

Pitt Pharmacy:

Leading the Way



By the Numbers



Student Enrollment

PharmD and graduate students in fall 2022

target enrollment met for PharmD entering class (at a time of national declining enrollment in PharmD programs)

identify as African American/
Black or Hispanic/Latino for
fall 2022

Other Trainees

46 residents

1 fellows

Scholarship Support

38.6% of PharmD students receiving scholarship support in the 2023-24 academic year

\$809,900 in total scholarship support to PharmD students (up from \$701,885 last year)

Giving

579 donors

million in new gift commitments in fiscal year 2023

400 Engagement with alumni and donors in fiscal year 2023

Alumni Network

More than 5,300 alumni

Rankings

Pitt Pharmacy is one of the top-ranked pharmacy schools in the country.

#13 in the 2020 U.S. News & World Report rankings of Best Pharmacy Schools

Research rankings from the American Association of Colleges of Pharmacy, Oct. 2021-Sept. 2022:

#19 in funding from the National Institutes of Health (\$12.1 million)

in other federal funding (\$7.9 million)

in total federal funding (\$20 million)

#14 in nonfederal funding (\$5.1 million)

#10 in all grants (\$25.2 million)

7th most engaged school in industry fellowships

of Pitt Pharmacy faculty are elected fellows of one or more national scientific and professional organizations

Research Impact

\$**19.76**M

million in research expenditures in fiscal year 2023 (\$1.26 million higher than previous year)

faculty members received grants (an 18% increase over the previous year)

active research projects in fiscal year 2023



Message from the Dean

Since my appointment as dean in July 2022, the School of Pharmacy has embarked on a transformative journey, marking a period of revitalization that has set the stage for continued excellence in education, research, and service. Over the past year, our collective efforts have been guided by a renewed focus on our culture, an unwavering commitment to upholding our core values, and a strategic alignment that positions us for a future of success. I am pleased to present this report of accomplishments over the past year. In the coming year, our foremost aim is to build on our successes and push the boundaries of what is possible in pharmacy and pharmaceutical sciences education, research and service.

We are on the cusp of unveiling an ambitious reimagined strategic plan that will chart our course for the future. As we look forward, this plan will serve as our guide, propelling us toward a future characterized by innovation, collaboration and a commitment to excellence. I am excited about the future of Pitt Pharmacy.

Amy Seybert, PharmD

amy L. Sleybert

University of Pittsburgh School of Pharmacy



We are on the cusp of unveiling an ambitious reimagined strategic plan that will chart our course for the future. ""





Pitt Pharmacy is leading the way in **developing** innovators, making discoveries, and solving complex medication-based problems of today and tomorrow.



School News

New Program

The University of Pittsburgh School of Pharmacy is offering an online, competency-based Master of Science program in PharmacoAnalytics and pharmaceutical outcomes research. This program provides students with the tools and skills necessary to analyze large health care data sets 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 didactic 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 health care sectors, such as the pharmaceutical industry, health insurance companies, and governmental agencies, and other health care and data organizations.

New Website

After months of planning, designing, and development, Pitt Pharmacy is excited to present its new website that reflects the excellence and innovation at the school. The new website aims to enhance the overall experience for students, faculty, staff, and stakeholders. The new site provides easy access to information, school news, and program offerings.

RxCore

The establishment of RxCore (RX Center of Excellence for Outcomes Research and Practice Implementation Excellence) is a significant accomplishment in partnership with UPMC with pharmaceutical industry collaborative opportunities. In May 2023, Pitt Pharmacy and UPMC hosted the RxCore Partnership Day. The event identified opportunities for partners to support ongoing research and assist in overcoming barriers to success.



Making History

Congratulations to **Zoe Vaughn** for successfully defending her PhD dissertation. Vaughn is the first African American woman to graduate with a PhD from the pharmaceutical sciences program at Pitt Pharmacy. Her dissertation is titled "Design, Synthesis, and Biological Evaluation of Small-molecule HDAC8 Inhibitors for Use in Acute Kidney Injury."



PITT PHARMACY IS EXPANDING WITH NEW FACULTY AND STAFF.



Kimberly Burns



Aaron Devanathan



Martha Ndung'u

NEW FACULTY

Kimberly Burns (BSPh '94) is an associate professor in the Department of Pharmacy and Therapeutics. In addition to her degree from Pitt Pharmacy, she holds a JD degree from Duquesne University's Thomas R. Kline School of Law. She is both a licensed pharmacist and an attorney in Pennsylvania. In addition to her career in academia, she has practiced community pharmacy for more than 25 years and has consulted on various legal cases and pharmacy law-related practice matters. She is a coauthor of the current edition of "Pharmacy Practice and the Law," and she has made presentations at the local, state, and national level on a variety of pharmacy law topics. Burns has been active in several state and national pharmacy organizations, including the American Society for Pharmacy Law, which she served as a board member and president.

Aaron Devanathan (BSPS '14, PharmD '16) is an assistant professor in the Department of Pharmacy and Therapeutics. He completed his pharmacy practice residency at UNC Medical Center. He earned a PhD in pharmaceutical sciences and completed the University of North Carolina-Duke University Collaborative Clinical Pharmacology T32 Postdoctoral Training Program at the UNC Eshelman School of Pharmacy before accepting a faculty position at the University of Pittsburgh. Devanathan leads the Certara Academic Center of Excellence program at Pitt Pharmacy. His laboratory focuses on the clinical pharmacology of antiretrovirals and their disposition into biological matrices, with the goal of understanding how antiretroviral pharmacology affects inflammatory processes related to HIV-associated comorbidities and vice versa.

Martha Ndung'u (BSPS '17, PharmD '19) is an assistant professor in the Department of Pharmacy and Therapeutics. After earning her PharmD with a concentration in global health, she went on to complete a primary care residency at the LifeLong Medical Care health care center in Oakland, California, and obtained her teaching certificate from Touro University California. She then moved into academia and taught practical and case-based courses at the University of the Pacific Thomas J. Long School of Pharmacy for three years. She rejoins Pitt Pharmacy excited to work with students, patients, and faculty to close health disparity gaps in underserved communities locally, nationally, and globally.

NEW STAFF

Rob de Cortie joined Pitt Pharmacy as the Center for Pharmacogenetics administrator, providing critical support to the center's faculty and researchers.

Tiarra Gordon serves as the department administrator in the Department of Pharmacy and Therapeutics. Gordon comes to Pitt Pharmacy after spending time working for UPMC. She provides support and is the administrative lead for the department chair and faculty within the department.

Candace Stone joined Pitt Pharmacy as an educational support specialist. She is an integral part of the course support team and assists the faculty with course support needs. Stone comes to Pitt Pharmacy with extensive customer service and varied technology experience.

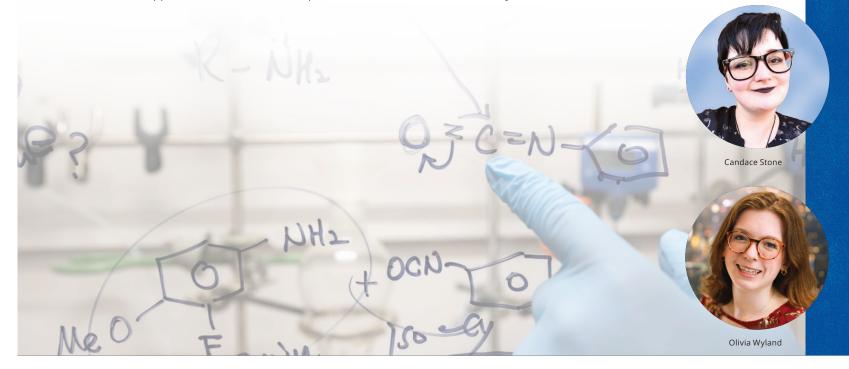
Olivia Wyland is a center administrator. Wyland provides administrative support for the Center for Clinical Pharmaceutical Sciences, including standard operating procedure documentation, course support, lab supplies purchasing, large format printing, and schedule coordination. Wyland graduated from Pitt's Kenneth P. Dietrich School of Arts and Sciences in 2022 with a degree in public and professional writing. She thrives in writing and communication and is appreciative of the relationships she has built in the Pitt community.



Rob de Cortie



Tiarra Gordon







Education

The University of Pittsburgh School of Pharmacy is a premier school that has maintained its enrollment, has grown its research funding to all-time highs, has achieved top five residency match rates, has placed among the top 10 schools for industry fellowship placements, and has a first-time pass rate on the North American Pharmacist Licensure Examination and law exams above 90%. Pitt Pharmacy leads the way in innovation in education, winning more that 10 national education awards in the last few years, and has changed pharmacists' care practice in the community and in institutions in collaboration with our practice partners.

Match Day Results 2022-23

Pitt Pharmacy had a **93% PGY1** match rate and a **95% PGY2** match rate after Phase 2 of the ASHP match.*



*Includes non-accredited programs

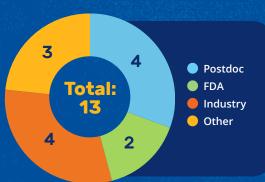


WHERE OUR GRADUATES ARE GOING 2022-23

PharmD Students



PhD Students



MS Students









Honors and **Awards**



Neil Benedict



Lucas Berenbrok



Ioni Carroll



Sharon Connor



James Coons



Sandra Kane-Gill



Donna Huryn



Wen Xie



Thomas Nolin



Lisa Cencia Rohan

FACULTY ACCOLADES

Some examples of Pitt Pharmacy faculty members who received prestigious honors and awards in 2022-23 include the following:

Associate Professor Neil Benedict was one of two recipients of the 2023 American Association of Colleges of Pharmacy Distinguished Teaching Scholar Award, which recognizes excellence in scholarly teaching and the scholarship of teaching and learning.

Associate Professor Lucas Berenbrok was recently announced as the 2023 recipient of the Albert B. Prescott Pharmacy Leadership Award from the Pharmacy Leadership & Education Institute and the Phi Lambda Sigma Pharmacy Leadership Society. 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.

Assistant Professor Joni Carroll (BSPS '13, PharmD '15) received the 2022 Pharmacists Mutual Insurance Company Distinguished Young Pharmacist Award at the Pennsylvania Pharmacists Association (PPA) 2022 Annual Conference. This award recognizes a new pharmacist for their dedication to and participation in PPA, commitment to the practice of pharmacy, and involvement in community activities. The Distinguished Young Pharmacist Award is presented annually to young pharmacists across the United States.

Associate Professor **Sharon Connor** was one of five University of Pittsburgh Health Sciences Office of Health Sciences Diversity, Equity, and Inclusion 2022 Social Justice Fellowship awardees.

Professor James Coons was a recipient of the 2023 Chancellor's Distinguished Teaching Award. This annual award recognizes teaching excellence by members of the University of Pittsburgh faculty.

Professor Sandra Kane-Gill was awarded the 2023 American Association of Colleges of Pharmacy Paul R. Dawson Award for Excellence in Patient Care Research. The award annually recognizes an active scientist within the ranks of pharmacy education as a leader in the broad range of research related to health services delivery directly affecting patient outcomes, including basic, clinical, translational, and health services research.

Professors **Donna Huryn** and **Wen Xie** have been elected 2022 fellows of the American Association for the Advancement of Science. They are among 212 fellows from the University of Pittsburgh who have received this honor since its inception in 1874.

Associate Dean for Research and Sponsored Programs and Associate Professor **Thomas Nolin (PharmD '99. PhD '03)** is an editor of the most recent edition of "DiPiro's Pharmacotherapy: A Pathophysiologic Approach," which has been the essential text for more than 30 years.

Professor Lisa Cencia Rohan (PhD '95) received the 2022 Women Who Rock Impact Award, sponsored by Peoples Natural Gas, for addressing some of the understudied problems in women's health research.



Alyssa Mekel and Annie Weyand

STUDENT RECOGNITIONS

The Pennsylvania Pharmacist Association awarded a mini grant to Alyssa Mekel and Annie Wevand for their research project, Medication Adherence Packaging Services; Identifying Current Practices for Patient Assessment and Documentation within Independent Community Pharmacies.

The Pitt Pharmacy trio of Samantha Freiter (BSPS '22), Joseph Chen (BSPS '22), and Shay Roth (BSPS '22) were given American Pharmacists Association scholarships. Freiter received the Boyle Family Scholarship, Chen was awarded the Juan and Esperanza Luna Scholarship, and Roth was honored with the Menighan Leadership Scholarship.

Pitt Pharmacy was victorious in the OTC Competition, the signature event of the Pennsylvania Pharmacists Association Mid-Year Conference, at which 24 students, eight faculty and staff

members, and three fellows/residents and alumni represented the school.

Katie McGraw received an F. Harvey Smith Grant Regent Letter of Recognition at the Kappa Psi Pharmaceutical Fraternity, Inc., Mountain East Province 2022 Fall Assembly.

Five PharmD students attended the American Pharmacists Association-Academy of Student Pharmacists (APhA-ASP) 2022 Midyear Regional Meeting in Arlington, Virginia, to represent Pitt Pharmacy and its APhA-ASP student chapter. At the event, students participated in educational programs, the student policy process, networking, and more. Pitt Pharmacy's APhA-ASP chapter won the Region 2 Operation Heart award and the Region 2 Operation Immunization award. These awards are chosen from 20 different schools of pharmacy in the region and are given for a successful year of student-planned patient care events in the community and educational programs to further education on these disease states.

Rena Reid (BSPS '22) and Kenneth Richardson (PharmD '23) were both selected as recipients of the 2022 Walmart Health Equity Scholarship for Pharmacy Students. The new program, offered in partnership by the American Association of Colleges of Pharmacy and Walmart, aims to recognize a diverse population of student pharmacists who will advance health equity. Reid and Richardson were two of just 10 students selected nationwide from a pool of nearly 700 applicants. They were chosen for their leadership, academic success, and commitment to serving rural or medically underserved patient populations after graduation.

The Beta Kappa chapter of Kappa Psi Pharmaceutical Fraternity, Inc., at the University of Pittsburgh School of Pharmacy was honored to receive numerous awards at the 60th Grand Council Convention, held in July 2023 in Phoenix, Arizona. Beta Kappa was named a Top Performing Chapter, an honor given to the top eight Kappa Psi chapters nationwide, to recognize the entire chapter's efforts to uphold the ideals of the fraternity and the profession of pharmacy. Beta Kappa also won the Advocacy Award in recognition of its efforts in advocating for patient health through various projects, media outlets, immunization clinics, direct patient care efforts, and pharmacy policy advocacy. Maggie Schmidt (BSPS '21, PharmD '23) won the Member Spotlight Award for her achievements and efforts within the fraternity and the School of Pharmacy. Grand Council Deputy Karen Hoang (BSPS '14, PharmD '16) won a Grand Council Deputy Certificate of Excellence for her continued efforts in mentoring and strengthening the Beta Kappa chapter. Ilane Saad (PharmD '23) and Schmidt were honored to serve as delegates and receive these awards on behalf of the Beta Kappa chapter.

Pitt Pharmacy graduate student Morgan A. Butrovich was a featured author in the February 2023 edition of the Clinical Journal of the American Society of Nephrology.

Travis VanOtterloo (PharmD '23) was one of 12 students from across the country selected as a 2022-23 American Society of Health-System Pharmacists Student Leadership Award recipient.



Samantha Freiter



Katie McGraw



Joseph Chen



Shay Roth



Rena Reid



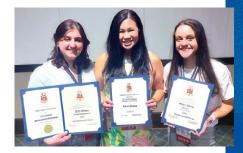
Kenneth Richardson



Morgan Butrovich



Travis VanOtterloo



Beta Kappa awardees Maggie Schmidt, Karen Hoang, and Ilane Saad





Research and Grants

Pitt Pharmacy is revolutionizing health care. From discovery to patient care, the School of Pharmacy is known for developing new therapies, optimizing existing therapies, and improving patient health. Its faculty are leading the way in the use of computational techniques, novel experimental designs, and state-of-theart technology to elucidate new drug targets and develop novel drug delivery systems that address unmet medical needs.



Research rankings from the American Association of Colleges of Pharmacy Oct. 2021 - Sept. 2022

in funding from the National Institutes of Health (\$12.1 million)

in total federal funding

in other federal funding (\$7.9 million)

in nonfederal funding (\$5.1 million)

active research projects in fiscal year 2023

in all grants (\$25.2 million)

(\$20 million)

\$**19.76**M

million in research expenditures in fiscal year 2023 (\$1.26 million higher than previous year)



Simone Brixius-Anderko



Janice Pringle

Pitt Pharmacy faculty member Simone Brixius-Anderko earned a 2023 New Investigator Award from the American Association of Colleges of Pharmacy. The award will fund Brixius-Anderko's development of an independent research program on the contribution of fatty acid metabolism to cancer progression, expanding on her lab's research at Pitt. The seed funding supports early career faculty in generating preliminary data and setting a foundation for extramural funding success.

The Program Evaluation and Research Unit (PERU) is dedicated to meaningful work that facilitates each patient or community member's ability to achieve optimal health, well-being, recovery, and choice. PERU is headed by Janice Pringle, employs 75 research staff members, and has multiple initiatives. For instance, the Pennsylvania Opioid Overdose Reduction Technical Assistance Center has 36 active coalitions across Pennsylvania, representing 48 counties and resulting in a 30% reduction in the overdose death rate per 100,000 people, and the Strategies to Coordinate Overdose Prevention Efforts program has trained nearly 2,000 first responders throughout Pennsylvania, Ohio, and Virginia. PERU has secured more than \$160 million in grants since 2006 and generates more than \$10 million in grants/contracts annually.

For more information, see the lifesaving research article about PERU research in the spring 2023 issue of Pitt Magazine at pittmag.pitt.edu/news/gallagher-forward-strides.

Thomas Nolin, associate professor and associate dean for research and sponsored programs, led the way on establishing a memorandum of understanding for collaboration to promote the U.S. Food and Drug Administration and University of Pittsburgh's shared interests, which can be pursued through a variety of programs, including, but not limited to, joint research projects in fields of mutual interest; exchange of academic publications and reports; sharing of experiences in innovative teaching methods and course design; organization of joint symposia, workshops, and conferences; opportunities for faculty development and exchange; opportunities for student exchange; and opportunities for exchange of visiting research scholars.

The University of Pittsburgh School of Pharmacy was selected to become the next Certara Academic Center of Excellence. The purpose of these centers is to partner with premier academic institutions to educate the next generation of scientists and solve pharmacokinetic/pharm codynamic challenges. Toward this goal, Certara will provide Pitt Pharmacy with access to Phoenix software licenses at no cost to be used by faculty, students, and postdoctoral researchers to support course work, academic research, and collaboration on other projects with Certara. In return, Pitt Pharmacy will collaborate with Certara to create public webinars and conduct beta testing on new features. Assistant Professor **Aaron Devanathan** led the effort and application toward this designation and will serve as director of the academic center of excellence at Pitt Pharmacy.



Thomas Nolin







MICROCREDENTIAL PROGRAMS

The University of Pittsburgh School of Pharmacy is proud to offer a variety of specialty microcredentials that include certificates, continuing education, digital badges, and other professional development.

Pharmacy-based OTC Hearing Aid Course: This self-paced course is an interdisciplinary approach, led by Associate Professor Lucas Berenbrok to assist patients seeking over-thecounter hearing aids at the community pharmacy.

In this first of its kind interprofessionally designed program from the University of Pittsburgh and the American Pharmacists Association, learners discover how to recognize, intervene, and refer patients with hearing loss to hearing health care. See the press release for APhA OTC Hearing Aids Course at:

pharmacist.com/APhA-Press-Releases/apha-brings-otc-hearing-aid-training-programto-pharmacists-and-student-pharmacists-across-the-country

Test2Learn Primary Care Genomics engages learners with an opportunity to undergo genetic testing and use their data with that of their peers to learn about pharmacogenomics, clinical decision making, and implementation strategies. Pitt Pharmacy faculty members of the Test2Learn team are (left to right) Lucas Berenbrok, Philip Empey, and James Coons.



Pictured from left to right are Lucas Berenbrok, Philip Empey, and James Coons.



Partnerships

The School of Pharmacy is pleased to partner with the these organizations.

Building Partnerships with Historically Black Colleges and Universities

In partnership and collaboration with the experiential learning faculty at Howard University College of Pharmacy (HUCOP), leaders created an Advanced Pharmacy Practice Experience rotation exchange that focuses on increasing students' cultural responsiveness and career readiness. Students from Pitt Pharmacy and HUCOP will essentially trade places and complete two consecutive rotations at the schools' partner institutions, UPMC and Howard University Hospital. This work was awarded a Scholarship of Teaching and Learning Grant from the American Association of Colleges of Pharmacy to Pitt faculty Ashley Yarabinec, associate director of experiential learning, and Mario Browne, associate dean for equity, engagement, and justice.

Pennsylvania Pharmacist Care Network/CPESN

Pitt Pharmacy has partnered with the Pennsylvania Pharmacists Association since 2008 in the inception; development; and, now, sustainable patient care services provided in 200 independently owned/grocery store pharmacies in 58 counties throughout Pennsylvania. The network is now leading the nation among the 44 CPESN USA, LLC, networks of independently owned pharmacies in the number of contracted partnerships with health plans allowing patients to receive medication-related treatment directly from pharmacists.

Partnership with the Allegheny County Health Department

Pitt Pharmacy is now leading the medication-related clinical patient care services for the Allegheny County Health Department and leading pharmacy-focused research efforts. Pitt Pharmacy second-year students reach nearly a



Alumni and Giving

Pitt Pharmacy Dean Amy Seybert hired two new philanthropic and alumni engagement employees: Emily Mente, director of development, and Rebecca Anthony, alumni coordinator. In their first year, the team successfully engaged alumni and donors, stewarded existing relationships, and reestablished procedures to engage key school leaders in development and alumni engagement opportunities.



6,473Pitt Pharmacy Alumni



646 **Connections Made**



to Volunteer



Individuals Engaged





\$**1.8**M Raised for School of Pharmacy Initiatives



Rebecca Anthony



Emily Mente



The RxTravaganza Gala takes place at the Cathedral of Learning every other year. This past year's gala was held in November 2022 and was the first large in-person gathering for the school since the pandemic. The event honored six Distinguished Alumni and eight Rising Star Award recipients. The biennial event has served as the school's dedicated event for class reunions and alumni award recognition.

DISTINGUISHED ALUMNI



Mehul Mehta (PhD '86)



Robert Monte (BSPh '79)



Krista Pedley (PharmD '00)



Lisa Cencia Rohan (PhD '95)



Virginia Schmith (BSPh '84, PhD '89)



James Steck (BSPh '72)

RISING STARS



Sajid Ahmed (PharmD '14)



Jennifer Bacci (PharmD '11)



Corey DeLuca (PharmD '11)



Sandeep Devabhakthuni (PharmD '09)



Joe Fiore (BSPS '12, PharmD '14)



Megan Langer (PharmD '11)



Margie Snyder (PharmD '06)



Michael Tortorici (PharmD '02, PhD '07)

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.



School of Pharmacy

3501 Terrace St. Pittsburgh, PA 15261 1-412-624-5240

pharmacy.pitt.edu







