

ACADEMIC YEAR IN REVIEW

- 2022 / 2023 -



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The #1 Reason to Attend the
MCW School of Pharmacy



ABOUT US

The Medical College of Wisconsin School of Pharmacy provides students extensive exposure to a variety of clinical settings and world-class research in specialties such as precision medicine, pharmacogenomics, cancer, and psychiatry. We graduated our inaugural class of students in May 2020, and our PharmD program was granted full accreditation by the Accreditation Council for Pharmacy Education (ACPE) in January 2021.



Katherine Bush, 2024 PharmD candidate, practices administering naloxone. As part of their patient care lab activities, students learn how to identify signs of an opioid overdose, give rescue breaths, and administer Narcan nasal spray.

We are transforming pharmacy education.

We prepare pharmacists to provide expanded services such as administering vaccines, conducting basic medical tests, and performing physical assessments. We graduate pharmacists who meet the highest professional standards of pharmacy practice.

Located on a premier academic medical center, our partnerships with Froedtert Hospital, Children's Wisconsin, and the Clement J. Zablocki VA Medical Center provide access to state-of-the-art facilities and top practice environments.





Priya Patel (right), 2025 PharmD candidate, looks for characteristic symptoms of toxidromes, exhibited by mannikins and live actors in MCW's state-of-the-art Standardized Teaching Assessment Resource (STAR) Center.

Our PharmD Curriculum

The MCW School of Pharmacy is one of few institutions in the country offering an accelerated, three-year Doctor of Pharmacy (PharmD) degree. We also offer a Dual Degree program, where students attending one of our 14 partner undergraduate institutions in Wisconsin can earn their bachelor's degree and PharmD in as little as six years. We pride ourselves on providing a supportive, approachable, and innovative learning environment. Small class sizes provide students with significant attention from renowned faculty. Our pass/fail grading system encourages collaboration, not competition, between students.

OUR MISSION

Advance the health of our communities through innovative pharmacy education, continuous public and professional service, and diverse scholarly collaborations.

CORE VALUES

- We invest in our learners, patients, communities, and one another.
- We serve with integrity, professionalism, and compassion.
- We foster a culture of diversity and inclusion.
- We embrace interprofessional collaboration in education, scholarship, and practice.
- We inspire the pursuit of knowledge, innovation, and lifelong learning.

Message from our founding dean

George E. MacKinnon III, PhD, MS, RPh, FASHP, FNAP



Our School of Pharmacy and PharmD program have been forward projecting since their inception, well suited to prepare pharmacists for the practice today and the future. This is exemplified by our three-year accelerated curriculum, pass-fail grading system, certification in immunizations during students' first quarter, introductory clinical rotations the entire first two years, analyzing personal pharmacogenomic testing results, and interprofessional education experiences, including a required interprofessional rotation with nurses, physicians, or other healthcare providers, to name a few. With the addition of academic concentrations into the curriculum, students can now elect to customize their education with us. These focused concentrations enhance Doctor of Pharmacy program graduate's competitiveness in the job market and in postgraduate residency training.



I like to think of pharmacy as the engineering degree of the health sciences, and the reason: there are so many different career paths.



Trent Kelley (right), 2025 PharmD candidate, practices collecting a nasal swab on classmate Riley Hall during a point-of-care testing certification session.





"The Medical College of Wisconsin's pharmacy program is a unique way to earn a PharmD, especially through the 3+3 Dual Degree Program. The program is flexible, allowing pharmacy students to rank our preference for elective courses, as well as IPPE and APPE rotations.

Going through the different academic sessions with one cohort helped me develop not only interpersonal skills, but also the soft skills of empathy, leadership, and creativity. The program's leaders are always eager to help whenever it is needed.

Becoming a first-time mom in the program was definitely a challenge, but I have to admit, I could not have accomplished so many things without the support of my cohort, as well as the MCW faculty and staff."

-Kari Smaga, PharmD

Class of 2023

3+3 Dual Degree Program Participant

Message from our founding dean (continued)

Our vision statement in the School of Pharmacy is ambitious: Engage learners, practitioners, and researchers to transform healthcare through the continuum of discovery and the advancement of innovative pharmacy practice and patient care models. This report will highlight our approaches to demonstrating our collective achievement of these core values – Learn, Innovate, Engage, Advocate – by our “Pharmily” of students, residents, faculty, and staff. Enjoy!



The MCW School of Pharmacy conferred the Doctor of Pharmacy (PharmD) degree on 37 students from the Class of 2023.

"This class completed all of its doctoral education during the pandemic. The students' ability to adapt, persevere, and serve others has prepared them well for roles as healthcare providers," says George E. MacKinnon III, PhD, MS, RPh, founding dean and professor.

92%
OVERALL POSTGRADUATE TRAINING RATE
CONGRATULATIONS CLASS OF 2023!
MCW PHARMACY SCHOOL

A number of graduates are continuing their education through residencies and postgraduate training. Following the American Society of Health-System Pharmacists Match, 20 students obtained postgraduate year one (PGY1) positions, yielding an 87 percent match rate, which surpasses the national match rate of 82 percent.

Overall, 70 percent of MCW's graduating students who are pursuing a PGY1 residency program will continue their training in Wisconsin. Additionally, two graduating students were selected for fellowship positions, for an overall postgraduate training rate of 92 percent.

Student pursues unique fellowship path to career in pharmaceutical industry

After earning his PharmD degree in May 2023, Kong Choua Thao is pursuing a unique career pathway in the pharmaceutical industry. He was selected for a drug metabolism and pharmacokinetics (DMPK) fellowship in Cambridge, Massachusetts with pharmaceutical and healthcare company Sanofi. In this role, Thao will determine the disposition, safe starting dose and predicted efficacious dose prior to first-in-human clinical trials.



"I came into pharmacy school wanting to pursue the drug development side because I wanted to make an impact on health care at a macro level, compared to a patient care level. I feel like I'll be helping more people at that macro scale," says Thao.

Thao was born in Thailand and was raised in Milwaukee. He is now the first doctor in his family.

MCW PHARMACY SCHOOL MISSION

Learn

The MCW Pharmacy School is located on a premier academic medical center and offers an accelerated three-year Doctor of Pharmacy (PharmD) degree that provides early clinical experiences starting in year one and continuing throughout the program.

Innovate

Interprofessional education and experiences begin in the first year and continue throughout the program, preparing students to pioneer new team-based models of care. Students participate in cutting-edge research at a nationally recognized research and clinical institution.

Engage

Students participate in providing vital services, such as vaccination and physical assessment in community health centers and at public events. They contribute to higher quality care and better outcomes for both patients and the community.

Advocate

Students become advocates for providing greater access to primary and preventive care for patients at convenient locations in their community. They advance the role of the pharmacist as a member of the interprofessional patient care team.

01 Learn

Experiential Education

Through experiential education beginning the first year of our PharmD curriculum, students have the opportunity to reinforce skills in a variety of real-life practice settings. First and second-year students participate in these Introductory Pharmacy Practice Experiences (IPPE) year-round on Fridays. Students will begin to understand the roles of the pharmacist in direct patient care and will expand their drug and disease-state knowledge. Additionally, they will begin to develop practical, critical, and life-long learning skills.



In their third year, students are outside of the classroom setting in Advanced Pharmacy Practice Experiences (APPE), which immerse them into the practice setting full time. They are exposed to various pharmacy specialties, allowing them to explore which career path best aligns with their interests and skills.

Academic Concentrations

Class of 2023 graduates were the first in the MCW School of Pharmacy to graduate with an academic concentration. Four academic concentrations were added to the PharmD curriculum during the 2020-2021 academic year with these goals in mind:

- enhance student knowledge
- satisfy intellectual interests
- increase experience in a specialized pharmacy field
- enhance visibility in a competitive market for jobs and postgraduate residencies



Research



Population Health



Specialized Pharmacy Practice



Entrepreneurship & Leadership

MCW Pharmacy School students rank in top 10 during national clinical skills competition

Two MCW Pharmacy School students ranked among the best in the nation when it comes to utilizing their skills to care for patients.

2023 PharmD graduates Isabelle Mahaffy and Gabby Marchese were finalists in the American Society of Health-System Pharmacists (ASHP) Clinical Skills Competition. The 27th annual event in December 2022 took place in Las Vegas, during the ASHP Midyear Clinical Meeting & Exhibition – the largest gathering of pharmacy professionals in the world. The MCW team of Mahaffy and Marchese was one of the top 10 finalists, out of 138 competing schools of pharmacy.



Gabby Marchese (left) and Isabelle Mahaffy (right)



Pharmacy students collaborated with students in the MATC Medical Interpreter program. In a practice scenario, pharmacy students were asked to explain the multi-step process of administering eye drops or ear drops to an individual with limited English proficiency.

Interprofessional Education

One of the hallmarks of our innovative PharmD curriculum is interprofessional education. Pharmacy students interact and learn with students and providers from other healthcare disciplines. These experiences prepare students to pioneer new team-based practice models and contribute to higher quality care and better outcomes for both patients and the community.



02 Innovate



Students review the results of their DNA test

Pharmacogenomics integrated into the curriculum

MCW pharmacy students are given the opportunity to participate in personal pharmacogenomics testing. This is thanks to our partnership with RPRD Diagnostics, located just a few minutes down the road from our campus.

Students explore how different genes may affect the response of certain drugs. By engaging students in testing their own DNA via a saliva specimen, our faculty have found that students improve their knowledge, interest and confidence in pharmacogenomics and its incorporation into their future pharmacy practice.

For making this opportunity available to our students, we thank Ulrich Broeckel, MD, RPRD Diagnostics Founder & CEO, an MCW School of Pharmacy adjunct faculty member.



Thank you, Dr. Broeckel!

03 Engage



MCW medical and pharmacy students collaborate to care for uninsured patients

Saturday Clinic for the Uninsured (SCU) is run by Medical College of Wisconsin medical and pharmacy students, under the supervision of MCW faculty and with the assistance of physician and pharmacist volunteers. Patients receive care for chronic health conditions, prescriptions, lab work, and additional medical services, at no cost.

The clinic's mission is to understand, serve, and promote the health and wellness needs of uninsured patients in the Milwaukee area, simultaneously educating future healthcare professionals.

"From the student perspective, it's valuable to experience working with a vulnerable population and learning how

the system works," says Jake Dyer, PharmD, assistant professor and co-director of the SCU pharmacy program. "Students learn about the barriers and socioeconomic factors that patients face," adds Dr. Dyer.



"We don't realize how many people do not have insurance, making it difficult for them to get the care they need. Having a service like this, where people can access medical care and medications they wouldn't be able to

otherwise, is extremely beneficial," says Nesreen Hamoudeh, 2024 PharmD candidate.

2022 MCW School of Pharmacy flu immunization clinic

380 immunizations

administered by students and faculty



"I heard from many pharmacy students that they felt more confident in their immunization administration and counseling by the end of the clinic. Providing them this learning experience just prior to their IPPE rotations is a valuable opportunity they can grow from."

-Karen MacKinnon, BPharm, RPh

Director of Outreach, Assistant Professor

Pharmacy students gain engagement experience through partnership with early childhood education organization



Diana Ghanimah conducts a glucose test

MCW pharmacy students who are interested in a community-based pharmacy career gain experience in providing services that expand the role of the pharmacist. Under the supervision of qualified preceptors, students provide various, no-cost, screenings to parents, staff, and community residents at the Next Door Foundation's early childhood education centers. Screenings like blood pressure, body mass index, cholesterol, and glucose monitoring, are used to increase health awareness and to support under-resourced communities.



Sometimes people need that outside voice to remind them to take care of their health. In school, we learn the numbers for healthy cholesterol and blood pressure screenings, but this experience allows me to practice giving patients the full picture of their health and to interact with them empathetically.



Diana Ghanimah, 2024 PharmD candidate

04 Advocate



Back row: Dr. Kajua Lor (left), Dr. Lana Minshew (right)
Front row: Joyce Lee, MS (left); Ming Lin, MS (middle); Iaong Vang (right)

Culturally intelligent care

Three MCW medical students are creating an educational pipeline for future healthcare providers to become better equipped to care for Asian American, Native Hawaiian and Pacific Islander (AANHPI) populations. The Health Advancement for Asian Pacific Islanders through Education (HAAPIE) Initiative raises awareness about health issues through various lenses including historical trauma and social determinants of health. Through a set of online modules, the inaugural curriculum includes a local spotlight on the Hmong community, plus case studies on cancer, diabetes, mental health, and cardiovascular diseases.

In addition to promoting better healthcare for AANHPI populations, the HAAPIE Initiative is more broadly focused on

cultural intelligence, which, according to a recent article titled *Development of a Cultural Intelligence Framework in Pharmacy Education*, is defined as “the ability to attune to the values, beliefs and body language of people from different cultures and to effectively use this knowledge to interact with empathy and understanding in diverse contexts.”

The HAAPIE student co-founders collaborated on the curriculum development and outreach with two MCW School of Pharmacy faculty leaders – Kajua Lor, PharmD, associate professor and chair of MCW’s department of clinical sciences and Lana Minshew, PhD, MCW assistant professor of clinical sciences and co-author of the article referenced above.



Alberto Aranda, PharmD, at the 2023 Hooding Ceremony

The evolving role of the pharmacist

The COVID-19 pandemic revealed gaps in our current healthcare system that have for too long been ignored. More than half (about 300 million) of all COVID-19 vaccines were administered through the oversight of the pharmacy profession.

At the Medical College of Wisconsin, the School of Pharmacy and the Office of Research provided nearly 20,000 COVID-19 immunizations to almost 10,000 individuals.

The School of Pharmacy advocated for changes to the training and oversight of student pharmacists with respect to immunizations during the pandemic. The state legislature adopted these changes, thus positively impacting all learners in Wisconsin.

Leveraging the role of the pharmacist during COVID-19 proved decisive in getting individuals tested for the virus, providing vaccines to those that wanted them, and in demonstrating to the public that pharmacies and pharmacists could do more for patients.

Provider status

Since 2014, per Wisconsin statute: *A pharmacist may perform any patient care service delegated to the pharmacist by a physician.* In 2021, the Wisconsin governor recognized pharmacists as providers under Medicaid such that: *The department shall provide reimbursement for services that are reimbursable under this section and that are provided by a licensed pharmacist within the scope of his or her license or are services performed under s.450.033.*

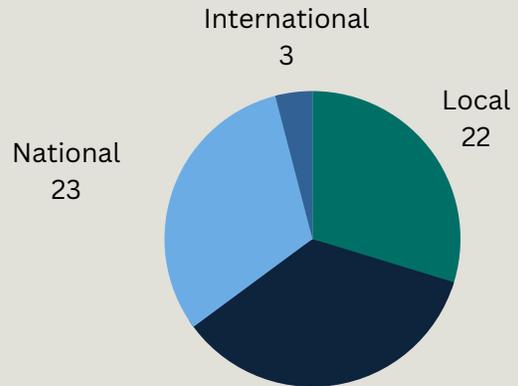
From a scope of practice and regulatory perspective in Wisconsin, pharmacists are well positioned to provide expanded services to communities and patients in need of such primary care services. Integrating the contributions of pharmacists more effectively into the healthcare delivery system is an important priority as we seek to sustain and strengthen healthcare across Wisconsin. Recognizing and embracing pharmacists as healthcare providers is critical to this.



FACULTY ACHIEVEMENTS IN THE 2022-2023 ACADEMIC YEAR

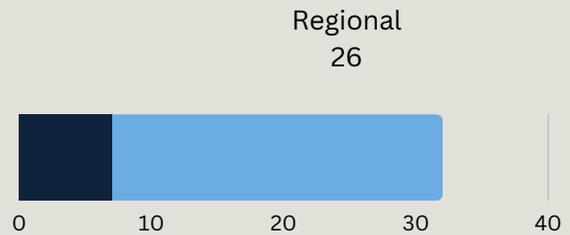
74

Total presentations



32

Total publications
7 involved students



19

Posters



16

Awards and Honors





THE #1 REASON TO ATTEND THE MCW SCHOOL OF PHARMACY

ACCORDING TO A SURVEY OF CLASS OF 2023 GRADUATES

Small Class Size,
Connection with Cohort

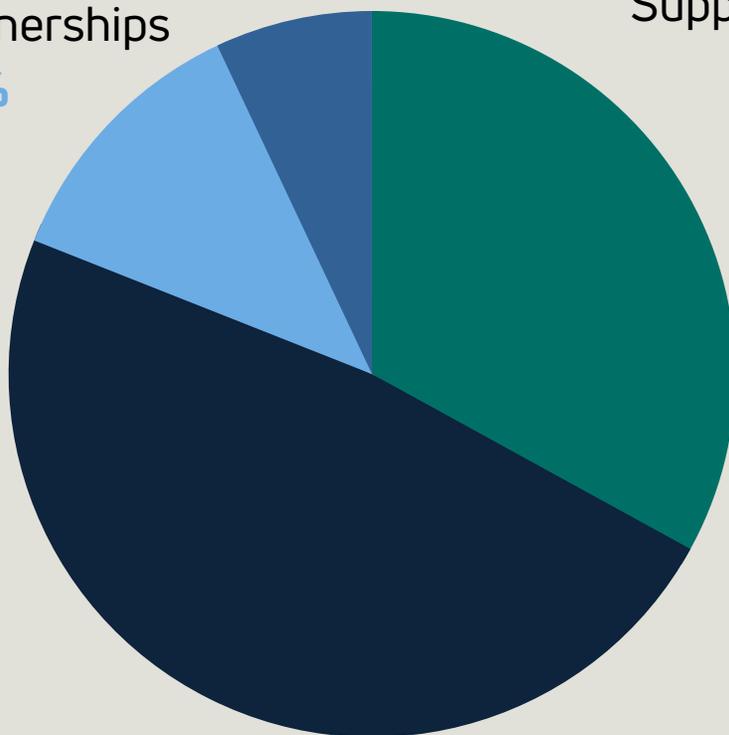
7%

Experiential Education,
Academic Medical
Center Partnerships

12%

Supportive Faculty

33%



3-Year Accelerated Program

48%



STAY CONNECTED WITH US!



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