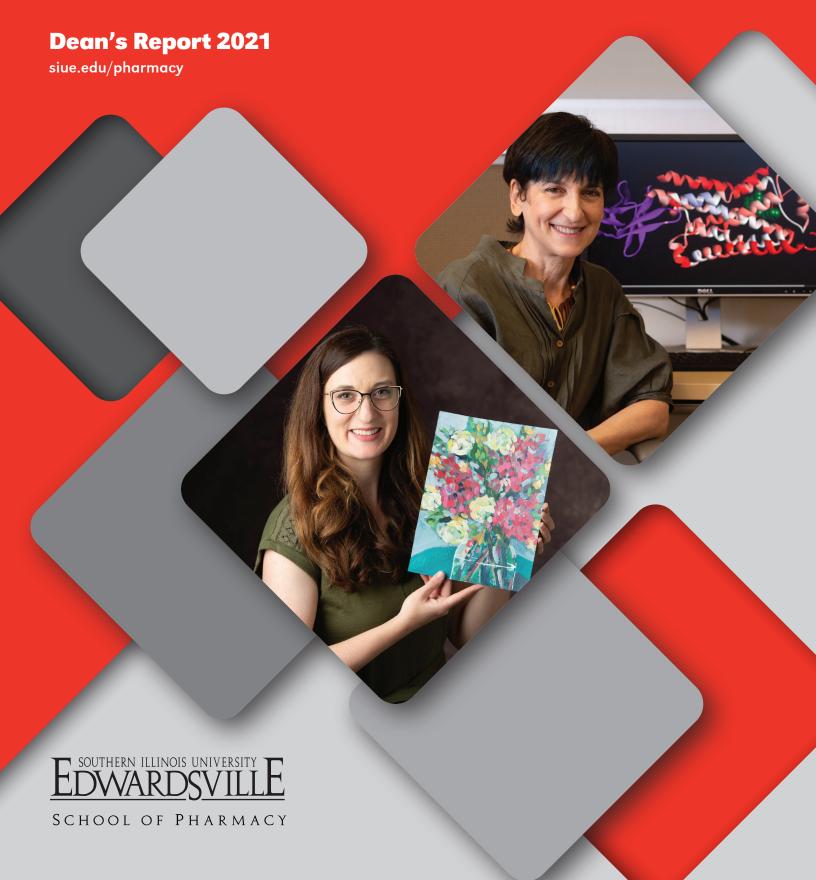
**School of** 

# PHARMACY





#### **Message from the Dean**

Welcome to the 2021 Dean's Report. You will see that despite a year that has challenged everyone around the world, the SIUE School of Pharmacy has continued to excel as we are learning to dance with COVID-19. Our NAPLEX pass rates continued to be excellent with the Class of 2020 results ranking in the top 25 of all U.S. programs again, and our donors have created new and meaningful opportunities for our students.

We have continued to make progress on the development of our new health sciences building, and we saw further expansion in the area of mental health and wellness with the appointment of a director of well-being and resilience. Our graduate program is maturing with a new PhD program in cooperation with the SIU School of Medicine, and students in our professional program now have the opportunity to complete a bachelor's in chemistry with a specialization in pharmaceutical chemistry en route to their doctor of pharmacy degree.

You will read stories of current and future leaders at work. Both Illinois state pharmacy organizations had SIUE influencers as their presidents this past year; one is a faculty member and the other a 2012 alumnus. On the national front, a faculty member continued to lead efforts to advance diversity, equity, inclusion and anti-racism awareness and action in the profession, while an inspired student shared his journey and passion for creating ways to get more people of color interested in the pharmacy profession. Students were selected into leadership programs by the American Society of Health-System Pharmacists and Phi Lamba Sigma and brought great perspectives and experiences back to our program.

The doctor of pharmacy curriculum further evolved to better address contemporary issues within the profession. First implemented in 2017, the clinical skills lab sequence now runs over six consecutive semesters, allowing students to practice skills related to the pharmacists' patient care process, which includes elements of effective collaboration, communication and documentation.

More recently, with the compounded adverse effects of both racism and the pandemic proving to be traumatizing to individuals and health outcomes, trauma-informed care and anti-racism have each been infused into the curriculum. All of these efforts are intentional and directed at bettering our students to be even more competent pharmacists upon graduation.

Finally, while the pandemic is changing many of the things we are doing, one thing remains constant in that we continue to stay relevant in the various facets of our profession. Whether it be as leaders, providing community outreach, supporting student scholarships, or innovating in research and education, our faculty, staff and students find a way to dance with COVID-19. In reading this report, I hope you will note the many successes over this past year and how the School is not just surviving but prospering during these difficult times.

Best wishes,

Mark S. Luer, Pharm.D., FCCP Professor and Dean

#### **About SIUE**

SIUE awards degrees in undergraduate, graduate and doctoral programs encompassing the arts, sciences, nursing, education, health, human behavior, business and engineering. The Schools of Dental Medicine and Pharmacy award doctor's first professional degrees in dental medicine (DMD) and pharmacy (PharmD). Doctoral programs are available in nursing practice and educational leadership. A cooperative PhD program in pharmacology and neuroscience is offered with the SIU School of Medicine and cooperative PhD programs in history, engineering science, environmental resources and policy, and computer engineering are offered with SIU Carbondale.

#### **About the School of Pharmacy**

The SIUE School of Pharmacy offers students an interprofessional, integrated and team-based learning approach to pharmacy practice and pharmaceutical science education. Students gain invaluable experience in real-world settings through the School's experiential approach to education. They work side-by-side with faculty members and preceptors who have gained national recognition for industry experience, research innovations and educational leadership.

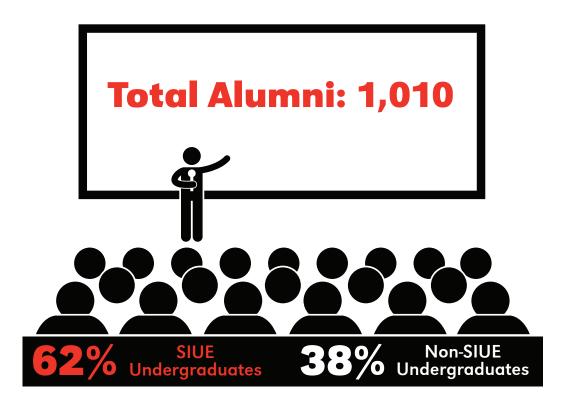
#### **School of Pharmacy Goals**

- Advance innovative education, service and scholarship programs
- Promote faculty and staff development and support
- Foster prospective pharmacy students
- Expand and support professional growth of students and alumni
- Cultivate diversity and inclusiveness
- Identify, develop and sustain external relations and financial support

#### **School of Pharmacy Mission**

The SIUE School of Pharmacy is an interdisciplinary educational community dedicated to the preparation of pharmacy professionals, scholars and leaders to improve the health and well-being of the region and beyond.







#### **Graduation Rate**

**91%** on-time

96% overall

95.6%

NAPLEX pass rate for first-time test-takers (2009-2020 average)

3.58

Matriculation average cumulative GPA (Class of 2025)

3.51

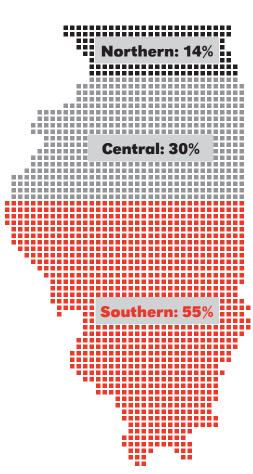
Pre-pharmacy average GPA

3.43

Pre-pharmacy average math and science GPA

#### Residence

Illinois: 73%
Out of State: 27%



#### **Health Sciences Building Project Progressing**

The Illinois Capital Development Board (CDB) has selected HOK-St. Louis as the preferred architectural design firm for preliminary design of the Health Science Building (HSB) on the SIUE campus. The HSB will house pharmacy, nursing and related health science areas with plans that include modern classrooms, teaching and research laboratories, faculty offices, administrative spaces, and student resource and study spaces.

The new HSB will foster a collaborative and creative educational environment with open and flexible classrooms containing the latest technology, spaces for small group collaboration, and spaces designed specifically for interprofessional activities. Together this will enhance student confidence and better prepare them for hands-on patient care. Another important element to the HSB will be new state-of-the-art research facilities that will further promote drug discovery and enhance delivery of healthcare services in the region.

The CDB released \$10,537,000 in planning funds in January 2020 to create preliminary designs for the HSB. The complex will include approximately 221,000 square feet. The project's total cost is roughly \$105 million. It will be the largest academic building on the SIUE campus.

#### **New Faces, Promotions, Retirements**

#### **New Faces**



Sunny Chang, PhD, Instructor, Department of Pharmaceutical Sciences

#### Retirements



Terri Poirier, PharmD, MPH, FASHP, FCCP, Professor, Department of Pharmacy Practice, Senior Scholar in the School of Pharmacy 17 years of service



Garth Reynolds, BSPharm, Adjunct Clinical Assistant Professor, Department of Pharmacy Practice



Fred Gattas, PharmD, BCPS, Clinical Assistant Professor, Department of Pharmacy Practice 13 years of service

#### **Faculty Promotions**



McKenzie Ferguson, PharmD, Professor, Department of Pharmacy Practice

K. Scott Gronowski, RPh, JD, Clinical Assistant Professor, Department of Pharmaceutical Sciences 13 years of service



"Success as a pharmacist is leading your patients to optimal health and continuously educating yourself as a lifelong learner. When I become a pharmacist, I will also find success in creating ways to get more people of color interested in the field of pharmacy."

Christian Watts, P4 Student, St. Louis

#### Christian Watts Makes the Most of Pharmacy Learning and Experiences

Christian Watts is grateful for the opportunities, experience and success he has achieved during his academic career at the School of Pharmacy. The P4 student encourages other Black, Indigenous and People of Color (BIPOC) to consider a pharmacy career, and for those already interested in the field — to affectionately pursue it.

"Choosing a career in pharmacy has come with experiences such as being the only Black face in a lot of spaces," said Watts, also a healthcare informatics graduate student. "There may not be a lot of students who look like me in this field, but other Blacks should embrace it and become part of the change they want to see. Never let the lack of diversity stop you from pursuing your dreams. Be the first, if you have to be."

Watts is president of the SIUE chapter of the Student National Pharmaceutical Association (SNPhA), where he is also on the Ambassador's Cabinet of the National Change Create Transformation Foundation. He also is a mentor and student advisor in the School's Ambassadors of Student Services Exemplifying Togetherness (ASSET) program.

"The beginning of my exposure to pharmacy occurred when I attended SIUE's Healthcare Diversity Camp," said Watts. "The camp informed me of several careers offered within the pharmacy field. Specifically, Dr. Lakesha Butler, former president of the National Pharmaceutical Association, is the reason the Healthcare Diversity Camp is available and the reason I found my passion in pharmacy."

Upon entering the School, Watts worked at SHOP 'n SAVE Pharmacy for three years. He served as an intern with SIUE Robert J. Noyce Science and Math Scholarship Program funded by the National Science Foundation, which granted his first teaching experience in the classroom.

These experiences helped Watts discover his passion for working as a graduate-level professor with a specialty in pharmacy informatics. Meanwhile, as the world continues to grapple with a pandemic, Watts is encouraged and motivated to serve communities in need.

"Patients need us now more than ever before," he said. "Pharmacists are not just knowledgeable about medications. We have expertise in disease states as well. Physician access can be limited, and pharmacists can serve as a valuable resource for patients."



Since the School of Pharmacy's inception, its core values of diversity and inclusion have been cornerstones of numerous initiatives and included in the School's strategic plans. The School's newly formed Diversity, Equity and Inclusion (DEI) committee is focused on acting upon these values. Led by Director of DEI Lakesha Butler, PharmD, clinical professor of pharmacy practice, the DEI committee includes pharmacy faculty, staff and students.

"A commitment to diversity, equity and inclusion is the responsibility of all faculty, staff and students," said Butler. "Initiatives throughout the School are in effect to put these values into action."

Highlights of recent DEI implementation include:

- Curricular integration of DEI
- Recruitment and retention of racially diverse students
- Faculty/staff development
- Community engagement
- Events
- SIUE Summer Diversity Healthcare Camp
- Connecting with campus resources

An \$8,000 Walgreens Diversity Donation has enabled the School to expand efforts to increase student diversity. The funding supports a Walgreens Diversity and Inclusion

Excellence Award and a Walgreens Multilingual Scholarship, as well as the enhancement of pipeline programs targeted at increasing enrollment of diverse students.

Walgreens has been a steady supporter of the School's scholarship program since its inception. This additional funding enhances the School's strong commitment to diversity and inclusion by contributing to increased student support, educational programming, curriculum development and community outreach.

Throughout my pharmacy school journey,
I have noticed the many disparities that plague
the healthcare system. I want to contribute by
fighting against these and creating better health
outcomes for all."

Aaliyah Dent, P4 Student, East St. Louis, III.

"Continuing to diversify our student body is of importance and is a key goal of our current diversity and inclusion strategic plan," said Butler. "However, diversity is just one piece of the puzzle. We have to pursue equity for our students by addressing barriers such as socioeconomic limitations that may hinder their path toward becoming a pharmacist."

#### **School Honors Black History Month**

In honor of Black History Month, the School featured several outstanding Black students on its Facebook page. Each of the highlighted students shared their career goals, along with their thoughts on Black History Month and information about an influential Black history figure they admired.

"As we continue to strive for equity and equality, it is always important to remember the heroes of the past who paved the way for our new generation of African American leaders," said Michael Burris, P4 student, Richton Park, Ill. "Our historical contributions are often underrepresented in traditional history courses, and Black History Month provides African Americans with an annual moment to educate the populace about the stories of our ancestors, our vibrant culture, civil rights leaders, and various prominent figures who made a significant impact on society."



"Pharmacy has provided me with a very well-rounded and fulfilling career. As a profession, pharmacy has given me the opportunity to use my knowledge and love of the sciences and clinical skills to serve the communities and patients I know and love."

Cody Sandusky, PharmD, Director of Pharmacy, Harrisburg Medical Center

#### Alumni Hall of Fame Inducts Sandusky as Inaugural Pharmacy Alum

The School of Pharmacy is pleased to recognize Cody Sandusky, PharmD, as the first pharmacy inductee to SIUE's Alumni Hall of Fame.

Sandusky graduated from SIUE with a Doctor of Pharmacy in 2012. Currently, he serves as president of the Illinois Pharmacists Association (IPhA) and director of pharmacy at Harrisburg Medical Center. In addition to these roles, Sandusky serves on the American Pharmacists Association (APhA) House of Delegates, Harrisburg Medical Center Foundation Board of Directors and One Shawnee Tourism Collaboration Task Force.

"To be honest, I was quite shocked to receive this recognition," said Sandusky. "Even though we are still a relatively new pharmacy school, we've produced a number of successful alumni, many of whom are deserving of this recognition. After the initial shock wore off, I felt incredibly grateful to my family, educators and mentors who have invested so much into my education and life. To be chosen as the first pharmacy alum inducted into the Hall of Fame is humbling and truly an honor."

Sandusky's career has spanned across multiple arenas of pharmacy, including chain and independent community pharmacy, pharmaceutical industry consulting, and health-systems pharmacy. He has been a featured guest speaker for and has developed guidance statements for the American Society of Health-Systems Pharmacists (APhA). Sandusky is recognized by the APhA for excellence in COVID vaccine education and promotion.

"My first interest in pharmacy began as a kid, riding my bike to our local drugstore after school for a candy bar and a Coke," shared Sandusky. "My time hanging out at the pharmacy gradually turned into an interest in pharmacy. As my studies progressed, I became more interested in chemistry, which fit nicely with this growing interest.

"Pharmacy has since become ingrained in my life. It's given me opportunities to become involved in government policy and decision-making through my involvement with the Illinois Pharmacists Association. Every day, no matter whether I'm at work or halfway across the world, some aspect of my life circles back to pharmacy."

#### **Sarnot Selected for Prestigious Internship Program**



P2 student Khushali Sarnot was accepted into the American Society of Health-System Pharmacists' (ASHP) prestigious Summer Internship program.

"This internship focused on building leadership skills that will be useful in my professional career. I also had the opportunity to work closely with several key ASHP staff members for both professional development and networking."

Khushali Sarnot, P2 Student, Manchester, Mo.

The ASHP Summer Internship, held virtually this year, is a 10-week training program designed to provide pharmacy students with an opportunity to gain association experience in membership development and membership marketing at the national association level. To apply, students must be enrolled in a full-time Accreditation Council for Pharmacy Education (ACPE)-accredited doctor of pharmacy program, be in good academic standing and have an active membership with ASHP.

#### **Ingold Selected for Inaugural Leadership Academy**



As a P4 student, Kristen Ingold, PharmD '21, of Freeburg, Ill., was selected as one of 22 participants for the inaugural Phi Lambda Sigma (PLS) Leader Academy. She was chosen from a pool of nearly 80 applicants nationally.

The intensive leadership training program included bi-monthly cohort meetings and individual coaching sessions in order for participants to develop an awareness of self and others to become a leader worth following. The sessions ran from October 2020 to May 2021.

Ingold collaborated with the officers of SIUE's PLS chapter to form a leadership mini-series. "We pulled from the core skills and competencies that I learned in the academy," she said. "Each skill became its own discussion topic for our current PLS chapter members and new inductees."

#### **Class of 2020 School of Pharmacy Scholarship**

The Class of 2020 School of Pharmacy Scholarship will offer an annual \$500 scholarship for a current pharmacy student with demonstrated leadership and the ability to influence others to advance a goal. Once the scholarship fund reaches \$25,000, it will become an endowed scholarship.

Currently, \$11,663 has been donated to this scholarship fund, with \$10,000 raised by class fundraisers. Although the School's graduating class of 2020 was not able to celebrate with a class party, this scholarship fund will provide a lasting legacy impacting future pharmacy students.



Terri Poirier, PharmD, recently retired Senior Scholar and professor of pharmacy practice, has pledged to match individual donations up to \$2,020 per year for the next five years. This means gifts of \$25, \$50 or \$100 will be doubled and have the impact of \$50, \$100 or \$200. Gifts can be made online at siue.edu/give-now/pharmacy.

#### **Gable Named Director of Well-Being and Resilience**



Anxiety disorders, major depressive episodes and posttraumatic stress disorder are among the most prevalent mental illnesses experienced by tens of millions of adults and youth in the United States annually, according to the National Alliance on Mental Illness (NAMI). The School of Pharmacy is among the few schools of pharmacy nationwide to have developed a leadership position with mental health as top priority.

Kelly Gable, PharmD, BCPP, professor in the Department of Pharmacy Practice, was named director of Well-Being and Resilience in September. In this role, she serves as the key leader for strategy, policy and practice related to matters of mental health and wellness, while fostering a healthy climate for faculty, staff and students.

"I genuinely care about the well-being of my colleagues and our students," said Gable, a psychiatric pharmacist and educator whose career is grounded in the behavioral health field. "Our direct and purposeful focus on the promotion of their well-being is what will continue to ensure that our School is successful and nationally renowned."

#### **Jennifer Arnoldi Appointed ICHP President**



The Illinois Council of Health-System Pharmacists (ICHP) has named Jennifer Arnoldi, PharmD, BCPS, clinical associate professor in the Department of Pharmacy Practice, as their 2020-21 president. ICHP is a statewide professional organization whose members include pharmacists, pharmacy technicians, pharmacy students, and other pharmacy professionals who serve as members of healthcare teams in Illinois' hospitals and health systems.

"Serving as president of ICHP is a chance for me to serve the profession in a different way than in my day-to-day job," said Arnoldi. "This opportunity allows me to connect with pharmacy professionals throughout the state and learn from everyone's experiences."

As president, Arnoldi leads ICHP in strategic planning, presides over quarterly board of directors meetings and promotes pharmacy within the state. She has volunteered for the organization since becoming a licensed pharmacist in Illinois in 2007, and has previously served as the organization's new practitioners network chair, central region director, secretary and president-elect.

"I hope our students, alumni, preceptors, faculty and staff all understand the importance of getting involved, especially at the local and state level," shared Arnoldi. "It is more important than ever that we advocate for ourselves and our profession. We have made important gains via our impact during the COVID-19 pandemic, and it's up to us to sustain this momentum and seek much-needed change to support pharmacists and pharmacy technicians."



#### **Newman Sells Art to Benefit Her Students**

Motivated by her love of art and hard-working School of Pharmacy students, Clinical Associate Professor Kate Newman, PharmD, donated \$5,000 to the School after selling 52 of her paintings on Facebook. Her goal was to raise \$1,500 for student scholarships—all of her paintings and an additional 11 custom house portrait commissions sold in less than 24 hours.

Dean Mark Luer, PharmD, FCCP, called the scholarship gifts remarkable investments in students, the School and the University. "Dr. Newman was able to channel her passion for art into her passion for supporting students, all while others were able to gain a piece of her heart," Luer said. "Everyone wins in this remarkable scenario."

"We have the very best students in the School of Pharmacy," Newman said. "They are hardworking in the classroom and outside of it, too. They are incredibly giving, always organizing events and volunteering their time. I know how vital scholarships can be for students, and I was happy to find a way to support them!"

Newman is director of experiential education and teaches in the Department of Pharmacy Practice.



#### **Butler Advocates Nationally**

By addressing the history of racism in America and the current-day practices that perpetuate it, pharmacists throughout the nation hope to create a healthcare system that is safe and equitable for all. This work is the life mission of Lakesha Butler, PharmD, director of diversity, equity and inclusion and clinical professor in the Department of Pharmacy Practice.

Pharmacists vow to devote themselves to a lifetime of service to others by considering the welfare of humanity and the relief of suffering. However, some communities continue to disproportionately suffer. "The social determinants of health—a set of six environmental conditions—have a profound impact on death rates and life expectancy for everything from cancer to COVID-19," explained Butler.

While presenting at the Hematology/Oncology Pharmacy Association's 17th annual conference as the keynote speaker, Butler described these six conditions as economic stability, access to a quality education, access to quality healthcare and neighborhoods, social and community contexts such as discrimination, and access to healthy food. During her lecture, she explained how structural racism is perpetuated by individual and institutional biases, behaviors and policies.

"There is much work to be done, and we need the masses to move from being bystanders to active allies and accomplices in order for this work to be executed and sustained," shared Butler. "An ally is a disrupter and an educator. We all must first look inward at our own beliefs, biases and socialization and disrupt oppressive behaviors and ideologies."

Over the past year, Butler has spoken nationally on vaccine hesitancy and confidence, COVID-19 and health inequities, social determinants of health, pursuit of equity of justice in healthcare, systemic and structural racism in pharmacy and healthcare, implicit bias, and cultural humility. Other organizations she has virtually presented to during this time include the Society of Infectious Disease Pharmacists, American Association of Colleges of Pharmacy (AACP), American Pharmacists Association (APhA), and American Society of Health-System Pharmacists.

This work is necessary. It is a responsibility I not only owe to my ancestors who fought for where we are today, but also for future generations to come. Inequities have been a habitual routine in this country that must be broken. I am committed to being a part of the solution and developing a coalition of change agents."

Lakesha Butler, PharmD, Director of Diversity, Equity and Inclusion and Clinical Professor, Department of Pharmacy Practice

To further this work, Butler currently serves on the AACP's Diversity, Equity, Inclusion and Antiracism Advisory Panel, the AACP/APhA Oath of Pharmacist Joint Steering Committee, and the National Medical Association COVID-19 Vaccine and Therapeutics Task Force. Previously, she led a collaboration of 14 national pharmacy organizations in taking action against racial injustices in pharmacy during her tenure as president of the National Pharmaceutical Association.

#### **Specialization in Medicinal Chemistry**

The new medicinal chemistry specialization within the pharmacology and neuroscience cooperative PhD program launched in fall 2021.

The medicinal chemistry specialization is offered in collaboration with the Department of Pharmacology at the SIU School of Medicine. It prepares students for the complex and multidisciplinary approach needed for discovery of the next generation of therapeutics to fight acute and chronic disease.

"Anyone with a passion for research, and who is driven to make an impact through a career in drug discovery or other areas of pharmaceutical sciences in both industry and academia, should consider pursuing this new track," said Joseph Schober, PhD, director of graduate programs and professor in the Department of Pharmaceutical Sciences.

"This collaboration brings together experts in medicinal chemistry with regional leaders in neuroscience and pharmacology for creation of a degree opportunity that meets the demands of a fast-moving biotechnology field," he added. "This new specialization will further strengthen current teaching and research collaborations with the Department of Pharmacology."

Advanced courses reach across disciplines, including rational drug design, organic and analytical chemistry, molecular pharmacology and applied biostatistics. With a degree in pharmacology and neuroscience, students can pursue careers in drug design and discovery,

pharmacodynamic, and translational research in both industry and academic settings.

Olivia Slater is the first student to enroll in the medicinal chemistry PhD program. A two-time alumna, she earned a bachelor's in chemistry and a master's in pharmaceutical sciences from SIUE.

"I chose to pursue a PhD in medicinal chemistry because I wanted to continue working under the direction of my mentor, Dr. Maria Kontoyianni," Slater said. "While working on my master's, she pushed me to think critically and work hard, and helped me realize my potential as a scientist."

"I have witnessed a spirit in Olivia reflective of a focused individual who takes initiatives, and in a thorough fashion decides on the best techniques to achieve research goals," said Kontoyianni, PhD, professor in the Department of Pharmaceutical Sciences. "It has been rewarding to watch her grow, develop critical thinking, expand her computational skills and acquire the mindset to explore translational research."

Slater plans to complete a post-doctoral fellowship to broaden her skill set once she has completed her doctoral program.

To learn more about the pharmacology and neuroscience cooperative PhD program with a medicinal chemistry specialization, visit siue.edu/pharmacology-neuroscience.



#### **Graduate Students Advancing Pharmaceutical Sciences Research**

The School of Pharmacy is the only school in Illinois and the St. Louis metropolitan region to offer a master's in pharmaceutical sciences. Although still a young program, students have already had a significant impact in advancing research productivity in the School. As evidenced by the titles of the theses from recent graduates, the breadth of topics encompasses the pharmaceutical sciences and include pharmaceutics, pharmacology and medicinal chemistry.

Graduate Student	Thesis Title	Thesis Advisor
Olivia Slater	Annotating Orphan Lipid A Mimetics and Assessing LPS Receptor	Maria Kontoyianni, PhD
Khush Nahar Srabony	Synthesis and Structure-Activity Studies of 3,4,5-Trisubstituted -1,2,4- Triazoles as Somatostatin Subtype -4-Agonists	Bill Neumann, PhD
Nathan Scott	Isolation and Characterization of Primary Mouse Microglial Cells and Their Modulation by NNC 26-9100	Joe Schober, PhD
NFN Shaluah Vijeth	Regional Brain Impact of Somatostatin Receptor Subtype-4 on Microglia in 3xTg Mice with Inflammatory Challenge	Ken Witt, PhD
Akshay Radhakrishna Salegaonkar	Effects of Dapagliflozin on Insulin-Glucose Homeostasis in Type 1 Diabetic Rats	Guim Kown, PhD

### **Bachelor's in Chemistry with Specialization in Pharmaceutical Chemistry**

Prior to this fall, School of Pharmacy students who had fulfilled almost all the requirements for a bachelor's in chemistry had no clear pathway to earning the degree.

"Inquiries from PharmD students seeking to earn both a bachelor's in chemistry and a PharmD prompted the School of Pharmacy and the Department of Chemistry to undertake a serious investigation of the potential for a new pharmaceutical chemistry specialization, which has now come to fruition," said Michael Shaw, PhD, Distinguished Research Professor in the College of Arts and Sciences' Department of Chemistry.

The collaboration between the two disciplines resulted in a new bachelor's in chemistry with a specialization in pharmaceutical chemistry. The extra qualification opens possible employment opportunities beyond the traditional pharmacy path.

In addition to increasing our students' marketability in the pharmaceutical industry, the PharmD plus bachelor's in chemistry with a pharmaceutical chemistry specialization program could prepare students to pursue additional training and graduate degrees, such as a master's or PhD in chemistry."

Jingyang Fan, PharmD, BCPS, Clinical Associate Professor, Assistant Dean For Academic Affairs





#### **Trauma-Informed Care Curriculum**

Trauma, such as what is sustained from violence, poverty and xenophobia, can be crippling. Specifically, the sustained and adverse effects of racism and COVID-19 have proven to be traumatizing on health outcomes for individuals, communities and systems.

In order to better care for patients grappling with pain and suffering, the School of Pharmacy is incorporating Trauma-Informed Care (TIC) and anti-racism education into its pharmacy instruction, according to Lakesha Butler, PharmD, clinical professor and director of diversity, equity and inclusion.

"It is critical for pharmacists and future pharmacists to be equipped with the knowledge and skills to provide care with an understanding of how trauma, specifically racial trauma, significantly impacts our communities and patients," said Butler. "These topics are not traditionally taught in the pharmacy curriculum. However, we are forging a path in line with our diversity and inclusion strategic plan that can be a model for other healthcare programs and institutions."

Butler, along with Kelly Gable, PharmD, BCPP, professor and director of well-being and resilience, and Allie Herman, P4 student and PharmD candidate, created a grant proposal that included the development of the pilot TIC program. Student organizations, including the College of Psychiatric and Neurologic Pharmacists (CPNP) and the Student National Pharmaceutical Association (SNPhA), participated in the pilot program.

The School is working with Alive and Well Communities, a Missouri-based nonprofit organization that provides a range of training and consulting services to help communities and organizations move through the stages of change and activate them to address the trauma experienced by their residents. Gable, faculty co-advisor for the CPNP SIUE student chapter, serves as an ambassador for Alive and Well Communities.

• "It is imperative that we engage our students, faculty and staff in meaningful conversations surrounding the ongoing trauma of systemic racism in our healthcare system and country."

Kelly Gable, PharmD, BCPP, Professor, Director of Well-Being and Resilience

The School hosted four virtual TIC trainings during the 2020-21 academic year that focused on community trauma, systemic racism, and anti-racism action and advocacy.

"The issues discussed during the TIC sessions led to a great realization that I teach incorrectly about risk and race," said Lisa Lubsch, PharmD, clinical professor. "I plan to restructure the content of all of my materials for the students with a better understanding about race."

"This pilot program offered a much-needed opportunity for our School to focus on anti-racism actions within our community that will have a direct impact on the trauma-informed care we provide to patients," said Gable.

### Students Gain Real-World Pharmacy Experience in Clinical Skills Lab

The School of Pharmacy's accrediting body requires curriculum providing students opportunities to develop, practice and demonstrate mastery of pharmacy skills. To meet this need, the School established a required clinical skills lab in 2017, allowing students to apply their pharmacy knowledge to real-world applications relevant to the ideas they learn each year in the classroom.

"It is important for our pharmacy students to be able to apply their knowledge while having the necessary skills to provide optimal patient care," explained Jingyang Fan, pharmD, assistant dean for academic affairs and clinical associate professor in the Department of Pharmacy Practice. "Within these labs, students practice skills learned in other courses, integrate material from all disciplines, and demonstrate their mastery of skills in performance-based assessments."

Within the lab, students practice skills related to the Pharmacists' Patient Care Process. These steps have overarching themes of collaboration, communication and documentation.

Students are assessed on the following skills:

- Patient safety
- Basic patient assessment
- Medication information
- Identifying and assessing drug-related problems
- Mathematics
- Ethical, professional and legal behavior
- Communication
- Patient education
- Drug information analysis and literature evaluation
- Health and wellness in public health
- Insurance/prescription drug coverage

Justin Shiau, 2022 PharmD candidate, appreciates the hands-on experiences that 3 years of clinical skill labs have provided him. "The clinical skills labs offer the application aspect of many of the materials and concepts

that are gained throughout the core classes," he said. "It's often difficult for students to truly learn the material when they don't use the material and apply it to a patient scenario. The clinical skills labs serve as that connection between the concepts we learn in our core classes and what is actually being practiced by licensed pharmacists on the job."

"Students appreciate having hands-on experiences in the skills lab to help prepare them for becoming pharmacists," shared Stephanie Hunziker, PharmD, clinical assistant professor and clinical skills coordinator in the Department of Pharmacy Practice. "Many have stated they use the skills learned and practiced at their pharmacy jobs and during experiential learning. The skills lab courses continue to grow and evolve with the pharmacy profession, incorporating innovative learning activities to ensure our students stand out from their peers in the pharmacy community."

"In the clinical skill labs, students are able to apply their knowledge in activities that reflect real-life practices. Through hands-on practice and application, students can integrate concepts and knowledge from other courses while retaining knowledge better."

Jingyang Fan, pharmD, Assistant Dean for Academic Affairs and Clinical Associate Professor, Department of Pharmacy Practice





#### **Free Clinic for Chinese-Speaking Patients**

Free healthcare and education were provided to Chinese-speaking patients through a collaboration between the School of Pharmacy Student National Pharmaceutical Association (SNPhA) and the Saint Louis University School of Medicine.

SNPhA students helped provide services at a monthly Chinese Clinic from August 2020-May 2021 at the St. Louis Modern Chinese School in Richmond Heights, Mo. The School has participated in the free Chinese Clinic since 2017.

"The goal is to assist Chinese-speaking patients, especially underserved patients who have no insurance coverage in the U.S.," said Jingyang Fan, PharmD, assistant dean of academic affairs and clinical associate professor in the Department of Pharmacy Practice. "Oftentimes, these patients are visiting their families in the U.S., and they need healthcare and refills on their chronic medications."

Patients saw a team of medical and pharmacy students who collected their medical and medication history, along with their primary reason for coming to the clinic, and performed blood pressure screenings. If the attending physician prescribed medications, pharmacy students helped call pharmacies and educate patients.

"I enjoyed the ability to work as a team with the medical students, and the ability to take the lead while presenting the case regarding drug therapy and possible adverse events."

Tatsiana Maksimenka, P3 student, Novogrudok, Belarus

"The Chinese Clinic was a wonderful experience for interprofessional practice for both the medical and pharmacy students, and also a chance to provide patient care in the real world," Fan said.

"This type of co-curricular event and community partnership provides such an impactful experience for our pharmacy students to interface with diverse communities, which further enhances their learning and personal and professional development," said Lakesha Butler, PharmD, BCPS, clinical professor in the Department of Pharmacy Practice, and director of Diversity, Equity and Inclusion.



## **Faculty Experts Dispel COVID-19 Vaccine Myths**As the COVID-19 vaccine rolled out nationwide, misinformation left individuals confused and concerned about its administration. School of Pharmacy faculty experts worked to dispel common myths and ease concerns.

"Pharmacists are a trusted source of information and vaccine education."

Miranda Wilhelm, PharmD, Clinical Professor, Department of Pharmacy Practice



"Information about the vaccines was coming out daily, making it difficult for individuals to stay up-to-date," said Miranda Wilhelm, PharmD, clinical professor in the Department of Pharmacy Practice. "It is important to know which sources can be trusted and debunk myths that are circulating."

Wilhelm and Jennifer Rosselli, PharmD, clinical associate professor and clinical pharmacist at SIHF Healthcare, collaborated with University Marketing and Communications to disseminate myth-busting information through traditional and social media outlets.



#### **Thank You for Giving**

Your gifts directly impact student lives and community health. As you invest in our School, the students and faculty feel your support. Your generosity to the School of Pharmacy helps us provide innovative programs, groundbreaking research, and a world-class education.

Please come visit or reach out if you have ideas or questions. As we move forward, a few areas we need help with include expanding scholarships and recommending the School to prospective students.

Thank you again for your support. You can contact me at staylaa@siue.edu or 618-650-5154. For your convenience, gifts can be designated to the School of Pharmacy at siue.edu/give-now/pharmacy.

Shane Taylor Director of Development

#### **SIUE School of Pharmacy, Pharmacy Advisory Board**

In 2019 the Pharmacy Advisory Board set a goal to raise \$25,000 for a new endowed scholarship. In April 2021 the board reached their goal, and now an annual \$1,000 scholarship will be awarded. Thank you!

Chair: Heather Fitzgerald, Healthcare Specialty Supervisor, Walgreens, Springfield, Ill.

Vice Chair: Paul Abert, Market President- Madison County, Bank of BellevIlle - BellevIlle, Ill.

Immediate Past Chair: Steven Peipert, Owner, Brighton Pharmacy, Brighton, Ill. Secretary: Lakesha Butler, Professor, Pharmacy Practice, SIUE School of Pharmacy

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Ryan Birk, PharmD' 13, Director of Pharmacy, Memorial Regional Health Services with BJC Healthcare-Memorial Hospitals, BellevIlle, Ill.

David Braasch, President and CEO, Alton Memorial Hospital, Alton, Ill.

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Chris Crank, Executive Vice President, Illinois Councll of Health System Pharmacists, Loves Park, Ill.

Dawn Dankenbring, PharmD'11, Director of Pharmacy, HSHS St. Elizabeth's Hospital, O'Fallon, Ill.

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Brian Doty, Vice President, Research and Development, Mallinckrodt, Hazelwood, Mo.

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Brett Gilliland, Founder and Chief Executive Officer, Visionary Wealth Partners, Edwardsville

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Mike Lloyd, Director, Medical Outcomes Specialist, Pfizer, Inc., Maryville, Ill.

Demi Olurunda, Student, SIUE School of Pharmacy

Scott Meyers, Executive Vice President, Illinois Council of Health System Pharmacists, Loves Park, Ill.

Garth Reynolds, Executive Director, Illinois Pharmacists Association, Springfield, Ill.

Bobby Sandage, Jr., PhD, President and CEO, Euclises Pharmaceuticals, Inc., Creve Coeur, Mo.

J. Cody Sandusky, PharmD '12, Director of Pharmacy, Harrisburg Medical Center, Harrisburg, Ill.

Joe Schober, Professor, Pharmaceutical Sciences, SIUE School of Pharmacy

Chris Smith, President, Smith FamIly Holdings, Springfield, Ill.

Mike Thomas, Lifestyle Pharmacist and Health Coach, WLS Coaching, Springfield, Ill.

Noah Tennyson, District Leader, CVS Health, St. Louis

Travis Willeford, PharmD '09, Staff Pharmacist, CVS Caremark Corporation, Springfield, Ill.

Harry Zollars, PharmD '13, Owner, MaryvIlle Pharmacy, Maryville, Ill.

#### **Faculty Research and Scholarly Activity**

#### **Publications**

Arya V, **Butler L**, Leal S, Maine L, Alvarez N, Jackson N, Varkey AC. Systemic Racism: Pharmacists' Role and Responsibility. *J Am Pharm Assoc* 2020: 60(6):E43-E46.

Arya V, **Butler L**, Leal S, Maine L, Alvarez N, Jackson N, Varkey AC. Systemic Racism: Pharmacists' Role and Responsibility. *Am J Pharm Educ* Nov 2020:84(11):8418.

Arya V, **Butler L,** Leal S, Maine L, Alvarez N, Jackson N, Varkey AC. Systemic Racism: Pharmacists' Role and Responsibility. J Am Coll Clin Pharm 2020:3(7):1265-1268.

Allen JM, Abdul-Mutakabbir JC, Campbell HE, **Butler LM**. Ten recommendations to increase Black representation within pharmacy organization leadership. *Am J Health-Syst Pharm* 2021 Feb 21:zxab077. doi: 10.1093/ajhp/zxab077.

Barber C, Stavroulaki K, **Santanello C.** Motivating Student Content Engagement in an Immunology and Immunization Training Course through Gamification. *Innov Pharm* 2020; 11(4): 10.24926/ iip.v11i4.3328

Brandl E, Halford Z, Clark MD, **Herndon CM**. Pharmacogenomics in pain management: A review of relevant gene-drug associations and clinical considerations. *Ann Pharmacother* 2021. Mar 26;10600280211003875. doi: 10.1177/10600280211003875.

Cady EA, McGee M, Jacobs T, Terrell J, Herndon CM.
Residency preparation elective courses (and other factors) as predictors of pharmacy residency match rates.

Curr Pharm Teach Learn 2020;12(12):1394-1398.

Chen AMH, Armbruster AL, Buckley B, Campbell JA, Dang DK, **Devraj R**, Drame I, Edwards A, Haack SL, Ma Q, Petry N, Planas LG, Sadowski CA, Santee J, Wade L, Borja-Hart N. Curricular inclusion of health disparities/cultural competence and health literacy in U.S. and Canadian Pharmacy Programs. *Am J Pharm Educ* 2021, 85, 8200.

Cox CL, Todd TJ, **Lubsch** L, Klein KC, Prescott, WA, Knoderer CA, Johnson PN, Meyers R, Cole JW, LaRochelle JM, Worthington MA, Smith K. Joint Statement on Pediatric Education at Schools of Pharmacy. American Association of Colleges of Pharmacy, American College of Clinical Pharmacy Pediatrics Practice and Research Network, Pediatric Pharmacy Advocacy Group. *Am J Pharm Ed* 2020; 84(8):1061-1070.

Daniels AM, Herndon CM. Impact of a PharmD consult to improve futile medication discontinuation rates in a home hospice program. *Journal of Hospice and Palliative Medical Care* 2020;3:011.

Denn ER, **Schober JM**. A single-wavelength flow cytomeric approach using redox-sensitive green fluorescent protein probes for measuring redox stress in live cells. *Biotechniques* (published online ahead of print) May 2021;70(5):278-284.

**Devraj R,** Cain J. Design and evaluation of a serious mobile game app to supplement instruction. *Curr Pharm Teach Learn* 2021;13:9,1228-1235.

Discala S, Fudin J, Coulson E, Lodl E, Kral L, **Herndon CM**. Society of Pain and Palliative Care Pharmacists (SPPCP) position statement on the proposed change of naloxone to over-the-counter (OTC) status. *J Pain Palliat Care Pharmacother* 2020;33(1-2):1-5.

Engelhardt K, **Ferguson M, Rosselli JL.** Prevention and Management of Genital Mycotic Infections in the Setting of Sodium-Glucose Cotransporter 2 Inhibitors. Ann Pharmacother 2020 2021 Apr;55(4):543-548.

Gewandter JS, Smith SM, Dworkin RH, Turk DC, Gan TJ, Gilron I, Hertz S, Katz NP, Markman JD, Raja SN, Rowbotham MC, Stacey BR Strain EC, Ward DS, Farrar JT, Kroenke K, Rathmell JP, Rauck R, Brown C,...Ferguson M....Wentworth K. Research approaches for evaluating opioid sparing in clinical trials of acute and chronic pain treatments. PAIN April 8, 2021 - Volume Articles in Press - Issue - doi: 10.1097/j. pain.0000000000002283

Gilda S, Kolling W, Nieto M, McPherson T. Stability and Beyond-Use Date of a Compounded Thioguanine Suspension. *J Pharm Technol* 2021, 37, 23-29.

Gilda SS, **Schober JM**, **McPherson T**. Design and Performance of an Inexpensive Water Activity Meter. *Int J Pharm Compd* 2021, 25, 48-51.

Hohenschurz-Schmidt D, Kleykamp BA, Draper-Rodi J, Vollert J, Chan J, **Ferguson M,** McNicol E, Phalip J, Evans SR, Turk Dennis C, Dworkin RH, Rice ASC. Pragmatic trials of pain therapies. *PAIN* 2021 April. doi: 10.1097/j. pain.00000000000002317

Katz N, Dworkin RH, North R, Thomson S, Eldabe S, Hayek SM, Kopell BH, Markman J, Rezai A, Taylor RS, Turk DC, Buchser E, Fields H, Fiore G. Ferguson M. Gewandter J, Hilker C, Jain R, Leitner A,...Venkatesan L. Research design considerations for randomized controlled trials of spinal cord stimulation for pain: IMMPACT/ION/ INS recommendations. Pain. 2021 Jan. doi: 10.1097/i. pain.0000000000002204. Epub ahead of print. PMID: 33470748.

Kleykamp BA, Ferguson MC, McNicol E, Bixho I, Arnold LM, Edwards RR, Fillingim R, Grol-Prokopczyk H, Turk DC, Dworkin RH. The Prevalence of Psychiatric and Chronic Pain Comorbidities in Fibromyalgia: an ACTTION systematic review. *Semin Arthritis Rheum* 2020 Dec 29;51(1):166-174. doi: 10.1016/j. semarthrit.2020.10.006. Epub ahead of print. PMID: 33383293.

Lupton H, **Nieto M.** Indole and Indoline Scaffolds in Antimicrobials: Overview, Synthesis, and Recent Advances in Antimicrobial Research. *Curr Med Chem.* 2020 Nov 1. doi: 10. 2174/09298673276662011021149 23. Epub ahead of print. PMID: 33138747

Malotte K, Naidu DR, **Herndon CM**, Atayee RS. Multicentered evaluation of palliative care pharmacists' interventions and outcomes in California. J *Palliat Med* 2021 24 Feb 2021, https://doi.org/10.1089/jpm.2020.0566

McDougle L, Hewlett D, Hutchins SS, Hood RG, **Butler LM**, Lang LK, Brooks OT, Caine VA, Whitley-Williams PN. Serving as trusted messengers about COVID-19 vaccines and therapeutics. *J Natl Med Assoc* 2021;113(1):6-7.

McGee EU, Allen SN, **Butler LM,** McGraw-Senat CM,
McCants TA. Holding Pharmacy
Educators Accountable in
the Wake of the Anti-Racism
Movement: A Call to Action. *Curr Pharm Teach Learn* 2020
(in press).

McNicol ED, Ferguson MC, Schumann R. Single-dose intravenous ketorolac for acute postoperative pain in adults. Cochrane Database of Systematic Reviews 2021, Issue 5. Art. No.: CD013263. DOI: 10.1002/14651858.CD013263. pub2.

McNicol E, Ferguson M, Bungay K, Rowe EL, Eldabe S, Gewandter JS, Hayek SM, Katz N, Kopell BH, Markman J, Rezai A, Taylor RS, Turk DC, Dworkin RH, North RB, Thomson S. Systematic Review of Research Methods and Reporting Quality of Randomized Clinical Trials of Spinal Cord Stimulation for Pain. J Pain. Epub 2020 Jun 20. PMID: 3257487.

Meyers RS, Thackray J, Matson KL, McPherson C, **Lubsch L**, Hellinga RC, Hoff DS. Key inappropriate drugs in pediatrics: The KIDs List. *J Pediatr Pharmacol Ther* 2020;25(3):175-91.

Misher AM, **Rosselli JL**, Schumacher CA, See M. The role of the diabetes care and education specialist in caring for diabetes complications and common comorbid conditions. *ADCES in Practice*. 2021;9:30-52.

Newmann WL, Sandoval KE, Mobayen S, Minaeian M, Kukielski SG, Srabony KN, Frare R, Slater O, Farr SA, Niehoff ML, Hospital A, Kontoyianni M, Crider AM, Witt KA. Synthesis and structure-activity relationships of 3,4,5-trisubstituted-1,2,4-triazoles for Alzheimer's disease treatment. RSC Med Chem 2021. https://doi.org/10.1039/D1MD00044F.

Osiecki K, **Deshpande M**, Fogleman A, Egiebor E. Adult chronic respiratory disease in rural versus urban areas: Is age of housing an environmental justice issue? *Environ Justice* 2021 (in-press).

Poirier T, Keys T, Ferguson MC. Factors Influencing Pharmacy Faculty Behavior, Perceptions and Challenges with Determining Authorship Credit. *Curr Pharm Teach Learn* 2021 Mar;13(3):220-227. doi: 10.1016/j.cptl.2020.10.013. Epub 2020 Nov 24.

Ragan H, Grimm, T, **Herndon CM.** Public Perception of Primary Care Providers with Dual Degrees. *Med Res Arch* 2020;8(11). DOI https://doi.org/10.18103/mra.v8i11.2275.

Riley A, Campbell H, **Butler L**, Wisseh C, Nonyel N, Shaw, T. Socialized and Traumatized: Pharmacists, Underserved Patients and the COVID-19 Vaccine. *J Am Pharm Assoc* 2021. doi: https://doi. org/10.1016/j.japh.2021.05.020.

Schober J, Polina J, Walters F, Crider A, Scott N, Lodholz E, Sandoval K, Witt KA. NNC 26-9100 Increases A2 1-42 Phagocytosis, Inhibits Nitric Oxide Production and Decreases Calcium in BV2 Microglia Cells, *PLOS One*, 2021 https://doi.org/10.1371/journal.pone.0254242.

Skarupa L, **Deshpande M.**Pharmacy Students and Over the Counter Cannabidiol: A Survey on Knowledge and Educational Needs. *J Pharm Soc Wis* January 2021.

Slater O, Miller B, **Kontoyianni M.** Decoding Protein-protein Interactions: An Overview. *Curr Top Med Chem* 2020, 20, 855-882.

Stavroulaki K, **Santanello C.** A Detection of Water-borne Bacterial and Protozoal Pathogens in Costa Rica, Guatemala, and the USA. *SCIREA Journal of Biology* 2021, 6, 45-60.

Vogler C, Arnold S, Surbeck E, Conklen K, Deshpande M. Acute Pain Management for Patients with Substance Use Disorder Receiving Buprenorphine or Methadone Compared to Patients without Opioid Dependence Disorder. *J Pain Palliat Care Pharmacother* https://doi.org/10.1080/153602 88.2021.1931630

Wilhelm M. A Closer Look at Contact Lens Care and Solutions: Opportunities for Patient Counseling. *Pharm Times* 2021 May:44-54.

Wilhelm M. Clinical Updates on the Rapid Advancements in COVID-19 Care: Vaccine Uptake and the Retail Pharmacist. Pharm Times 2021 Feb:136-153.

Wilhelm M. Immunization update 2020. *Pharmacy Today* 2020 Nov;26(11): 43-54.

#### **Books**

Butler LM, Sias JJ, eds. Cultural Aspects of Healthcare: A Toolkit for Pharmacy Education, 1st ed. American Pharmacists Association Pharmacy Library. (in press)

McPherson T, Allen L. Ansel's Pharmaceutical Dosage Forms and Drug Delivery Systems, 15th ed. (in press)

#### **Book Chapters**

Fan J, Ronald K. Medication Reconciliation. In: Gupta V, Nguyen T, Clark M, Williams E, Cone C, Desselle S. eds. Pharmacy Practice Skills: A Guide for Students and Instructors. New York, NY: McGraw-Hill. (in press)

Frueh J, Vogler C. Chapter SOAP Note and MTM In: Gupta V, Nguyen T, Clark M, Williams E, Cone C, Desselle S. eds. *Pharmacy Practice* Skills: A Guide for Students and Instructors. New York, NY: McGraw-Hill. (in press)

Kontoyianni M. Structure-based Virtual Screening: Theory, Challenges and Guidelines. In Kenakin, T. ed. Reference Module in Biomedical Sciences. Elsevier, Amsterdam, Netherlands. https://doi.org/10.1016/B978-0-12-820472-6.00042-6

**Lubsch L.** Cystic Fibrosis. In: Sutton S. ed. *McGraw-Hill's NAPLEX® Review Guide*, 4th ed. New York, NY: McGraw-Hill; 2021.

**Lubsch L.** Substance Use and Addictive Disorders. In: Benavides S, Nahata MC, eds. *Pediatric Pharmacotherapy*, 2nd ed. Lenexa, KS: American College of Clinical Pharmacy; 2020.

Nonyel N, **Butler L**, Arya V. The great undoing: a multigenerational journey from systemic racism to social determinants of health. *Public Health in Pharmacy Practice: A Casebook*, 2nd ed. (in press)

Ruscin JM, Linnebur SA.
Overview of Drug Therapy in
Older Adults. In: Porter RS ed.
Merck Manual (Professional
Version). Merck & Co.,
Kenilworth, NJ; to be published
online 2021. (in press)

Trombetta DR, Herndon CM.
Osteoarthritis. In: Alldredge BK,
Corelli RL, Ernst ME, Guguelmo
BJ, Jacobson PA, Kradjan WA,
and Williams BR, eds. KodaKimble and Young's Applied
Therapeutics: The Clinical Use
of Drugs. 12th ed. Baltimore,
MD: Lippincott, Williams, and
Wilkins 2021. (in press)

Wilhelm M. Diaper Dermatitis and Prickly Heat. In: Krinsky D, Ferreri S, Hemstreet B, et al. *Handbook of Nonprescription Drugs: An Interactive Approach to Self-Care*, 20th ed. Washington, DC: American Pharmacist Association; 2020:731-746.

Wilhelm M, Arnoldi J (2020). Reducing dyspnea by optimizing COPD treatment. In: Campbell M (Ed.), What Do I Do Now - Palliative Care: Volume: Respiratory symptoms. Oxford University Press (in press).

Wilhelm M, Hunziker S.
Prescription Drug Coverage. In:
Gupta V, Nguyen T, Clark M,
Williams E, Cone C, Desselle
S, eds. *Pharmacy Practice*Skills: A Guide for Students
and Instructors. New York, NY:
McGraww-Hill. (in press)

#### Extramural Grants and Contracts Received

Arnoldi J, Newman K.
Developing an Excellent Mentor
Pool, SIUE Graduate School,
\$6564.

Ferguson MC. Analgesic, Anesthetic, and Addiction Clinical Trial Translations, Innovations, Opportunities, and Networks (ACTTION) Contract for work on systematic review on pragmatic studies for pain treatments. (Co-Author), Work to be presented at ACTTION meeting (Washington, D.C.in 2020. \$7500.

Ferguson MC. Analgesic, Anesthetic, and Addiction Clinical Trial Translations, Innovations, Opportunities, and Networks (ACTTION) Contract for work on systematic review on registered studies for opioid use disorder (Co-Author),

Ferguson MC. Analgesic, Anesthetic, and Addiction Clinical Trial Translations, Innovations, Opportunities, and Networks (ACTTION) Contract for work on systematic review on patient preferences related to study design for pain and psychiatric conditions Work to be presented at ACTTION meeting (Washington D.C.) in 2021, \$7500.

Herndon CM. Illinois Prescription Drug Monitoring Program (Subaward from US Department of Justice). Validation of a controlled substance prescriber reference score, BJA-2020-17754 (2019-PM-BX-0016), \$60,000.

Herndon CM. Illinois Prescription Drug Monitoring Program (Subaward from US Department of Justice). Development of Educational Programming for Appropriate Opioid Prescribing, \$142,000.

Herndon CM. Class of 2022 Community Service Project "Antimicrobial Awareness Alliance" funded through the Meridian Society, \$5000.

Wooley A. Chronic Disease Medication Therapy Management. Illinois Primary Health Care Association Mini-Grant through CDC-RFA-DP1815PPHF18, \$818.



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\*PCOA is administered to third-years students to measure knowledge base and readiness for fourth-year experiential rotations 2020 average board pass rate on North American Pharmacist Licensure Exam\*\*

School of Pharmacy 94.87% National 88.43% State 85.34%

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\*\*NAPLEX is a requisite component of the licensing process for pharmacists in the U.S.



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