."

Learning how to tie pharmacy into other lines of work, such as education, is one of the things that inspired Hisashima. In addition to publishing their pharmacy books, she created a pharmacy-themed game, Read to Lead, aimed at middle-school students, assisted Pitt Pharmacy's P.I.E.R. (Pharmacy, Innovation, Experience & Research) program and spoke at an AACP (American Association of Colleges of Pharmacy) panel about her journey.

"I was always interested in healthcare but was not sure what I wanted to do," Hisashima says. "There were several reasons for 'Why pharmacy?,' but the main one is that I competed in a national competition

in pharmacology as a senior in high school, solidifying my decision to pursue it."

Politics can be even more competitive than pharmacology. However, Samantha Freiter couldn't resist learning how to use her passion for pharmacy to affect national healthcare policy.

"I chose to pursue a career in pharmacy because medication use can change a patient's life," says Freiter, who, along with Roth, was named 'Most Likely to Become the Next Pitt Pharmacy Dean' at the annual P3 Send-Off Celebration in April 2023. "It is inspiring to aid in the treatment decision-making as well as patient education and know I can have a positive impact as part of the healthcare team."

During her time in pharmacy school, Freiter interned at American Pharmacists Association (APhA) headquarters in Washington, D.C., where she got to meet with Congressmen and -women and witness, firsthand, passage of the Mainstreaming Addiction Treatment (MAT) Act, which simplifies the process of prescribing buprenorphine for acute pain, chronic pain and opioid dependence.

In 2023, over 60 Pitt Pharmacy students, including Roth, Hisashima and Weyand,



Jaccie Hisashima (center) at the 2022 American Association of Colleges of Pharmacy (AACP) National Conference.

served as RxAmbassadors. As members of the student advocacy group, they shared their aspirations and inspirations with prospective students, as well as current ones.

"I wanted to attend a nationally recognized, highly ranked pharmacy program that would help me personalize my education and give me opportunities to grow as a professional. In addition, the program allows first-year students to immediately begin getting experience within the community and interacting with patients," Weyand says.

"Overall, I love how the program values teamwork, a hands-on approach to learning, and the success of each individual student."

Collectively, the trio has enjoyed calling Pitt Pharmacy their home away from home, no matter where in the world of pharmacy their proper home might fall.

"I wanted a change in scenery and knew I had to take advantage of the numerous opportunities the program has to offer," says Hisashima, a Haiku, Hawaii native. "Although I'm far from home, new things are fun and I am so happy with this decision."

-#H2P-

## Long Story Short

### Our Grads Relive Their Favorite Pitt Pharmacy Memories

We asked the Class of 2024 to tell us some of their fondest memories from their time at Pitt Pharmacy. Here's what they had to say.

*"Countless late nights at Salk Hall were spent on my PhD studies, balanced by relaxing walks and good food with friends in Shadyside. This mix of hard work and enjoyable moments defines my memorable time at Pitt."*

– Lanting Yang

*"Late nights in Salk Hall transformed challenging homework sessions into lifelong friendships, forging bonds stronger than said academic challenges."* – Oshin Miranda

*"My favorite memories at Pitt are all the little moments you look back on later and realize how special they were. Lunches with the girls in our spot at Salk, that one cooking class we took, birthday dinners, movie or game nights, almost daily Starbucks runs, and our very first charcuterie night are all memories that make up the very best of the last 6 years."*

– Emily Weidner

*"Roadtripping across the country for an APPE rotation and exploring the Southwest with a classmate turned lifelong friend."* – Jordan Ciraolo

*"My favorite Pitt memories are being a part of APhA's operation over-the-counter medication safety and falling in love with critical care pharmacy during my ICU rotations."*

– Lindsay Abbonizio

*"Traveling through Pitt Pharmacy with AMCP and LKS to national conferences, where I was able to expand my horizons and meet people with similar interests both professionally and personally."* – Anna Shuber

*"My classmates and I met as a group for the first time at the end of our first year of pharmacy school. It was so much fun and helped create a strong bond among our class."*

– Maria Arlia

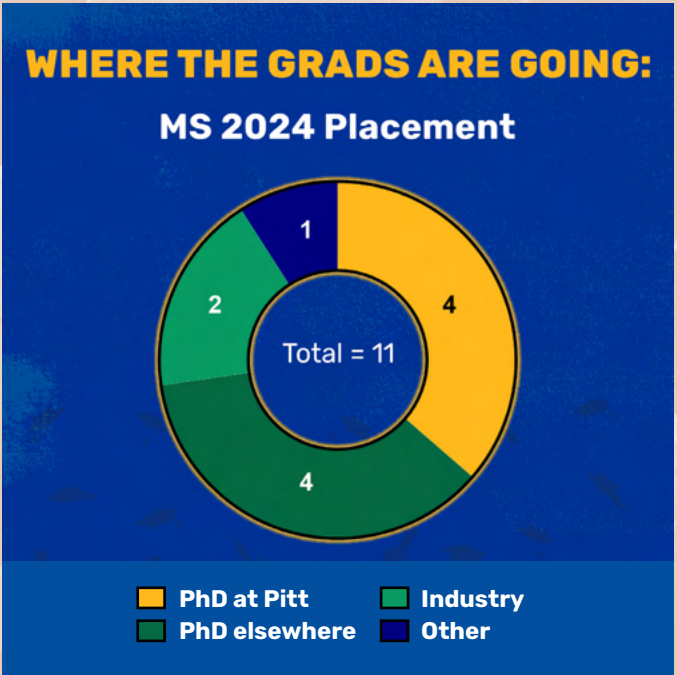
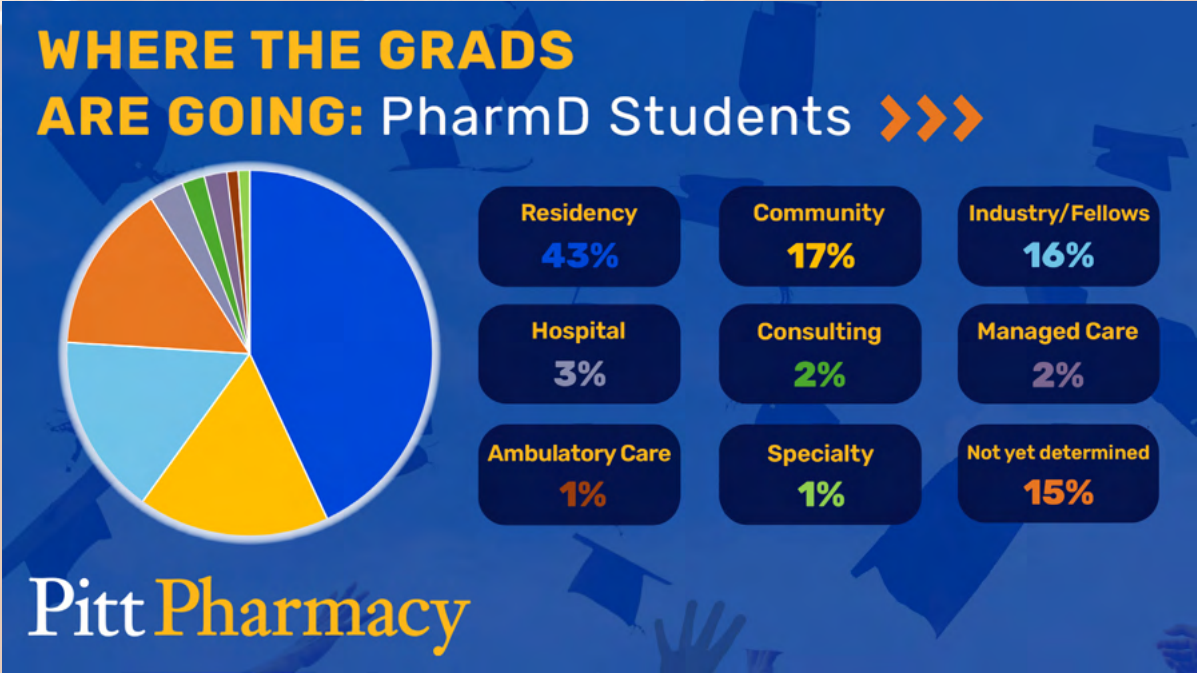
*"During my acute care rotation, I had the opportunity to make a pharmacotherapy recommendation for one of the infants in the pediatric oncology unit while rounding. I felt immense pride when the regimen succeeded, and I was able to help a patient in need."* – Donghwee Kim

*"In P2 Fall, my small group created a CVIP video for the cardiology class inspired by The Bachelor, which we titled 'The Doachelor'. Our group went on to win the class trophy for our video!"* – Megan Schwartz

*"Working with my classmates on projects that seemed silly at the time but were actually really beneficial to my learning. Such as making drug commercials, making demonstration videos for drug products (such as insulins), and going through the drug development process to bring my group's own 'drug' to market."* – Taylor Dzikowski



# Where the Grads Are Going



# Where the Grads Are Going: The Class of 2024



# Where the Grads Are Going: The Class of 2024



## Awards and Accolades



### Brixius-Anderko Receives 2023 AACP New Investigator Award

The New Investigator Award of the American Association of Colleges of Pharmacy supports early career faculty to gather preliminary data for major government funding. Simone Brixius-Anderko, PhD, won for her project entitled "Targeting Cytochrome P450 Mediated Fatty Acid Metabolism in Lung Cancer".

The Brixius-Anderko lab is studying cytochrome P450 enzyme isoforms which produce the lipid mediator 20-HETE. In cancer, 20-HETE contributes to cell proliferation, metastasis, and tumor angiogenesis. Excitingly, an inhibition of 20-HETE producing cytochrome P450 enzymes has been shown to lead to a decreased tumor growth. The Brixius-Anderko lab found that some of these P450 isoforms are highly upregulated in lung cancer patients and are now investigating these enzymes as new drug targets for a transformative cancer therapy.

### Nolin Elected Treasurer of the American College of Clinical Pharmacology

Thomas D. Nolin, PharmD ('99), PhD ('03), was elected Treasurer of the American College of Clinical Pharmacology (ACCP). He is



currently serving a two-year term. As Treasurer and member of the ACCP Executive Committee, Dr. Nolin works closely with the Board of Regents to provide leadership and guidance as ACCP achieves its strategic goals, mission and vision.

Dr. Nolin is Associate Dean for Research and Sponsored Programs and Director of the University's Small Molecule Biomarker Core.

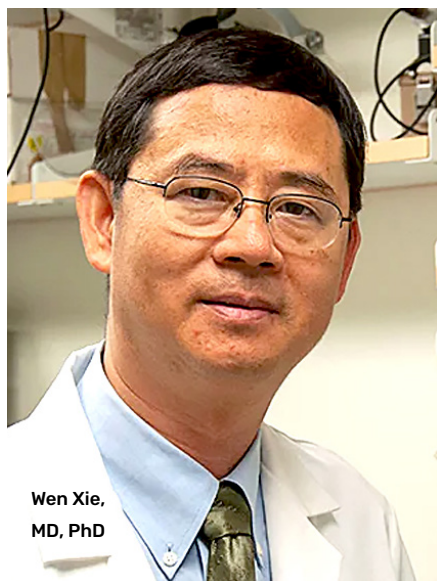
### McGivney Awarded Chancellor's Special Distinguished Service Award

Melissa McGivney, PharmD, FCCP, FAPhA received the award for her contributions to the Pitt COVID-19 Medical Response Office and for leading the University's mass vaccination efforts in combating the COVID-19 pandemic. The Pitt CoVax Mass Vaccination efforts engaged 1,771 volunteers University-wide while delivering over 30,000 COVID-19 doses through mass vaccination efforts at the Petersen Events Center, with community partners, and at the newly established Pitt CoVax Vaccination Center in partnership with the University Pharmacy.



### Donihi Serves as First Pharmacist on Endocrine Society Panel

Amy C. Donihi, PharmD, BCPS, BC-ADM, FCCP, Professor of Pharmacy & Therapeutics at the University of Pittsburgh School of Pharmacy, has served as one of the members of the Endocrine Society's Guideline Development Panel for the guideline on the Management of Hyperglycemia in Hospitalized Adult Patients in Non-Critical Care Settings. This was the first time that a pharm-



Wen Xie,  
MD, PhD



Sandra Kane-Gill,  
PharmD,  
MS



Above: The Pitt Pharmacy and UPMC Team working to advance pharmacogenomics implementation.



Heather Johnson,  
PharmD

### Johnson Awarded Clinical Practice Award

Heather Johnson, PharmD was awarded the Clinical Practice Award from the American College of Clinical Pharmacy (ACCP) Immunology/Transplantation Practice Research Network, and she was elected a Fellow of ACCP.

### Kane-Gill Awarded AACP Dawson Award

Sandra Kane-Gill, PharmD, MS, FCCM, FCCP, was awarded the 2023 AACP Paul Dawson Award for Excellence in Patient Care Research. This annual award recognized an active scientist who is a leader in research related to health services delivery that directly affects patient care outcomes.

### Pitt Pharmacy Team Receives Large Pre-MIP Grant to Advance Pharmacogenomics Implementation

The project, entitled “Implementing Risk-Based Preemptive Pharmacogenomic (PGx) Testing in Employee Health”, aims to generate real-world clinical utility data on the value of preemptive PGx panel testing in high-risk populations, a PGx Risk Score capable of predicting patients who benefit from PGx testing, new clinical decision support in UPMC electronic health records, return of

results to patients through MyUPMC, and an engaged Pitt/UPMC clinical workforce that understands how to effectively use PGx results for precision medicine.

Drs Philip Empey, Lucas Berenbrok, and James Coons, along with Dr Mylynda Mas-sart (Family Medicine) and Ed Smith (UPMC Genome Center) are working collaboratively with Drs C. Bernie Good and Samuel Peasah from the UPMC Health Plan to evaluate the clinical utility of a new 14 gene pharmacogenomics (PGx) testing panel developed by the Pitt Pharmacy team and the UPMC Genome Center. The investigators are conducting a rigorous pragmatic clinical trial of pharmacist-provided comprehensive medication management (CMM) services including PGx testing versus CMM alone to determine the real-world value of PGx. Participants include Pitt/UPMC employees with a high risk of poor and costly medical outcomes.

cist served on the writing committee for an inpatient hyperglycemia guideline. The new Inpatient Hyperglycemia Guideline, as well as other related resources, can be found at [www.endocrine.org/hyperglycemiaCPG](http://www.endocrine.org/hyperglycemiaCPG).

### Xie Delivers Lecture at AHR Symposium

Wen Xie, chair and professor of pharmaceutical sciences and the Joseph Koslow Endowed Chair in Pharmaceutical Sciences, delivered an invited lecture at the AHR Symposium: Toxicity to Therapeutics that was held at College Station, Penn State University, PA. The title of his lecture was “AHR in Liver Fibrosis.”



Joni  
Carroll,  
PharmD



Sophia Herbert,  
PharmD



Neal J. Benedict,  
PharmD



James C. Coons,  
PharmD

### Carroll Wins PPA Young Pharmacist Award

Joni Carroll, PharmD, BCACP, TTS received the Pharmacist Mutual Insurance Company "Distinguished Young Pharmacist" Award, which recognizes a new pharmacist for their dedication to and participation in the Pennsylvania Pharmacists Association, commitment to the practice of pharmacy, and involvement in community activities. It is presented annually to young pharmacists, across the United States. Dr. Carroll won this award for distinguishing herself uniquely as a leader in advancing the care pharmacists provide to patients through public health initiatives.

### Coons Selected for Inaugural ACCP Leadership Program

Jim Coons, recently completed the American College of Clinical Pharmacology (ACCP) Professional Leadership Development (APLD) Program. The class of 20 ACCP members was selected as the inaugural cohort to prepare participants for service as leaders within the organization, as well as the profession. At the ACCP Annual Meeting, Coons gave an invited presentation during the general session, Antiplatelets, Anticoagulants, and Adverse Effects, Oh My! Antithrombotic Therapy Controversies

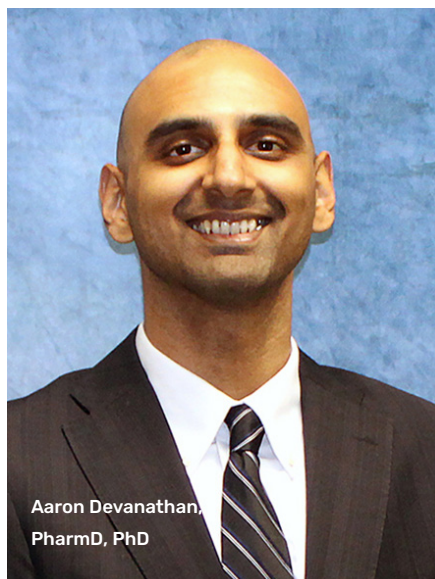
in Clinical Practice. The title of his talk was, "Anticoagulation Controversies in the Setting of Obesity and/or Liver Disease."

### Benedict Awarded AACP Distinguished Teaching Scholar

Neal J. Benedict, PharmD, was awarded the 2023 American Association of Colleges of Pharmacy (AACP) Distinguished Teaching Scholar Award. This award recognizes the service and outstanding contributions of pharmacy faculty who engage in and support scholarly teaching. The AACP Distinguished Teaching Scholars serve as models for advancing the profession of pharmacy through education.

### Herbert serves on Vaccine Learning Collaborative

Sophia Herbert, PharmD, was selected to participate in the American Pharmacists Association (APhA) COVID-19 Vaccine Learning Collaborative. Dr. Herbert serves as the Education Director for the Pitt Vaccination and Health Connection Hub, which connects students, faculty, staff, and the general public to vaccination and wellness services and resources on Pitt's main campus. The Hub also serves as an interprofessional learning laboratory for Pitt health sciences students.



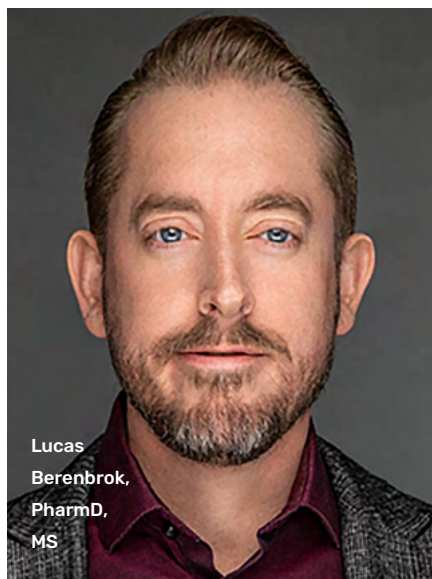
Aaron Devanathan,  
PharmD, PhD

### **Berenbrok Named Albert B. Prescott Pharmacy Leadership Award Recipient**

Lucas Berenbrok, PharmD, MS, BCACP, was awarded with the 2023 Albert B. Prescott Pharmacy Leadership Award. This national award recognizes an early-career pharmacist with outstanding leadership qualities, who is likely to become a major leader in the profession over the course of their career. Berenbrok was selected for his groundbreaking leadership in developing over-the-counter (OTC) hearing aid education for pharmacists, innovative research on accessibility of community pharmacists, and the integration of pharmacogenomics into family medicine practice.

### **Berenbrok Wins NIH Loan Repayment Award**

Lucas Berenbrok has been selected to receive a Loan Repayment award through the Research in Emerging Areas Critical to Human Health LRP from the National Institute on Deafness and Other Communication Disorders (NIDCD) for his research "Increasing Access to Hearing Healthcare with OTC Hearing Aids and Community Pharmacists."



Lucas  
Berenbrok,  
PharmD,  
MS

### **Skledar Wins National Faculty Advisor Award**

Sue Skledar, RPh, MPH, FASHP, received the national 2023 Rho Chi Society Faculty Advisor Award. The purpose of the award is to recognize the unique contributions and accomplishments of faculty advisors, and to serve as a model for other chapters' activities and mentoring. One award is presented annually. Professor Skledar is the faculty advisor for the Pitt Pharmacy Alpha Omicron Chapter of Rho Chi. She also was recognized as an Alumni Honor Roll member, for advancement of the profession to instill the desire to pursue intellectual excellence and critical inquiry.

### **Devanathan Selected for NIH Pharmacology Working Group**

Aaron Devanathan, PharmD, PhD, AAHIVP was selected to be a member of the Multi-center AIDS Cohort Study (MACS)/Women Interagency HIV Study (WIHS) Combined Cohort Study (MACS/WIHS-CCS) Pharmacology Working Group. The MACS/WIHS-CCS is a collaborative research effort funded by the NHLBI alongside the NIH Office of AIDS Research (OAR). The Cohort Study aims to understand and reduce the impact of chronic health conditions that affect people living with HIV (<https://www.nhlbi.nih.gov/science/macswihs-combined-cohort-study>).



Sue Skledar,  
RPh, MPH

There are approximately 15 individuals in the standing Pharmacology Working Group representing academia and the NIH.

### **Coons Leads Atrial Fibrillation Study at UPMC**

Jim Coons, PharmD, and Sandeep Jain, MD lead the UPMC pilot site for a funded research collaboration with the Heart Rhythm Society (HRS), entitled "Quality Improvement (QI) Project to Determine Impactful and Lasting Change in the Treatment of Atrial Fibrillation (AF)." The UPMC pilot is one of two sites, along with Geisinger Health, to have each received a 2-year award. The focus of the project, led by Coons and his team, is on anticoagulation optimization through a specialized center for atrial fibrillation. Ultimately, the effort aims to develop and refine the HRS-sponsored adaptive QI Framework and digital resource library to facilitate and expedite adoption of AF QI best practices.

### **McGivney Elected to Serve on APhA Board of Trustees**

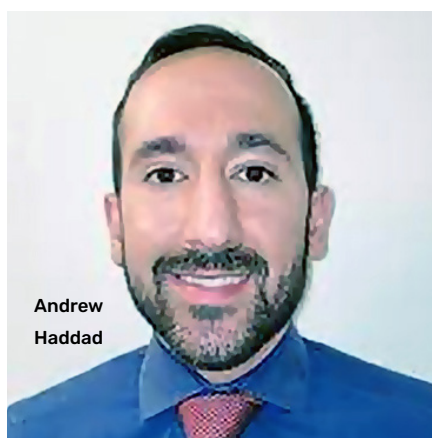
Melissa Somma McGivney (PHARM '98) was elected to the American Pharmacists Association (APhA) Board of Trustees, for a three-year term as APhA Trustee-at Large.



### University of Pittsburgh CTSI Awards Dodeja NIH-funded Quantitative Methodologies Pilot Grant

Graduate student Prerna Dodeja, M.S. (PHARM '21) was selected as a recipient of the NIH-funded Quantitative Methodologies Pilot competition, awarded through the Clinical and Translational Science Institute (CTSI) at the University of Pittsburgh. The QuMP Program aimed to encourage and support novel applications of quantitative methodologies, and projects funded by the program involve trans-disciplinary collaborations between translational investigators and quantitative scientists. The Grant will cover 12 months graduate funding for Dodeja to conduct the proposed research.

Dodeja's proposal focuses on personalizing dosing of 17-alpha-hydroxyprogesterone caproate (17-OHPC), which is a progesterone analogue given for prevention of preterm birth. Her research aims to incorporate clinically relevant patient covariates such as genotype, race, body weight and body surface area to build a robust population model and personalize dosing of 17-OHPC based on these factors. The long-term goal of her research is to optimize dosing in pregnant, postpartum and lactating women using quantitative pharmacology tools.



Dodeja is a third year PhD Candidate in the Pharmaceutics track under the mentorship of Professor Raman Venkataramanan and Professor Jan Beumer.

### Graduate students Deppas and Haddad Awarded NIH-funded TL1 Pre-doctoral Fellowships

Graduate students Andrew Haddad, (PHARM '21), and Joshua Deppas, (PHARM '20) were selected as recipients of the NIH-funded TL1 pre-doctoral fellowship, awarded through the Institute for Clinical Research and Education (ICRE) and Clinical and Translational Science Institute (CTSI) at the University of Pittsburgh.

Haddad's research goal is to guide pharmacogenomic clinical testing towards better representation of all populations using large genomic datasets such as from the All of Us research program. Haddad is a graduate student in the Clinical Pharmaceutical



Sciences track in the laboratory of Associate Professor Philip Empey, PharmD, PhD. As part of this competitive fellowship program, Haddad will conduct multidisciplinary clinical and translational research under the mentorship Pitt Pharmacy faculty Drs. Philip Empey and Da Yang.

Deppas' work focuses on preclinical investigation of ATR inhibitors (ATRI), a class of anticancer agents known to block DNA damage response. His research aims to identify key differences in pharmacokinetic behavior, toxicity profiles and anti-tumor immune responses between ATRi currently in clinical development, ultimately leading to the development of a whole-body physiologically-based pharmacokinetic (PBPK) model that scales up to humans. The long-term goal of his research is to utilize this model to predict human doses associated with toxicity and identify doses required for optimal anticancer immune responses, therefore optimizing clinical utility in cancer patients. Deppas is a graduate student in the Clinical Pharmaceutical Sciences track under the mentorship of Professor Jan Beumer, PharmD, PhD, DABT.

### Tipnis Wins Simulation Competition at SNPhA Convention

Riya Tipnis (PHARM '24) won first-place in the AstraZeneca Medical Science Liasion (MSL) Simulation Competition at the Stu-





Shay Roth



Megan Hutar



Carolyn Ross

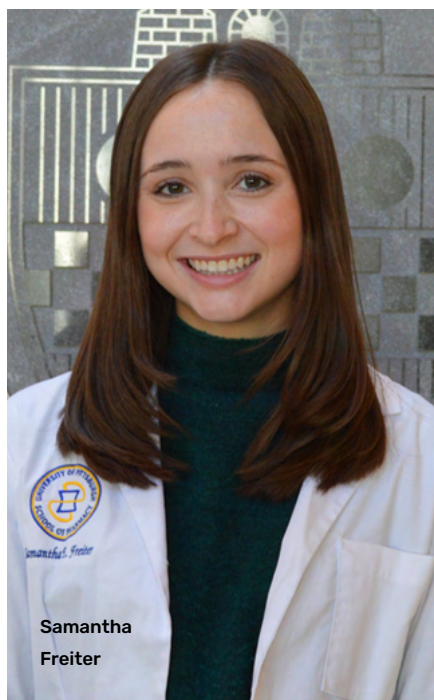
dent National Pharmaceutical Association Convention in New Orleans, LA! Her successful presentation of osimertinib for non-small cell lung cancer led to winning a cash prize, a tour of Astra Zeneca headquarters, and opportunities for resume reviews and networking with industry professionals.

### Student Pharmacists Appointed to National Advisory Board

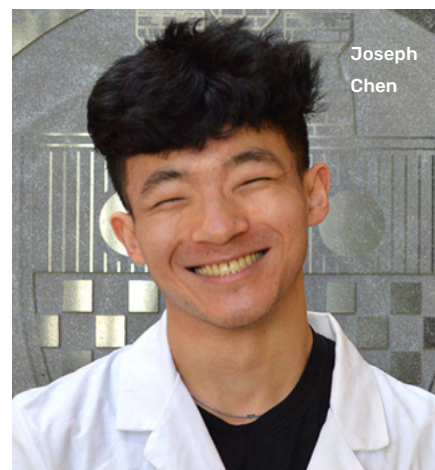
The ASHP Pharmacy Student Forum Executive Committee appointed Shay Roth (PHARM '24), Carolyn Ross (PHARM '24), and Megan Hutar (PHARM '24), to the Pharmacy Student Forum Career and Leadership Development Advisory Group for the 2023-2024 term. The mission of the forum is to represent student pharmacists to provide professional development resources and develop an engaged community that leads and advocates for the pharmacy profession.

### Roth and Chen Elected to State Association Advisory Board

Shay Roth (PHARM '24) and Joe Chen (PHARM '24) were elected by students across the state to serve on the Pennsylvania Pharmacists Association Student Advisory Board for the 2023-2024 school year. Roth was elected as the Chair of the Student Advisory Board, which consisted



Samantha Freiter



Joseph Chen

of seven students from pharmacy schools throughout the state. Chen was elected as Corresponding Secretary. They served as representatives and liaisons to pharmacy students across the seven schools in Pennsylvania to advance policy and advocacy efforts for the profession of pharmacy.

### Pharmacy Students were Selected for National Scholarships through the American Pharmacists Association

Samantha Freiter received the Boyle Family Scholarship. Joseph Chen received the Juan and Esperanza Luna Scholarship, and Shay Roth received the Menighan Leadership Scholarship.

These students were selected from students across the country and recognized for their leadership in pharmacy school and the American Pharmacists Association Academy of Student Pharmacists.



Anjolaoluwa Oludayo at Voyager Conference

### Stottlemeyer Receives NIH Loan Repayment Award

Graduate student Britney Stottlemeyer was selected to receive a Loan Repayment award from the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) for her research “Nephrotoxic Burden Among Patients in the Non-Intensive Care Setting: The Clinical and Economic Costs of Drug-Associated Acute Kidney Injury”.

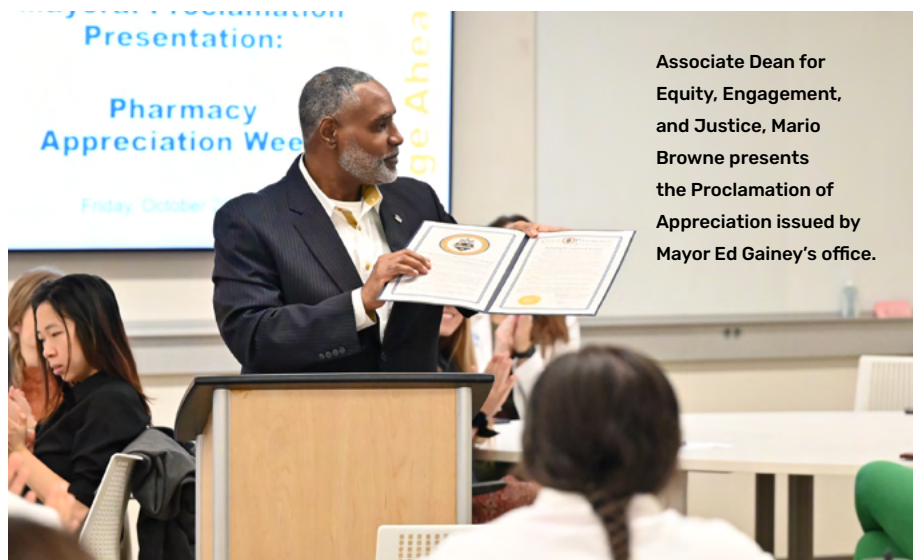
### Kruczek Awarded NCPA Presidential Scholarship

Collin Kruczek (PHARM '24) won a National Community Pharmacist Association Presidential scholarship awarded to students with demonstrated leadership qualities, academic achievement, and an interest in independent community pharmacy. The national award was received at the NCPA Annual Convention in Orlando, Florida.

### Oludayo Named Recipient of National Obama-Chesky Scholarship for Public Service

Pitt Pharmacy student, Anjolaoluwa Oludayo, was one of 100 students nationwide to be named a recipient of the Obama-Chesky Scholarship for Public Service (a.k.a. the Voyager Scholarship)!

The Voyager Scholarship, founded by the Obamas and Brian Chesky – co-founder and CEO of Airbnb – offers up to \$50,000 in financial aid over two years so students can take part in meaningful travel and gain a network of leaders and mentors who support their work towards social change and in public service.



Associate Dean for Equity, Engagement, and Justice, Mario Browne presents the Proclamation of Appreciation issued by Mayor Ed Gainey’s office.

### Mayor’s Proclamation of Appreciation of Pharmacists Issued

During a special American Pharmacists Month Celebration in October, the City of Pittsburgh and Mayor Ed Gainey’s office issued a Proclamation of Appreciation of pharmacists, student pharmacists, and their pharmacy teams, for their care and support of our communities and neighbors. Pitt Pharmacy students led the way in bringing this initiative to fruition!



Students, faculty, staff, and representative from the university gather to celebrate the Proclamation of Appreciation issued by the city of Pittsburgh and Mayor Ed Gainey’s office.

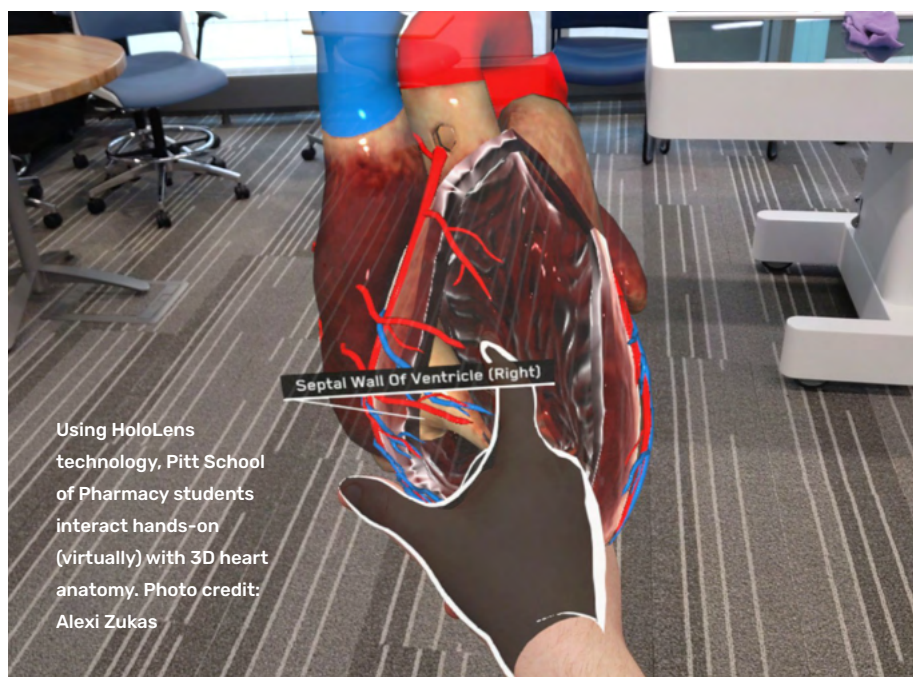
# Graduation 2024



# LEADING THE WAY

**Transforming Learning  
at Pitt Pharmacy  
with Augmented and  
Virtual Reality**

By: Phoebe Ingraham Renda



Jim Coons, professor, Department of Pharmacy and Therapeutics, School of Pharmacy, right, watches his student explore life-sized cardiac and circulatory anatomy on an Anatomage Table. Photo credit: Lawrence Kobulinsky.

***Pitt Pharmacy is using augmented and virtual reality (AR/VR) technologies to enhance anatomy lessons and interprofessional learning through realistic clinical simulations. The new Alan Magee Scaife Hall AR/VR lab will help to extend this technology to all the health sciences schools.***

From Oculus gaming systems to Apple's Vision Pro, Pitt students are no strangers to virtual reality (VR) and augmented reality (AR) technologies.

However, for the first time in fall 2023, 115 School of Pharmacy students used this technology to step into their studies during their Pharmacotherapy of Cardiovascular Disease course.

"We're teaching students how to use medications to treat different types of heart disease—but before they can do that effectively, they need a good foundational review of heart anatomy," says James "Jim" Coons, course instructor and professor in the Department of Pharmacy and Therapeutics, School of Pharmacy. The course is part of the Doctor of Pharmacy program, a six-year entry-level professional program.

While the course has used Pitt's Peter M. Winter Institute for Simulation Education and Research human patient simulators since the mid-2000s to offer students an interactive learning experience, anatomy lessons remained primarily lecture based.

With a little help from Pitt Health Sciences Information Technology (HSIT), last year's students turned away from PowerPoint slides and immersed themselves in anatomy lessons using an Anatomage Table, akin to a dining table-sized iPad, and HoloLens 2 AR headsets.

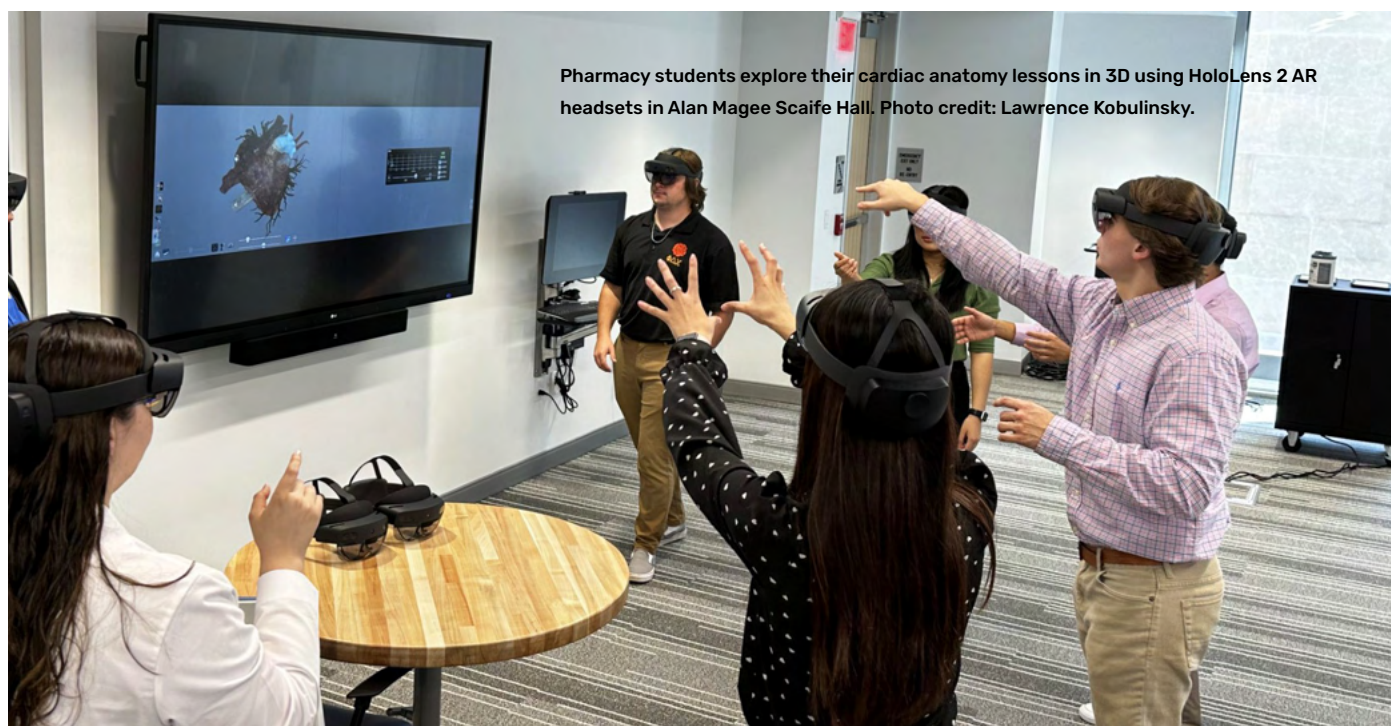
"It's a million miles away from what Jim used to do," says Lawrence "Larry" Kobulinsky, an instructional designer who has helped support the course since 2013. "You can show something three-dimensionally and manipulate it by turning it or remov-

ing sections, which is something you could never have imagined just a few years ago."

The combination of Anatomage modules and AR technologies for various disease states and diagnostics dramatically enriched student learning. Standing in front of a 3D heart, they can now explore beyond the heart's chambers. Students can interact with the heart's arteries and conduction system, examine healthy and unhealthy cardiac anatomy, and monitor medications and see where they work in the heart.

Coons and Kobulinsky are extending their work with AR and patient simulator training into the virtual world. They are actively creating a realistic VR clinical case with help from SimX—a leading VR simulation training platform for physicians, military and emergency medical responders.

"Once you're in the virtual environment, you can pick up an electronic medical record (EMR) tablet and scroll through pages, talk on the phone, view patient information, insert IVs and make order entries off the EMR tablet," Kobulinsky says.



Pharmacy students explore their cardiac anatomy lessons in 3D using HoloLens 2 AR headsets in Alan Magee Scaife Hall. Photo credit: Lawrence Kobulinsky.

In the VR case, students will interact with a critically ill patient, nurses and physicians within an infectious disease setting. As students interact with their virtual patient, they may see changes in labs within the EMR as well as real-time changes, like a drop in blood pressure or other signs that the patient has become unstable. Their patient may even develop new complaints to consider.

“This technology transforms the way our students learn and transforms the inter-professional learning environment so that students can practice in an interprofessional manner,” says School of Pharmacy Dean Amy Seybert. “It adds a realism to their learning—they have to react to how the patient responds in real time so they can adjust medication therapy or talk to the inter-professional team about a new approach.”

Patient detail even reaches down to genetics to incorporate pharmacogenomics training, in which students look for certain genes that can predict response to medications and affect treatment recommendations.

“Pharmacogenomics comes up a lot in the world of cardiology,” says Coons. He

explains that sensitivity to anticoagulants, like warfarin, and other medications that patients take after receiving a stent (a mesh coil that helps keep an artery open) can differ based on genetics.

Coons and Kobulinsky hope to receive a beta testing copy of their VR case this spring to perfect it for use in the fall. In the fall class, Coons and Kobulinsky will also incorporate assessments to show that teaching with these technologies enhances student learning and retention. “It will definitely be a part of the future of pharmacy education,” says Seybert.

Growing up with iPads and novel technologies, Kobulinsky notes, today’s student expectations for learning are different than those of students who came here 15-20 years ago. As digital natives, students easily become immersed and engaged in trying to help their simulated patient and, in turn, recall information they have read, heard or seen in other courses. “This allows them to bring it all together in this digitally connected world that they’re used to,” says Seybert.

This fall, the class will take place in a brand-new AR/VR lab, located on the mez-

zanine floor of Alan Magee Scaife Hall, that will be available to all health sciences schools. The new space will feature an assortment of AR/VR headsets (including HoloLens 2, Meta Quest 3 and Vive Pro 2), an Anatomy Table and a large-scale video recording studio for live streaming and recording lectures.

“We are looking at how Pharmacy used the technology last year in planning for the new space,” says Jane Alexander, assistant director of education technology for HSIT. “We hope to gain interest from other groups in the health sciences and showcase what the technology can do and how it can benefit learning.”

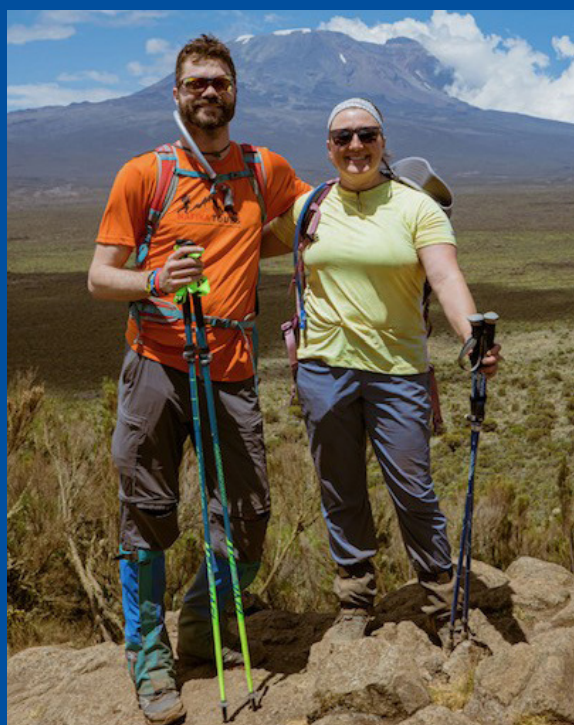
Seybert, Coons and Kobulinsky look forward to seeing the technology work its way into other School of Pharmacy courses and inspire other courses within the health sciences schools to transform historically didactic lectures into interactive and 3D learning experiences.

“This is Dr. Shekhar’s vision for the health sciences—we’re thrilled to be a part of it and align it with each of the health sciences schools,” says Seybert. ■

# Where in the World is Pitt Pharmacy

## Pitt Pharmacy alum take on Mt. Kilimanjaro

Pictured: Pitt Pharmacy alums Matthew Felbinger (PHARM '10, Pitt/UPMC Pharmacy Residency alum 2010-2011), David Johnson (Pitt/UPMC Pharmacy Residency alum, 2009-2011); Yardlee Kauffman (PHARM '10, Pitt/UPMC Pharmacy Residency alum 2010-2012); and Julie Lauffenburger (PHARM '10)



# Stopping Diabetes Before it Starts

## How Capozzolo is Creating a Healthier Campus through Diabetes Education

By: Natalie Y. Capozzolo, PharmD



Natalie Capozzolo, PharmD

According to CDC estimates, 96 million American adults, or one in every three, have pre-diabetes with nearly eight of ten people being unaware that they are affected. If unaddressed, pre-diabetes may worsen, becoming type 2 diabetes within five years on average. Type 2 diabetes is a costly illness in terms of patient outcomes resulting in a variety of health complications including: heart disease, kidney disease, blindness, amputations, life years lost, expenses related to medical care, absence from work, and lost societal productivity.

Through the launch of the Group Lifestyle Balance Diabetes Prevention Program (GLB-DPP), trained Lifestyle Coach Natalie Capozzolo (PHARM '13) has helped more than 50 University of Pittsburgh faculty and staff who have a diagnosis of pre-diabetes – or are at high risk for diabetes – avoid becoming a type 2 diabetes statistic.

The Group Lifestyle Balance™ (GLB) Diabetes Prevention Program is a comprehensive lifestyle behavior change program adapted directly from the successful lifestyle intervention used in the National Institutes of Health funded Diabetes Prevention Program. The original DPP Lifestyle Balance intervention was written and developed at the University of Pittsburgh. The DPP lowered participants' risk of de-

veloping type 2 diabetes by 58% compared to those who received a placebo in the study.

Capozzolo offers the GLB-DPP program as just one of the many specialized services housed under the Comprehensive Medication Management benefit which launched in 2018. The Comprehensive Medication Management Benefit, directed by Associate Professor Lucas Berenbrok (PHARM '12), provides medication management and education to faculty and staff at the University of Pittsburgh. The goals of the GLB program are two-fold: to achieve and maintain a 7% weight loss from a participant's baseline and to achieve 150 minutes of moderately intense physical activity per week in an effort to reduce the risk of type 2 diabetes and improve heart health. This is accomplished through 22 group sessions led by a trained lifestyle coach over the course of 1 year. Participants also receive individualized coaching from Capozzolo in response to submission of food, activity logs and posed questions/concerns. "Natalie puts her heart and soul into this program, and it really shows," says Berenbrok.

Capozzolo and Berenbrok began planning for the GLB-DPP program prior to the COVID-19 pandemic. With the announcement of numerous restrictions associated with COVID-19 for in-person work and activity, Capozzolo was faced with unique





Lucas Berenbrok, PharmD, MS

challenges – to begin a lifestyle change program at a time when societal attention was focused away from the normal to a new illness sweeping the nation, COVID-19.

Despite uncertainty, Capozzolo successfully implemented the GLB program. She enhanced the program with video technology and built a structure within existing conferencing platforms to allow for remote GLB class sessions and collaboration between faculty and staff across the University’s regional campuses. Capozzolo also further enhanced program participation with the distribution of weight loss tools such as scales, food measuring devices, and resistance bands to keep participants coming back for more.

To date, Capozzolo has run six cohorts of the GLB-DPP program with two cohorts overlapping at any given time. Her impact is eloquently described by one employee with the following quote: “I would like to share that the [GLB] program unquestionably changed – and very likely prolonged – my life.

Capozzolo plans to continue offering two or more GLB sessions annually to extend her impact. ■

## Global Lifestyle Benefit Diabetes Prevention Program Reward Timeline

### Session 1

Fitbit Aira Air  
Smart Scale



### Session 2

Food Scale,  
Measuring Cups,  
and Spoons



### Session 3

Exercise Bands



### Session 4

Your Choice:  
Fitbit Health Tracker  
or Under Desk Cycle





Vaughn with her degree,  
upon graduation from  
Pitt Pharmacy

# *The Task of Trailblazing*

Zoe Vaughn's Journey as the First Black  
Female PhD Graduate at Pitt Pharmacy

By: Zoe Vaughn, PhD

Vaughn being hooded  
at her 2023 graduation  
ceremony



**Z-N-V-I** That was the username issued to me upon my acceptance to the University of Pittsburgh. The university formulates email addresses for new students by a students' initials and a number; if there are duplicate initials, the number of the duplicate increases by one. While I am sure that there are many students that end up being the first with their unique initials at the university, I soon learned that this was only the beginning of my being a "first" here at the University of Pittsburgh. June 9, 2023 was a historic day, as I successfully completed my doctoral thesis and became the first African American woman to obtain a PhD from the University of Pittsburgh Pharmaceutical Sciences department.

During my research into the history of the program, according to accessible records, I discovered that the first African American male to graduate from this program was Dr. Louis Williams (PHARM '74), who is currently working successfully at the University of Houston as a professor of medicinal chemistry. It was during my search that I discovered that upon successful completion of my PhD, I would be the first African American female to graduate from the program.

Trailblazing is not supposed to be a simple task, but relief came with the understanding now surrounding my thoughts. I have not traveled this road completely

alone. Throughout my journey of pursuing my PhD I was fortunate to find and befriend many who looked like me, in and around the university. I would have conversations about hair, clothes, and health with café workers and cleaning ladies (who were more helpful and encouraging to me than I am sure they realized). Thankfully, one of my closest friends in Pittsburgh, was a fellow black woman in a similar field of study – a PhD student in pharmacology, at the School of Medicine. She understood the difficulties of a graduate program and often served as a listening ear.

I found that the people I could relate to helped silence some of my internal battles with trailblazing. Through additional connections I have made at both the University of Pittsburgh and Carnegie Mellon, and the Students of Color (SOC) dinner series, similar sentiments have been shared regarding the way we conduct ourselves in our departmental setting: quiet, independent, and productive. The faculty and staff in the pharmaceutical sciences program are performing some of the most cutting-edge research in the field. They were supportive and helpful as I progressed towards the completion of my degree.

For me, the journey has been a platform to stand on, from which I can reach young people that look like me. Although I am the first, it is my desire that I do not have to be the only. In Greek, my name means "life"

and this year in the Pittsburgh area I awarded a high school graduating African American female a scholarship entitled #addlife. This scholarship is an embodiment of my scientific journey and the people that continuously poured into my life to get me to this point today. My hope is to continue this scholarship to help young girls and boys with a similar background achieve their educational dreams.

Pioneering is not something that fits into my reserved, quiet, "desire to be invisible" nature, it is truly not something I set out to do. However, like Ruby Bridges, Ella P. Stewart, Dorothy Vaughan, and so many other African American giants that have come before me, while they may not have set out to be the first, they desired to be the change, and so perhaps it is just something that is in my DNA. It is with God, that in the same resilient and graceful spirit, I share my story.

Dr. Vaughn is currently working as an ORISE postdoctoral fellow at the US Army Medical Research Institute of Chemical Defense, the Department of Defense's lead laboratory for medical chemical defense research. She is a part of a community of scientists conducting research in medicinal chemistry, with an emphasis on developing countermeasures to combat chemical weapon exposure. ■

# FACTOR FUNDING

How Christian Fernandez is Utilizing  
a Pharmacogenomic Approach to  
Advance Cancer Research

By: Randy Smith, MS, PhD



Christian  
Fernandez,  
PhD

During his post-doctoral training at St. Jude Children's Research Hospital, Christian Fernandez, PhD, witnessed firsthand the devastating impact of toxicity from acute lymphoblastic leukemia (ALL) treatment with asparaginase, often making it impossible for patients to complete their treatment.

ALL is the most common form of leukemia in children, accounting for about 30% of pediatric cancer. Asparaginase is a basic component of chemotherapy in pediatric ALL, and it has played a crucial role in improving the long-term survival of this disease. However, about 30–50% of ALL patients experience hypersensitivity as a reaction to asparaginase treatment, causing discontinuation of the treatment, and potentially leading to unfavorable patient outcomes. Fernandez recognized that he could help children with ALL if he could find a way to reduce or treat the hypersensitivity to asparaginase. He began a project with his post-doctoral mentor, Dr. Mary Relling, to elucidate the mechanisms underlying asparaginase hypersensitivity. This has since

expanded his current research to include genetic factors involved in the immune response, and liver toxicity of oncologic agents.

Normally, we think of translational research as bench to bedside, i.e., taking basic scientific discoveries and translating them into useful therapies for patients. To understand asparaginase hypersensitivity, Fernandez conducted research through reverse translation – which involved taking a clinical observation and creating a bench model to study it. He knew that asparaginase was an enzyme that worked by reducing the levels of the amino acid asparagine in plasma and cerebral spinal fluid. Reducing levels of asparagine deprives the cancer cells of the amino acid, which is necessary for synthesizing the proteins required for cancer cell proliferation. Asparaginase has less of an effect on normal cells because they can synthesize asparagine. Cancer cells cannot synthesize asparagine and require an external source, or they cannot proliferate.

In collaboration with colleagues, Fernandez developed a mouse model of the immune response to asparaginase, enabling the investigation of therapeutic strategies for mitigating hypersensitivity reactions and maintaining plasma concentrations of asparaginase. His model had many of the same features as the clinical scenario, demonstrating that formation of IgE and IgG antibodies can induce hypersensitivity reactions and neutralized asparaginase, reducing its clinical effectiveness. He demonstrated two distinct mechanisms leading to asparaginase-induced hypersensitivity reactions: the formation of antibody-asparaginase complexes and the classical IgE-mediated pathway. Additionally, he was able to demonstrate that histamine and platelet activating factor (PAF) were involved. Pretreatment with antihistamine and PAF inhibitors prevented the hypersensitivity reaction but did not prevent the decrease in asparaginase drug levels.

Fernandez continued to build on this research after he joined the University of Pittsburgh School of Pharmacy in 2015 as an Assistant Professor in the Department of Pharmaceutical Sciences and the Center

for Pharmacogenomics. Currently, he is investigating the clinical genetic basis of the hypersensitivity reaction and he has identified a key transcription factor, NFATC2, that regulates the transcription of genes involved in immune responses. This transcription factor has variable expression among patients based on their genetics. Some individuals can have a gain of function phenotype that is associated with increased susceptibility to asparaginase-induced immune responses. His research used a genome-wide association study (GWAS) to demonstrate the correlation between the gain of function genetic variant and the antibody-mediated toxicity. He validated the significance of NFATC2 in the development of asparaginase-induced hypersensitivity through genetic and pharmacological inhibition studies in mice. These studies demonstrated protection against the toxicity and the restoration of therapeutic drug levels. This work has led to the current forward translating research to discover and develop therapeutic inhibitors of NFATC2 that can be co-administered with asparaginase in children with ALL to prevent the antibody-mediated toxicity. His research aims to develop a novel class of drugs that selectively inhibits the transcriptional activity of NFAT without interfering with the critical function of calcineurin, in contrast to immunosuppressants such as tacrolimus and FK506.

Furthermore, Fernandez has built on his understanding of genetic factors to study mechanism of hepatotoxicity caused by asparaginase. This work is especially important because asparaginase is not used in adult leukemia patients due to the high risk of liver injury. He has discovered that asparaginase treatment can lead to fat cell disruption, elevating free fatty acid levels and consequently, the incidence of drug-induced liver injury. Additionally, he has discovered a genetic variant that results in increased occurrence of this drug-induced toxicity. Fernandez is currently expanding on this work by investigating whether the pharmacological inhibition of an enzyme that breaks down triglycerides can protect mice against asparaginase-induced liver

injury. His goal is to identify therapeutic inhibitors of the lipase-activating cascade to protect against the toxicity.

Fernandez is funded by the National Institutes of Health and is dedicated to training the next generation of scientists. He generously shares his time and expertise, actively involving undergraduate, graduate, and professional students in his research. The experiences in his laboratory have been inspiring to students. Two of the PharmD students who worked in his laboratory are now PhD graduate students at Pitt Pharmacy.

Fernandez's work is a brilliant example of thoughtfully investigating a specific therapeutic problem, and in the process, discovering mechanisms that apply to a whole category of drugs. His work is now broadly focused on immunogenicity of protein-based therapeutics that can lead to life-threatening complications and reduce or eliminate the therapeutic efficacy of biologics. His goals are to elucidate the mechanism of the adverse drug reactions by identifying polymorphisms (variations) in genes that explain the predisposition of certain patients to develop immune responses to biologics. Additionally, he aims to identify therapeutic strategies that can block immune responses and maintain therapeutic drug concentration. He also seeks to develop clinical and laboratory tests that can monitor drug bioavailability and immunogenicity, to indicate when a drug substitution is appropriate. With more than 1000 protein-based drugs currently in development by pharmaceutical companies, Fernandez's research can help improve their safety for thousands of patients. ■

Dr. Fernandez has remained committed to not only making an impact, but to increasing diversity throughout his time at Pitt Pharmacy. You may recall the article on his diversity initiatives, which appeared in the 2018-19 Pitt Pharmacy Magazine. Scan the QR code to access that article and learn more:



Watch a video of Dr. Fernandez describing his work in his own words:



Louis Williams, PhD



Kathy Monangai, PharmD, RPh

# Breaking Barriers

## The Journey of Dr. Louis Williams, the First Black Male PhD Graduate at Pitt Pharmacy

Interviewed by: Kathy Monangai, PharmD, RPh (PHARM '20)

Written by: Rhea E. Bowman, PharmD (PHARM '11)

**P**erseverance, mentorship, and the power of education. Dr. Louis Williams, the first African-American male to graduate with a PhD from Pitt Pharmacy, embodies all three – his legacy intertwined with the history of the school and the progress of the program.

Williams' journey began humbly in his hometown of Brooklyn, New York. There, he found inspiration in the neighborhood pharmacy and the mentorship of the two remarkable men who owned it. Both in the military, and one of them – one of the Tuskegee Airmen – their guidance sparked a lifelong passion for pharmacy, leading him to work in the field while still in high school. Eventually, Williams pursued higher education, finding his way to the University of Pittsburgh through a fortuitous newspaper advertisement.

Arriving in Pittsburgh, Dr. Williams embarked on a path of academic excellence, earning his bachelors' (PHARM '67) and masters' (PHARM '69) degrees before diving into the challenging realm of medicinal chemistry – a program that did not even exist when he started – for his PhD (PHARM '74). Despite facing the isolation of being the only black student at the school of pharmacy throughout the entire time he was there, Williams found solace and support in his academic and personal network.

Of his personal experience, Williams noted that although there were issues with racism, he found himself in a protective environment, where “unity was the protocol” set by those around him. He detailed a vivid

memory of being denied service in a restaurant after a basketball game – prompting the entire team to walk out on his behalf. Williams was moved by the solidarity and found similar sentiments throughout his schooling, within a support system of colleagues and advisors.

Academically, mentors like Dean Joseph Bianculli, Dr. Norman Farnsworth, Dr. Paul Schiff, and Gary Haberle played pivotal roles in Williams' journey, providing support, encouragement, and guidance. Their belief in his potential kept him focused and propelled him forward, which shaped his own dedication to mentorship in later years.

Williams' impact extended far and wide, literally – as he devoted himself to research on sickle cell disease and pharmacognosy. As a Fulbright recipient, he worked in Nigeria, exemplifying his commitment to addressing global health challenges. On faculty at the University of Houston for over 50 years, his impact has been felt throughout the pharmacy community.

Reflecting on his career thus far, Williams emphasizes the importance of believing in oneself, maintaining integrity, and seizing opportunities. He encourages current pharmacy students to embrace excellence, resilience, and a spirit of service as they navigate their own paths.

Today, Williams' story continues to be accentuated by the countless lives he has touched through mentorship and advocacy. When asked for words of wisdom to inspire future generations of Pitt pharmacists, he effortlessly rattled off a list of sound advice:

*There's no ceiling on what you can achieve – the only ceiling you have is the one you place there.*

*Believe in yourself that you can achieve whatever you outline as your goals. It is all about preparation but never compromise your integrity – because once you lose that it is hard to get it back.*

*It is all about bringing your best to the table to serve patients.*

*We prepared you academically and professionally to be the best that you can be. It's up to you to go out and prove it. Our expectation is that you go out and change the world; it is our expectation that you go out and make the world a better place.*

A sentiment that is shared by many in the Pitt Pharmacy community who are out in the world doing just that. ■

Dr. Williams, recognized as a distinguished alumnus in 2003, currently works at the University of Houston College of Pharmacy as an Associate Professor of Medicinal Chemistry, in the Department of Pharmacological and Pharmaceutical Sciences. His work has focused for many years on the isolation, and structure determination of biologically interesting substances from natural sources, used in traditional (herbal) medicine in developing countries for the treatment of various health disorders (e.g., sickle cell crisis management, various infectious and viral disorders, malaria, and even cancer). His focus has expanded now to developing innovative teaching methodologies for better integration of medicinal chemistry into the basic pharmaceutical clinical sciences.

**READ MORE HERE:** “Teaching Medicinal Chemistry in the PharmD Curriculum: Reinforcing its Importance Utilizing Case-Based Studies.” Joydip Das, Julianna Fernandez, Dhara Shah, Louis Williams, and Munder Zagaar. *Currents in Pharmacy Teaching and Learning* (2017). <http://dx.doi.org/10.1016/j.cptl.2017.09.004>

## Nurturing Legacy

### Cobaugh's Lifelong Commitment to Education and Philanthropy

By: Maria Immekus



Daniel Cobaugh, PharmD

Daniel Cobaugh smiled as he looked around Salk Hall, coffee cup in hand, admiring the hustle and bustle of the student-filled space.

"Salk Hall has changed dramatically since I was here as a student. Yet, there's something about it that still feels quite familiar. It's a different place ... but there continues to be a comfort that I feel when I walk into this building."

Cobaugh, a 1987 School of Pharmacy graduate, was back on campus and had a moment to catch up with our magazine to talk about his connections to Pitt Pharmacy as an alum, volunteer, philanthropist and beyond.

Daniel Cobaugh is a part of our ongoing alumni series, "Investing in the Future." Check out past editions of Pitt Pharmacy magazine to learn more about our alumni donors.

Cobaugh is senior vice president for professional development at the American Society of Health-System Pharmacists and publishing and editor in chief of the American Journal of Health-System Pharmacy. While at Pitt Pharmacy, his passion for clinical toxicology was ignited. He went on to become immersed in his research—at times an investigator, author, reviewer—the list goes on. Then, he made a career transition into the world of professional associations. Twenty-five years later, he still works in that space.

His professional trajectory is of particular interest, but what's more interesting is Cobaugh's ability to balance work, family and philanthropic interests. He credits his family—namely his husband and mother—for providing him with unconditional support as he navigated his career.

"One of my mentors, Professor Emeritus Edward Krenzelok, told me early on that the key to a successful career was taking many vacations," Cobaugh joked. "I've always tried to balance and be a multi-faceted person. My career and profession have always been extremely important to me. But at the end of the day, I don't want to look back and see that the only thing I've had in my life is my career."

Cobaugh currently serves as chair of the School of Pharmacy Board of Visitors, but he's been serving on the board in various capacities since 2006. In fact, the board, coupled with copious amounts of support from Pitt's administration, helped bring Salk Hall's renovations to life.

His other labor of love is, of course, supporting students. Having been a first-generation college student, Cobaugh seeks to recruit and retain the best students—many of which, he believes, live right here in Pittsburgh.

*"I truly believe I would not be where I am today if it weren't for the University of Pittsburgh and the School of Pharmacy specifically. It's about giving back. Anytime I come back, it brings me joy. Hopefully I'm contributing something to the school and university, but I'm getting a great deal out of it, too."*

"What I enjoy more than anything is time with the students. They energize me. I see their intelligence, their passion and their idealism, and I know our profession is in great hands."

As result, he made a gift to open The 1980s Fund, a scholarship fund that supports first-generation undergraduate students who live in the city of Pittsburgh and are attending the School of Pharmacy.

A Mount Washington native, Cobaugh now lives in Washington, D.C., with his husband. He was recognized as a distinguished alumnus and was a 2013 recipient of the University of Pittsburgh 225th Anniversary Medalion—bestowed upon individuals who have brought honor to the University and whose efforts have contributed to Pitt's progress.



## Message from the President of the Alumni Society



Ashley Firm, PharmD

The year 2024 marks the decade mark since my own graduation and the end of being a “new practitioner.” If the young student pharmacist entering orientation in August of 2010 could have glimpsed the journey ahead, she would have been astonished by the possibilities within the profession. Recently, I had the opportunity to address the Class of 2024 and imparted two key pieces of advice: keep learning and be comfortable outside of your comfort zone.

Our profession is undergoing rapid change and evolution with significant clinical advancements. Simultaneously, pharmacy practice is also experiencing rapid transformation with challenges such as declining reimbursement, pharmacists gaining provider status, and shifts in healthcare delivery in a post-pandemic era. Despite all this happening post-graduation, my education still prepared me by encouraging lifelong learning.

I also asked our newest alumni colleagues to be comfortable outside of their comfort zone- asking bold questions and considering opportunities that may seem beyond their current qualifications. Trail-blazing often requires departing from established paths, embracing the unknown, and trusting in one’s ability to adapt and excel.

We’ve all experienced firsthand how well the school, curriculum, and faculty have prepared us for these challenges, and it’s gratifying to see their hard work recognized by others, with the US News & World Report rankings listing the University of Pittsburgh in the top 10.

As a graduate of Pitt Pharmacy, I’m excited about the impactful work happening at the School of Pharmacy. It’s all about top-notch education, groundbreaking research, and meaningful service to patients and the pharmacy profession. Let’s join forces to show our appreciation to Pitt Pharmacy for setting us on our professional paths and helping us become experts in medication, ultimately improving health and quality of life globally. Your involvement could make a real difference in shaping the next generation of pharmacists.

We’re eager to collaborate with you and hear your ideas for supporting future pharmacists and our alma mater, Pitt Pharmacy.

Ashley Firm, PharmD  
Assistant Professor, Department  
of Physician Assistant Studies  
University of Pittsburgh, School of Health  
and Rehabilitation Sciences



### Here are a few ways you can get involved:

- Make a donation
- Recommend yourself or a colleague for the Alumni Society Board
- Volunteer to mentor students through Career Roundtables, student organizations, or professional portfolio reviews

## Q&A: Ethan Markowski, Class of 2022

Equity Research Associate at Needham & Company



Ethan Markowski,  
PharmD

### What drew you to your career path?

I've always had an interest in blending science, business, and finance into a career. When I was in pharmacy school, I joined and later became president of the Pitt Pharmacy Investment Portfolio (PPIP) which helped introduce me into the world of investing in the life sciences. From there, I stumbled across an interview online called "The Wolf of Pharmacy Wall Street" which described the job of a biotech equity research analyst and how a pharmacy background can be beneficial. I liked what I heard, so I started learning more about the profession and what it entails.

### Did you know that this was something you always wanted to do?

I always had it in the back of my mind, but I started out by exploring Healthcare Consulting and Business Development through the Rutgers fellowship program. Both experiences were invaluable for introducing me into the pharmaceutical industry, and they provided me with a unique skillset going into equity research.

### What was a skill that you had when you came to pharmacy school that was nurtured and that you fostered through your career?

Analyzing clinical trial data. I really started to foster this skill in pharmacy school during journal clubs and various courses throughout the curriculum. Today with my current job, I am frequently reading primary literature articles and interpreting results from clinical studies to stay informed in my disease areas of focus (gene therapy/immuno-oncology).

### Who was the most influential faculty member and why?

Professor John Riley. He was a great mentor to have, especially as someone interested in nontraditional pharmacy careers that were focused around business/finance. Also, Professor Riley really went above and beyond to connect me with people in his network to help advance my career.

### Is there anything you wished someone would have told you when you were a student?

Make sure you really take time to build quality relationships with your classmates and professors. Nearly all the opportunities afforded to me throughout my career thus far came either directly or indirectly from people in my network.

### What is the best thing about being a pharmacist right now (and/or) what are you currently working on to advance the industry?

I'm currently trying to advance the industry by making more students aware of equity research as a potential career option for pharmacists. I also help out with the Pitt fellowship boot camp and have served as a guest lecturer for the "Intro to Pharmaceutical Industry" course.

### What types of difficult decisions do you make as a pharmacist?

Most of my difficult decisions currently revolve around determining how clinical data/news related to a drug will impact the stock price of a pharmaceutical company.

### Any additional final thoughts you would like to include?

Between class, studying, rotations, work and extracurricular activities, four years will go by fast. Don't forget to take time to enjoy the ride along the way. Looking back now I've met some of my closest friends and made some of my best memories while in pharmacy school. As Andy Bernard famously said in "The Office", "I wish there was a way to know you're in the good old days before you've actually left them."

## New Hires

**Aaron Devanathan, PharmD, PhD:**

Assistant Professor,  
Department of Pharmacy and Therapeutics

**Martha Ndung'u, PharmD:**

Assistant Professor,  
Department of Pharmacy and Therapeutics

**Wei Zhang:**

Assistant Professor,  
Department of Pharmaceutical Sciences

**Rob de Cortie:**

Center Administrator,  
Center for Pharmacogenetics

**Tiarra Gordon:**

Department Administrator, Department of  
Pharmacy and Therapeutics

**Candace Stone:**

Educational Support Specialist

**Olivia Wyland:**

Center Administrator,  
Center for Clinical Pharmaceutical Sciences

**Heidi Yarnal:**

Senior Department Administrator,  
Department of Pharmaceutical Sciences

**Anne Meals:**

Associate Program Implementation  
Specialist for the Capacity Development  
Team within Innovative Health Systems  
Initiatives (IHSI)

**Tamara Walls:**

Grants & Contracts Manager

**Rhianna Ericson:**

Program Manager,  
Pittsburgh Pharmacogenomics  
Program (PittPGx)

**Brent (J.R.) Stover:**

Associate Program Implementation  
Specialist

**John Dubnansky:**

Research Project Manager

**Rebecca Greene:**

Educational Program Coordinator

**Christine Crowell:**

Research Navigator

**Kyle Craig:**

Program Manager

**Autumn Altieri:**

Program Manager

**Danielle Hamilton:**

Lead Clinical Research Coordinator

**Sima Bajpayee:**

Associate Program Implementation  
Specialist

**Grace Hsieh:**

Research Program Coordinator

**Samantha Sacco:**

Program Administrator

**Maria Boki:**

Research and Evaluation Specialist

**Christy Huebner:**

Program Manager

**Melanie Weltman:**

Research Assistant Professor,  
Pharmacy and Therapeutics

**Violetta Mumford:**

Fiscal and Grants Manager

**Kelli Whalen:**

Recruitment and Enrollment Specialist

**Julie Clarkson:**

Assistant Professor,  
Department of Pharmacy and Therapeutics

## *In Memorium*

The following individuals have passed away as of May 2022 - December 2023.

Thomas Moses (PHARM 1959)  
Bernard Pitrone (PHARM 1983)  
Charles Thomas (PHARM 1954)  
Sylvan Sax (PHARM 1944)  
Bernard Lefkowitz (PHARM 1952)  
Debra Odasso (PHARM 1979)  
Carole Ladik (PHARM 1959, 1960)  
Bernard Mallinder (PHARM 1963)  
Albert Gardill (PHARM 1959)  
Jane Rowles (PHARM 1991)  
Fred Hausler (PHARM 1953)  
George Geregach (PHARM 1966)  
Thomas Harvey (PHARM 1957)  
Robert Lasner (PHARM 1962)  
Loyal Moore (PHARM 1953)  
Margaret Jackson (PHARM 1952)

Darwin Smith (PHARM 1962)  
Dominic Judy (PHARM 1985)  
John Fee (PHARM 1956)  
Jeffrey Bohrman (PHARM 1970)  
Wilhelmina Messmer (PHARM 1966, 1972)  
Arnold Weisband (PHARM 1954)  
Domenick Brasile (PHARM 1970)  
Rosemary Moore (PHARM 1949)  
Marjorie Simos (PHARM 1972)  
Lindsay Heck (PHARM 2020, 2022)  
Raymond Rodgers (PHARM 1962)  
Morris Ogun (PHARM 1960)  
John Pida (PHARM 1951)  
James Harvey (PHARM 1963)  
William Kinnard (PHARM 1953, 1955)  
John Styche (PHARM 1972)

Sarah Kalser (PHARM 1962)  
Richard Goldstein (PHARM 1961)  
William Miller (PHARM 1968)  
Marvin Reidbord (PHARM 1956)  
Marvin Adelson (PHARM 1957)  
William Stafford (PHARM 1975)  
Rachelle Scanga (PHARM 1973)  
Brett Rathi (PHARM 1998)  
Sara Stone (PHARM 1994)  
Thomas Pelino (PHARM 1961)  
Herbert Thrush (PHARM 1958)  
Alan Yovich (PHARM 1975)  
Herbert Orlansky (PHARM 1955)  
Jeffrey Zabroski (PHARM 1994)  
Michelle Renaut (PHARM 1995)  
Richard Zoltun (PHARM 1963)

## Retirees

### Sharon Corey, PhD

Dr. Sharon Corey dedicated an extraordinary 47 years of her career as a faculty member at the University of Pittsburgh. Her academic journey began with the achievement of degrees in Chemistry, Pharmacology, and Cell Biology. Throughout her tenure, Dr. Corey has demonstrated an exceptional record of achievements, some of which include teaching over 3172 didactic contact hours and involvement in more than 35 committees; service as the School of Pharmacy's inaugural Title IX Coordinator and providing extensive levels of advising, mentoring, academic monitoring, and robust support for our learners; publication and presentation of federally funded research on pharmacology and pharmacokinetics of benzodiazepines, anti-neoplastic agents, and angiotensin activity. Her remarkable legacy of education, mentorship, guidance, and support has profoundly impacted numerous lives and careers in the field of pharmacy and pharmaceutical sciences.



Sharon Corey, PhD

### Maureen Reynolds, PhD

Dr. Reynolds earned her PhD from the University of Pittsburgh School of Education in 1990 in Educational Psychology. She completed both pre-doctoral and post-doctoral fellowships in Alcohol Epidemiology through the University of Pittsburgh School of Medicine, Department of Psychiatry. Her area of expertise was in alcohol, tobacco and other drug abuse prevention since 1981. She joined the School of Pharmacy in 2000 as the Center Administrator for the Center for Education and Drug Abuse Research (CEDAR) until 2016. She has served as Co-PI on a multi-institutional grant "Substance Use Screening and Prevention for Adolescents in Pediatric Primary Care" and PI on SAMHSA-funded training project "Pittsburgh SBIRT: Training Health Professions Students to Conduct SBIRT. She has worked with several other research and training grants related to substance use. She is a member of the Society for Prevention Research (SPR) and the College on Problems of Drug Dependence

(CPDD). She has co-authored more than 50 substance abuse related articles in peer reviewed journals and co-edited two manuals on drug use during pregnancy.

### Dolly Hornick

Dolly Hornick, an esteemed administrative assistant, who was a cornerstone of support at Pitt Pharmacy since November 2001, and at the university since February 1993, retired in January 2024. Her dedication to course support, hiring student employees, and managing purchasing was invaluable. Beyond her professional responsibilities, she volunteered tirelessly to coordinate Angel Tree donations during the holiday season for the North Side Christian Health Center. Known for her thoughtfulness and kindness, she has made a lasting impact on our community. We extend our heartfelt gratitude and best wishes for her retirement.



Maureen Reynolds, PhD



Dolly Hornick



Randy Smith, MS, PhD

### **Randy Smith, MS, PhD**

Senior Associate Dean Randy Smith devoted 23 years of exceptional service to the School of Pharmacy. He has contributed to a multitude of successful initiatives that have benefited Pitt Pharmacy students, faculty, staff, stakeholders, and the profession broadly, including: Establishment of the community pharmacy residency program and one of the first community pharmacy research fellowship programs in the country; Creation of the CLIP area of concentration; Development of DM Educate, an online diabetes education program, that was used by more than 80 schools of pharmacy and thousands of practicing pharmacists to improve patient care for patients with diabetes; Leading faculty in the creation of the Pharmacotherapy Scholars area of concentration which has helped prepare pharmacy students for the most competitive PGY-1 residency programs; Creation of the RxTalent Team; Implementation of innovative teaching strategies within the curriculum such as gaming and a fantasy investment league. Dr. Smith was an integral part of strategy development, facilitation of innovation, and long-term planning for Pitt Pharmacy. His enthusiastic energy and vision have undoubtedly advanced our excellence.



Michael Zemaitis, PhD

### **Michael Zemaitis, PhD**

Dr. Michael Zemaitis was a Professor of Pharmaceutical Sciences at the University of Pittsburgh School of Pharmacy. He was a faculty member since 1975 and served as Department Vice-Chair and Interim Chair between 1998 and 2005. He taught in the professional and graduate programs in the School of Pharmacy, and was involved in many areas of the curriculum including course development, course evaluation, and teaching assignments. Dr. Zemaitis was also extensively involved in classroom improvements and the use of new technology in teaching. His area of research interest was in biochemical pharmacology with special interest in drug and metabolite analysis in biological fluids. He was actively involved in several pharmacy related policy issues. Specifically, in the establishment of a prescription drug monitoring program in Pennsylvania designed to reduce drug diversions and abuse, and "Project Life Line", a program to have community pharmacies provide the narcotic antidote Naloxone to high risk opiate users to prevent overdose deaths. He served as an analytical toxicology consultant to local clinical laboratories and as a pharmacology consultant to the Pennsylvania Department of Welfare, the Office of the Pennsylvania Attorney General, the DEA and the US Attorney's Office, and was a charter member of the Pennsylvania Drug Utilization Review (DUR) Board.





GRADUATION  
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School of Pharmacy  
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Bella, daughter of Pitt Pharmacy alum and faculty member, Rhea Bowman and husband Marcus



Maren, granddaughter of Pitt Pharmacy staff member, Michele Chamberlain



Oliver, son of Pitt Pharmacy staff member, Marian Klanica and her husband Matt



Izabella, daughter of Kaitlyn M Cowden (Boboige) Pitt Pharmacy Student Pharmacist, Class of 2025



Callum, grandson of retired Pitt Pharmacy staff member Dolly Hornick