

Gamecock Pharmacist

FOLLOWING HIS DREAM

Alumnus Lindsay Cobbs is working to transform the future of pharmacy.





DEAN STEPHEN J. CUTLER

DEAR ALUMNI AND FRIENDS,

I send you well wishes as I rewrite this column on April 9. My initial column shared reflections about springtime, the season of robust renewal and hopeful new beginnings. It shared gardening metaphors about new blooms, growth and synergies. It shared how the season would surely be perfect were it not for the pesky annoyance called pollen. Now, amid our public health crisis, those words feel much too wispy.

We have heard the saying that life is what happens when you are making plans for other things. A short time ago, our college halls were abuzz. Students counted down days to well-deserved spring break vacations. Alumni events were on the horizon. Our P4 students eagerly anticipated one of the most meaningful walks in their lives across the graduation stage. Then life delivered an unprecedented challenge.

Now some good news. Primarily because of the tireless work of our experiential education staff and faculty, our Class of 2020 will become pharmacy graduates on May 8. As a result, these new alumni will be eligible to take national licensing exams this summer. At the time of this writing, the university has tentatively rescheduled graduation ceremonies for Aug. 7. Should circumstances require, ceremonies could be moved to December. Our P1s, P2s and P3s are actively preparing for next year, albeit virtually, meeting with our advisors. Our incoming class, the Class of 2024, appears to be exceptionally strong.

Our college's administrative team began developing a contingency plan before the university announced plans for remote learning. The plan, which includes an overarching commitment to academic integrity, is committed to active learning and real-time coursework for our students. Our students and faculty have transitioned smoothly to temporary remote learning through the use of secure, online teaching and testing platforms. Many of our faculty had previous experience using distance education tools and platforms, which served us well.

Personally knowing so many of our frontline Gamecock heroes continues to feel especially humbling to me. You, along with other health care providers, technicians, assistants and medical staff, have our country in your care. That is powerful. Some of our faculty, researchers and student pharmacists are right there with you, in hospitals, pharmacies, research labs, clinics, nursing homes and businesses. Other faculty, along with our college staff, are with you in spirit, working from home offices, kitchen tables, sometimes from a child's bedside.

Against its dark backdrop, a crisis has a way of bringing light to all that remains good and right in the world by illuminating the special people who remain steadfast and resolute in their service to others. Thank you for your service, whatever that may be.

Be safe. Stay well. Shine on.

Forever to Thee,

Stephen J. Cutler
Dean of the College of Pharmacy



SPRING 2020

Dean / Stephen J. Cutler
Managing Editor / Terry Dixon
Writers / Terry Dixon, Margaret Gregory
Contributor / Kathy Keenan
Photography / Jason Ayers, Malory Spicer, Kim Truett

Stay Connected
University Home Page: sc.edu
COP Home Page: sc.edu/Pharmacy

College of Pharmacy
University of South Carolina
715 Sumter Street
Columbia, SC 29208

Phone: 803-777-4151
Website: sc.edu/pharmacy



Social: [UofSCPharm](#)

ON THE COVER

Lindsay Cobbs, a successful corporate pharmaceutical executive, concludes his service as our 2019 Outstanding Alumnus of the Year.

Communications and Public Affairs
The University of South Carolina is an equal opportunity institution. 19-11301 4/20

CONTENTS



pg. 4

IN THIS ISSUE

4 / FOLLOWING HIS DREAM

Lindsay Cobbs, 2019 Alumnus of the Year, has had a positive impact in the college through his outreach, volunteerism and philanthropy.

7 / A UNIQUE OPPORTUNITY

Michaela Almgren, assistant professor and Nephron Pharmaceuticals Corporation internship director, shares the value of successful industry partnerships.

18 / EXPERIENCES AROUND THE WORLD

From Alaska to Argentina: Experiential education goes global.

20 / RESEARCH SPOTLIGHTS

Professor Lorne Hofseth and Associate Professor Ozgur Sahin are forging innovative paths for future cancer treatment.

23 / FACE-TO-FACE

The Palmetto Poison Center is helping South Carolina seniors stay safe through its senior medication safety program.

Following his dream

Cobbs gives back after finding success in industry

When Lindsay Cobbs was 16 years old, he was admitted to the hospital for a medical issue. He recalled the difficulty his family experienced trying to understand the medical terminology as the doctors explained his care plan. This sparked his initial interest in pursuing a career in health care.

"I didn't want others to have to go through the same challenges as my family did in not having someone explain what was happening in a way which they could understand," he says.

The arrival of a new pharmacist in Cobbs' hometown of St. George in Dorchester County, South Carolina, inspired his desire to become a pharmacist. Cobbs observed the respect shown to that pharmacist and admired how he was able to help people in their small community.

Not everyone, however, agreed that would be his best path. Despite Cobbs' class rank as a top 10 graduate, his high school guidance counselor did not share Cobbs' enthusiasm for his career choice in pharmacy, telling him it would be difficult for him to succeed in such a rigorous program. Disappointed, Cobbs acquiesced and changed his major to education.

"I assumed that if I couldn't follow my first dream, then perhaps I could follow my love of teaching others," he says.

Yet, the pull of one's heart can be a powerful force. So can the will of a focused and determined young man.

Feeling disillusioned with his choice of major, Cobbs made an impromptu visit to the University of South Carolina College of Pharmacy's dean's office.

"A gentleman asked could he help me, and I told him I wanted to know more about the pharmacy program," Cobbs says. As fate would have it, that gentleman was Farid Sadik, then dean of the College of Pharmacy. Sadik assured Cobbs that he did possess the required aptitude and capabilities to become a pharmacist. He also told Cobbs that he expected to see him in his college the next semester. Cobbs left that meeting inspired and more determined than ever to pursue his dream.

Cobbs graduated with his bachelor's degree in pharmacy in 1992. His career path is nothing less than impressive in both traditional and non-traditional roles. "I know that earning my pharmacy degree is what prepared me to be able to handle these jobs," he says. "Pharmacy is one of those careers that lets you be flexible."

After being recruited at the Pharmacy Career Fair, Cobbs began his career as a staff pharmacist at The Johns Hopkins Hospital in Baltimore. After four years, he entered regulatory affairs at the U.S. Food and Drug Administration (FDA) where he served as special assistant and lead project manager in the Office of Compliance and later as associate director in the Office of Translational Research.

His successful experience with the FDA helped land Cobbs' first position in the corporate sector at Janssen Pharmaceuticals, a division of Johnson & Johnson. He worked as the policy lead in the Global Regulatory and Policy Intelligence Division. Cobbs is currently the head of Americas, Global Regulatory Policy and Intelligence for UCB, a global pharmaceutical company based in Belgium. He maintains his home in Washington.

Cobbs considers it a personal goal to help younger pharmacists and pharmacists-to-be understand all that may be available to them in moving their careers forward. He also is a fierce advocate for the pharmaceutical profession to take its well-deserved place in advancing health care.

"I didn't know the job I have today even existed," he says. "Mentors have taught me that you should always be open to the non-traditional roles that are out there."

Helping to increase diversity in pharmacy roles is also a great passion for Cobbs. Named for his parents, in 2018, he established the Elizabeth and James Cobbs Diversity Outreach Fund in the College of Pharmacy

for the purpose of raising awareness of pharmacy careers in South Carolina's rural and often underserved areas and, ideally, recruiting qualified students to the college.

"It is through what I do — giving back, how I approach things, and the ethic instilled in me by my parents — that has helped me succeed in what I do," he says.

For his success not only in his career endeavors, but also for his dedication to helping aspiring pharmacy students realize their own dreams, the College of Pharmacy named Cobbs as its Alumnus of the Year for 2019.

Because he understands the effort it took for him to reach his career goals, Cobbs hopes alumni from the College of Pharmacy will remember how the school supported them as well.

"The university is in a great position with tremendous potential to grow even further," he says. "When our alums are successful, the school gains in reputation. That results in greater ability to recruit, to fundraise and to grow programs like the Kennedy Pharmacy Innovation Center that other schools cannot offer."

Cobbs knows that while he is no longer providing direct patient care as a practicing pharmacist, his role is one that will positively impact patients for many generations.

"While I am working to shape policy and laws, we are transforming the future of health care," Cobbs says. "We have the ability to lead the change and shape where we want the future of pharmacy to be."



We have the ability to lead the change and shape where we want the future of pharmacy to be. LINDSAY COBBS



DEAR FRIENDS,

We are inheritors of a proud legacy, and our alma mater continues to attract the best and brightest. In August, we welcomed 110 new students. This impressive group boasted an average GPA of 3.6 and PCAT score of 53. We can be proud of the excellent group of student pharmacists our college is matriculating. These students will become pharmacists that you and I will be proud to call colleagues.

Thanks to generous gifts from alumni and friends, our college has truly been able to differentiate itself through initiatives like the Kennedy Pharmacy Innovation Center and the Walker Leadership Scholars Program. Our students continually benefit from the generosity of our alumni through the gift of their time as well as their expertise. Great examples of this include the NCPA Student Ownership Boot Camp and the Pharmacy Innovation Career Summit. These events, held in conjunction with the Kennedy Center, provide opportunities for students to gain valuable knowledge regarding entrepreneurship, pharmacy ownership and innovative pharmacy practice models. Alumni and friends of the college consistently give of their time to share their experience

and we are truly grateful. Whether through precepting, purchasing a white coat, donating to scholarships or service on college committees, our alumni make the education of students at the University of South Carolina College of Pharmacy possible and we thank you!

Our graduates have a lot to look forward to. The NAPLEX pass rate was 96.99 percent for the class of 2019, far surpassing the national average of 89.9 percent, and 93.4 percent of this class is working as pharmacists today.

I am proud to be a part of you, as fellow alumni, and I am so happy to spend every day working for this institution. Please stop by to visit when you can. It is a great time to be a Gamecock pharmacist!

For Carolina,

Julie M. Sease, Pharm.D., FCCP, BCPS, CDE, BCACP
Senior Associate Dean and Professor

A UNIQUE opportunity

PARTNERSHIP OPENS DOORS TO CUTTING-EDGE TECHNOLOGY

Students from the University of South Carolina College of Pharmacy and the College of Engineering and Computing continue to learn about robotic-assisted aseptic compounding. As a result of a unique partnership between the College of Pharmacy and Nephron Pharmaceuticals Corporation based in West Columbia, Michaela Almgren splits her time between the College of Pharmacy as clinical assistant professor and Nephron as the internship director. We asked Almgren to share her thoughts about the program. Responses from student participants will be featured in April's Enews.

Q What is the significance of what these students are doing?

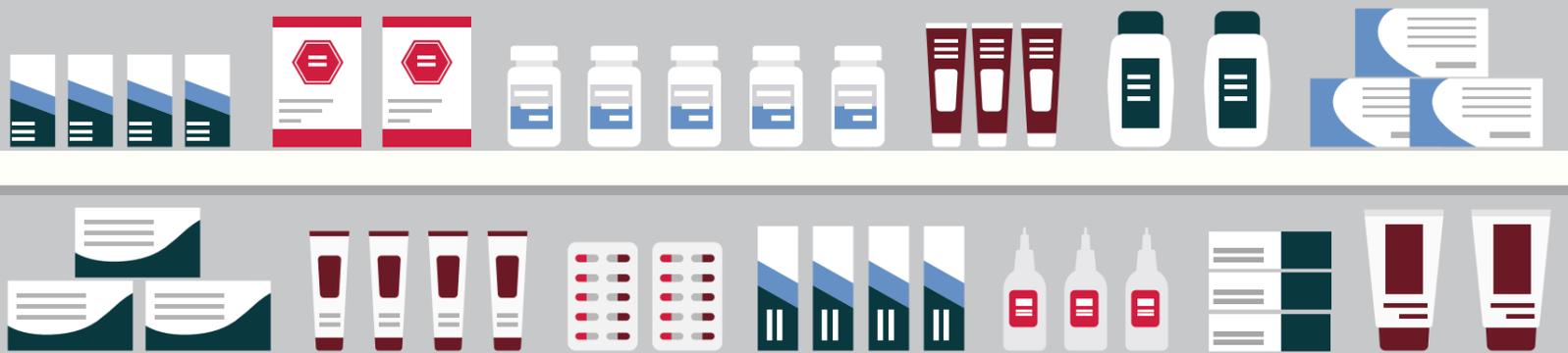
ALMGREN It is such a great opportunity for students. The knowledge and skills of our students are being challenged by making process improvements at Nephron. This builds students' confidence as they see their work truly making a difference. When working on our Yaskawa project, our pharmacy student team applied their understanding of sterile compounding concepts to make sure that when the engineering students programmed the robot, all considerations for maintaining sterility and proper aseptic technique rules were followed. Our students are also learning about quality requirements that have to be met by pharmaceutical industry manufacturers and how that translates to patient safety. The next steps in this project will include learning about validation of pharmaceutical systems, writing protocols for validation and the implementation of the Yaskawa robotic arm in the clean room environment. The students are gaining skills that are making them more marketable for the real world, whether they want to work for a drug manufacturing company, in a clinical setting or perhaps go and start their own business.

Q Where do students learn how to program these aseptic compounding robots and prepare them for working in a clean room environment?

ALMGREN Thanks to the generosity of Nephron, there is a Yaskawa robot housed at the South Carolina Research Authority in the McNair building near campus. That space is like a learning lab where our pharmacy and engineering students are currently collaborating on this project to make sure the robot is ready to execute all tasks as expected before it is implemented on-site to the clean rooms at Nephron. Students program the robotic arm to perform desired activities, and then put it into practice in a simulated environment. All students are using this cutting-edge technology, which is a truly unique opportunity.

Q How does the experience of learning and working side by side with engineering students add value for the pharmacy students?

ALMGREN Working with engineering students is also a great exercise in collaboration and communication, as all students have to work together, share information effectively and collaborate on this project in this highly diverse team. The engineering students have different training, background and skill sets than the pharmacy students. I believe this helps our pharmacy students to sharpen their interpersonal skills that they can then apply in a clinical setting, communicating with patients as well as other health care professionals, all of whom can have very different educational levels and backgrounds.



A PUSH FOR NEW DRUG DISCOVERIES

Efforts continue under \$11.2 million NIH COBRE Grant as center transitions to Phase II



Igor Roninson

has seen the effects that COBRE grants have on an institution and, in turn, how

the funding and motivation can lead

to a positive impact on the development of junior scientists.

The Center for Targeted Therapeutics (CTT) was created to attract and foster the professional development of talented junior scientists who are dedicated to research in the treatment of debilitating diseases and to develop the infrastructure for targeted therapeutic studies.

“I have witnessed firsthand how COBRE grants transform an institution like ours,” says Roninson, who is the SmartState endowed chair and drug discovery and biomedical sciences professor in the University of South Carolina College of Pharmacy. “They provide funding and motivation for coordinating research endeavors in medically important and fundable fields, through building research resource infrastructure, enabling targeted faculty recruitment and providing mentorship to new faculty.”

Because of the leadership, vision and ongoing success of Roninson and his team, CTT has again been recognized with a \$11.2 million COBRE grant from the National Institutes of Health (NIH). This latest award supports the second phase of the grant.

Transitioning to the next phase of a COBRE is something not easily accomplished,

according to College of Pharmacy Dean Stephen J. Cutler.

“Less than one-half of the Phase I COBREs are successfully converted into a Phase II program,” Cutler says. “Dr. Roninson has directed the advancement of young faculty members into independently funded scientists, supported the growth of a critical mass of investigators focused on the design and discovery of new therapeutic agents, and enhanced the development of new research cores at the University of South Carolina.”

It is Roninson's intention to continue those initiatives that lead junior faculty members to become self-supporting in their investigatory roles.

The CTT focuses on three resource cores: Functional Genomics Core, Drug Design and Synthesis Core, and Microscopy and Flow Cytometry Core.

Attracting the next generation of pharmacists

College shines spotlight on diverse roles for pharmacy careers



While pharmacy career paths continue to expand and diversify, it is not uncommon for middle, high school and college students to only think of traditional pharmacist roles when considering the profession as a possible career choice.

Amy Grant, associate dean for Student Affairs and Diversity in the University of South Carolina College of Pharmacy, and her team are responsible for recruiting our future Gamecock pharmacists. They work diligently to help prospective pharmacy students understand there is much more to the world of pharmacy than counting pills. While traditional pharmacy roles are right for some, it is important to raise awareness for non-traditional roles as well.

Their recruitment efforts to attract top students to the College of Pharmacy are producing positive results.

“Whereas in the past, recruitment of future pharmacists has primarily taken place at the high school and collegiate levels, it has become increasingly common for us to participate in career fairs, presentations and demonstrations at the middle school and even elementary school levels,” Grant says. “We also work more closely with teachers, counselors and advisors who help identify students with potential to succeed in a variety of opportunities within the field of pharmacy.”

A new initiative for her team includes involvement on a state and national level with Health Occupations Student Organization (HOSA), a group that provides education and leadership for students interested in health care careers at the middle and high school levels.

“We now participate at the HOSA state and national conferences by exhibiting and presenting symposiums,” Grant says. “We helped

create the first pharmacy competition for our state conference. It gives us the chance to show more students the many opportunities a career in pharmacy offers.”

High school students also can commit to attending the College of Pharmacy through the Gamecock Pharmacy Assurance (GPA) program. The early assurance program allows graduating high school students that meet certain academic distinctions to receive a provisional early acceptance into the college's Doctor of Pharmacy (Pharm.D.) program. Successful candidates are expected to matriculate into the Pharm.D. program at the beginning of their third collegiate year.

“We rely on alumni and pharmacy professionals to help students investigate the profession through shadowing, volunteering and conducting undergraduate research,” Grant says.

The Carolina Association of Pre-Pharmacy Students (CAPPS) is another recruitment tool that focuses on mentoring undergraduates interested in pursuing a Pharm.D.

“CAPPS would not be effective without the participation of pharmacists who speak at the bimonthly organization meetings about their individual careers,” she says.

With this type of outreach, the College of Pharmacy can continue to attract and retain the highest quality of students and produce accomplished pharmacy leaders.

If you would like to know more about participating in our recruitment efforts, please contact **Kristi Kinslow**, director of Pre-Professional Studies and Recruitment at kinslowk@cop.sc.edu or 803-777-6635.

HELPING PHARMACY MOVE AHEAD

Lucinda Maine, AACP empower students to shape industry's future



We had the opportunity to talk with **Lucinda Maine** during her recent visit to the college. We thank her for spending time with our students, faculty and staff.

pharmacy across the nation to develop strong academic scholars and leaders, and to build relations with key constituency groups in developing policy. Maine understands that building leaders through programs, such as the University of South Carolina College of Pharmacy Walker Leadership Scholars, is key to the growth and success of the industry's future.

"At no other time than now does the need for leadership ring as prominently," Maine says.

One area which Maine sees as a key leadership challenge, in addition to state federal regulatory issues, is the integration of pharmacists into physician practices.

"We want to empower every student to have the vision, confidence and skills to approach a physician practice about integration," she says. "I really admire the model that has evolved here in the Walker Leadership Scholars program, because it introduces them to national association leaders and the legislative process."

Maine says that pharmacists can help build the next cadre of future leaders by serving as student mentors. She credits much of her success to past mentors who helped open her eyes to more opportunities. Maine

mentors two young women who live in other parts of the country.

"While we may only see each other a few times a year, they know I'm there and can ask a question anytime," Maine says.

Another key role for the AACP is administering curriculum quality surveys to colleges of pharmacy as part of their accreditation updates. Survey results from graduating students, faculty, alumni and preceptors provide a reflection of the quality of the program and of the students.

Maine is confident that pharmacists will continue to have a significant role in health care.

"There is too much evidence that patients are not getting the care and guidance they need, including medication affordability and complexity and how to avoid adverse drug reactions," she says.

She also believes that today's Pharm.D. graduates have more knowledge and ability to create value in many different applications.

"Without pharmacists' integration into the delivery of care, care is more costly, less effective and less satisfying, both for patients and their providers," Maine says. "Our best days are ahead of us."

When she began her journey in the pharmaceutical world some 40 years ago, **Lucinda Maine** quickly learned that she could follow many paths with her degree. She knew she had to work hard, but more importantly, get involved. Maine recognized the value of being active in professional pharmacy organizations. She realized that her involvement as both student and practitioner could help shape the future of the industry.

Maine is executive vice president and CEO for the American Association of Colleges of Pharmacy (AACP), a role she has held since 2002. AACP works with colleges of



A LIFETIME OF LEARNING

Caulder receives Clinical Practice Teaching Award

Celeste Caulder, associate professor at the University of South Carolina College of Pharmacy, is a strong believer that learning is something that should happen every day throughout a lifetime.

Caulder, who has been teaching at the university since 2006, focuses on teaching her students how to use the knowledge they have gained in the classroom and apply it in their clinical rotations.

"It is important for us to set our students up for success in their future careers, but they also need those life lessons – how to manage their time, prioritize their responsibilities and make tough decisions when it comes to things like balancing work and home life," Caulder says.

Because of her unique approach in helping her students learn, Caulder received the Clinical Practice Teaching Award from the Office of the Provost for her outstanding clinical practice, advising and mentoring of health science students.

The most important thing Caulder hopes her students learn is that learning is a lifelong process, noting that these future pharmacists must understand there is not always just one right answer, because every patient they see will be different.

"I remind my students and myself, if one doesn't leave at the end of the day having learned something new, then they have not done their job," she says.



Melissa O'Neal, Sarah Beth Timmel and Olivia Alewine

Pharmacy team wins SCSHP clinical challenge

Our College of Pharmacy team won the South Carolina Society of Health-System Pharmacists (SCSHP) Clinical Pharmacy Challenge during the organization's annual meeting held in North Charleston, South Carolina in March. Team members **Melissa O'Neal**, **Sarah Beth Timmel** and **Olivia Alewine**, who were chosen from a preliminary trivia competition, defeated Medical University of South Carolina in the championship round.

The third-annual Clinical Pharmacy Challenge pitted the four pharmacy schools in South Carolina against each other in a Jeopardy-style competition. Students answered questions authored by SCSHP members from around the state, and the audience earned continuing education credits as part of the competition.

Associate Professor **Brandon Bookstaver** served as the emcee for the event.



KENDYL HUBER



LASHONDA FRYE



CASSIDY HALL



YASMIN MONIRI



OZGE SAATCI



BLAKE SLOAN



XIAOXIA WANG



AUSTIN ROE

'21

“ Thanks to UofSC, so many doors have been opened for me! I returned to UofSC to pursue a pharmacy degree. Since then, the College of Pharmacy has afforded me the opportunities to ... complete a rotation at St. Jude Children's Research Hospital and obtain a national leadership position with the National Community Pharmacy Association. The opportunities from here are endless! ”

'23

“ What I enjoy about being a student in the UofSC College of Pharmacy is the opportunity of getting to interact with students and faculty from diverse backgrounds. From the interview day, I began meeting new people and obtaining new opportunities. Also, I enjoy the organizations that I am a part of at the school ... which allows me to make an impact within the community. ”

'21

“ From didactic classes to experiential learning, the College of Pharmacy has consistently provided me with opportunities to develop and learn as I pave my path to the pharmacist I hope to become. After four years at the College of Pharmacy, I know that whatever I decide to do in the future (residency, community, hospital, etc.) I will be prepared and confident. ”

'21

“ I have enjoyed being a pharmacy student at the University of South Carolina because the UofSC staff and students are a big family. I feel at home because everyone is willing to help each other. UofSC helps you to become the person you have always wanted to be. Your friends at UofSC will support and challenge you and help you to grow. ”

'21

“ Being a graduate student in the UofSC College of Pharmacy is a unique opportunity for those who want to have a successful career in life sciences. The interdisciplinary research pursued by expert faculty members at the Department of Drug Discovery and Biomedical Sciences provides me a unique opportunity to get familiar with different topics that help me develop my own research interests. ”

'21

“ When I started pharmacy school, I was only considering the possibility of owning my own pharmacy. The College of Pharmacy, however, exposes students to pharmacists of many career paths and does an exceptional job of preparing students for any career they would like to pursue. Due to the College of Pharmacy's diligence in producing well-rounded students, I have been able to consider many options. ”

'22

“ In my P1 year, my career mentor, Dr. Michaela Almgren, helped me find my first internship at Nephron Pharmaceuticals Corporation, and I started to learn how pharmacists work in the pharmaceutical industry. My internship experience at Nephron makes me very interested in the pharmacy industry field. ”

'21

“ The College of Pharmacy has shown me many different areas of pharmacy and expanded my horizons to show me possibilities I didn't even know existed. Throughout the school year, the College of Pharmacy exposes you to real pharmacists from several different areas of pharmacy. Also, you will get real, in-person experience in different areas of pharmacy while on rotations. ”



Addison Livingston | '96

“ The UofSC College of Pharmacy started me down a career path that I never could have imagined! The time that I spent there was certainly a blessing! I give so that others may be able to experience some of these same opportunities. ”



Everett McAllister | '84

“ We all stand on the shoulders of those who have paved the path before us, and thus we have a commitment and expectation to continue to build that future by enabling others. Tomorrow's successes are unwritten and assured by the continued investment in those that will follow. I consider it an honor and a privilege to give back. ”



Julian Reynolds | '67

“ Some of my fondest memories are of my years as a student at UofSC College of Pharmacy. My parents provided the opportunity and the College of Pharmacy provided me with the education to earn my degree. My work after graduation has been very rewarding for me and my wife, Martha. We both believe in giving back. It gives one a great feeling of pride. ”



Candice Coleman | '04

“ As a student who benefitted from the financial contributions from Gamecock alumni, I am compelled to pay it forward by giving back to the school that gave me so much. I was blessed with the training and education needed to enrich the lives of the people in my community, and I hope my contributions will allow the next generation of pharmacists to do the same. ”



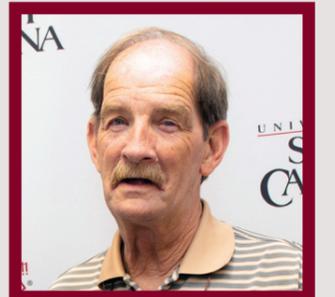
Emily Moose | '17

“ I support the College of Pharmacy because of the many wonderful opportunities it has afforded me during school and since graduation. Donating a white coat is a great way to 'pay it forward' to the incoming class of pharmacy students. Go Gamecocks! ”



Cheryl Anderson | '81

“ My parents instilled in me, 'The more you give, the more you live!' My successes and long-lasting relationships are a direct result of the educational experience gained at the UofSC College of Pharmacy. As a proud member of the class of 1981, I support 'my' college by giving back through mentoring, teaching and giving my time and talents to future Gamecock pharmacists. ”



Bill Bundy | '71

“ I believe in supporting the UofSC College of Pharmacy because it launched my career in the health care industry, which I have found to be very fulfilling. I would like to see future generations of pharmacists have the resources and opportunities to find the same fulfillment. ”



Kathy Quarles Moore | '86

“ I believe that to whom much is given, much should be returned. My father, also a UofSC College of Pharmacy alum, was very instrumental in my decision to become a pharmacist, and he modeled the passion for our profession, as well as the love for our alma mater. I give back to our college because I have been given many opportunities with the exceptional education that I received. ”

COLLEGE OF PHARMACY

NEWS & ACCOMPLISHMENTS



Montgomery Green, '09, was featured on the cover of Pharmacy Today, as part of an article detailing the increasing leadership role of pharmacists in antimicrobial resistance research.



Kathryn Anderson, PGYI, community-based resident, has received a 2020 APhA Foundation Incentive Grant for practitioner innovation in pharmaceutical care.

Please welcome our newest alumni!

These five graduate students received their doctorate in pharmaceutical sciences at the hooding ceremony in December:

Pamela Quizon
Mentor, Dr. Zhu

Erica Green
Mentor, Dr. Creek

Amanda Havighorst
Mentor, Dr. Kiaris

Adewale Adeluyi
Mentor, Dr. Turner

Miranda Fisher
Mentor, Dr. Turner

► Do you have news to share with your fellow alumni? Send us your updates at bit.ly/cop-class-notes

FACULTY & STAFF



Peisheng Xu and his team of researchers published an article about safety and efficacy in the use of drug cocktails for cancer treatment that appeared as the cover story in Advanced Functional Materials.



Dean Stephen J. Cutler has been appointed to the Board of Directors for SCBIO, a life sciences industry and economic development organization focused on building, supporting and expanding the biotechnology industry in South Carolina.



Cynthia Phillips has been named Rho Chi National Historian as well as chair of the Rho Chi Centennial Planning Task Force.



Julie Ann Justo has been elected as a board member-at-large for the Society of Infectious Diseases Pharmacists (SIDP).



Lorne Hofseth has been recognized with a 2020 Breakthrough Leadership in Research Award. This award recognizes senior faculty who have made important research contributions to their field throughout their careers and have demonstrated a record of sustained leadership in research.



Betsy Blake was recognized as an Outstanding Reviewer for Pharma Journal for 2019 at the AACP annual meeting in New York. She was also elected as a Distinguished Fellow of National Academies of Practice (NAP).



Brandon Bookstaver, WeiWei Zhang and Austin Williams were interviewed by Newsweek during ASHP's Midyear conference on their poster alerting to the use by humans of fish antibiotics.



NEW ASSOCIATES

Chao Cai joined the faculty as assistant professor in Outcomes Research

Brandon Finnerty joined the IT Team as system administrator

Sylvia Jenkins joined the Kennedy Pharmacy Innovation Center as administrative assistant



PROMOTIONS

Professor

Mike Wyatt
Jun Zhu

Associate professor

Eugenia Broude
Peisheng Xu
Michael Shtutman
Jill Michels

Assistant professor

Hana Winders

EXPERIENCES AROUND THE WORLD

EXPERIENTIAL EDUCATION PROGRAM SUPPORTS STUDENT IMPACT ACROSS THE GLOBE



Greg Regan



Katie Olsen (second from left)



Tyler Wagner

When fourth-year pharmacy students begin their experiential rotations, it is the time when they truly begin putting to practice what they have learned in the classroom. For many students, it is an opportunity to take those skills out of routine health care settings and into the far reaches of the world.

“Because of the many connections we have been able to develop, we are able to offer all our students rotations on both a national and international scale,” says **Jennifer Baker**, director for the University of South

Carolina College of Pharmacy Experiential Education program.

When **Greg Regan**, '15, chose his rotations, he knew he wanted to experience health care from the perspective of Native Americans and the indigenous peoples of Alaska. Regan's family is originally from the western region of the United States, and he recalled traveling through remote areas as a child.

Regan's rotation took him to Nome, Alaska for one month. He was surprised at what he found – a single hospital that provided all the care for the region and a handful

of pharmacists that did everything from fill prescriptions to provide in-hospital medicine and pack supplies bound for remote outlying areas.

“The lack of care was much further behind than I originally thought,” Regan says.

His experience furthered his desire to work in an independent pharmacy after graduation, which would allow him to provide one-on-one care for his patients.

Tyler Wagner, '19, credits the experiential team with helping him develop the international experience

he was seeking in Peru through Work the World.

“I was so appreciative of Dr. Baker's willingness to interact with the organization to make the trip come to fruition,” says Wagner, noting that South Carolina's experiential program helps students find an array of opportunities in different and innovative practices. Wagner, who earned his Pharm.D. from South Carolina, is currently working toward his doctorate in pharmacoeconomics and health outcomes at Virginia Commonwealth University.

Katie Olsen is a P4 Pharm.D. candidate and intern in the Kennedy Pharmacy Innovation Center who was able to engage in a month-long rotation in Cordoba, Argentina. Olsen credits the college's experiential team for supporting her desire to experience health care in an international setting.

“They make a true effort to not limit you in any way, to allow you to have adventures and to gain the knowledge that you want to achieve,” Olsen says.

She spent her mornings rounding with physicians in the public hospital that treats the poorest residents, then learned to speak

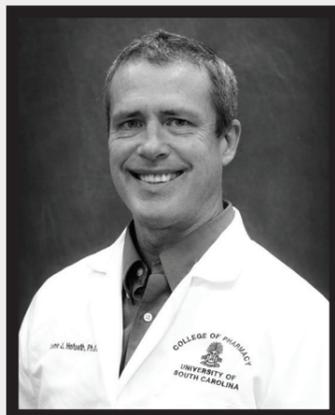
Spanish as part of an immersion program in the afternoons.

Olsen was able to see how resourceful the clinicians were in the public hospital.

“They don't always have the medical supplies that we have in the U.S., even simple things like lancets for checking blood sugar,” she says. “The combination of the medical knowledge that you gain and how health care is delivered in a hospital with minimal funding is impactful.”

CONTINUING THE FIGHT

Hofseth receives grant to study ginseng effects on colon cancer treatment



Lorne Hofseth and his team at the University of South Carolina are studying the effects of a ginseng molecule that may positively impact the future treatment of colon cancer.

Hofseth, a professor in Drug Discovery and Biomedical Sciences and director of the Center for Colon Cancer Research, is working to discover the advantages and efficacies ginseng may offer compared to FDA-approved drugs or other complementary or alternative medicines.

Colon cancer is one of the most preventable of all cancers, yet it is also one of the most commonly diagnosed among both men and women, according to the American Cancer Society.

The College of Pharmacy professor has received a \$1.7 million R01 grant from the National Institutes of Health to study these ginseng effects. The grant will be awarded over five years.

The study, "Harnessing the Power of P53 with Panaxynol from American Ginseng to Suppress Colitis and Prevent Colon Cancer," will allow Hofseth's team to further research how the mechanism by

which American Ginseng may eliminate colon cancer.

"The results of this study could essentially add another layer of protection against ever-developing colon cancer along with diet, exercise and regular preventive screenings," Hofseth says.

Dependent on the results of Hofseth's study, the next phase would move to clinical trials in humans, according to Hofseth.

"There is already anecdotal evidence that people suffering from irritable bowel syndrome have reduced flareups using ginseng," he says.

According to College of Pharmacy Dean Stephen J. Cutler, receiving an R01 grant from the National Institutes of Health is a testament to the quality of work performed by the scientist.

"This award is the gold standard we use to measure a scientist's ability to conduct independent research," Cutler says. "Dr. Hofseth is an exceedingly accomplished scientist and we are fortunate that he serves as a faculty member in the College of Pharmacy."

LEADING THE WAY

Sahin team's work aims to impact future of cancer research

The future of cancer research is being conducted within the walls of the University of South Carolina College of Pharmacy.

Among the 1.5 million people around the world who receive a diagnosis of breast cancer each year, 65 percent will be diagnosed with estrogen receptor positive (ER-positive) type cancer. According to **Ozgur Sahin**, associate professor in biomedical sciences, this cancer can return in a more aggressive form and potentially metastasize to other parts of the body.

Sahin is a recipient of a Research Scholar Grant from the American Cancer Society that could impact the way many breast cancer patients will be treated in the future.

The grant, totaling nearly \$800,000 over the next four years, will support Sahin's team research on overcoming tamoxifen resistance and blocking metastasis in breast cancer. Tamoxifen is a drug commonly used to treat patients with ER-positive type cancer.

"Our hope is that the research results from this grant will lay the foundation for repositioning

available drugs that will prevent patients from becoming resistant to their treatments and to keep the cancer from returning and spreading to other areas of the body," Sahin says.

Preliminary studies have identified a specific protein and RNA molecule that are present at higher levels in tamoxifen-resistant cancer cells. Because inhibitors for this protein are already available and used in treating other diseases, such as psoriasis and chronic obstructive pulmonary disease and in clinical trials for Alzheimer's disease, Sahin's study will determine if these inhibitors will result in reducing drug resistance in cancer cells.

In acknowledging Sahin's work, College of Pharmacy Dean Stephen J. Cutler notes the competition for Research Scholar Grants is extremely high.

"These grants are extremely competitive, and for the ACS to bestow such an award to Dr. Sahin acknowledges the significance of the work he is doing in the College of Pharmacy," Cutler says.





PAYING IT FORWARD

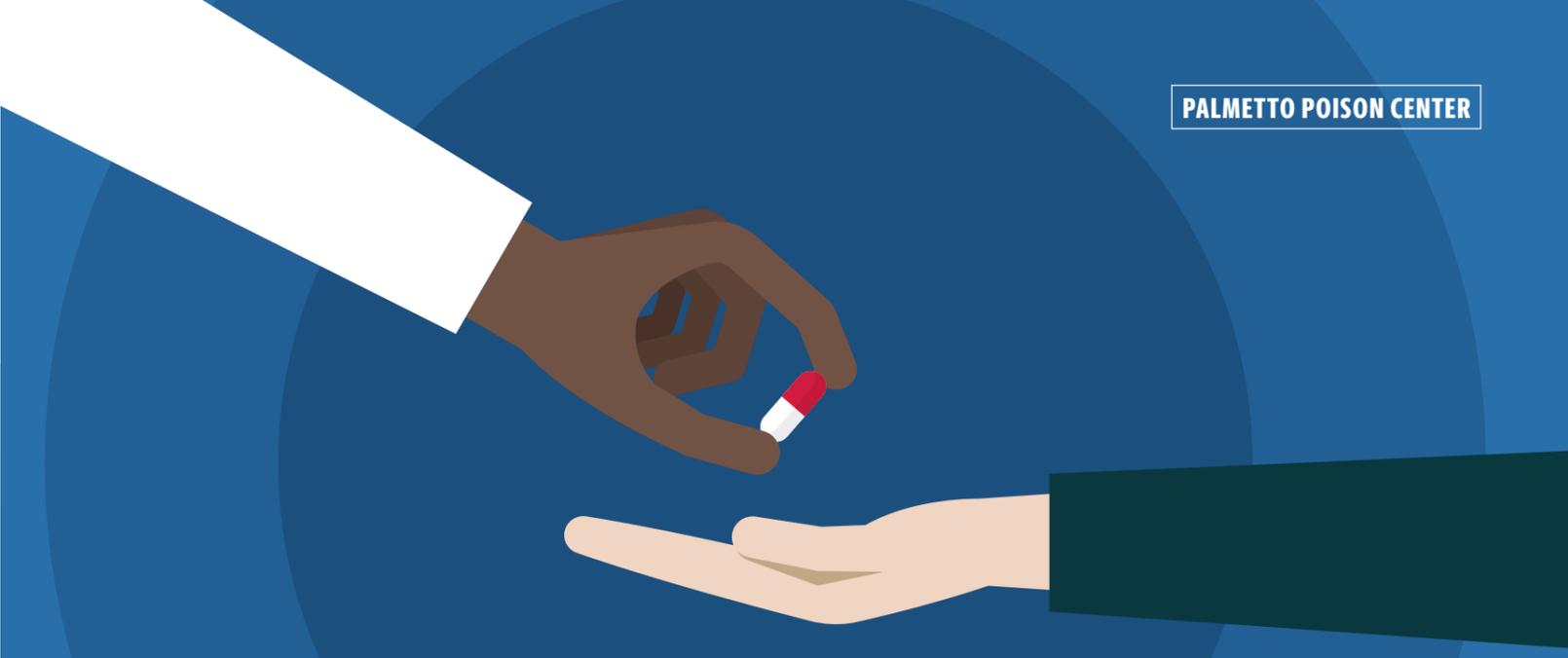
BY JARROD TIPPINS, '09

Eleven years ago, I graduated from the University of South Carolina as a proud Gamecock pharmacist. I was ready to conquer the world. The knowledge gained and experiences given during my six years at UofSC were far too valuable a treasure to hoard selfishly. What I realized, and continue to understand, is just how impactful and important this college remains, as well as the responsibility I have to pay it forward.

People seek knowledge. People seek health. People seek love. In our profession, these three go hand in hand. In order to take my education and career to the next level, three years ago, I decided to live out a dream of mine. I opened THE Pharmacy in Florence, South Carolina. On a daily basis, I am given numerous opportunities to provide the utmost care for our community. Not only did the college prepare me with a solid educational foundation, but the exceptional faculty and staff helped to cultivate my confidence to care immensely for my patients.

The culture is different at THE Pharmacy. We aim to create a welcoming environment full of knowledge and wisdom, all while improving overall health and well-being through both treatment and prevention. The college afforded me the opportunity to work alongside mentors and peers to learn to appreciate the importance of continual growth. While I am still refining my skill set, I constantly remember a quote from Maya Angelou, "When you learn, teach. When you get, give!" It is my duty to teach and give, as the college has done for me!

When given the chance to "pay forward" what I have been taught, I take pride in the outcome. It is my hope to set in motion an unprecedented wave of human kindness, which, unbeknownst to most, blossoms into a profound national phenomenon, sparking other people, whether young, old, rich, poor, wise or foolish. The college gave far too much for me ever to repay; it is my responsibility to pay it forward.



FACE-TO-FACE

Palmetto Poison Center program impacts lives by teaching medicine safety

Pharmacists understand that as their patients get older, it can become difficult for them to understand when and how they should take their prescribed medications, and the more medicines that are prescribed, the greater the opportunity for a medication error to occur.

That is where the University of South Carolina College of Pharmacy Palmetto Poison Center plays a significant role in safety.

For seven years, the Senior Medication Safety program has been in the community serving our older citizens of South Carolina. Palmetto Poison Center Education Coordinator **Christina DeRienzo** makes more than 40 presentations annually, crisscrossing the state on a weekly basis, providing medicine safety tips and awareness education as part of the college's outreach program.

"The program actually started as a service-learning project for pharmacy students," DeRienzo says. "It eventually evolved into an ongoing program that has now educated thousands of people over the years."

The goal of the program is to avoid medication errors by helping seniors understand potential drug interactions, how

to understand prescription labels, and how to safely use herbal supplements. She also discusses the importance of keeping a list of all medications and supplements and how to avoid medication errors.

One of the most important messages that DeRienzo shares is the need for good communication with health care providers and pharmacists.

"Their pharmacist can be one of the most integral members of the health team," she says. "Finding a pharmacist they are comfortable speaking with helps the pharmacist understand their patient's individual needs."

DeRienzo also encourages her audience to understand the role the pharmacist can have with them in providing another level of health care.

"The pharmacist will catch potential interactions, and they can have a conversation with your physician to discuss this problem or even to help find a less expensive alternative to a medicine," she says.

While these messages are important for everyone to hear, DeRienzo also understands

the need for interaction with "her people," as they are affectionately known.

"Because I have the opportunity to see some of these folks on a regular basis, I begin to see their need for interaction and that they really want someone to spend time with them and talk to them," she says. "They crave that human interaction."

And DeRienzo's talks give participants an opportunity to learn from each other. "When they share their stories about a medication mishap, others begin to share their stories. They know that people are listening and care about their well-being," she says.

The program also has a significant impact on students who rotate through the Palmetto Poison Center. They often accompany DeRienzo to presentations where they learn the significance of volunteering, especially in underserved communities.

"Many of them have never seen someone who is truly in need, and it is an eye-opening experience for them. That's when they understand that what they are doing really matters and is making a difference in people's quality of life," DeRienzo says.

PHARMACYEVENTS



Jody Chastain, CEO of The Ritedose Corporation, Randi Chastain, Robert Sears, graduate student, and Dean Stephen J. Cutler



P3 Lora Lashkova, Brenda and Ares "Art" Artemes, P2 Elie Gerdak and Dean Cutler



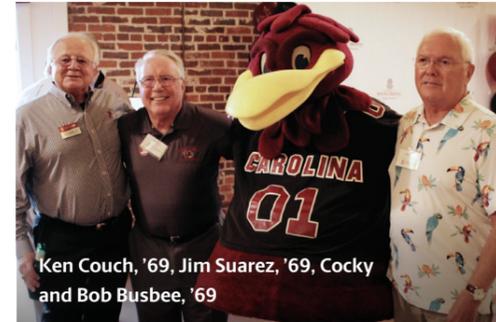
P1 Caleb Mosier, Julian Reynolds, '67, Martha Reynolds, P3 Robby Floyd and Dean Cutler



Dean Cutler, Debbie Francis, '83, Debbie Tapley, and P3 Heather Daugherty

SCHOLARSHIP DINNER

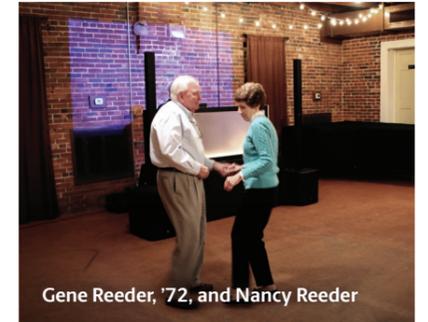
The College of Pharmacy has a rich history of generosity thanks to alumni. November's scholarship dinner recognized our donors and connected them with their student recipients.



Ken Couch, '69, Jim Suarez, '69, Cocky and Bob Busbee, '69



Larry Sease, '61, and Jill Michels, '95



Gene Reeder, '72, and Nancy Reeder

LOW COUNTRY BOIL

Our Low Country Boil, held Oct. 18 at Senate's End, engaged donors who made gifts to the College of Pharmacy over the past two years. All gifts help strengthen the college for our future student pharmacists.



Kyle McHugh, '95, and Pame McHugh, '95



John Dennis and Julie Sease, '03



GAMECOCK PHARMACY CAREER EXPO

This student-centered event provided professional development and networking opportunities for P1, P2 and P3 students. Thank you to these alumni who shared their time and experience: Nicole Bookstaver, '09, Pamela Feuerstein, '92, Andra Hall, '07, Wendy Knox, '92, Allen Madden, '89, Sara McFall, '12, Jonathan McFall, '12, Carla Mitchell, '85, Stan Nelson, '85, Lewis Overbay, '02, C.R. Reid, '95, Mike Ross, '76, Jeanie Sutton, '01, Elliot Turner, '11, and William Wynn, '99.

KPIC INNOVATION CAREER SUMMIT

Students interested in pursuing non-traditional pharmacist career pathways attended this event in January. Participants had the chance to connect with young, successful entrepreneurs. Many thanks to our alumni who participated: Gibran Ameer, '02, Cheryl Anderson, '81, Paul Fleming, '11, Demi Garvin, '87, Zoom Heaton, '92, Cory Jenks, '11, Meg Lorick, '16, Elliot Turner, '11, and Ed Vess, '80.





Diane Wise • 1949 – 2020

IN REMEMBRANCE OF A LEGACY

Diane Wise has been an integral part of the University of South Carolina College of Pharmacy for more than 40 years. In January 2020, Diane passed away after a valiant battle with cancer. We share fond memories of her time with us and her dedication to the College of Pharmacy.

Diane came to the college in 1972 as an administrative assistant after having started work at the School of Law from 1971-72. She took a short hiatus from the college in 1978 before returning in 1981. During her tenure, she served many roles including most recently as an adviser for pre-pharmacy students and as a graduate coordinator.

After almost four decades of serving the college, she had a wealth of institutional knowledge and a broad historical perspective of our university and college.

She spoke often about how much she loved working with students, faculty and staff of the college and how it felt like a family. She even remarked once that her son grew up riding his bike on the Horseshoe.

Colleagues recall that she always had a warm smile for everyone and was someone they always knew they could come to when they needed advice. Students have been known to return to the college just to visit her, even years after graduation, and she would remember each and every one of them.

For her dedication in working with students, the university recognized Diane in 2015, bestowing on her the Ada B. Thomas Advising Award.

Diane will be greatly missed but never forgotten.

*In memory of Diane, the Diane Sams Wise Memorial Scholarship Fund (A32386) has been established in the College of Pharmacy. Gifts may be made online at sc.edu/giving or by check payable to USC Foundations referring to fund A32386. Mail to USC Foundations, 1027 Barnwell Street, Columbia, SC 29201. If you would like to make a multi-year pledge, please call **Terry Dixon** at **803-777-5426**.*

READ & REPEAT



The college's NAPLEX and MPJE pass rates continue to surpass the national rates. Ninety-seven percent of our students pass the NAPLEX the first time compared to 89.9 percent nationally. The first-time pass rate for College of Pharmacy students taking the MPJE is 91.2 percent versus 83.7 percent for the national rate.

6

Six College of Pharmacy internship teams from Nephron Pharmaceuticals Corporation presented at the American Society of Health-System Pharmacists Midyear in December.

 Overall, 35 student authors presented 28 posters at the conference.



University of South Carolina College of Pharmacy scholarship recipients earned more than \$340,000 in scholarships for the 2019-20 academic year.

TOP 3

For five years, our students have been named as the Top Three competitors in the Student Pharmacist Compounding Competition.



The Penicillin Allergy Assessment & Skin Testing Certificate Program, headed by Brandon Bookstaver, has completed eight programs. Eighty-six pharmacists, non-pharmacists, pharmacy residents and pharmacy students from 14 states and Canada have completed the certification.



I AM SOUTH CAROLINA.

BRANDON BOOKSTAVER
Associate Professor
Director, Residency and Fellowship Training



I am made of inspiring leadership.

As director of residency and fellowship training at the College of Pharmacy, Brandon Bookstaver guides students in their research efforts and helps them find fulfilling residencies. Whether he's leading training in infectious diseases, improving patient outcomes through his research in antimicrobial stewardship or mentoring his students as they research human consumption of fish antibiotics, Bookstaver is advancing health care — and helping others discover the impact they can have in their communities.