

School of

PHARMACY

Dean's Report 2020

siue.edu/pharmacy



SOUTHERN ILLINOIS UNIVERSITY
EDWARDSVILLE
SCHOOL OF PHARMACY

From the Dean



As you read through this 2020 Dean's Report, you will find that as I wrapped up my first year as dean of the SIUE School of Pharmacy, we excelled on many fronts while facing both old and new challenges. Over the first eight months, our dedicated faculty, staff and students continued the trajectory of achieving great things, including that our NAPLEX pass rates for the Class of 2019 placed us in the top 20 of all U.S. programs again.

We saw new efforts in the area of mental health and wellness take shape both inside and outside the curriculum with "Well-being and Resilience" recently becoming a standing committee in the School. Faculty continued to lead at both the state and national levels as presidents of professional societies, and students once again earned awards and accolades for achievement. Our faculty members and alumni were featured on national

news programs, and we witnessed the announcement of a new health sciences building. However, we also saw the combination of two public health crises—COVID-19 and systemic racism—that has challenged us as a school, community and profession.

With COVID-19 and the Illinois stay-at-home orders, the University was asked to turn on a dime to convert in-person instruction to remote learning within days. Fortunately, our innovative faculty and quick-to-adapt student body worked through solutions that not only protected the health of our community but also preserved our commitment to quality learning environments. Healthcare systems, pharmacies and multiple clinical partners faced unprecedented challenges. As these shifts occurred, we maneuvered effectively to finish the spring semester on time.

We closed out the academic year without the fanfare to which we have become so accustomed, conducting a virtual commencement ceremony. As the Class of 2020 left to pursue the next phase of their professional careers, we were unable to place those hard-earned hoods onto their shoulders, shake their hands, or offer our personal congratulations. While we intend to invite the Class of 2020 back for a future hooding ceremony, it was certainly not how any of us wanted them to finish their time at SIUE.

Compounding the pandemic was also the very unfortunate and tragic loss of Black lives that brought to the forefront centuries of racism, historic trauma and social injustice. One of the goals of the School of Pharmacy is to cultivate diversity and inclusiveness. As a University and a School, we have been active in confronting these issues head on, but we can and will do better. We are committed to furthering positive changes in support of the well-being of the Black community and other communities of color. It is important not just for the sake of humanity, but from a public health perspective, as well.

Conquering COVID-19 and racism each require intentional efforts, and we must be active on all fronts. As we contemplate the future, the School of Pharmacy must embrace these challenges to address not just the overall health and well-being of our community but our profession as well.

Best wishes,

A handwritten signature in black ink that reads "Mark S. Luer". The signature is written in a cursive, flowing style.

Mark S. Luer, PharmD, 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. 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.

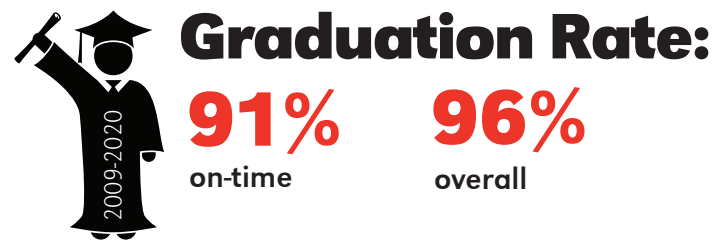
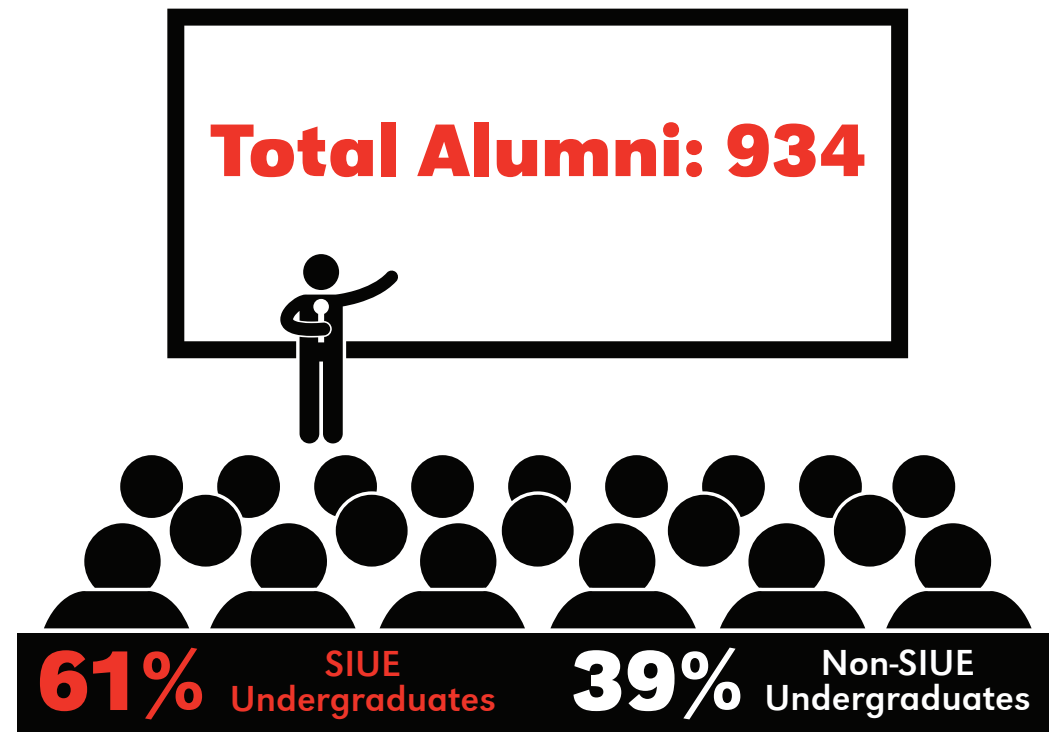
School of Pharmacy Goals

- 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.





95.9% NAPLEX pass rate for first-time test-takers (2009-2019 average)

92% Illinois MPJE pass rates for first-time test-takers (2009-2019 average)

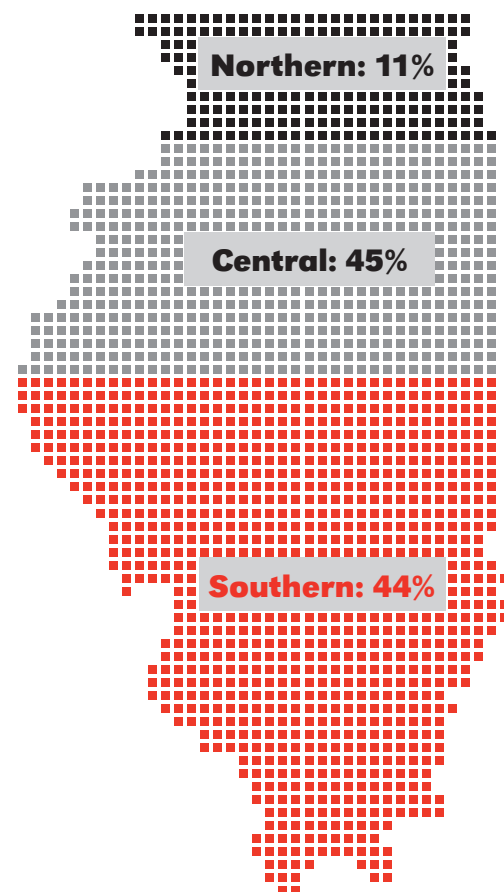
3.56 Matriculation Average Cumulative GPA (Class of 2024)

52 Average PCAT (Class of 2024)

Residence

75% of students are Illinois residents

25% of students are out-of-state residents



New Faces

The School of Pharmacy recently welcomed the following new faculty and staff members:



Joe Southerland
Director of Student Services



Shane Taylor
Director of Development



Kelsey Schwander, PharmD
Clinical Assistant Professor
Department of Pharmacy Practice

Faculty Promotions

Congratulations to the following School of Pharmacy faculty members on their recent promotions:



Maithili Deshpande, PharmD
Associate Professor



Jared Sheley, PharmD
Clinical Associate Professor



Radhika Devraj, PhD
Professor



Miranda Wilhelm, PharmD
Clinical Professor

Retirements

The School of Pharmacy celebrates the following faculty member for his service:



William Neumann, PhD
Professor
Started in July 2008, 12 years of service

Plans for \$105M World-class Health Sciences Building

Planning for modern classrooms, teaching and research laboratories, faculty offices, administrative spaces, and student resource and study spaces for SIUE students has begun. Illinois Governor J.B. Pritzker announced in January the release of \$10,537,000 in planning funds to create preliminary designs for a \$105 million Health Science Building (HSB) on the SIUE campus.

Approximately 221,000 square feet, the HSB will facilitate more simulation training, research and growth in programs within pharmacy, nursing and related health science areas. It will be the largest building on the SIUE campus.

“With this investment, we’re giving SIUE’s current and future students a world-class education in a world-class facility, and we’re providing employers with world-class talent from one of our state’s greatest institutions,” Pritzker said.

Currently, the School of Pharmacy is primarily located in three buildings in University Park, while the School of Nursing and the health sciences program in the Department of Applied Health are housed within the campus core. Renovations are expected for the existing School of Pharmacy buildings and the surrounding proposed site in University Park.

“This new Health Science Building is an incredibly exciting step forward, and will allow SIUE and the SIU System to expand its leadership in health science education in southern Illinois and beyond,” said SIUE Chancellor Randy Pembroke. “Allowing for growth in programs within pharmacy, nursing and related health science areas will improve the overall health of citizens throughout our area.”



“We are committed to taking a more intentional and deeper dive into the topic of racial inequities in healthcare.”

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



Addressing Racial Inequities in Healthcare

Existing racial inequalities in healthcare have become apparent in the midst of the COVID-19 pandemic, as underrepresented minority populations are more likely to contract the virus and become seriously ill. School of Pharmacy’s Director of Diversity, Equity and Inclusion Lakesha Butler, PharmD, BCPS, clinical professor in the Department of Pharmacy Practice, leads the School’s efforts to address such disparities and take action outside and within the School. In June, Butler appeared in a podcast with Major Garrett, chief Washington correspondent for CBS News, to speak about the growing relationship between the pandemic and the racial divide.

“There are two public health crises going on in this country—COVID-19, and racial injustices,” Butler said. “For both crises, we have a subset of people who are disproportionately suffering. We see that with COVID-19, as it’s plaguing underrepresented minority populations.

“Because of opportunities not necessarily being available to Black people or other underrepresented minorities, they have to go out and work at potentially lower-paying jobs,” Butler added. “They are potentially right in the face of many people in the public, being exposed to COVID-19.”

At the beginning of the pandemic, the availability of testing was minimal in underrepresented and underserved communities, causing essential workers in those communities to unknowingly transmit the virus to families, friends and coworkers.

“The foundation of all of this is systemic racism,” Butler added. “We’ve seen this woven throughout the fabric of our country for hundreds of years, and unfortunately, the Black community has been a recipient of this treatment and has fallen into a higher prevalence of specific disease states.”

Expanding on its strategic goal to cultivate diversity and inclusion, the School is bolstering the curriculum to directly address racism. Faculty has traditionally discussed racial disparities in clinical trials and within disease states, such as the higher prevalence of hypertension and diabetes among Hispanic and Black people. They will now delve deeper into the disparities throughout the curriculum.

This fall, Butler began teaching topics of systemic racism and social determinants of health in Pharmacy and Population Health, a newly required third-year course. Butler also teaches the required second-year Health Promotion and Literacy course, which will further explore systemic oppression and racism, toxic stress, and the negative health outcomes associated with chronic trauma in the spring.

“We will specifically discuss the historical and current context of why these inequities exist,” Butler said. “It is important for us to make it known that racism, not race, significantly contributes to health inequities.”

Mental Health First-aid Training Enhances Curriculum

To continue to raise awareness for mental health and prepare students for future scenarios, the School of Pharmacy has incorporated an important Mental Health First-aid (MHFA) training course into its curriculum for first-year (P1) students. All P1 students will now complete this training as part of their personal and professional development course.

Over 70 students completed the inaugural MHFA training during the spring 2020 semester. The 8-hour, skills-based course teaches participants about mental health and substance use disorders. Through active participation, students are taught how to:

- Respond to someone having a panic attack.
- Ask someone about suicidal thoughts.
- Respond to an opioid overdose.

The training is facilitated by certified MHFA instructors Kelly Gable, PharmD, professor in the Department of Pharmacy Practice and psychiatric clinical pharmacist at Family Care Health Centers, and Misty Gonzalez, PharmD, clinical associate professor in the Department of Pharmacy Practice and psychiatric clinical pharmacist at Barnes-Jewish Hospital in St. Louis.

“Dean Luer and faculty overwhelmingly supported the integration of this program into our P1 academic year,” Gonzalez said. “When we incorporate MHFA into the curriculum, it sends a message to both students and the community that having an understanding and knowledge of how to respond to a mental health crisis is just as important as other health crises.”

“After completing our first training cohort, we feel confident that our pharmacy students need this experience for their own mental health wellness and to better take care of each other, as well as future patients and communities,” Gable added. “I have no doubt that they left feeling empowered and better equipped to respond to a mental health crisis.”



Students Experience India



Fourth-year (P4) students James Reimer, of O'Fallon, Ill.; Caleb Braasch, of Edwardsville, Ill.; Lauren Skarupa, of Decatur, Ill.; and Catherine Gilmore, of Springfield, Ill., participated in a unique professional and cultural experience before graduating in May 2020. The group spent four weeks in Mysore (Mysuru) and Ooty, India during the fall 2019 semester as part of a clinical rotation for their Advanced Pharmacy Practice Experience (APPE).

Students participated in hospital treatment team rounds with healthcare teams. Clinical experiences included infectious disease care, pediatrics, general medicine and oncology. Students presented clinical cases as part of a team, alongside their student peers from Jagadguru Sri Shivaratheeshwara (JSS) Academy of Higher Education and Research.

"This rotation was initiated in 2014, and since its inception, 10 pharmacy students have completed APPEs in India," said Kelly Gable, PharmD, BCPP, professor in the Department of Pharmacy Practice and coordinator of global partnerships. "Through our shared university partnership, seven JSS students have studied at the School of Pharmacy. This experience is just one of the several global education learning opportunities we offer our students."

"I was intrigued to see how the healthcare system in India differed from America, especially in regard to pharmacy," Gilmore said. "In America, clinical pharmacists are integrated in various aspects of healthcare. In India, this is only starting to take off. It was exciting to share how we practice pharmacy and help them push the profession forward in their country."

Gilmore had the opportunity to make a significant impact on a patient's care. "A patient's antibiotic was not being dosed appropriately, and I explained to the healthcare team how the patient could improve much quicker if the change was made," she said. "The recommendation was accepted, and the patient significantly improved and was discharged within a few days. Showing the team how intervention from a pharmacist can affect patient outcomes was just a small way to help improve pharmacy practice."

Gilmore would encourage other students to participate. "I cannot fully explain the impact this trip had on me," she said. "From learning about various disease states that are not prevalent in America, to trying amazing foods and exploring new sites, to becoming friends with our pharmacy student counterparts, this trip far exceeded every expectation I had."

Vogler Named ICHP President



The Illinois Council of Health-System Pharmacists (ICHP) named Carrie Vogler, PharmD, clinical associate professor in the Department of Pharmacy Practice, as 2019-2020 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. Vogler has enjoyed the role, particularly leading a fall retreat for ICHP leadership.

"The theme I selected for the retreat was 'Our Team,' and pharmacy professionals have certainly applied teamwork to support one another during the COVID-19 pandemic," Vogler said. "ICHP collected information on drug shortages in Illinois related to COVID-19 and shared this information with the FDA to ensure pharmacists have the medications needed for patients."

Under Vogler's leadership, the ICHP has worked to better engage and support members by creating networks and creative ways to provide continuing education opportunities, in addition to working on legislation to support pharmacists and technicians.

"ICHP serves as a voice for pharmacists in the state legislature," Vogler said. "It has been a pleasure serving the pharmacists and technicians within Illinois, and this role has given me opportunities to meet other state representatives serving their states."

Students Take Top Prize in Regional Skills Competition

Participation in clinical skills competitions helps pharmacy students both apply and further develop their leadership and professional skills. In February, a School of Pharmacy student team ranked first out of 35 teams in the Student National Pharmaceutical Association's (SNPhA) Regional Clinical Skills Competition in Lexington, Ky.

Third-year pharmacy students Alex Hagans, of Staunton, Ill., and Jacob Troeckler, of Bethalto, Ill., exhibited their pharmaceutical knowledge skills through the patient case review and patient counseling competition. They were given five minutes each to review a patient case scenario and conduct a counseling session about the patient's medications and lifestyle modifications.

"We are still shocked to have won, as there were a number of competitive teams from across the country that competed against us," Hagans said. "It was a great overall experience, and we are honored to have represented the SIUE School of Pharmacy."

"As SNPhA members, Jacob and Alex have consistently participated in various community outreach events showcasing their passion for serving others, especially underserved populations," said chapter advisor Lakesha Butler, PharmD, clinical professor in the Department of Pharmacy Practice. "During this particular competition, they were able to showcase their academic knowledge and passion for clinical pharmacy."

"It was fun to compete with other teams in a real life-based scenario. We are given plenty of practice and experience in our courses at SIUE to be strong competitors in this type of activity."

Jacob Troeckler, Third-Year Student

After finishing first in this regional competition, the team is planning to compete at the 2020 NPhA/SNPhA National Convention in New Orleans later this year.

Dillon Selected as Walmart Scholar



Austin Dillon, PharmD '20, of Dixon, Ill., was named a 2020 American Association of Colleges of Pharmacy (AACP) Walmart Scholar. The AACP Walmart Scholars Program provides a \$1,000 scholarship to 85 student-faculty pairs from AACP member institutions to support registration and other meeting expenses for students to attend the AACP annual meeting and seminars.

Dillon and his faculty mentor Beth Cady, PharmD, BCPS, clinical assistant professor in the Department of Pharmacy Practice, attended two days' worth of professional development sessions during the virtual meeting in July. The highly competitive award is for those interested in pursuing a career in pharmacy academia and is not limited to pharmacy students.

"The amount of qualifications that any typical applicant possesses is outstanding," Cady said. "This award highlights Austin's exceptional skills, strong desire and tangible plan to pursue a career in academia. This scholarship introduced him to not only the pharmacy academy, but also provided tools to become an effective pharmacy educator."

Dillon is grateful for the unique pharmacy education specialization offered through the School's curriculum, which allowed development of his interest in teaching in conjunction with his clinical training through the doctorate program.

"Although this is a rigorous professional program, Dr. Cady and others helped me not lose sight of what was most important," Dillon said. "I am using this opportunity as a jumping-off point to make my alma mater proud."

In July, Dillon began a first post-graduate year pharmacy residency at HSHS St. John's Hospital in Springfield, Ill. His mentor/mentee relationship with Cady continues as she is employed at the same hospital.

Award-winning Duo Develops Automated Pharmaceutical Technology

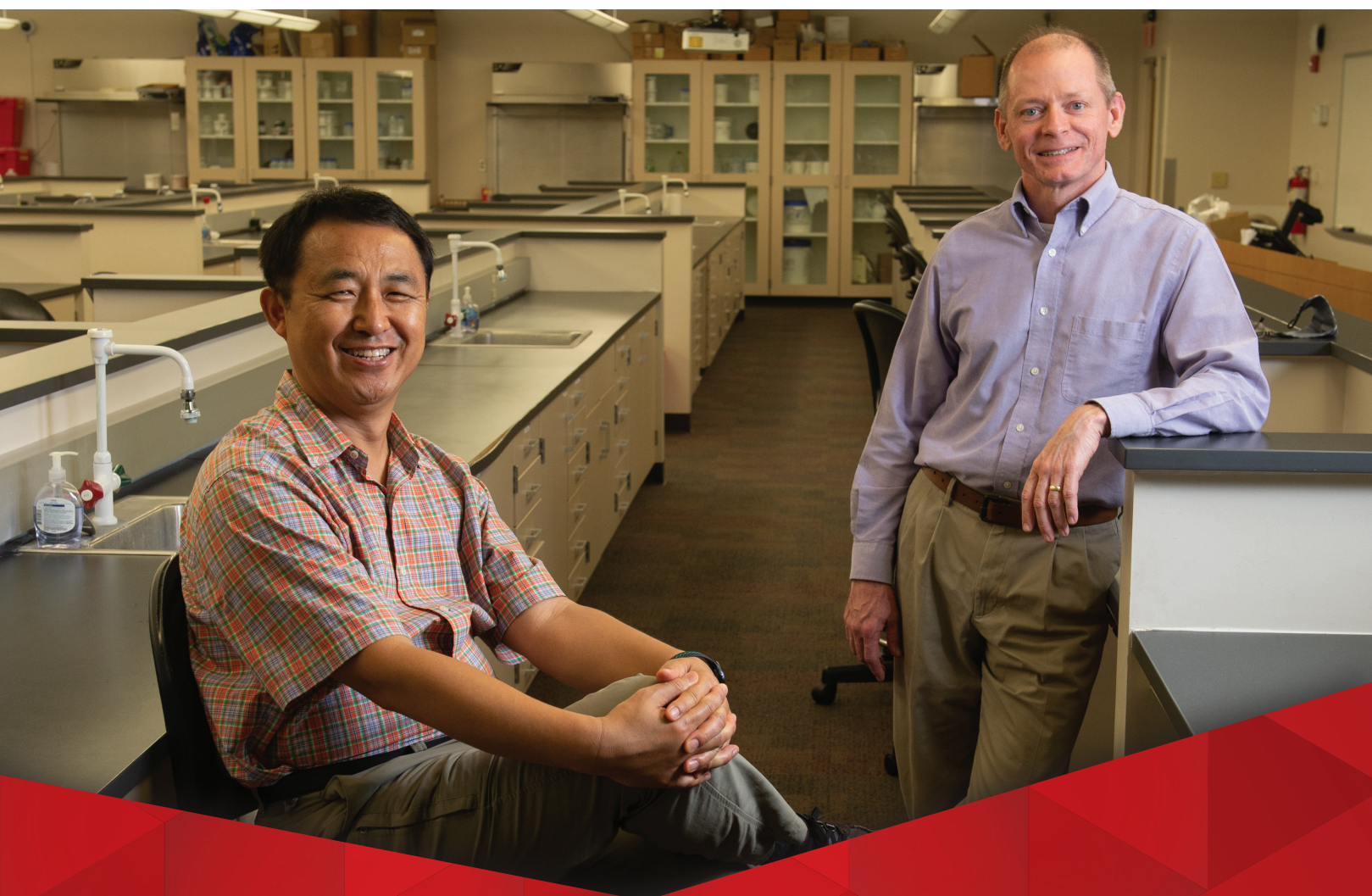
Draft regulations for pharmacies are specifically focused on increasing the safety of pharmacy personnel by decreasing airborne drug particles. Installing air handling and filtration systems for the pharmacy is an expensive method to achieve that goal.

Tim McPherson, PhD, professor of pharmaceutical sciences, and Felix Lee, PhD, professor of industrial engineering in the School of Engineering, had a different idea and designed an automated system for pharmacists to fill capsules with liquid drugs.

“Pharmacists can fill compatible liquids into gelatin shells by hand, but that process is tedious and prone to error,” McPherson said. “Our proposed system automates this manual process, saving labor cost and minimizing human errors.”

Lee’s and McPherson’s varied talents complement one another. McPherson has expertise in drug delivery and pharmaceuticals, while Lee’s expertise is in product design and engineering development. Their collaboration is helping pharmacists as they face the choice of either investing in technology to meet the safety guidelines or getting out of the business of producing customized medications for patients.

The duo received the SIUE Graduate School 2020 Concept Commercialization Award for their project. The award promotes interest in and involvement with intellectual property development and commercialization in order to benefit the health, safety and welfare of the community and the economic welfare of the University.



Poirier Awarded for Teacher-Scholar Excellence



Terri Poirier, PharmD, MPH, FASHP, FCCP, professor of pharmacy practice and senior scholar, was honored with two esteemed scholarly awards in the past year. Poirier joined the School of Pharmacy in 2004 as associate dean for academic affairs and professor of pharmacy practice. She

has since dedicated her scholarly research to advancing interprofessional education, the development of students as educators via the School’s education specialization, the development of health humanities pre-professional coursework, and other innovative teaching and learning.

Last July, Poirier received the 2019 American Association of Colleges of Pharmacy (AACP) Distinguished Teaching Scholar Award, placing national recognition on the School and her research.

“Recognition by one’s peers for excellence as a teacher-scholar is humbling,” she said. “The recognition of a 40-year teaching career in pharmacy education, and the impact made on teaching and the pharmacy profession, is greatly appreciated.”

This May, SIUE named Poirier the 2020-21 Paul Simon Outstanding Teacher-Scholar. This award annually recognizes a faculty member who has shown significant contributions to original research or creative activities, and has successfully integrated those contributions into their teaching practices.

Poirier has previously been recognized as a Fellow by both the American College of Clinical Pharmacy for demonstrating exceptional performance in clinical pharmacy practice, education and research, and by the American Society of Health-Systems Pharmacists for excelling in pharmacy practice and service.

“My scholarship work in advancing innovative teaching strategies to enhance student learning has increased knowledge and understanding in the area of Pharmacy Scholarship of Teaching and Learning (SOTL). All of my SOTL research is integrated into my teaching and used to enhance student learning.”

Terri Poirier, PharmD, MPH, FASHP, FCCP, Professor of Pharmacy Practice and Senior Scholar

Gupchup Appointed to VP of SIU System



After serving the School of Pharmacy for 16 years, eight of those as dean, Gireesh Gupchup, PhD, FAPhA, has been named Vice President for Academic Innovation, Planning and Partnerships for the SIU System. Since stepping down as dean in 2018, Gupchup served as professor in the Department of

Pharmaceutical Sciences and as SIUE’s Director of University-Community Initiatives. In the latter role, he facilitated the collaboration of SIUE units and offices with community organizations and local businesses to create solutions for the region’s ecosystem.

“I have always been drawn to a challenge to build and sustain new endeavors. Having the opportunity to work in an expanded role with my talented and dedicated colleagues in Carbondale, Edwardsville, Alton, Springfield and everywhere SIU has a foothold is an exciting possibility I look forward to starting.”

Gireesh Gupchup, PhD, FAPhA, SIU System Vice President

“Both the Board of Directors and I believed that with the added responsibilities the new vice president will undertake, we needed to open this search to candidates from across the country,” SIU System President Dan Mahony said. “As is the case sometimes in a national search, you find that the person best qualified is already within the organization. Dr. Gupchup is enthusiastic to advocate on behalf of the System and our campuses.”

As VP, Gupchup will identify and engage with strategic partners to facilitate economic development and community engagement while promoting outreach, collaboration and impact across the System. He will also develop a strategic plan exploring opportunities for collaboration in shared academic programs, and promoting international student recruitment and retention.

“I look forward to supporting the academic needs of each university individually and finding new ways for them to jointly advance learning opportunities for our students, meet healthcare needs for the over two million individuals who live within the SIU System footprint, and help develop the many communities we serve,” Gupchup said.

“As a pharmacist, I hope to make an impact within research. Working in Dr. Crider’s lab has helped me learn about myself and where I play a role in pharmacy.”

Lejla Garic, Third-Year Student



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 current students, the breadth of topics encompasses the pharmaceutical sciences and include pharmaceuticals, pharmacology and medicinal chemistry.

Graduate Student	Thesis Title	Thesis Advisor
Hannah Lupton	Expansion, Synthesis, and Biological Evaluation of a Focused Library of N-substituted Indolines and 1,2,3,4-tetrahydroquinolines as Antimicrobials	Joe Schober, PhD
Chris Reeb	Western versus Omega-3 Based Dietary Impacts of Tight Junctional Proteins of the Blood Brain Barrier	Ken Witt, PhD
Konstantina Stavroulaki	A Comparison of Bacterial and Protozoal Pathogens in Water from Costa Rica, Haiti, Guatemala, and the United States	Cathy Santanello, PhD
Rafael Francisco Frare Rosales	Lead Optimization of Triazole-based Somatostatin Subtype-4 Agonist for the Treatment of Alzheimer’s Disease	Ken Witt, PhD
Elizabeth Denn	Evaluating Sigma-receptor Modulators’ Impact on Cell Lines Using Redox-sensitive Green Fluorescent Protein (GFP) Biosensors and MMP Probes	Joe Schober, PhD

Undergraduates Participate in High-impact Research

From performing reactions and evaporating solvents to looking at spectra and taking melting points, undergraduate students in the School of Pharmacy have the unique opportunity to help advance and discover new compounds with impacts on such diseases and disorders as Alzheimer’s and epilepsy.

Associate Dean for Research, Michael Crider, PhD, chair and professor in the Department of Pharmaceutical Sciences, works with students as they gain hands-on experience while co-publishing pharmaceutical research through the School’s Competitive Research Program. Last fall, findings of Crider and four former pharmacy students were published in *Current Bioactive Compounds*. Their research article details a compound that could potentially be used in complex partial seizures.

“Epilepsy is a disease of the central nervous system that affects approximately 50 million individuals worldwide,” Crider said. “Although several new drugs have been marketed in the last 25 years, almost one-third of patients are not protected. In many cases, currently available drugs produce undesirable side effects. As a result, a need exists for novel anticonvulsants with unique mechanisms of action and minimal side effects.”

During the spring semester, third-year pharmacy students Lejla Garic, of Collinsville, Ill.; Kristen Ingold of Freeburg, Ill.; and Matt Dunahoo of Peotone, Ill., worked

in Crider’s lab to contribute to an ongoing National Institutes of Health-funded project on the development of somatostatin subtype 4 agonists for potential use in Alzheimer’s disease.

“In the classroom, we learn a lot about medicinal chemistry, the way drugs are made and their structure, but not everyone fully understands the importance of that,” Ingold said. “Working with Dr. Crider, we fully understand the purpose, reasoning and vision behind making these drug compounds for patients.”

“As a student pursuing the education specialization, I want to train and educate people to be more health literate and health conscious,” Dunahoo said. “The opportunity to gain hands-on experience in the lab solidifies my understanding of concepts we learn in the classroom.”

“There are several reasons I find it valuable to involve students in my research, including teaching critical thinking, developing problem-solving skills and demonstrating how knowledge gained in the classroom can be applied in the lab,” Crider explained. “As a teacher, I find it important to enable students to become proficient in an area in which they may have limited knowledge. Furthermore, involving students in my research helps me remain active and pursue new areas of research.”

New Programs Prepare Students for Specializations



In fall 2019, the School of Pharmacy introduced a concurrent Doctor of Pharmacy (PharmD) and Master of Science in healthcare informatics program. Healthcare informatics merges computer technology and clinical expertise to effectively organize, analyze, manage and use clinical knowledge and data for problem-solving and decision-making.

This is the School’s second concurrent degree program. The PharmD/MBA was introduced in 2013 to provide students with increased business and entrepreneurial awareness, and practical development of managerial and human resource skills.

Both concurrent programs offer the opportunity to obtain dual degrees within 4 years, with fewer credit hours, and at a reduced cost compared to if they were to enroll in the programs sequentially.

“These concurrent programs help our students increase their marketability and prepare them for specialized positions that may require additional degrees, credentials, and experiences,” said Jing Fan, PharmD, BCPS, assistant dean, clinical associate professor in the Department of Pharmacy Practice.



The School recently received approval from the Illinois Board of Higher Education for an out-of-region PhD program with the SIU School of Medicine in Springfield, which is targeted to begin in fall 2021.

“PhD students in the School of Medicine’s Department of Pharmacology in Springfield, Ill., can work in our labs with our Department of Pharmaceutical Sciences faculty,” said Joe Schober, PhD, professor in the Department of Pharmaceutical Sciences, director of graduate programs.

“Those faculty members will have adjunct status in the Department of Pharmacology and are currently developing a medicinal chemistry track for PhD students.”

Dedicated to understanding the action of drugs and how they can prevent or treat disease, pharmacology research is a natural fit within the Department of Pharmaceutical Sciences.

Navigating the Uncharted Territory of a Global Pandemic

From student recruitment to teaching methods to patient interactions, COVID-19 has impacted the School of Pharmacy community in countless ways. The following offer small glimpses into how life abruptly changed for students, faculty, staff and alumni.

Adapting Teaching Methods

In mid-March, the School quickly developed alternative plans for course delivery and faculty coverage. Faculty members were ready to implement contingency plans when the University announced later that month that all on-ground instruction was suspended for the rest of the semester.



“The most rewarding experience was how quickly faculty and students adapted,” said Assistant Dean of Academic Affairs Jingyang Fan, PharmD, BCPS, clinical associate professor in the Department of Pharmacy Practice. “It was great to hear success stories from faculty on how they used features in Zoom to enhance student learning, and students could work in small groups virtually using Zoom breakout rooms.”

With many preceptor sites facing closures and restrictions only weeks before graduation, faculty, preceptors and students quickly collaborated to find new placements for a third of the fourth year (P4) students.

“We were able to place every student in order to meet accreditation standards and graduation and licensure requirements,” said Kate Newman, PharmD, director of experiential education and clinical associate professor in the Department of Pharmacy Practice. “I am so proud of our students for the grit and resilience they showed when faced with a very stressful and uncertain situation.”

As the challenges associated with COVID-19 continue to evolve, so does the School’s ongoing efforts to support students while protecting the health and welfare of the University community.

Recruiting, Admitting and Retaining Top-quality Students

At the onset of the COVID-19 pandemic, the School took numerous steps to seamlessly transition the recruiting and admitting processes online to meet the needs of potential and incoming students.

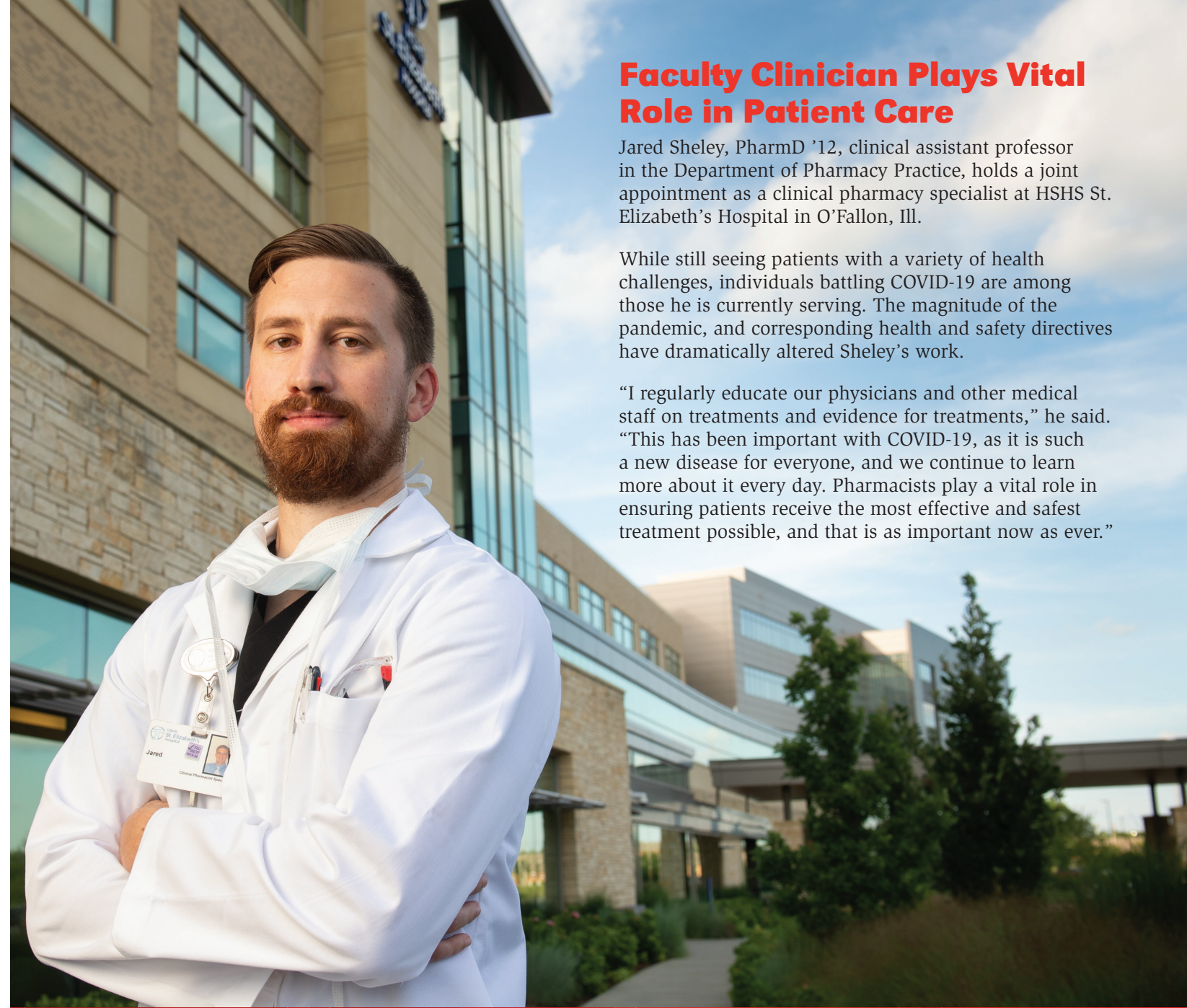
“The circumstances of this semester allowed us to try things that we may never have otherwise considered,” said Associate Dean of Professional and Student Affairs Jessica Kerr, PharmD, professor of pharmacy practice. “Our faculty members readily supported our efforts, and we are grateful for how they and the staff have supported our students.”

The School’s admissions committee took a proactive approach to admissions testing and interviewing. Although testing sites that host the Pharmacy College Admissions Test were not open due to COVID-19 shutdowns, the committee worked with potential students to allow them the opportunity to still apply.

Additionally, the staff of the Office of Professional and Student Affairs (OPSA) transitioned to online interviews through Zoom breakout sessions, providing applicants a personal interview with faculty members while also having opportunities to meet other departments across campus and ask relevant questions.

Pharmacy faculty also took steps to ensure the mental wellbeing of current students by scheduling working lunches and events for students, an important measure to retain the School’s high-quality cohorts.

“Many of our faculty members have collectively shown their support to students outside of the classroom,” Kerr said. “OPSA continued reaching out to students to provide them opportunities to discuss their concerns and share resources that were available for funding and mental health.”



Faculty Clinician Plays Vital Role in Patient Care

Jared Sheley, PharmD '12, clinical assistant professor in the Department of Pharmacy Practice, holds a joint appointment as a clinical pharmacy specialist at HSHS St. Elizabeth’s Hospital in O’Fallon, Ill.

While still seeing patients with a variety of health challenges, individuals battling COVID-19 are among those he is currently serving. The magnitude of the pandemic, and corresponding health and safety directives have dramatically altered Sheley’s work.

“I regularly educate our physicians and other medical staff on treatments and evidence for treatments,” he said. “This has been important with COVID-19, as it is such a new disease for everyone, and we continue to learn more about it every day. Pharmacists play a vital role in ensuring patients receive the most effective and safest treatment possible, and that is as important now as ever.”

Alumni Adapt to New Normal



Numerous School of Pharmacy alumni are among those courageously serving on the front lines, including Ashley Dicks, PharmD, '12.

“My transition from work to home has changed drastically,” said Dicks, a pharmacist manager at Michelle’s Pharmacy in Gillespie. “I take off my gloves when I walk outside of work. I sanitize my hands and Clorox anything that I brought into the pharmacy with me. When I get home, I wipe down the inside of the car. I change out of my work clothing in the garage, placing my shoes in a designated bin, and then head straight to the shower. This is my new normal.”

At Michelle’s Pharmacy, Dicks noted that major precautions were implemented to ensure everyone’s safety and lessen exposure.

“Thank you to all who are doing your part, whether staying home or serving on the front lines,” she said. “We see you. We appreciate you. We will come out stronger as a nation. This too shall pass.”



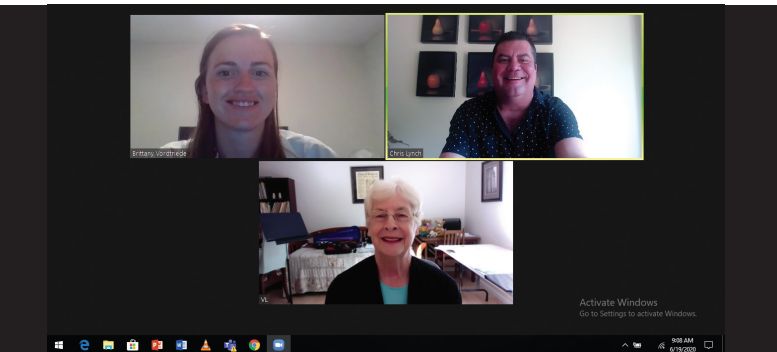
Women in STEM Offer Inspiration and Encouragement for East St. Louis Girls

Lakesha Butler, PharmD, clinical professor in the Department of Pharmacy Practice, and diversity and inclusion coordinator, encouraged girls ages 10-11 during a Women in STEM event, held in March in East St. Louis. She emphasized that everyone who has had success has also failed, advising the girls to fail forward, learning and growing from the experience.

Butler, along with an electrophysics engineer from Boeing, an SIUE statistical geneticist, and the SIUE STEM program coordinator, shared personal experience and advice at the event, which was coordinated by the SIUE STEM Center.

“The young ladies in attendance were engaged and eager to learn, and I saw leadership qualities in many of them,” Butler said. “Early exposure to various career fields in STEM is important, and can make a significant impression even at the elementary level. This is especially important for underrepresented individuals in STEM fields.”

Students Provide Innovative Ways to Utilize Telehealth



Due to the COVID-19 pandemic, many healthcare organizations have modified the way they traditionally provide face-to-face services. This is evident in clinical pharmacy practices that have shifted their services to telehealth to provide remote care. Chris Lynch, PharmD, professor in the Department of Pharmacy Practice, has smoothly transitioned to using telehealth technology with the assistance of his students.

“Students have been very involved in the design and implementation of our telehealth visits,” Lynch said. “In my own practice, I have taken advantage of my students’ mastery of technology that far exceeds my own to set up the visits.”

Lynch’s students designed a confidential patient registration process, performed pre-screening telephone interviews and completed draft versions of patient documentation for each patient seen. Students gained valuable experience using distance technology to provide direct and indirect patient care, while staying on track for graduation despite the pandemic.

The challenges faced when using telehealth include a lack of physical connection and basic assessment evaluations such as checking blood pressure and pulse. However, seeing patients remotely has many benefits, including breaking down barriers for patients with transportation or childcare issues and allowing them to more consistently meet with their providers.

Lynch believes the transition to telehealth services has strengthened both practicing faculty members’ and students’ flexibility in adapting to change, allowing them to learn new facets of empathy while caring for patients under the tremendous stress of COVID-19.

“We believe the experiences gained during the pandemic will allow our utilization of telehealth to continue to grow after the pandemic ends,” Lynch said. “When used in conjunction with traditional in-person visits, telehealth offers a service that is more time effective for the providers and more convenient for the patients.”

Thank You to our Generous Supporters

Your generosity combined with our students’ potential is writing the prescription to improve the health of our communities. For this alone, we truly cannot thank you enough.

Friends like you make it possible to provide scholarships, outstanding resources and services that are preparing tomorrow’s pharmacy professionals. Currently, our students, faculty and alumni are combating opioid abuse, developing new treatments of Alzheimer’s and providing patient-centered answers amidst the changing landscape of healthcare. These are just a few of the endeavors you impact by supporting the School of Pharmacy.

Moving forward, here are multiple ways that you can continue to make a difference.

- Contribute to our Student Emergency Fund to assist students who are experiencing a crisis or hardship.
- Name and create an annual scholarship with a yearly minimum gift of \$500 for five years or \$1,000 for three years.
- Name and endow a scholarship with a gift of \$25,000 or more, which can be given with \$5,000 annually for five years.
- Assist prospective students by connecting them to the School of Pharmacy.

Thank you again for your support. To learn more about opportunities for involvement, please contact me at staylaa@siue.edu or 618-650-5154. For your convenience, gifts can be made using the attached envelope or by designating the School of Pharmacy at siue.edu/give.

Shane Taylor
Director of Development

2020 School of Pharmacy Advisory Board

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, Edwardsville, Ill.

Members:

Julie Bickers, Healthcare Supervisor, Walgreens, Earth City, Mo.

Ryan Birk, PharmD ’13, Director of Pharmacy, Memorial Regional Health Services, Belleville, Ill.

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

Elizabeth Cardello, Senior Director, Corporate Alliances, American Pharmacists Association, Geneva, Ill.

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

Alex Dow, Pharmacy Manager, CVS Health, Maryville, Ill.

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

Dan Fieker, Owner, Family Care Pharmacy, Highland, Ill.

Brett Gilliland, Founder & Chief Executive Officer, Visionary Wealth Partners, Edwardsville, Ill.

John Gloss, Retired Administrator, Shriners’ Hospitals for Children, St. Louis, Mo.

Greg Guenther, Director of Pharmacy, Dierbergs Markets, Chesterfield, Mo.

Reilly Kiger, Student, SIUE School of Pharmacy, Edwardsville, Ill.

Chris Lancot, VP Independent Sales, Central Region Cardinal Health, Saint Charles, Mo.

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

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

Bob Mueller, VP East Group Sales, Strategic Initiatives, Letco Medical, Godfrey, Ill.

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

Bobby Sandage, Jr. PhD, President & CEO, Euclides Pharmaceuticals, Inc., Creve Coeur, Mo.

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

Joe Schober, PhD, Professor, Pharmaceutical Sciences, SIUE School of Pharmacy, Edwardsville, Ill.

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

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

Noah Tennyson, Director of Specialty Pharmacy, Schnucks Markets, Inc., St. Louis, Mo.

Jacob Troeckler, Student, SIUE School of Pharmacy, Edwardsville, Ill.

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

Harry Zollars, PharmD ’13, Owner, Maryville Pharmacy, Maryville, Ill.

Faculty Research and Scholarship Activity

Publications

Bahreman S, Ko HS, Balouchzadeh R, Lee HF, Parks, **Kwon G**. Neural network-based model predictive control for type 1 diabetic rats on artificial pancreas system. *Med Biol Eng Comput* 2019;57(1),177-191.

Bay D, Cagle S, **Herndon CM**. The addictive potential of tramadol. Evidence-Based Practice: A peer-reviewed journal of the Family Physicians Inquiries Network 2020;23(2):33-34.

Burling K. **Ferguson MC**. What is capsaicin's role in treating osteoarthritis? *Pract Pain Manag* Sep/Oct 2019;19(6):28-29.

Butler LM, Chen AM, Borja-Hart N, Arif S, Armbruster AL, Petry N, Riley AC. Assessment of a multi-institution integration of cultural competency activities. *Curr in Pharm Teach Learn* 2020;12(5):517-523. doi.org/10.1016/j.cptl.2020.01.007

Bzowycy AS, Crabtree B, Franson K, Klepser D, Okere AN, **Poirier T**, Welch A, Gandhi N, Ragucci K. Report of the 2019-2020 AACP Academic Affairs Committee. Developing the pharmacist workforce for society's medication use needs in 2030. *Am J Pharm Educ* June 2020, ajpe8203; DOI: doi.org/10.5688/ajpe8203

Carr A. **Ferguson MC**. What is the mechanism of action and evidence to support clonidine as an analgesic? *Pract Pain Manag* Jul/Aug 2019;19(5):16-17.

Carr A. **Ferguson MC**. If I recommend marijuana for a patient, what should I ask the dispensary? *Pract Pain Manag* Apr/May 2019;19(3):65-67.

Carr A, **Santanello C**. Pharmacists' knowledge, perceptions, and practices regarding herbal medicine. *Innov Pharm* 2019;10(3).

Cox CL, Todd TJ, **Lubsch L**, Klein KC, Prescott, WA, Knoderer CA, Johnson PN, Meyers R, Cole JW, LaRochele 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 (in press)

Currier V, Molki M, Fryman K, Rodgers LD, **Crider AM**. Synthesis and anticonvulsant activity of α -amino acid amide derivatives. *Curr Bioact Compds* 2019;15,547-561.

Devraj R, Deshpande M. Demographic and health-related predictors of proton pump inhibitor (PPI) use and association with chronic kidney disease (CKD) stage in NHANES population. *Res Social Adm Pharm* 2019;S1551-7411(19)30087-7.

Devraj R, Gupchup GV, Henson D. Mental health literacy of pharmacy students compared to nursing and medical students. *Innov Pharm* 2019;10(2)

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* 2019;33(1-2):1-5.

Esmaili Mohsen Abadi S, Balouchzadeh R, Uzun G, Ko HS, Lee HF, Park S, **Kwon G**. Tracking changes of fasting blood glucose, basal insulin, and various rate constants of glucose-insulin homeostasis for 7 months in high fat diet-fed mice. *Heliyon* 2020 Jan 6(1): e03251.

Ferguson MC, Herndon C. Pharmacy students as authors: A practical guidance for mentors. *Curr in Pharm Teach Learn* March 2020. (submitted)

Gonzalez M, Moses D. Expanding the role of pharmacists in the administration of long-acting injectable antipsychotic medications. *Pharmacy Times* CE booklet. July 2019 Available: pharmacytimes.com/publications/issue/2019/july2019/expanding-the-role-of-pharmacists-in-the-administration-of-longacting-injectable-antipsychotic-medications

Henson B, Hollingsworth H, Nevois E, **Herndon CM**. Calcitonin gene-related peptide (CGRP) antagonists and their use in migraines. *J Pain Palliat Care Pharmacother* 2019;25(4):1-10.

Herndon CM, Pointer S. Common questions about the Illinois Prescription Drug Monitoring Program: A CE program from the ICHP Opioid Task Force. *KeePosted* (Illinois Council of Health-System Pharmacists Newsletter) 2020; May,28-32.

Herndon CM. Alternatives to opioids exist – Just ask your pharmacist! *USA Today* editorial. March 18, 2020. futureofpersonalhealth.com/pain-management/alternatives-to-opioids-exist-just-ask-your-pharmacist

Hotop A, **Ferguson MC**. What are the new recommendations for prevention and treatment of acute pediatric migraine? *Pract Pain Manag* Mar/Apr 2020;20(1):19-22.

Hotop A, **Ferguson MC**. How can botulinum toxin be used in chronic pain syndromes? *Pract Pain Manag* Jan/Feb 2020;20(1):16-18.

Joish VN, Zhou FL, Preblick R, Lin D, **Deshpande M**, Verma S, Davies M, Paranjape S, Pettus J. Estimation of the annual healthcare costs of adults with Type 1 diabetes in the United States. *J Manag Care Spec Pharm*. 2020 Mar;26(3):311-318.

Ko HS, Balouchzadeh R, Uzun G, Lee HF, Park S, **Kwon G**. Model predictive control of blood glucose for Type 1 diabetic rats in a cyber-physical system. *Procedia Manufacturing* 2019;39,341-348.

Lee AS, Rusch J, Lima AC, Usmani A, Huang N, Lepamets M, Vigh-Conrad KA, **Worthington RE**, Mägi R, Wu X, Aston KI, Atkinson JP, Carrell DT, Hess RA, O'Bryan, MK, Conrad DF. Rare mutations in the complement regulatory gene CSMD1 are associated with male and female infertility. *Nat Commun* 2019 Oct 11;10(1):4626. PMID: 31604923

Link K, **Deshpande M, Ferguson MC**. Illinois pharmacists and over the counter cannabidiol products: a survey on knowledge and educational needs. *Innov Pharm* 2020; 11(2), article 2. doi:10.24926/iip.v11i2.2968.

McKinzie CJ, Chen L, Ehlert K, Grisso AG, Linafelter A, **Lubsch L**, O'Brien C, Pan A, Wright B, Elson C. Off-label use of intravenous antimicrobials for inhalation. *Peds Pulm* 2019;54:S27-45.

McPherson T, Fontane P, Bilger R. Patient experiences with compounded medications. *J Am Pharm Assoc* 2019;59:670-677.

McPherson T, Fontane P, Bilger R. Patient experiences with compounded topical pain creams. *J Pain Palliat Care Pharmacother*. (in press)

McNicol ED, **Ferguson MC**, Bungay K, et al. ACTION Team. Systematic review of research methods and reporting quality of randomized clinical trials of spinal cord stimulation for pain. *J Pain* 2020. (in press)

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.

Poirier TI. Reflections on travel to China: opportunities for an underground mission field. *Christianity & Pharmacy* 2020;23(1)13-15.

Poirier TI, Devraj R. Pharmacy in an improved health care delivery model using Maslow's Hierarchy of Needs. *Am J Pharm Educ* 2019;83(8):7627. doi:10.5688/ajpe7627

Poirier T, Newman K, Ronald K. An exploratory study using visual thinking strategies (VTS) to improve observational skills. *Am J Pharm Educ*.2020;84(5).

Sandoval KE, Umbaugh DS, House A, Crider AM, Witt KA. Somatostatin receptor subtype-4 regulates mRNA expression of amyloid-beta degrading enzymes and microglia mediators of phagocytosis in brains of 3xTg-AD. *Neurochem Res* 2019 Nov;44(11):2670-2680.

Sexton SM, **Herndon CM**, Sinclair JD. Patterns of heroin use following index prescription opioid exposure. *J Opioid Manag* 2020;16(1):49-57.

Slater O, Miller B, **Kontoyianni M**. Decoding protein-protein interactions: an overview. *Curr Topics Med Chem* 2020;20,855-882.

Stanbridge K, **Hunziker S, Ferguson MC**. In addition to frontline therapies, what topical treatment options exist for pain associated with post-herpetic neuralgia? *Pract Pain Manag* Nov/Dec 2019;19(7):16-17.

Underwood M. **Ferguson MC**. Should Probuphine be considered for medication-assisted treatment of opioid use disorder? *Pract Pain Manag* Jun 2019;19(4):17-19.

Underwood M, **Ronald K**. A pilot study assessing the impact of a polypharmacy mock medication simulation on student adherence and empathy. *Curr in Pharm Teach Learn* 2020;12(8),956-962.

White A, **Ferguson MC**. What role do Vitamin D supplements play in treating dysmenorrhea? *Practical Pain Management*. May/June 2020;20(3):11-13.

Wilhelm M. Immunization update 2019. *Pharmacy Today*. June 2019;25(6):48-58.

Woolverton NJ, Amerson NL, Mueller-Moody C, **Deshpande M**. Tobacco product use among middle and high school students with asthma – Illinois youth tobacco survey. *Illinois Morbidity and Mortality Bulletin*. Aug 2019;5(2):2-12. Available at: <http://dph.illinois.gov/data-statistics/immb>

Zollars I, **Poirier TI**, Pailden J. Effects of mindfulness meditation on mindfulness, mental well-being, and perceived stress. *Curr in Pharm Teach Learn* 2019;11:1022-28.

Book Chapters

Adams VR, **Hecht KA**. Lung Cancer. In: DiPiro JT, Yee GC, Posey M, eds. *Pharmacotherapy: A Pathophysiologic Approach*. 11th ed. New York:McGraw Hill; 2020.

Gable KN. Medications to treat mental health and substance use disorders. In Ettinger AB, Weisbrot DM, Gallimore CE (Eds), *Synopsis of Neurology, Psychiatry and Related Systemic Disorders* (pp. 790-806). New York, New York: Cambridge University Press. 2019.

Hecht KA. Anemia. In: Sutton SS. *NAPLEX Review Guide*. 3rd ed. New York: McGraw-Hill; 2020. (in press)

Hecht KA. Lung Cancer. In: Sutton SS. *NAPLEX Review Guide*. 3rd ed. New York: McGraw-Hill; 2018. (in press)

Hecht KA. Non-Hodgkin's Lymphoma. In: Schwinghammer TL, Koehler JM, Borchert JS, eds. *Pharmacotherapy Casebook: A Patient-Focused Approach*. 11th ed. New York: McGraw-Hill; 2020.

Herndon CM, Ray J, Komineck, C. Pain Management. In: DiPiro JT, Talbert RL, Yee GC, Matzke GR, Wells BG, Posey LM, eds. *Pharmacotherapy: A Pathophysiologic Approach*. 11th ed. New York, NY: McGraw-Hill; 2019.

Hunziker S, Ferguson MC. Epilepsy. *NAPLEX Review Guide*, 4th edition; McGraw-Hill, Access Pharmacy. (in press)

King S, **Cady EA**. Bacterial Meningitis: This IS Spinal Tap Level II. In: Schwinghammer TL, Koehler JM, Borchert JS, Slain D, Park SK. eds. *Pharmacotherapy Casebook: A Patient-Focused Approach*, 11th ed. New York: McGraw-Hill; 2020.

Laporte K and **Hecht KA**. Oncology overview and supportive care. In: Sutton SS. *NAPLEX Review Guide*. 3rd ed. New York: McGraw-Hill; 2020. (in press)

Lubsch L. Substance Use and Addictive Disorders. In: Benavides S, Nahata MC, editors. *Pediatric Pharmacotherapy*, 2nd ed. Lenexa, KS: American College of Clinical Pharmacy (in press)

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).

Grants and Contracts Received

Arnoldi J, Hunziker S, Ronald K. Feel good Fridays: community outreach with Edwardsville Public Library. SIUE School of Pharmacy, \$2,483.

Crider AM, Nieto M, Witt KA. Purchase of a Buchi Pure C810 Flash Chromatography System, SIUE Research Tools and Equipment Grant, \$34,771.

Devraj R. Effect of an intervention to promote pre-dialysis patients' intention and action steps to pursue living donor kidney transplant, School of Pharmacy Research Grant, \$2,500.

Devraj R. Effect of an educational infograph on herpes zoster (shingles) vaccination rates, School of Pharmacy Research Grant, \$1,440.

Ferguson MC. Analgesic, anesthetic, and addiction clinical trial translations, innovations, opportunities, and networks (ACTION) contract. Systematic review on pragmatic studies for pain treatments, \$7,500.

Ferguson MC. Analgesic, anesthetic, and addiction clinical trial translations, innovations, opportunities, and networks (ACTION) contract. Systematic review on registered studies for opioid use disorder, \$7,500.

Golden M, **Frueh J**. Trauma recovery center. Illinois Criminal Justice Information Authority. \$15,038.

Herndon CM, Cady E. SIUE SOP class of 2022; antimicrobial awareness alliance, Meridian Award, \$5,000.

Hecht KA, Herndon CM. Development and implementation of a flipped classroom model using customized, interactive, online learning modules and interactive case-based active learning. SIUE Excellence in Undergraduate Education, \$5,700.

Herndon CM. Illinois Department of Public Health. Prescription drug monitoring program. Development of a State-Wide Prescriber Reference Score, \$60,000.

Kerr JL, Bear R. Development and implementation of "Stop the Cycle" vaping awareness and educational program for Madison and St. Clair County Schools. Meridian Society. \$5,000.

Kontoyianni M. Purchase of five workstations with dual-20 core Intel Xeon Silver 4114 CPU @ 2.20GHz and 64 GB RAM and dual Nvidia Quadro P4000 video cards, SIUE Research Tools and Equipment, \$18,896.

Kwon G. Application of rat artificial pancreas system. School of Pharmacy Research Grants, \$1,553.

Nieto M. Synthesis of nitrogenated heterocycles as scaffolds for a library of potential anti-infective compounds. Improving Solubility. School of Pharmacy Research Grants, \$1,830.

Nieto M, Santanello C. Global Education Development Grant, School of Pharmacy, \$1,500.

Ricardo Rivero, **Cady E**, et al. Midwest integration of the national HIV curriculum (MINHC) project, Midwest AIDS and Training and Education Center, \$10,000.

Rosselli JL, Howard P, **Lynch JC**. Chronic disease medication therapy management. Illinois Primary Health Care Association Mini-Grant through CDC-RFA-DP1815PPHF18, \$10,000.

Rosselli J, Kerr JL, Herndon C, Gupchup G. Improving the lives of Illinoisans through chronic disease prevention. Contract with Illinois Pharmacists Association for collaboration on CDC-RFA-DP1815PPHF18. 2018-2020, \$35,000.

Santanello C. A comparison of water-borne pathogens in Jacmel, Haiti, San Pedro, Costa Rica, and Bond Co., Illinois, School of Pharmacy Research Grant, \$1,553.

Siganga W. American Association of Hospice and Palliative Medicine. Continuing Education, \$3,652.

Siganga W. Association for Aging with Developmental Disabilities. Continuing Education, \$1,200.

Siganga W. Skin solutions. Continuing Education, \$1,500. Siganga W. CE education for specialty pharmacy-pharmacists, KloudScript, Inc., \$9,400.

Vogler C, Gonzalez M. Introducing the teach back method and visual aids to improve patient counseling into community health clinics in Guatemala. SIUE Global Education Development Grant, \$1,500.

Witt KA. Lead optimization of somatostatin-based therapeutic for Alzheimer's disease, NIH, National Institute for Aging, 2015-2020, \$2,650,659.

Witt KA. Purchase of an autoclave, SIUE Research Tools and Equipment Grant, \$4,700.

Worthington, R. American Foundation for Pharmacy Education, Gateway to Research, FY20, \$5,000.

Worthington R. Predicting functional consequences of somatic synonymous codon mutations in breast cancer patients, SIUE Seed Grants for Translational and Exploratory Projects (STEP), \$12,495.

Box 2000
Edwardsville, IL 62026-2000
618.650.5150
siue.edu/pharmacy

Non-Profit
Organization
US Postage
PAID
Permit No. 4678
St Louis MO

Board Pass Rate Ranks in Top 20 in U.S.

2019 average board pass rate
on North American Pharmacist
Licensure Exam® (NAPLEX)*

School of Pharmacy	95.83%
National	88.34%
State	81.39%

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

2019 pass-rate places the School in the
**top 20 of 135 pharmacy programs
in the country**

2009-2019 cumulative pass-rates place
the School as **No. 1 among the eight
pharmacy programs in Illinois and
Missouri**

2019 average Multistate Pharmacy
Jurisprudence Examination® (MPJE)*

School of Pharmacy	90.57%
National	83.58%
State	75.31%

*MPJE serves as a state-specific pharmacy law examination
and the second requirement of licensure after graduation.



SIUE is proud to support responsible
use of forest resources.