THE PURDUE PHARMACY

FLIP THE PHARMACY:
Beyond the Dispensing Model

ONE TO ONE:
Collaborative Practice Agreements

A PHARM FAMILY:
Walker Drug Company Legacy

PURDUE UNIVERSITY
Owen Booth, a senior majoring in pharmaceutical sciences, was part of a team whose research was published in the Journal of Nuclear Medicine in December. Read more about Booth’s experience as an undergraduate research assistant on page 10.
FROM THE DEAN

Banners and signs across campus constantly remind us of our goal as Boilermakers: The persistent pursuit of the next giant leap. We are grateful to President Mitch Daniels for his support of the College of Pharmacy during his 10 years as Purdue president. President Mung Chiang has reinforced his commitment to our college, recognizing the important role that we play in scholarly excellence in drug discovery and development, as well as delivery of patient care. The Purdue College of Pharmacy remains relentless in our pursuit of pharmacy’s next giant leap.

We are grateful to the Indiana General Assembly for the $89 million commitment to fund the new Pharmacy and Nursing Education Building. This is an exciting project that will add approximately 146,000 square feet of dedicated instructional space to create a vibrant learning environment to prepare the next generation of pharmacy leaders. This teaching space — focused on active clinical learning — is essential for the college to continue its legacy and leadership in the field of pharmacy. As we move toward 2024, we’ll be launching a dedicated capital campaign to give alumni the opportunity to be part of this exciting giant leap for the college. Watch for more information soon.

Our faculty members continue to be some of the most impactful in the country in terms of research and discovery in pharmaceutical sciences. This past year, our total research funding rose to fourth in the country with more than $27 million in total research awards, and sixth for the important metric of funding from the National Institutes of Health (NIH) at over $17 million. These record funding levels also place us No. 1 among Big Ten pharmacy schools. Our research ranking reflects the excellence of our faculty and the impact their discoveries have on improving human health.

Lastly, we are pleased to continue seeing strong interest in Purdue’s Doctor of Pharmacy program, even as PharmD applications nationally continue to decline. Our incoming freshman class is very strong, and this will sustain the pipeline into the PharmD program. Our success in continuing to fill our PharmD class has been noted by our peers, many of which are now looking into developing Bachelor of Science programs in pharmaceutical science, similar to ours, to serve as an entry point to their PharmD programs.

One hallmark of our program is the interest that our students across all degree offerings have in leadership and entrepreneurship. To that end, we are grateful to Marcel Sassola III for his transformational gift to establish a new co-curricular opportunity: The Marcel Sassola III Leaders and Entrepreneurs Advancing Pharmacy (LEAP) Academy. Students selected to be part of this program will have numerous unique opportunities to learn about entrepreneurship and prepare to be innovative leaders in the ever-changing world of pharmaceutical science and healthcare.

I am excited about the giant leaps we are taking together as the Purdue Pharmacy Family.

Hail Purdue!

Eric L. Barker, PhD
Jeannie and Jim Chaney Dean of Pharmacy

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COMBATING COGNITIVE DECLINE

KHALID ALAMER REDUCES RISK FACTORS FOR ALZHEIMER’S
When he accompanied his grandparents on hospital visits while he was growing up, Khalid Ahmed Alamer (PhD ’23) was struck by the crucial role pharmacists contributed to the health care team and improved patient well-being.

“I observed pharmacists reviewing my grandparents’ medical charts to identify potential drug interactions and making medication recommendations to physicians,” Alamer says. “I witnessed pharmacists dispensing medicine and understood the importance of accuracy and efficiency, especially for medication delivery.”

The experience solidified Alamer’s desire to pursue a career in pharmacy and make a positive impact on the health care industry and the lives of the people around him. He earned a bachelor’s in pharmacy from King Saud University in Riyadh, Saudi Arabia, followed by a doctorate in pharmacy at Massachusetts College of Pharmacy and Health Sciences in Boston.

A love of research and passion for academia led Alamer to Purdue for his PhD in clinical pharmaceutical sciences and health outcomes. He plans to return to Saudi Arabia to translate the knowledge and expertise he gained during his research experiences and his clinical rotation at Eskenazi Hospital in Indianapolis to contribute to the realization of the Kingdom’s Vision 2030 plan. The economic and social reform blueprint includes a health sector transformation program centered on value-based care.

In his work under Noll Campbell, associate professor of pharmacy practice, Alamer has been researching the measurement and management of adverse cognitive effects of medication on older adults with acute and chronic cognitive impairments. The study, “Reducing Risk of Dementia through Deprescribing” (R2D2), received a five-year $3.3 million award from the National Institute on Aging.

“We are evaluating the impact of deprescribing interventions on clinical and operational outcomes in various care environments,” Alamer says. “It’s the first pharmacist-based deprescribing intervention randomized clinical trial in the U.S. to determine whether this intervention can improve cognitive outcomes for older adults and reduce their risk for mild cognitive impairment and potentially prevent Alzheimer’s disease.”

The systemic approach involves the pharmacist-supervised lowering of doses or switching to an equally effective safer alternative medication to reduce older patients’ exposure to anticholinergic drugs which have been associated with increased risk of dementia.

“People assume that both over the counter and prescription medications are safe for older adults,” Alamer says. “But we know that older adults are more likely to experience adverse reactions and have a higher risk of cognitive decline due to age-related changes in physiology and metabolism. Cognitive decline is not a normal part of aging. It is preventable and even reversible in many cases.

“It’s important to understand that medication use and cognitive decline in older adults is a complex issue that requires careful consideration of multiple factors. As health care professionals, we must weigh the benefits against the risks when prescribing medication to older adults.”

In addition to conducting the clinical trial, Alamer also has concurrently studied methods to accurately and comprehensively assess over-the-counter and prescription medication use in older adults; roles of social determinants of health on older adults’ behavior toward deprescribing; the development of system-guided recommendations to support clinical decision-making in deprescribing anticholinergic medication for older adults.

“As a pharmacist, my goal is to reduce risk factors that can contribute to a decline in cognitive function,” Alamer says. “I’m fortunate to be one of the first international students from Saudi Arabia to participate in an ongoing deprescribing clinical trial. The knowledge, skills and science I’ve learned will benefit many people in my country and improve their quality of life.

“These studies will advance the care and health outcomes for older adults and inform the development of new therapies and interventions for cognitive decline and Alzheimer’s disease. The research conducted at Purdue has global reach and I’m proud to be representing Purdue in my region of the world.”
GROUNDBREAKING RESEARCH

IMPROVING SOLUBILITY

Alex Deac optimizes formulations to enhance drug delivery

While working as a research scientist at AbbVie, Alex Deac (PharmD ’23) enjoyed the fast-paced environment where he formulated products for clinical trials and developed life cycle improvements for DUOPA, a prescription medication used for treatment of advanced Parkinson’s disease. Although he loved the work, in his five years at the bench he recognized scientific gaps related to poorly soluble drugs.

“Industry really focuses on the development of pharmaceuticals,” Deac says. “While they do research, they’re more focused on bringing APIs to market. The fundamental science behind the properties of a formulation is more the realm of academia. That’s why I wanted to pursue a PhD at Purdue — to gain more fundamental knowledge behind key formulation properties and try to push the field forward.”

As a graduate research assistant, Deac works under Lynne Taylor, the Retter Distinguished Professor of Pharmacy and a world-renowned expert in enhancing the delivery, efficacy and safety of drugs. The Taylor Lab is part of the Department of Industrial and Physical Pharmacy and explores the fundamental science underlying the preformulation, formulation and manufacturing of drugs.

Currently, only one in 5,000 discovery compounds reaches the market. Solubility plays a critical role in drug effectiveness but the majority of small molecule APIs being developed have poor solubility. Through formulation, Deac seeks to increase both solubility and the dissolution rate to improve drug effectiveness.

“In the pharmaceutical industry, formulations are rarely optimized,” Deac says. “The fundamental science behind them is complex and companies generally want to get a product to market as soon as possible. But when the formulation is not optimized, often a higher dose is required — sometimes multiple pills a day. If we can optimize the formulations, we can reduce the number of pills a patient must take.”

Through a combination of wet and solid-state chemistry, Deac characterizes the solutions and solids to understand the properties of a formulation and its impact on API solubility and dissolution. Typically, the API is crystallized by a chemist during the purification process. Deac takes the crystalline form of the API and breaks it by dispersing the individual API molecules in a polymeric matrix to create amorphous solid dispersions.

“Essentially we create a new material composed of API and polymer where both are very well mixed at the molecular level,” Deac says. “It’s one material composed of two components. The polymers help bring the API into solution at a very fast rate but they are not absorbed through the intestinal tract. The polymers are eliminated.”

As chemists select a molecule during the drug discovery process, they weigh a number of factors. How well the API bonds with the biological target to treat the disease is one. Solubility is another. If an API can’t reach its target due to poor solubility, it doesn’t matter how well it bonds because it never gets there. Optimizing amorphous solid dispersions to increase the solubility and dissolution rates of any compound would allow chemists to focus less on the threshold of solubility and more on the activity of the molecule.

Deac plans to return to industry after his PhD to apply the skills he’s learned at Purdue to become more efficient at developing formulations and make optimized drug products that will make a difference for patients.

“The cross-functional collaboration throughout the scientific community leads to innovative solutions,” Deac says. “It takes time and hard work but I think eventually we’ll be able to cure a majority of diseases.”

40% of approved drugs are considered insoluble.
6 FACTORS THAT AFFECT DRUG SOLUBILITY

- pH OF FLUID
- POLARITY
- TEMPERATURE
- VOLUME
- PARTICLE SIZE
- PRESSURE
Sandra Ordonez-Rubiano (at right) with her mentees, Luisa Baracaldo (at left), a visiting scholar studying pharmaceutical chemistry from the National University of Colombia; and Alex McQuade, a second-year pre-pharmacy student from Hershey, Pennsylvania, and undergraduate research assistant at Purdue.
Sandra Ordonez-Rubiano recognizes the qualities of a supportive mentor. She’s been lucky to have several key mentors who helped guide her path as a cancer researcher. One of them was Chang-Deng Hu, a professor of medicinal chemistry and molecular pharmacology who dedicated his life in pursuit of developing novel therapeutics for cancer treatment. Hu served as head of Ordonez-Rubiano’s candidacy exam committee.

When Hu died in September 2022 shortly after being diagnosed with an aggressive and rare form of cancer, Ordonez-Rubiano mourned his loss along with many others in the College of Pharmacy.

“Dr. Hu was a close advisor to me,” Ordonez-Rubiano says. “He was very supportive and encouraging of me. It was a shock when he passed away. It motivated me to continue my work in cancer research, in a way to honor the contributions he made to the field.”

A native of Bogota, Colombia, Ordonez-Rubiano earned her bachelor’s in pharmaceutical chemistry from the National University of Colombia. She initially considered going to medical school, but a love of chemistry drew her to pharmacy. She decided to apply to graduate school at Purdue after completing a six-month undergraduate internship in West Lafayette under V. Jo Davisson, professor of medicinal chemistry and molecular pharmacology, where she worked on the synthesis of molecules to be tested as anti-cancer agents.

“I had worked in chemistry labs during my undergraduate studies but the Purdue internship with Dr. Davisson was my first opportunity to conduct actual research,” Ordonez-Rubiano says. “That experience made it clear to me that this was what I wanted to do.”

As a graduate researcher, Ordonez-Rubiano began working under Emily Dykhuizen, associate professor of medicinal chemistry and molecular pharmacology, in 2018. The Dykhuizen Lab works on cancer epigenetics by investigating and targeting chromatin regulators. In her research, Ordonez-Rubiano is developing inhibitors that target the BRB7 molecule, which regulates the expression of genes involved in tumor progression or suppression. Dykhuizen is another of Ordonez-Rubiano’s key influential mentors.

“Dr. Dykhuizen is very supportive,” Ordonez-Rubiano says. “She puts a lot of faith in my data and really trusts what I do even when the experiment doesn’t work as I hoped. She’s always there to assist me in understanding why something didn’t work and what we can learn from the failed experiment. I never feel like my time was wasted.”

In the lab, Ordonez-Rubiano mentors undergraduate research assistants who are active, contributing members of the highly interdisciplinary team. Alex McQuade, a second-year pre-pharmacy student from Hershey, Pennsylvania, joined the lab in Fall 2022.

“Sandra teaches by example,” McQuade says. “She demonstrates a process and then observes as I attempt it, letting me know what I need to adjust. Working in this lab has facilitated my learning by encouraging me to look beyond the mechanics of the experiment and ask questions about the big picture of why we do what we do.”

Working under Ordonez-Rubiano in the lab fostered McQuade’s love of research, leading him to consider pursuing a PhD in conjunction with his PharmD.

“Our lab is such a collaborative environment,” McQuade says. “When you’re working on a long-term project, there are so many people who contribute to the research. Everything I’ve learned here will prepare me for future opportunities.”

Now that she’s close to earning PhD, Ordonez-Rubiano plans to complete a postdoc in cancer research. She wants to stay in academia where she can continue to mentor others, modeling the qualities of mentorship that have positively influenced her own trajectory.

“Dr. Dykhuizen put her faith in me and helped me get to where I am today,” Ordonez-Rubiano says. “Working in this lab has been a wonderful experience. I want to continue to pass on the knowledge I’ve gained during my time here. It’s my way of showing how grateful I am for everything I’ve been given.”
EMPOWERING OTHERS

Brianna Arinze fosters a community of belonging on campus
Brianna Arinze would do anything for her siblings. As triplets — two sisters and one brother — they grew up sharing a lot of the same experiences. But when Arinze’s sister started losing patches of her hair at a young age, Arinze felt helpless. Alopecia, an autoimmune disorder that can cause baldness, affects nearly one-third of Black women in the U.S.

“I know it was really hard for my sister to grow up with alopecia,” Arinze says. “She had to take a lot of medication to treat it and our pharmacist back home helped her through the process by talking to her about her medications and possible side effects. Hearing about the support my sister received made me want to become a pharmacist and have a similar impact on patient care.”

Arinze, a St. Louis native entering her P2 year, chose Purdue because of its affordability — her siblings are concurrently attending the University of Kansas and University of New Mexico — and the strength of the pharmacy program. Several of Arinze’s high school counselors and coaches were Boilermakers who encouraged her to consider Purdue.

“I knew I’d be getting a high quality education,” Arinze says. “The Purdue pharmacy program has a reputation of being challenging, but I like to be challenged. I also knew I would receive support when I needed it. Purdue seemed like the perfect fit for me.”

Living in the pharmacy learning community in Owen Hall during her freshman year helped Arinze build a social network quickly. She also got involved with the Society of Underrepresented Pharmacists (SOUP) right away. The student organization was formed to establish a community where authentic relationships can form and sustain between peers and alumni; illuminate pathways to academic and professional success; and increase the retention of minority students within the college.

“SOUP helped me to find and connect with other minority students within the College of Pharmacy who were already in the professional program,” Arinze says. “It’s empowering to meet other students who share similar experiences with me. It helps with the imposter syndrome that a lot of people experience. When you’re questioning, ‘Why do I belong here?’ it helps to turn to people who you can relate to.”

Arinze started as the PP1 liaison for SOUP. Then she was the organization’s secretary as a PP2. During the 2022-23 academic year, she served as vice president, helping to plan and organize professional development trainings, networking opportunities and social events. She’s also president of the Women of Color in Healthcare Association (WCHA), a club open to all health care majors that supports rising health care professionals who are minority women, have marginalized backgrounds or come from low-income, underserved communities.

“At Purdue, it’s not unusual to be the only person of color in a class,” Arinze says. “Organizations like SOUP and WCHA help to foster a sense of belonging, especially for individuals who might otherwise feel like their academic goals are less attainable.”

Serving in leadership roles with both student organizations helped Arinze develop her public speaking skills. She also started working as an undergraduate research assistant for Chris Rochet, professor of medicinal chemistry and molecular pharmacology, during her freshman year. In the Rochet Lab, part of the Institute for Integrative Neuroscience, Arinze has worked on a range of projects related to Parkinson’s disease.

“Sometimes I’m working with neuron cells, other times I’m working with brain tissue samples,” Arinze says. “I’m really happy I started working in the lab my freshman year because I’ve been exposed to so many aspects of the research process. I’ve learned how to troubleshoot and adjust my methods if a project goes wrong. I work with a mentor, but they’re not always there to help all the time so you must be able to work independently, think on your own and make decisions.”

It’s not unusual to be the only person of color in a class. Organizations like SOUP and WCHA help to foster a sense of belonging, especially for individuals who might otherwise feel like their academic goals are less attainable.
Not many undergraduates see their names attached to a scientific paper published in a prestigious academic journal. Owen Booth has. The senior majoring in pharmaceutical sciences from Carmel, Indiana, was part of a team that published “Fibroblast activation protein targeted radioligand therapy for treatment of solid tumors” in the Journal of Nuclear Medicine in December.

The team was led by Spencer Lindeman (PhD ’21, chemistry), a postdoctoral researcher and visiting scholar working in the lab of Philip Low, the Presidential Scholar for Drug Discovery and the Ralph C. Corley Distinguished Professor of Chemistry.

“Participating in this research was a really rewarding experience,” Booth says. “It was a bit surreal to learn that my name would be listed on the paper, but it’s really cool and I’m glad that our hard work paid off.”

For the project, Booth conducted organic chemistry synthesis on different variations of drug structures targeted to treat solid tumors expressing fibroblast activation protein (FAP). He contributed to both in vitro and in vivo studies testing the drug delivery effectiveness.
"It was a lot of time at the bench running reactions and purifying compounds," Booth says. "When you’re working in the lab on a day-to-day basis, you often encounter hiccups in the process. Learning to overcome these challenges and solve the problems that arise has been great training to prepare me for a future in medicine."

Booth, who plans to apply to medical school, initially chose to study pharmaceutical sciences because of the program’s foundational coursework in basic sciences — chemistry, biology and physics. The opportunity to engage in mentored laboratory research further enhanced his undergraduate education and allowed him first-hand experience working with advanced concepts including drug design and synthesis, quality assurance and regulatory compliance.

"Understanding how drugs work in the body and how they are formulated is really beneficial background for med school," Booth says. "I’ve always had an interest in biochemistry and I knew the College of Pharmacy is one of the best in the nation, so I knew Purdue would be a great fit."

With a mother and brother who both earned engineering degrees from Purdue, Booth had already spent time on campus attending athletic events before he became a Boilermaker. Once he arrived in West Lafayette, Booth started volunteering with Purdue’s MEDLIFE chapter and now serves on its executive board. The student organization coordinates medical service learning trips abroad and local volunteer opportunities such as after-school tutoring and working at food pantries.

"My mom is very service-oriented and I volunteered a lot with her growing up," Booth says. "It was definitely something I wanted to continue in college. I’ve also made a lot of connections with others who share my interest in medicine."

Heading into his final year at Purdue, Booth appreciates the experience he gained during his two years as an undergraduate research assistant.

"Working in the Low Research Lab enabled me to contribute to something that could have meaningful impact," he says. "Everyone is affected by cancer. Being a part of a project that could one day lead to a potential cancer therapy is really special. I’m very proud of that accomplishment."
Walking into the callout meeting for the Purdue chapter of the Student National Pharmaceutical Association (SNPhA) as a fresh-faced P1 transfer student, Brittany Galloway (PharmD ’23) was surprised to see she was the only Black person in attendance.

A graduate of Howard University, a historically Black college or university (HBCU), with a bachelor’s in biology, Galloway was already passionate about SNPhA’s mission to improve the health, education and social environment of minority communities. She’d been a member of Howard’s chapter. She wanted to foster the same sense of community among minority students at Purdue. She was elected president of the Purdue chapter at the end of her first professional year and served in the role for three years.

“Serving as chapter president is one of the most rewarding leadership positions I have ever held,” Galloway says. “There is a surprising amount of history behind the Purdue chapter — it was a beloved home and refuge for Black students in the mid- to late-1970s. SNPhA is dedicated to serving the underserved and as an HBCU alumna, I wanted to continue the organization’s legacy with students of color.”

The diversity of membership, both at the local and national level, creates networking opportunities for SNPhA members that are unparalleled by other organizations. SNPhA’s national sponsors include AstraZeneca, CVS, Dompé, Eli Lilly and Co., GoodRx, Rite-Aid, the Kroger Company and Walmart/Sam’s Club.

“Through SNPhA’s supportive network, there are countless opportunities for students to apply their clinical knowledge to patient cases, to develop their business acumen and to receive scholarship support,” Galloway says. “Leading the Purdue chapter allowed me to enhance my conflict resolution skills, navigate the politics of higher education and improve my ability to create and host community service events. These are all skills I intend to use in my professional career.”

Galloway spearheaded a rebrand of SNPhA at Purdue with help from Daniel Adeniji (BS Management ’21, PharmD ’23) and Miles Potts (PharmD ’23). The three worked together to rebuild the chapter and reintroduce the organization to the College of Pharmacy.

“During a time when the chapter nearly shut down due to my exhaustion and discouragement toward a lack of student engagement, Miles encouraged me to keep going and he stood right by my side for our entire P3 year,” Galloway says. “I’m grateful to
Brittany Galloway (third from left) with other members of SNPhA at the College of Pharmacy’s 2021 First Nighter event.

Dr. Stephanie Arnett for her mentorship and kindness and I’m excited for Bardia Asadi, who assumed the role of chapter president upon my departure.”

Following graduation, Galloway intends to relocate to the West Coast and begin working as a community pharmacist. Her advice to other students: Get involved.

“Be willing to initiate the positive change you want to see in your profession,” Galloway says. “It’s not enough to go to class and pass an exam. The skills you learn while interacting with your peers, actively participating in organizations and planning events from the ground up will play an instrumental role in your growth as an individual.”
MIX
MASTER
Students packed Elliott Hall of Music on April 21, 2022, to see American rapper Kyle perform as part of his “I MISS U” tour. While the audience poured in, concertgoer energy crackled throughout the venue. The lights flared as DJ Ari Arzumanian stood in the wings, about to take center stage. After all the exams he’d taken in Elliott Hall, the pharmaceutical sciences major from Munster, Indiana, never imagined he’d be performing on its massive stage.

“It was an incredible experience opening for a Grammy-nominated performer,” Arzumanian says. “Kyle is an awesome rapper. I was so grateful to the Student Concert Committee for asking me to do that event.”

DJ Ari isn’t the first Arzumanian to spin slick beats at Purdue. His father, Sam Arzumanian (BS ’87), performed as DJ Pharmaceuticals while he was a student. The elder Arzumanian now owns an independent pharmacy, WeCare Pharmacy, in Munster. His wife, Nina (BS ’87) — the two met in pharmacy school — works for Walgreens. Arzumanian says his parents influenced his desire to study pharmacy.

“From the age of 10 or 11 I’ve wanted to study pharmacy because I grew up seeing firsthand how rewarding pharmacy has been for my parents,” Arzumanian says. “I saw how patients asked them for advice with medications or everyday health needs and I wanted to be someone who could help others, too.”

Arzumanian, who starts his junior year this fall, aspires to go to medical school and become a physician. The same communication skills he’s developing as a DJ can be applied to professional practice, too.

“There are so many logistics to manage to ensure that everything is running smoothly,” Arzumanian says. “As a DJ, I’m talking with event organizers, venue owners and equipment managers just as health care providers collaborate with colleagues and patients to provide the best possible care. Nonverbal communication is also important. I am constantly monitoring the crowd and if people don’t seem to be into the music, I need to act quickly and make adjustments to get the desired response.”

While his studies and undergraduate research position under V. Jo Davison, professor of medicinal chemistry and molecular pharmacology, are his priorities, Arzumanian hopes to continue landing DJ gigs as long as he can maintain a balance. Many of his campus events are booked through fraternities and sororities. Sometimes, he notices an unexpected visitor in the crowd.

“In fall 2022 I had a gig at a fraternity house with a beautiful stage,” Arzumanian says. “I hadn’t played on that big of a stage for a while and it felt legit. The gig was going really well and then I looked out in the crowd and spotted this bald head. He turned around and it was my dad. I don’t know how he got in.”

Sharing a love of music and science strengthens the bond between father and son. Arzumanian looks forward to the day when he can make his next giant leap, just as his father did.

“Pharmaceutical sciences can be tough at times,” he says. “But it’s motivating to know that everyone in the field of science is trying their best to contribute to a common goal of advancing technology and achieving medical milestones that we never thought possible.”

PHARMACEUTICAL SCIENCES MAJOR BRINGS THE PARTY AS DJ ARI
When the phone rang at Topeka Pharmacy on a sunny August afternoon in 2020, Hannah (Miller) Smith (PharmD ’14) answered the call expecting to speak with a patient. Smith, clinical pharmacy manager for the independent community pharmacy in Topeka, Indiana — population 1,200 — was surprised to hear the man on the other end of the line introduce himself as Troy Trygstad, executive director of the Community Pharmacy Enhanced Services Network (CPESN).

He was calling to tell Smith that Team Indiana had been selected for the second cohort of the nationwide Flip the Pharmacy program designed to help community pharmacies transform their practice beyond transactional prescription-filling models toward appointment-based models that allow for more patient-centric clinical care.

“We cheered when we heard that Team Indiana had been accepted,” Smith says. “It was an exciting moment, but I remember driving home from work that night and thinking, ‘What did we get ourselves into?’”

When Smith initially expressed interest in applying for Flip the Pharmacy, she quickly received backing from Topeka’s owners, Trevor Thain (PharmD ’17) and Cassie (Garrard) Thain (PharmD ’18), but as she learned more about the requirements for the grant funding, Smith soon realized she’d need to recruit other pharmacies across the state.

“It needed to be a conglomeration of pharmacies willing to flip,” Smith says. “You can’t impact an entire system if only one small pharmacy in one rural Indiana town is doing it. We reached out to our independent contacts across the state, asking ‘Does anyone want to go in on this with us?’ And we were so fortunate to find many other colleagues who are passionate about advancing clinical services and sustaining independent community pharmacy who helped with the application.”

Ultimately, 19 pharmacies across the state of Indiana jumped on board. Smith led the monthslong application process working alongside representatives from other CPESN-affiliated pharmacies across the state.

When the call came through that Team Indiana had been selected, Katie Hettinger (MS’23) was in her first month of residency at Topeka. Hettinger, now a community practice research fellow in the College of Pharmacy and managing network facilitator for CPESN Indiana, earned her PharmD from Butler University in 2020. With encouragement and support from the Topeka...
team, Hettinger assumed the role of team lead for Team Indiana, leading timely communication efforts and sharing best practices across the team to ensure program success.

“I am a strong advocate for community pharmacy advancement,” Hettinger says. “You have to provide the resources and toolkits pharmacies need to implement advanced services, expand access to patients and transform their business practices. But you can’t just do that overnight.”

To help implement the two-year Flip the Pharmacy program, coaches were recruited from the state’s three pharmacy schools — Butler, Manchester University and Purdue. Purdue’s coaches — Margie Snyder, Nicole Olenik, Omolola Adeoye-Olatunde (MS ’19) and Molly Nichols (PharmD ’19, MS ’22) — created an elective advanced pharmacy practice experience (APPE) for pharmacy students to serve as co-coaches.

“We wanted to show students what was possible with community pharmacy, as many in our profession still view community practice as ‘not clinical’ and therefore ‘less than’ other practice areas,” says Nichols, a research associate and adjunct assistant professor for the College of Pharmacy. “But community pharmacy is clinical pharmacy. We hoped that by involving students in practice transformation efforts during their time in school, they would be inspired and equipped with the tools needed to jump into ongoing and future efforts to bring pharmacy practice, including community, to its fullest potential.”

In the APPE, students were positioned to serve as the primary contacts for participating pharmacies. Under the guidance of their preceptors, students would conduct pharmacy site visits and facilitate the rollout of monthly change packages designed to share best practices to implement clinical services for a variety of disease states including diabetes, hypertension, immunizations and opioids.

AN ESSENTIAL ROLE

Flip the Pharmacy is funded by the Community Pharmacy Foundation (CPF), a nonprofit organization dedicated to advancing community pharmacy practice and patient care delivery through grant funding and resource sharing. One of CPF’s goals is to support efforts that measure the impact of pharmacist interventions in achieving a patient’s targeted therapeutic goals.

According to a 2022 study conducted by the University of Pittsburgh and published in the “Journal of the American Pharmacists Association,” nearly 90% of Americans live within five miles of a community pharmacy.

“This accessibility makes pharmacies an ideal place to provide advanced patient care, monitoring and follow-up,” Nichols says. “Flip the Pharmacy is not only implementing a structured way to offer these services but is also hoping to negotiate for contracts with insurers to reimburse pharmacists for providing that advanced care.”

Independent pharmacies were especially interested in Flip the Pharmacy’s potential to negotiate insurer contracts, as changes to funding models over the years have resulted in less money to be made by merely filling prescriptions.

“We might make 100% profit on a generic drug but on a $1 drug, 100% profit is $1,” Trevor Thain says. “That doesn’t cover the price of the sticker, let alone the 30 minutes the pharmacist spent helping the patient navigate insurance to approve the claim. The profession is in a tough spot right now where there’s no incentive for anyone to go into community pharmacy. I would love to see a change in the industry where pharmacists are actually being paid for all the services we offer because we are making a direct impact in our communities and helping a lot of people.”

Webb’s Family Pharmacy, with three locations in Akron, North Manchester and Rochester, also participated in Flip the Pharmacy as part of Team Indiana. Owner Harry Webb (BS ’82), who bought his first pharmacy in 1990, chose a career in independent pharmacy because he was motivated by a desire to help people.
“As a community pharmacy, all our patients know us and we have great relationships with them,” Webb says. “Patients see their pharmacist much more frequently than they see their physician and over the years, pharmacies have adapted to slowly expand the profession.”

While immunizations, cholesterol screenings and blood pressure checks have been commonplace at pharmacies for decades, the COVID-19 pandemic put the spotlight on pharmacies as a critical source for these clinical services to alleviate overburdened health care providers across the state.

“We talked for a long time about developing an online scheduling system for patients,” Webb says. “When the demand for COVID-19 vaccines hit, we were inundated with phone calls. An online scheduler became a necessity. Now our patients routinely use our website to schedule services. The pandemic advanced the appointment model dramatically. With physicians’ offices overwhelmed and many rural areas medically underserved, it’s a good time to be launching these programs. There is so much community pharmacists can do to practice at the top of our license. We don’t serve underserved areas by putting in more robots and doing more telepharmacy. We need people who have connections with patients.”

Addie Sarver (PharmD ’22) interned at Webb’s as a pharmacy student and then joined the team as a pharmacist following graduation. She was drawn to community pharmacy because of the freedom to provide specialty services to a tailored market. Flip the Pharmacy enabled Webb’s to implement additional services such as registering as a naloxone entity and dispensing naloxone to patients to treat an opioid overdose. Sarver is also developing a medication synchronization program to coordinate patient prescription refills. Such programs have been shown to improve patient adherence while giving pharmacists more insight and control into medication lists, preventing contraindications, duplicate drugs and other issues.

“There are a lot of services that pharmacies have provided for years, but they haven’t been documented and we haven’t been paid for them,” Sarver says. “Flip the Pharmacy helped to organize this cohort of pharmacies that are providing high levels of clinical service to patients. By demonstrating our collective value, we’re in a better position to make the case for why pharmacies should be appropriately compensated for those services.”

Despite the challenges in receiving compensation for clinical services, Cassie Thain — like many other independent pharmacy owners — remains optimistic about the future of community pharmacies and the essential role they play in their communities.

“Every day, there’s at least one patient who tells me how our pharmacy is positively impacting their life,” Cassie Thain says. “Hearing those patients tell us how thankful they are for what we do and that they don’t know what they would do if we weren’t here, that’s what motivates me and Trevor to keep our doors open. We know we’re providing a valuable service to our community.”
By the time he reached middle school, Ismail Badjie (PharmD ’13) had lived in Gambia, Belgium and upstate New York. His father was a diplomat, so the family was always on the move. Living in different countries as a child shaped Badjie’s worldview.

“At an early age, it made me see the world as one big village,” Badjie says. “I was immersed in different cultures and exposed to different people. I appreciate it more now as an adult because I was fortunate to have a wide range of experiences from different parts of the world. That all became a part of who I am. My family lives all over the world because that’s what our normal has always been. The sense of home is very fluid.”

Founder and CEO of Innovarx Global Health, Badjie spends about 10% of his time practicing behind the bench in Charlotte, North Carolina. Much of the rest of the year, he’s in Gambia where Innovarx is transforming health care delivery in sub-Saharan Africa. His dream of entrepreneurship began while he was a student at Purdue. Badjie returned to Gambia before his P3 year and examined West Africa’s health care system with a professional perspective.

“Gambia has a population of 2.5 million people and there are only 10 PharmDs in the entire country.” Badjie says. “The entire profession doesn’t exist the way it does in the U.S. In Gambia, pharmacy is commercialized. You can walk into a pharmacy and buy a pack of antibiotics as if you are buying a can of Coke. A lot of people have died over the years from lack of care because the system is so fragmented.”
Life expectancy in Gambia is 62.6 years — 10 years less than the global average. Badjie didn’t get to know his own grandparents because they died at a young age. His grandmother had diabetes and hypertension, both serious chronic conditions that can be managed with medication. But with only one physician per 10,000 residents, Gambians often don’t have regular wellness visits and only enter the health care system in times of crisis or emergency.

“Access to medications or a health care professional who can help manage diabetes just did not exist,” Badjie says. “If something like Innovarx had been in place in her community, my grandmother would have lived a longer life. Possibly, my daughter would have had a chance to meet her. There are so many things that a poor health system robs from us. That’s been my driving force.”

Badjie returned to Purdue and mapped out a 10-year plan to hone his business skills by practicing in the U.S. while simultaneously taking steps to build his own company. Following graduation, he began working at Walgreens where he was quickly promoted to pharmacy manager.

“A lot of times people rush into entrepreneurship and skip apprenticeship,” Badjie says. “I wanted to learn the business of pharmacy, develop my leadership skills and understand how technology could be leveraged in point of care testing systems, immunizations and disease pain management. I am so grateful for the opportunities I had at Walgreens. So much of how Innovarx operates is a reflection of my experience as a community pharmacy manager.”

Launched in 2015, Innovarx opened its first franchise in 2021. The company now has a presence in Gambia, Ghana and Nigeria. The goal is to build the largest health ecosystem in Africa without owning a hospital.

“Our integrated model of primary care and preventative care anchored around a pharmacy serves the majority of the African population,” Badjie says. “It’s a very young population. The average age is under 25 years old. Most people don’t need hospitals. They just need access to basic health and wellness, which Innovarx provides.”

Innovarx also offers both in-person clinics and telehealth services with access to U.S.-based pharmacists through virtual consultations. Although the company serves West Africa, it’s a U.S. entity that sources medications from the U.S. and follows U.S. standards and protocols.

In 2021, Innovarx partnered with Bundung Maternal and Child Health Hospital to implement an electronic health records management system. While digital records have been commonplace in the U.S. for decades, this is the first case of a health care organization adopting an electronic record system in Gambia.

“That was such a big passion project for us, even though it fell outside the confines of our business model.” Badjie says. “It was an important project that demonstrates what’s possible with the right technology. Our hope is that the success of this project can be replicated.”

At Purdue, Badjie saw the potential for innovation within the field of community pharmacy. Through Innovarx, he’s realized the enormous opportunity to positively impact the lives of others.

“It’s such an exciting time to be a U.S.-trained pharmacist because in many cases we are 20 years ahead of the rest of the world,” Badjie says. “That means our opportunities are global. Our profession is far from saturated because the world needs our expertise.”
Mark Smosna oversees compliance for Amazon Pharmacy fulfillment facilities.
When Mark Smosna (BS ’99) enrolled at Purdue in the fall of 1993, he never imagined he might one day work for the world’s largest online retailer and marketplace.

“Amazon.com did exist, but it was just getting started,” Smosna says. “Amazon’s primary business at the time was selling books. For me to think back 25 years ago to when I was in pharmacy school, working for Amazon never even crossed my mind.”

Smosna, regional manager, operations compliance at Amazon Pharmacy, joined the company in February 2020 to help launch a fulfillment center in Indianapolis. In his current role, he works closely with the pharmacist-in-charge at all Amazon Pharmacy fulfillment facilities, which stretch from Seattle to Miami, to ensure operations are compliant with all state and federal laws.

“I’m fortunate to work alongside many brilliant people,” Smosna says. “As an agile company, Amazon is constantly innovating. It’s exciting to be part of a team advancing a different mode of pharmacy. We have the ability to impact the profession in a positive way, at scale.”

The job involves a lot of travel but working for Amazon allowed Smosna and his family to relocate West Lafayette, where his wife, Lori (Mansfield) Smosna (BS Psych ’99), grew up.

“I’m grateful to my wife and my kids for supporting my career journey,” Smosna says. “They’re very understanding when I’m traveling or working late hours.”

As a member of the Indiana Board of Pharmacy since 2016 — a position appointed by the governor — Smosna influences the practice of pharmacy across the state. He’s twice served a one-year term as president of the board. The board works to protect public health by ensuring pharmacies adhere to all state legislation and taking disciplinary action against individuals or facilities that violate laws or regulations.

Another thing Smosna never predicted — just how valuable the information taught in Tom Wilson’s pharmacy law classes would prove to be. Wilson, associate professor of pharmacy practice and law, was licensed in Indiana as both a pharmacist and attorney and known as “The Law Guy” in the College of Pharmacy.

“He was so passionate about teaching pharmacy law,” Smosna says. “With his witty jokes, he found a way to make it entertaining — even at 7:30 a.m. on a Friday morning. Everything he taught all makes sense to me now.”

Before moving to Amazon, Smosna spent 20-plus years working for Walgreens. He’d grown up stocking shelves at his father’s independent pharmacy, BroadRidge Pharmacy in Gary, Indiana. Edward Smosna (BS ’63) sold his business to Walgreens while his son was at Purdue and then finished out his career working for the company.

“Watching my father practice pharmacy taught me the importance of customer service,” Smosna says. “Many of his patients called him ‘Doc.’ They saw him as one of their health care professionals. I loved spending time with my father in his store and seeing the relationships he built in the community. Everyone knew who my dad was.”

At Amazon Pharmacy, Smosna embraces the same customer-first approach demonstrated by his father. The company’s mission centers on removing and reducing barriers that prevent patients from taking medications, whether it’s a lack of information or convenience.

“We’re always searching for new ways to improve pharmacy,” Smosna says. “As we’re thinking about implementing changes or new initiatives, we put the customer first, think about ‘How does this impact or influence the customer?’ and then we work backwards from there.”

As he reflects on his transition from a career in retail to online pharmacy, Smosna recognizes how much the profession has changed since he was in school.

“More pharmacists are working in hospital systems, residency programs and long-term care facilities,” Smosna says. “We didn’t even talk about immunizations when I was in pharmacy school and now that’s part of the standard curriculum. There are just so many different career opportunities for pharmacists than we had 25 or 30 years ago.”

SMOSNA’S TIPS FOR PHARMACY STUDENTS:

Pharmacy is a small world. “Be careful not to burn bridges — you never know who you’ll be working with in the future.”

Always keep an open mind to new opportunities. “At one point I thought I’d be retiring with Walgreens and now I’m enjoying new challenges at Amazon.”

The Purdue Pharmacist / 23
As Kimberly Sanders (PharmD ’13) began her studies in the College of Pharmacy, dentistry was the furthest thing from her mind. Now an assistant professor in the Division of Practice Advancement and Clinical Education at the University of North Carolina Eshelman School of Pharmacy, she practices in a dental student clinic that sees an average of 200 patients a day.

“Once I began working in pharmacy and dentistry, I realized how much of an intersection there is between the two fields,” Sanders says. “Many medications are taken through the mouth and affect oral health. In general there’s siloing of dental practice and oral health care from other health disciplines but as I began to look more broadly at holistic health care, I learned more about the connections between dental diseases and chronic conditions.”

Sanders, who has a shared appointment as an assistant professor at the UNC Adams School Dentistry, precepts and teaches pharmacy students on rotation at the clinic which primarily treats vulnerable populations, offering a range of services including general and preventative care and oral and maxillofacial surgery.

“Our patients come from all across the state sometimes driving two or three hours for an appointment,” Sanders says. “Dental insurance is often viewed as ancillary. We have a large population that doesn’t have dental insurance which usually correlates with other medical complexities such as chronic disease states. We see really medically complex patients at the dental school.”

One of Sanders’ first projects she was involved in at the dental school, a diabetes pilot project, revealed additional opportunities for pharmacy students to provide clinical care to patients. Now on their clinical rotations, pharmacy students conduct medication reviews, look for oral health impacts of a patient’s medication list and record medication histories. As she works with students, Sanders aims to convey her passion for focusing her clinical efforts on high-risk and vulnerable populations.

“I firmly believe that health care is a universal right and should be available and accessible to
"Everyone," Sanders says. "Every person deserves to make informed decisions about their health care. As someone who identifies as an underrepresented minority, I see the inequities that currently exist in health care within my own community. I’ve always wanted to be in a position to help communities address those disparities. I also want to conduct practice-based research that demonstrates that value, too."

Sanders credits some of the mentors she had at Purdue with shaping her career as an academic. The late Jackie Jimerson, director of the Office of Multicultural Programs, advised and encouraged her. Jane Krause, clinical associate professor of pharmacy practice, hired Sanders as a TA for pharmacy calculations which taught her about the administrative aspects of planning and running a course. Kim Illingworth, associate professor of pharmacy practice, modeled a patient-centric approach that encompasses an individual’s whole life experience.

"Dr. Kim Illingworth served as an example of a faculty member I aspire to be like," Sanders says. "She challenged me to think about pharmacy practice from a different perspective in making sure to connect with patients and understand their story beyond just the treatment or medication you provide."

Now, as she builds her own career in academia, Sanders wants to inspire her students to pursue uncharted territories in the profession.

“We have a whole new generation of learners coming through pharmacy school and they think about things differently," Sanders says. "I’m inspired by them because they’re taking a more integrated and holistic approach to health care. I’m excited to be a part of the generation that helps teach them about those things, but hopefully they will be able to take things further and influence practice change and policy change."
Following her second year as a pre-pharmacy student, Erin Shaal (PharmD’09) started a summer job working at a Jewel-Osco near her hometown of Tinley Park, Illinois. The position affirmed a passion for retail pharmacy that would shape Shaal’s career.

“I loved the interactions I had with patients,” Shaal says. “Pharmacy staff was readily accessible and could offer solutions to help them.”

Shaal also had the opportunity to complete a rotation at an independent community pharmacy where she admired how the pharmacist expanded some of the diabetes services provided to patients. Following graduation, Shaal became a pharmacy manager for SuperValu stores in Northwest Indiana where she implemented some of the clinical practices she observed in her community pharmacy rotation.

“When I first started, pharmacists didn’t provide many clinical services outside of immunizations,” Shaal says. “I had the opportunity grow our clinical offerings by introducing medication therapy management and diabetes services to the market.”

That effort grew into an opportunity to add clinical services in Bloomington-Normal, Illinois, and the Quad Cities region of Iowa. As she advanced through the corporation, consumer-obessed business leadership remained central to her career trajectory. Shaal is now vice president, pharmacy procurement, specialty and patient care services, for more than 1,700 pharmacies within Albertsons Companies.

“When I was in pharmacy school, my dream was to become a pharmacist and offer clinical services,” Shaal says. “I hoped to be a great pharmacy manager and someday, a district pharmacy manager. I didn’t see much beyond that. I’ve been fortunate to have an exciting career that has relocated me several times throughout the country. I’ve held many different positions within the company and now I get to experience all my favorite things in my current position.”

For Shaal, no week is ever the same. Her patient care services teams implement initiatives for immunizations, prescribing services and point-of-care testing. Her procurement teams work closely with manufacturers to acquire medications and ensure the pharmacies are fully stocked. Her specialty services teams deliver solutions for complex disease states and to unmet patient needs in unique niches within the industry. For example, Albertsons pharmacists now administer long-acting mental health and substance use recovery injectables within its pharmacy locations.

“We look for needs in the marketplace and identify access-to-care issues our patients are experiencing to determine how we can solve the problem for them,” Shaal says. “That’s where a lot of my work is done in specialty services, thinking about how we meet those needs and then strategizing to make it happen.”

Future initiatives she’s currently exploring involve assessing how food is medicine and considering the patient comprehensively by taking into account food consumption, preventative medicine and chronic disease states. Shaal sees potential for the grocery and pharmacy operations of the business to come together to change health outcomes for patients.

“I love science and I want to help people; that’s what inspired me to pursue pharmacy as a profession,” Shaal says. “When you put the customer at the center of all your decisions, it makes life a whole lot easier. When my team members come to me with ideas, they know my very first question is going to be, ‘Is this good and right for our customers and patients?’ Because anything that isn’t good for the customer is not worth pursuing.”

With her extensive experience examining industry trends and innovating patient care services, Shaal maintains a favorable outlook on the future of the profession.

“Pharmacists are going to play a much deeper role in the health care ecosystem,” Shaal says. “We’re already seeing the shift toward pharmacists providing more clinical care. In the future, pharmacists will fill a lot of the gaps. Patients may go to the pharmacy as a source of acute care. It’s exciting to see the scope of practice evolving from manual dispensing practices to a hands-on approach with patients.”
PUTTING PATIENTS FIRST

Erin Shaal innovates clinical care services through customer-obsessed business leadership
Raised in a house full of Boilermakers, Rosemary (Walker) Tiplick (BS ’96) couldn’t wait to get to Purdue. “My sister Sheila started at Purdue as a freshman when I was in the first grade,” Tiplick says. “I started wearing Purdue shirts pretty much every day from then on. I grew up going to football games. My parents were season ticket holders and they would stay in the Union Club Hotel and I would stay in the dorms with my sister. Purdue was all I knew.”

Tiplick’s father was a Purdue grad, as were two of his siblings — and six of Tiplick’s older siblings, plus a cousin. All but one studied pharmacy, totaling 10 Purdue pharmacy grads in the family, including Tiplick. But the Walker pharmacy legacy stretches even further back. George Austin Walker, Tiplick’s great-great-uncle, opened Walker Drug Company in Loogootee, Indiana, in 1881. Her grandfather, William Austin Walker, became owner of the store in 1914 after completing a five-year apprenticeship and earning his certification from the Indiana Pharmacy Board. Three of his children — Fintan (BS ’53), Jerry (BS ’56) and Rachel (BS ’58) — earned pharmacy degrees from Purdue. Following his father’s death, Fintan took over the family business and Rachel worked as a pharmacist there. Jerry opened his own pharmacy about 15 minutes down the road in Washington, Indiana.

“I loved going into my dad’s store on Main Street when I was little,” Tiplick says. “I can still remember him sitting me up on the counter. As soon as I was old enough to match a drug name with a sticker, I would help place stickers on stock bottles and check in orders. We all helped out in the pharmacy.”

And when Jerry ran low on stock, he’d head over to his brother Fintan’s pharmacy in Loogootee — and vice versa. The two were the best of friends, despite a seven-year age gap. Fintan was drafted to serve in the Korean War while at Purdue. When he returned to West Lafayette to finish his final year of pharmacy school, Fintan shared a room in Cary Quadrangle with his younger brother Jerry. Tiplick has fond memories of visits to her uncle Fintan’s store, too. “It was like a step back in time,” Tiplick says. “It was a long, narrow building with a small soda fountain in the back with about four bar stools. They made all sorts of old-fashioned ice cream drinks in different flavors. I always got a cherry Coke or a chocolate Coke. They were known for their nickel Cokes, even in the 1970s and ’80s.”

Fintan’s daughter, Bernadette Walker-Medlin (BS ’83) remembers working in her father’s pharmacy starting in grade school. “I helped stock shelves, fill the ice bucket, scoop ice cream and work the register,” Walker-Medlin says. “I also learned just by watching that getting a smile from a customer made them feel better, with or without medications.”

Following graduation, Walker-Medlin worked as a staff pharmacist at Vincennes Hospital before relocating to Portland, Oregon, to complete a residency at the Veterans Administrative Medical Center, focusing on gerontology. She went on to work for Propac Pharmacy and Kaiser Permanente. She earned a PharmD from Indiana State University in 1996 and although she married, she never changed her name on her pharmacist license — “always a Walker pharmacist.” Throughout her career, stints home to Loogootee included time working at the family pharmacy. “When Walker Drug closed its doors, it was emo-

Ten pharmacy grads trace their roots to Walker Drug Company
tionally challenging for not only the family, but the community,” Walker-Medlin says. “It was comparable to losing an elder — always there, always supporting, challenging and rewarding.”

Jerry sold his drugstore, Walker’s Pharmacy, in the late ’70s to establish an in-house pharmacy, Walker Prescription Service, which provided the prescriptions for three area nursing homes. He then saw seven of his eight children graduate from Purdue, six with pharmacy degrees.

SHEILA WALKER (BS ’85) began her career in retail pharmacy.

JEAN WALKER GODFREY (BS ’85) majored in pharmaceutical sciences before going on to medical school. She now practices emergency medicine at St. Francis hospital in Indianapolis. Four of her five children all earned degrees from Purdue.

MARTHA WALKER (BS ’86) earned a degree in dietetics, following in the footsteps of her mother and grandmother.

MONICA (WALKER) FOYE (BS ’89) worked in retail pharmacy, long-term care and outpatient pharmacy.

AUSTIN WALKER (BS ’91) pursued a career in industry and is senior director of quality assurance for Eli Lilly and Co. His daughter, Anna, will be a freshman at Purdue this fall majoring in integrated business and engineering.

ED WALKER (BS ’93) started out at an independent pharmacy in Evansville, Indiana, before becoming the owner of Milburn Pharmacy in Sullivan, Indiana, where he interned during pharmacy school. He sold the business in 2019.

ROSEMARY (WALKER) TIPLICK (BS ’96) worked as a clinical consultant pharmacist for CVS/Caremark.

“We all took our careers in different directions,” Tiplick says. “Purdue prepared each of us for whatever path we wanted to take. I know our father is extraordinarily proud of what we’ve all accomplished. We were blessed to graduate without student loans and that was the best gift he could give us.”

Jerry, now 88, has been married to his wife, Laurinda, for 64 years. Tiplick remembers her father telling his children that if they worked hard the first 25 years of their lives, the next 75 would be a lot easier.

“I think there’s some truth to that,” she says. ☺️

THE WALKER FAMILY’S PURDUE LEGACY

- Fintan Walker (Pharmacy ’53)
- Bernadette Walker-Medlin (Pharmacy ’83, PharmD ’95)
- Jerry Walker (Pharmacy ’56)
- Sheila Walker (Pharmacy ’85)
- Jean Walker Godfrey (Pharmaceutical Sciences ’85)
  - Steve Godfrey (Biochemistry ’16)
  - Jim Godfrey (Computer Science ’17)
  - Dan Godfrey (Biochemistry ’19)
  - Laurinda Godfrey (Chemistry ’21)
- Martha Walker (Dietetics ’86)
- Monica Walker Foye (Pharmacy ’89)
- Austin Walker (Pharmacy ’91)
  - Anna Walker (freshman)
- Ed Walker (Pharmacy ’93)
- Rosemary Walker Tiplick (Pharmacy ’96)
- Rachel Walker Doyle (Pharmacy ’58)
Patients seeking care at Purdue’s Center for Healthy Living benefit from a collaborative practice agreement that allows pharmacists to adjust medications based on a patient’s response to therapy.

“Many of the patients I see in clinic are being treated for chronic conditions such as diabetes, high blood pressure or elevated cholesterol,” says Chelsea Baker (PharmD ’11), clinical assistant professor of pharmacy practice. “I work in collaboration with our providers to help our patients achieve their desired health outcomes.”

Baker is one of three clinical pharmacists in the College of Pharmacy who practice at the Center for Healthy Living a few days a week under a contract between the university and One-to-One Health, the corporate health management company that is in its sixth year of operating the center. The arrangement empowers pharmacists to have in-depth consultations and follow-up appointments with patients, who do not incur a copay for those services.

“Pharmacists are medication experts,” Baker says. “During patient appointments, we can have in-depth discussions on the different treatment options available, varying costs of medications, explain side effects and share other information that might be difficult to cover as part of a provider visit.”
The center serves university employees and their dependent family members and offers a wide range of services to treat common illnesses, manage chronic conditions, provide preventative care and promote overall health. Collaborative drug therapy management, provided by trained clinical pharmacists, is one of several services offered through the center’s no-cost wellness initiative.

“Housing a variety of wellness services all in one place makes it easier for our patients to navigate the health system,” says Trexie Rudd (PharmD ’17), assistant director of clinical services at the Purdue University Pharmacy, who also practices at the center. “Patients are more likely to seek care if it’s convenient for them and the Center for Healthy Living’s comprehensive care model brings providers, pharmacists, health coaches and counselors together.”

It’s not uncommon for a provider to finish up an appointment and drop by the pharmacist’s office to see if they have time to meet with a patient. Pharmacy students on rotation with one of the clinical pharmacists at the center have an opportunity to consult with patients, too.

“Students review patient charts and medical history to work up a care plan,” Rudd says. “Then we discuss it together and talk through how to support the patient if they are not meeting their desired health outcomes. The students get a lot of practice thinking through all the different possible scenarios.”

Working in an employer-based clinical model through rotations, exposes students to a career path for pharmacists interested in ambulatory care. Through her work at the center, Rudd sees how the public’s notion of what a pharmacist is trained to do is expanding, too.

“There’s a common misconception that pharmacists only dispense prescriptions, but we’re trained to provide other services as well,” Rudd says. “Working in clinical settings under these types of partnerships demonstrates our capacity of care to other health care professionals as well as our patients. I’ve had patients come in for appointments who tell me, ‘I had no idea a pharmacist could do this.”

Clinical pharmacists such as Trexie Rudd (PharmD ’17), at left, are a critical part of the Center for Health Living’s comprehensive care model.
Purdue establishes Institute for Advanced Manufacturing of Pharmaceuticals

In June 2022, Purdue Trustees announced the establishment of the William D. Young Institute for Advanced Manufacturing of Pharmaceuticals, thanks to a generous donation from the eponymous pioneer in pharmaceutical and biotechnology manufacturing and Purdue alumnus.

The institute will strengthen pharmaceutical manufacturing in the Midwest by conducting research and providing training on economical methods of drug manufacturing, an area pharmaceutical companies have not invested in as heavily as they have in drug discovery.

“Purdue is a unique institution in that we have incredibly distinguished programs in the colleges of Pharmacy and Engineering,” says Eric Munson, the Dane O. Kildsig Chair and head of Industrial and Physical Pharmacy and one of the co-directors of the institute. “There has always been a strong synergy between the two colleges and the creation of this institute is an opportunity to harness our interdisciplinary knowledge and expertise to advance pharmaceutical manufacturing for the entire region.”

The institute will serve as a resource for pharmaceutical companies to train their workforce on the basic skills necessary to become operators in pharmaceutical manufacturing. Concurrently, Purdue faculty and researchers will advance scientific discovery of manufacturing modalities in cell and gene therapies; continuous manufacturing of active pharmaceutical ingredients; and novel manufacturing methods such as 3D printing pharmaceuticals.

“This is a tremendous opportunity for the university to contribute to economic development in the state of Indiana through the promotion of pharmaceutical manufacturing,” Munson says. “The combined endeavor of boosting workforce development and facilitating innovative research is only possible at Purdue.”
We are in the midst of the greatest wealth transfer in the history of the United States. The decisions being made right now will impact individuals and organizations for decades to come.

Over time, a direct mail campaign or a phone-a-thon would fulfill the needs of a nonprofit organization. However, nonprofit life is evolving. The philanthropic ways of the past are still present, but in terms of donor motives, things look a bit different.

During the past two decades, we have seen an explosion of growth in highly-appreciated stock donations, donor-advised funds and other tax-advantageous ways of giving. We also have watched a clash of generational beliefs about philanthropy, which have led to donor count declines nationally.

Presently, we have many retiring Baby Boomers caught in an interesting place. They may be caring for an elderly parent while also making initial estate plans for their own heirs.

For many, the largest retirement asset is a pretax IRA. Given the creation of legislation like the SECURE Act and its implications on retirement accounts, these pretax assets have become more difficult to pass to heirs because the distributions are generally more heavily taxed. This is where a philanthropic opportunity is presented.

Have you heard of a testamentary charitable remainder trust (T-CRT)? This vehicle allows pretax assets to pass more effectively to heirs and potentially create generational wealth, all while providing transformational charitable impact.

This is only one estate planning vehicle of many to consider, but it is rooted in the win-win-win philosophy. It’s a win for you and your heirs. It’s a win for your advisors. It’s a win for your favorite charities. The future of transformational philanthropy is this triple-win scenario.

It all starts with a conversation. The outcome may be a wealth transfer opportunity you never imagined possible for all parties involved. Amidst all of this dialogue, you will be playing a pivotal role in helping us change the future of the College of Pharmacy and Purdue University.

Thank you for all you do to make this place so special. Hail Purdue and Boiler Up! 🏈
The colleges of Pharmacy and Health and Human Sciences are taking giant leaps in advancing collaborative, innovative learning for health care professionals in Indiana through a new, modern facility at the corner of Mitch Daniels Boulevard and Russell Street.

The Clinical Education Building for Pharmacy and Nursing will address the country’s critical workforce needs for skilled nurses and pharmacists and expand interprofessional education opportunities that mirror modern health care settings.

“...The Clinical Education Building for Pharmacy and Nursing is paramount to preparing students to stay on the forefront of our ever-changing health care system and to serve as leaders in their field for generations to come."

ERIC L. BARKER
Jeannie and Jim Chaney
Dean of Pharmacy
PROPOSED SPACES

- Clinical Simulation Labs
- Collaboration Spaces
- Large Active-Learning Classrooms
- Modern Research Facilities

66%

OF INDIANA PHARMACISTS ARE PURDUE GRADUATES

#7

PHARMACY PROGRAM IN NATION (U.S. NEWS & WORLD REPORT)

SHOW YOUR SUPPORT!

MAKE A GIFT TODAY AT NURSING.PHARMACY.PURDUE.EDU AND HELP FUEL OUR NEXT GIANT LEAP.
Jeannie and Jim Chaney, the Purdue University College of Pharmacy's most generous donors, made an additional $17 million commitment in support of pharmacy scholarships. The gift was announced in April during Purdue Day of Giving.

The Chaneys, who have supported a wide range of strategic opportunities at Purdue, are among the most prolific benefactors in university history. Including this estate gift, they have committed more than $44 million over 45 years.

"With this latest gift, the Chaneys have shown yet again how generous they are and how deep their love for Purdue runs," says Purdue President Mung Chiang. "Their commitment to the university, its strategic vision and its students is essentially unmatched, and their impact will be felt for many generations to come."

The most recent contribution will be distributed through the Chaney Family Scholarship Endowment. Scholarships established by the Chaneys include the JeanAnne D. & James B. Chaney Scholarship in Pharmacy, the JeanAnne Darr and James B. Chaney Education and Development Fund, the Jim and JeanAnne Chaney Pharmacy Student Support Endowment, and the James Russel Maier Memorial Scholarship.

"Scholarships have always been a major component of our giving because college debt is such a big concern for students," the Chaneys say. "Purdue continues to prioritize affordability and accessibility, and we are in full support of that initiative. We strongly believe it is possible for Purdue Pharmacy, which is currently ranked No. 4 nationally, to remain among the top pharmacy programs in the country while the university still offers one of the most affordable educations around."

The Chaneys have a long history of giving to Purdue and the College of Pharmacy.

Among numerous other contributions, they previously made the lead gift for the Chaney-Hale Hall of Science and, in 2022, funded the first-ever termed deanship at the university with a $6 million pledge. That gift established the Jeannie and Jim Chaney Dean of Pharmacy for five years and the Jeannie and Jim Chaney Dean’s Excellence Fund Endowment for Pharmacy.

The couple was recognized for their philanthropy with the Purdue President’s Council Crystal Boilermaker Special and the college’s Friends of Pharmacy award. The Chaneys also are recipients of the President’s Council Pinnacle Award, the highest recognition for philanthropic contributions to Purdue.

"Simply put, the College of Pharmacy has been transformed by the passion and generosity of the Chaneys," says Eric Barker, the Jeannie and Jim Chaney Dean of the College of Pharmacy. "In both the near and long term, their wide-ranging commitment will provide life-changing support for our students and enhance almost every aspect of our college, from the students and faculty we recruit to the facilities we use."

Jeannie Chaney (BS ’61) served as a pharmacist in Ohio for nearly 50 years before retiring in 2011. She has served as chair of President’s Council and as a member of the steering committee of Pharmacy Women for Purdue and the Pharmacy Alumni Board. Jim Chaney is president of the Cleveland Syrup Corp., which provides sweeteners to food manufacturing companies. He earned his bachelor’s degree in economics from Denison University.

"It seems like every time Purdue seeks support for its next giant leap, the Chaneys are willing to step up and do whatever it takes," says Matt Folk, president and CEO of the Purdue for Life Foundation and vice president for university advancement and alumni engagement at Purdue. "They are always in lockstep with the university, this time making one of the largest commitments toward affordability in Purdue history. I know the Chaneys love contributing to Purdue Day of Giving, as well, and this gift really helped us move the needle."
Jeannie and Jim Chaney, the Purdue College of Pharmacy’s most generous donors, have made an additional $17 million commitment in support of pharmacy scholarships. The Chaney’s, who have supported a wide range of strategic opportunities at Purdue, are among the most prolific benefactors in university history.

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—ERIC BARKER
Jeannie and Jim Chaney
Dean of Pharmacy

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Photo: John Underwood
Sometimes our paths are guided by mentors who open doors for us when we don’t even realize it. That’s what happened to Nancy Clifton Lilly (BS ’78) and it’s why she is so passionate about building a bridge for others.

When people in the pharmaceutical industry hear Lilly’s last name, they often assume she’s connected to the Lilly family of Eli Lilly and Co. — where she spent the last 23 years of her career. But Lilly wasn’t a trust fund baby — “There’s no connection, believe me I’ve looked!” She grew up in Indianapolis and knew her parents couldn’t afford to send her to college out of state. Coming out of high school, she wanted to pursue a career in health care, but she wasn’t certain exactly what she wanted to do.

Following a guidance counselor’s advice, Lilly applied to the College of Nursing. Her first day on campus, she knew nursing wasn’t the right path for her. That summer, she’d attended her cousin’s wedding. The groom was a pharmacist and it was the first time Lilly considered pharmacy as a profession.

“At the beginning of the semester, my mother and I were on campus to enroll me in classes,” Lilly says, “We went to the dean of nursing so I could withdraw from the program and I remember being told there was no guarantee I’d get into pharmacy. That it’s very competitive and once I gave up my slot in nursing school, I wouldn’t get it back. But by then I was convinced that pharmacy was right for me.”
Lilly loved the marriage of science and medicine together. As she progressed through pharmacy school, she set her sights on a career in industry. She worked as a hospital pharmacist for six months while looking for an industrial career path. That's when two professors, Frank Murphy and Nicholas Popovich, built a bridge for her.

“I received a phone call from a Merck recruiter saying that Dr. Murphy and Dr. Popovich recommended they contact me,” Lilly says. “The rest is history.”

She worked for Merck for 12 years in a variety of technical and managerial roles. Eager to work on the business side of the pharmaceutical industry and have an international career, Lilly left Merck for Eli Lilly where she held positions throughout the U.S., Europe and Asia.

“I lived in Sydney for four years and was general manager and president for Eli Lilly operations in Australia, New Zealand and the South Pacific,” Lilly says. “That was probably the job of my dreams. My boss was 10,000 miles away. There was no one standing over my shoulder. It was my responsibility to build the team and deliver results.”

In Australia, a country with 22 million people at the time, Lilly was on a first-name basis with the prime minister and the ministers of health and science and industry. As the leader of Eli Lilly’s operations in the country, Lilly served on government committees that influenced the health care industry.

“It was a tremendous opportunity for me to grow personally and professionally,” Lilly says. “Our team brought new medicines to the Australian populace. It’s very gratifying when you get letters from people who take the products you bring to market and realize that you’ve made a difference in somebody’s life.”

Lilly retired as vice president of marketing for the emerging markets at Eli Lilly. During her career, she often reflected on a parable about responsibility from “The Book of Virtues” by William Bennett.

“In the story, an older person on a journey encounters a difficult river but is able to cross,” Lilly says. “When he looks back, he sees the young person coming behind him is struggling to make it across. He realizes it is his responsibility to help. That story gelled for me that it really is our responsibility as alumni who have achieved great things because of the university helping us to turn around and help the students behind us. I feel a strong commitment that I want to be like those college professors that spoke up for me and opened a door.”

Lilly and her wife, Marie-Odile Froment, have pledged an estate gift to establish an endowed professorship in an emerging field such as data analytics or pharma-cogenomics, to be determined by the dean. The couple has also endowed two scholarships at Purdue — one in the College of Pharmacy and one for members of the LGBTQ+ community studying STEM disciplines.

“When I was at Purdue there was no visibility for the LGBTQ+ community,” Lilly says. “Still today, many LGBTQ+ students are not supported by their families. They face food insecurity and drop out due to financial hardship. I worked through school as a residential advisor to help pay for college, but I always had the support of my family. If I can help students who are struggling to hold down jobs and keep their grades up, I want to do that. I want to help get them through.”

For Lilly, the variety of professional career options available to someone with a degree in pharmacy offered numerous possibilities for how her career would unfold. At Purdue, she was surrounded by diverse students and faculty. She was engaged in a rigorous curriculum. She encountered an encouraging environment that facilitated growth and learning. Her gift ensures students of today the same opportunity to rise to their potential.

“Every time I’m on campus, I feel rejuvenated and optimistic about the future of the world because I can see people with bright minds motivated to make a difference,” Lilly says. “I was just like them, someone who wasn’t exactly sure what they wanted to do but worked hard and benefited from the generosity of the people around me. You don’t get to where you are in life by yourself. We need to pull one another along as we are able.”
The College of Pharmacy has received a $20 million commitment from alumnus Marcel Sassola III to establish a new leadership academy that will expand the college’s offerings and prepare a new pipeline of pharmacy graduates to innovate and lead in an ever-changing health care landscape.

The Marcel Sassola III Leaders and Entrepreneurs Advancing Pharmacy (LEAP) Academy will be modeled after the successful Larsen Leaders Academy in the university’s Mitchell E. Daniels, Jr. School of Business, and will focus on strengthening leadership and entrepreneurship among Purdue pharmacy students.

“I felt now was the time to give back and, ultimately, pay my success forward by giving other people the same opportunities I had — or even better,” Sassola (BS ’83) says. “Purdue and education have both always been passions of mine. I wanted to make sure my gifts would have the biggest possible impact on the university, and this was the right moment.”

The LEAP Academy will feature a LEAP Scholars program for undergraduate, PharmD and PhD students. Students selected as LEAP Scholars will be chosen based on student leadership activities, academic record and a rigorous selection process.

The LEAP Scholars Academy will be coordinated by the LEAP Academy program director, which is a new position, and counseled by an alumni entrepreneurship advisory board.

“The College of Pharmacy has a proven legacy of transforming the practice and science of pharmacy to lead advances in human health and of developing graduates who display a broad range of expertise that extends to areas such as management, economics and public health,” says Eric L. Barker, the Jeannie and Jim Chaney Dean of the College of Pharmacy and professor of medicinal chemistry and molecular pharmacy.

“Through Marcel Sassola’s generosity, we will be able to build on that rich tradition and provide our students with all the tools they need to succeed as leaders and pioneers in the industry.”

Sassola is the former CEO of Santa Barbara Specialty Pharmacy, which services California and five nearby states, and has more than 35 years of experience as a pharmacist and entrepreneur. He is a member of the Purdue Alumni Association and President’s Council and also is active in the Santa Barbara and Los Angeles communities.

“Purdue helped me build a foundation of education and simultaneously provided me the ability to learn more about who I was and what I wanted to do with my life. Giving back now makes me feel like I’ve found a missing piece,” Sassola says. “I look forward to meeting the first LEAP Scholars, serving as a steward for this exciting new program and witnessing the evolution of the College of Pharmacy.”

As LEAP scholars, students are responsible for:

- Participating in the Pharmacy Leadership and Innovation Forum class.
- Completing the Purdue Entrepreneurship and Innovation Certificate Program.
- Executing special projects and challenges designed to contribute value to the College of Pharmacy’s programs and services.
- Maintaining good standing in both academic performance and professional conduct.
- Attending two weekend events — including an off-campus leadership and entrepreneurship retreat during the fall and an on-campus retreat during the spring — that will feature “Shark Tank”-like presentations.
THANK YOU
to the entire pharmacy family
for your loyal support!

Every gift, regardless of size, allows us to fully realize our vision of being bold leaders, moving together to the highest level of excellence in learning, discovery and patient care.

Fiscal year 2022-23 was another outstanding one for the College of Pharmacy at Purdue University. Here are a few highlights:

• Two of the top three gift pledges in college history were made

• Largest cash gift pledge in pharmacy history to faculty research was established

• New academic program for future years was established (Marcel Sassola III LEAP Academy)

• College of Pharmacy won Purdue Day of Giving (highest amount raised) for the third time in 10 years. The first unit to win three times (2018, 2022, 2023) and the first to win back-to-back (2022, 2023).

Karen Suchaneck Hudmon, professor of pharmacy practice, observes students in the Professional Skills Lab.
SEPTEMBER 2023
30 Homecoming Tailgate
2-3 hours prior to kickoff @ Pharmacy Tent, Memorial Mall

OCTOBER 2023
24 AAPS Alumni Reception,
6-8pm @ Orlando, FL

NOVEMBER 2023
11 Scholarship Donor Celebration, 8-10am @ PMU Ballrooms

DECEMBER 2023
3 ASHP Indiana Reception, 6-8pm @ Anaheim, CA

JANUARY 2024
9 Dean’s Leadership and Innovation Forum Begins (every Tuesday through April 18)

FEBRUARY 2024
7-11 President’s Council Naples Annual Weekend (Pharmacy Breakfast, Feb. 11)

MARCH 2024
24 APhA Alumni Reception,
6-8pm @ Orlando, FL
28 Distinguished Alumni Awards Dinner, 6-8pm @ Dauch Alumni Center
29 Distinguished Alumni Awards Luncheon, 12-2pm @ Buchanan Club

APRIL 2024
11-12 Pharmacy Women for Purdue Conference @ Buchanan Club
24 BSPS Graduation Banquet, 6:30-8:30pm @ TBD
26 Graduation Banquet @ 6-9pm PMU Ballrooms

MAY 2024
TBD Graduation Reception
31 BoilerRx Golf Classic, 12pm @ Birck Golf Complex, Ackerman-Allen
31 Alternate Non-Golf Event, TBD

GET MORE INFO AND REGISTER TO ATTEND