Life-Saving Patient Care Starts With a Bold Education

This year we became one of the first pharmacy schools in the nation to coat both our professional and graduate students at our annual White Coat Ceremony. We wanted to visibly demonstrate the importance we place on the practice of pharmacy in all settings from the hospital to the laboratory, and on interprofessional collaboration between those working in the clinic and through research to improve patient outcomes.

In 2020, we will also graduate our first class of PharmD students who have been educated under a new curricular model. Faculty, staff, and students have labored through changes, made revisions and tweaks, and worked tirelessly to make our vision a reality. Roll-out of the new curriculum which among other things included a six-semester community service learning program, a new course on diagnosis, and a layered laboratory experience that places students from different professional years in a single teaching environment was arduous and challenging.

We will soon celebrate that hard work and recognize the first graduates of this curriculum, which challenged faculty and students alike with modifications in not only what we teach but how we teach. We expect new graduates to be more adept at thinking critically, to be more emotionally intelligent, to understand how to leverage technology within their practice, and to carry on the Kentucky tradition of providing the highest level of care.

Innovative education, hard work, and collaborative practice and research are essential in transforming patient-centered care.

This year we take another step forward.

R. Kip Guy, Dean & Professor

Our Team
TRAINING LEADERS
UKCOP students continue to boldly lead in the clinic, the lab, and their communities.
Students Win First Place in Healthcare Quality Innovation Challenge

University of Kentucky College of Pharmacy students Noor Naffakh, Kailyn Conner and John Brown took home first place in the Healthcare Quality Innovation Challenge at the annual Pharmacy Quality Alliance’s (PQA) Meeting in Baltimore in May.

The team-based student competition was created to foster student engagement in using technology to create healthcare solutions for patients. Teams are asked to develop a business proposal for a current healthcare quality issue that can be addressed using technology.

This year a number of teams participated in the initial round of the competition in January. Later, three finalists competed in front of a panel of judges and attendees at the PQA Annual Meeting on Friday, May 17, 2019. The teams were judged on the effectiveness of their presentations, as well as their ability to answer questions posed by the judges. The audience was also asked to select their favorite proposal, which factored into a portion of each team’s score.

The judging panel and the audience chose the UK College of Pharmacy students as the first-place winner for their presentation, “Patient Engagement with Prescription Talk System (PEPTalkS): A Technology-Driven Solution to Mitigate Risk of Primary Medication Nonadherence.” PEPTalkS is a pharmacy management system plug-in designed to close the communication gap between patient, prescriber, and pharmacist when a patient fails to pick up a new medication.

We challenge our students to look for creative real-world solutions to current problems in healthcare. So, it is no surprise that Noor, Kailyn, and John were able to put together the winning plan.

Students Win First Place

INCONSEQUENTIAL. SO WHY DOES THIS MATTER?

While a student can apply for loans/financial aid to cover the cost of tuition, it does not apply to tests required to enter professional school. There are no financial waivers for the PCAT. The cost of the PCAT also does not include any practice tests or costly prep courses that students often elect to complete to prepare for the examination.

CAN THE COLLEGE JUST LOWER TUITION?

Unfortunately, no. Tuition is dictated by decisions arising from UK’s Board of Trustees and the lawmakers of Kentucky. While the College’s administration continues to advocate for affordable tuition, the final numbers are dictated in part by policy makers at the state level.

WILL THIS MAKE IT EASIER FOR MORE PEOPLE TO BECOME PHARMACISTS?

No. We are simply allowing UKCOP to be a choice for some students who may not have considered our program due to the barrier of the PCAT. We are not increasing class size nor compromising the academic rigor of our program. In fact, the College is in the middle of a comprehensive curricular overhaul meant to increase competitiveness and preparedness of all graduates.

WHY DIDN'T THE COLLEGE MAKE THIS CHANGE SOONER?

We made the decision as quickly as possible, based on available and credible information and upon recommendation of the PharmD admissions committee. We are one of 70 colleges of pharmacy that have implemented this change. We try to move quickly when it comes to decisions with financial impact, but we want to ensure we also have the necessary data to back up any procedural changes.

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#6 UK COLLEGE OF PHARMACY IS RANKED #6 IN THE NATION

2018-2019 OUTCOMES

UNIVERSITY OF KENTUCKY COLLEGE OF PHARMACY
LICENSURE EXAM PASS RATES ARE CONSISTENTLY HIGHER THAN THE NATIONAL AVERAGE.

<table>
<thead>
<tr>
<th>EXAMINATION</th>
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<td>MULTISTATE PHARMACY JURISPRUDENCE EXAMINATION</td>
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</tbody>
</table>

#6 UK COLLEGE OF PHARMACY IS RANKED #6 IN THE NATION

9 UKCOP ALUMNI CURRENTLY SERVE AS DEANS OF OTHER COLLEGES OF PHARMACY

1st FIRST COLLEGE OF PHARMACY TO REQUIRE FOCUSED COURSE ON DIFFERENTIAL DIAGNOSIS AS PART OF PHARMD PROGRAM

129 FACULTY MEMBERS
83 FULL-TIME, 1 PART-TIME, 48 ADJUNCT

540 VOLUNTARY FACULTY (PRECEPTORS)

141 STAFF MEMBERS
16 FULL-TIME, 1 PART-TIME

139 STUDENTS
17 FIRST GENERATION

2023 CLASS OF

139 STUDENTS
17 FIRST GENERATION

26 POSTDOCTORAL STUDENTS

37% MALE STUDENTS

63% FEMALE STUDENTS

25% OF THE CLASS OF 2019 STUDIED ABROAD DURING PHARMACY SCHOOL

129 FACULTY MEMBERS
63 FULL-TIME, 1 PART-TIME, 65 ADJUNCT

540 VOLUNTARY FACULTY (PRECEPTORS)

141 STAFF MEMBERS
140 FULL-TIME, 1 PART-TIME

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16 FULL-TIME, 1 PART-TIME
When Mary H. H. Ensom (Class of 1978) first chose to call University of Kentucky (UK) her home in 1973, she was an engineering major at her father’s encouragement. Ensom’s father, Pete Huang, set an inspiring example for his three children as a distinguished civil engineering professor at UK. Nonetheless, her father’s passion for engineering wasn’t enough to prevent Ensom from making that her interests and talent were leading her in a different direction. When Ensom applied to the UK College of Pharmacy, she vividly recalls her struggle to articulate her motivations to become a pharmacist in an essay. “I ended up listing such lofty goals,” she admits. “I wrote things like, helping mankind by making a significant difference in the well-being of patients, and have a fulfilling professional career.” To a young scholar, those goals can seem rather grandiose. However, after receiving a doctorate in pharmacy and four esteemed fellowships in two countries, Ensom proved her goals to be more of a prophetic nature. From the time Ensom obtained her BS (Pharm) in 1978 and her PharmD in 1985—both from the College of Pharmacy—she has made a name for herself. Ensom has nearly 550 publications to her credit and has received roughly 85 awards for her scholarship, research, and service, all the while maintaining an impressive work-life balance. She has worked as a hospital pharmacist, clinical pharmacist, and pharmacy professor; holding titles like Fellow, Preceptor, Director, Assistant and Associate Professor, Professor, Research Associate, Clinical Pharmacy Specialist, and Editor. When asked how UK has helped her in achieving her goals, Ensom’s response was succinct, “The Kentucky connection is second-to-none.”

“We all have various degrees of connectedness linking us to one another depending on which links you choose to view,” said Ensom. “Professor to student, colleague to colleague, friend to friend. It’s these relationships, fostered by the University of Kentucky, that result in the exchange of sage advice and words of wisdom,” she said. “I owe much of what and who I am to the University of Kentucky.”

The level of awareness Ensom displays in regard to what it takes to motivate pharmacy preceptors, residents, and students can be traced back to when she was in her freshman chemistry class at UK. Her chemistry professor Paul Sears learned all 150 students by name by the second week of school. This had such an impact on Ensom she decided to follow suit. “I said to myself, ‘If I ever become a professor, that’s what I’m going to do.’”

Once Ensom became a professor, she set to work. “I’d photocopy the pages [from the yearbook] so that I could cut out the individual photos and make flashcards. I would study the yearbook photos to learn all my students’ names before the first day of class.”

The work that Ensom has done has undeniably made an impact on the work of her students and presumably her students’ students. In her words, “The teachings, research, and discoveries of my students will continue to propagate and make a difference now and in the future.” Thus, extending the Kentucky connection another degree. “Seeing my former trainees and students become rising stars in the profession and knowing that I played a part in their professional development was one of the best aspects of my job and time spent at the University of Kentucky,” says Ensom. “How much better can it get than THAT?! If that isn’t a fulfilling professional career, I don’t know what is!”

Thanks to dedicated educators and scholars like Ensom, our pharmacy family continues to grow each time it’s extended another degree of connectedness, effectively making the Kentucky connection exactly as Ensom described: second-to-none.

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Thanks to dedicated educators and scholars like Ensom, our pharmacy family continues to grow each time it’s extended another degree of connectedness, effectively making the Kentucky connection exactly as Ensom described: second-to-none.
Dr. Russell May Awarded 2018 Paul Parker Award

Dr. J. Russell (Rusty) May, a UK College of Pharmacy alumnus and R98 in the UK HealthCare Pharmacy Residency program, was named the 2018 recipient of the Paul F. Parker Award. “Paul Parker was a mentor to me during my residency and this relationship continued for years after I graduated,” said May. “We spent many hours together on residency accreditation site visits. Our evening conversations during these trips shaped my practice and teaching philosophies. Dr. Parker was a mentor to many pharmacy students and has continued to push the profession forward within Kentucky and beyond. He received a BS in Pharmaceutical Chemistry (1948), a BS in Pharmacy (1951), as well as her Master’s in Social Work (1984). She went on to work at what is now UK HealthCare, impacting patient lives across the Commonwealth, and contributed greatly to the success of the UK College of Pharmacy. Many would be hard-pressed to meet a current pharmacy alumna who hasn’t had the pleasure of hearing one of Doughty’s stories or being inspired by her generous spirit. Doughty’s passion for pharmacy and validation now widely used in academic and translational research in pulmonary and infectious disease. He is the author of over 70 peer-reviewed publications and 100 technical reports, with an impressive track record of extramural research funding. Harrod pioneered the development of preclinical models of respiratory disease for drug development and validation now widely used in academic and translational research in pulmonary and infectious disease. He is the author of over 70 peer-reviewed publications and 100 technical reports, with an impressive track record of extramural research funding. Harrod’s contributions as a scientist are also noteworthy. Not only is he chair of a top-5 nationally ranked pharmacy class of 80 students, as well as Kevin S. Harrod, the latest inductees into the UK College of Pharmacy’s Hall of Distinguished Alumni.

NOMINATE A UKCOP LEADER

To nominate someone for the UK Hall of Distinguished Alumni, please use the nomination form at bit.ly/ukyalumni. If possible, please submit your nominee’s CV/resume. Questions can be directed to Rosa Muya, Alumni Director. Nominations are open all year long and selected each fall.

Dr. Russell May, Paul Parker Award Recipient

Paul Parker was awarded the 2018 Paul F. Parker Award. “Paul Parker was a mentor to me during my residency and this relationship continued for years after I graduated,” said May. “We spent many hours together on residency accreditation site visits. Our evening conversations during these trips shaped my practice and teaching philosophies. Dr. Parker was a mentor to me during my residency and this relationship continued for years after I graduated,” said May. “We spent many hours together on residency accreditation site visits. Our evening conversations during these trips shaped my practice and teaching philosophies.” Dr. Parker was a mentor to many pharmacy students and has continued to push the profession forward within Kentucky and beyond. He received a BS in Pharmaceutical Chemistry (1948), a BS in Pharmacy (1951), as well as her Master’s in Social Work (1984). She went on to work at what is now UK HealthCare, impacting patient lives across the Commonwealth, and contributed greatly to the success of the UK College of Pharmacy. Many would be hard-pressed to meet a current pharmacy alumna who hasn’t had the pleasure of hearing one of Doughty’s stories or being inspired by her generous spirit. Doughty’s passion for pharmacy and validation now widely used in academic and translational research in pulmonary and infectious disease. He is the author of over 70 peer-reviewed publications and 100 technical reports, with an impressive track record of extramural research funding. Harrod pioneered the development of preclinical models of respiratory disease for drug development and validation now widely used in academic and translational research in pulmonary and infectious disease. He is the author of over 70 peer-reviewed publications and 100 technical reports, with an impressive track record of extramural research funding. Harrod’s contributions as a scientist are also noteworthy. Not only is he chair of a top-5 nationally ranked pharmacy class of 80 students, as well as Kevin S. Harrod, the latest inductees into the UK College of Pharmacy’s Hall of Distinguished Alumni.
"I want to thank all of the faculty who have helped me become who I am today, not just as a student, but as an individual as well. I am so thankful for all of the professors who have taken time to get to know me and help me become successful!"

CHELSEY KILPATRICK, CLASS OF 2021

Faculty Awards & Accomplishments

With bold leadership, UKCOP faculty continue to impact the world of pharmacy and pharmaceutical sciences.

Sjoerd Bauer
NIH Funding - National Institute of Neurological Disorders & Stroke

David Burgess
Extramural Funding from Merck and Company Inc. and Telomerase Pharmaceuticals Incorporated

Penny Black
PY3 & PY4 Professor of the Year

Jeff Cain
PY4 Professor of the Year

Joseph Chappell
Extramural Funding from National Institute for Pharmaceutical Technology and Education, Enepret Incorporated, and PhRMA Foundation

Chris Dekher
NASTAD Funding - National Alliance of State and Territorial AIDS Directors

Linda Dewick
NIH Funding - National Institute on Drug Abuse (3)

Joseph Fink
Extramural Funding from American Foundation for Pharmaceutical Education

Trish Freeman
PY2 Professor of the Year, 2019-2020 University of Kentucky Research Professorship, NIH Funding - $87M HEAL Initiative

Sylvie Garnaux-Teodorescu
Extramural Funding from National Institute of Allergy and Infectious Diseases and University of Louisville

Gregory Goff
NIH Funding - National Institute of Diabetes and Digestive and Kidney Diseases

R. Kip Guy
Extramural Funding from Matrix Family Foundation, Medicines for Malaria Venture, Global Health Innovative Technology Fund, Oregon Health and Sciences University, and Ocular Limited

Jennie Hatton Kolpak
ACCP President-elect

Eric Johnson
ACCP Foundation Mentored Researcher Investigator Training (MaRIT) Program

Hannah Johnson
ACCP Foundation Mentored Research Investigator Training (MaRIT) Program

Mark Leggas
Extramural Funding from KY Cabinet for Health and Family Services (6), University of Pittsburgh, Indiana University and NIH Funding - $87M HEAL Initiative

Melissa Thompson Battle
Extramural Funding from American Society of Health-System Pharmacists Foundation

Stacy Taylor
Women’s Executive Leadership Program Participant

Steven Van Lanen
National Institute of Allergy and Infectious Diseases (2)

Vincent Venditto
American Heart Association (2)

Chang-Guo Zhan
Extramural Funding from University of South Carolina and National Institute on Drug Abuse
Thank you to everyone who partnered with us in 2019. Your gifts make our work possible. We couldn’t do what we do without you.

You Made This Year Happen

Thank you to everyone who partnered with us in 2019. Your gifts make our work possible. We couldn’t do what we do without you.

“Alumni donations and scholarship support are, simply put, the sole reason I am able to attend UK College of Pharmacy. I am confident that because of my scholarship I will be a better professional and a better pharmacist.”

KAITLIN MUSICK, CLASS OF 2020
ADVANCING THERAPIES
Our frontline researchers are committed to solving health care problems in Kentucky and across the globe.
A new study out of the University of Kentucky’s College of Pharmacy reports that state policies to simplify access to naloxone results in large increases in naloxone dispensing. Naloxone—more commonly known as Narcan—is a prescription drug known to rapidly reverse the effects of an opioid overdose.

The study was conducted in part by Dr. Jeffery Talbert and Dr. Patricia Freeman, who are part of the team of UK researchers collaborating on the $87 million HEALing Communities study to reduce overdose deaths in Kentucky. Their current study found that naloxone became more widely available when states mandated co-prescription of naloxone to persons receiving high dose opioid medications and to others at risk for overdose.

“The findings of our study suggest that implementing state policies requiring prescribers to offer naloxone prescriptions to individuals at high risk for an opioid overdose increases the dispensing of naloxone in community pharmacies. Ensuring persons at risk for overdose have access to naloxone—whether through co-prescription or by making naloxone available without an individual patient-specific prescription—has the potential to save lives,” said Talbert, who also serves as the director of the Institute for Pharmaceutical Outcomes and Policy.

The study was a state-level observational study assessing the association between the legal requirements for naloxone co-prescription and the number of naloxone prescriptions dispensed using longitudinal data analysis. Dispensing data came from the IQVIA national prescription audit which detailed the transactions in retail pharmacies from Jan. 1, 2011 to Dec. 31, 2017.

The fight against opioids has become a national crisis. The United States has an average of over 130 opioid-related deaths every day and there are approximately 58 opioid prescriptions per 100 people. When focusing on Kentucky alone the statistics are even more disproportionate. According to the National Institute on Drug Abuse, Kentucky has an average of about 87 opioid prescriptions per 100 people, one of the highest rates in the country. In the year 2017, there were approximately 1,160 opioid-related deaths, making Kentucky 9th highest when it comes to opioid-related deaths.

The opioid crisis in Kentucky is an inspiration for the HEAL Grant’s mission: to reduce opioid overdose deaths by 40 percent. The goal is to find evidence-based solutions that can eventually be scaled to the entire state and then the entire nation. Kentucky is often viewed as a microcosm of the general U.S., meaning if the solutions can be found within the state, they could then be applied nationally. The University of Kentucky was one of only four states selected by the National Institutes of Health to contribute to this research.

Researchers will conduct a randomized study including 16 Kentucky counties that are impacted by opioid use disorder and overdose. Researchers will work with communities to develop a localized plan to implement evidence-based practices that can be used as a national model for addressing the opioid epidemic. Other contributors to this study were Dr. Zhengyan Huang, Dr. Minji Sohn, and another HEAL Grant collaborator, Dr. Michelle Lovell.

For further updates about UK’s HEALing Communities study, visit uky.edu/healingstudy.
RESEARCH FUNDING HAS MORE THAN DOUBLED SINCE 2012

$57.7 MILLION IN COLLABORATIVE FUNDING

BY THE NUMBERS | RESEARCH FUNDING

UK COLLEGE OF PHARMACY WAS NATIONALLY RANKED:

#4 IN TOTAL RESEARCH GRANTS

#3 IN FUNDING PER PI

UK COLLEGE OF PHARMACY PRIMARY & COLLABORATIVE RESEARCH FUNDING (Dollars in Millions):

FISCAL YEAR | PRIMARY RESEARCH FUNDING | COLLABORATIVE FUNDING
2015 | $12.0 | $26.5
2016 | $11.9 | $12.8
2017 | $11.9 | $31.3
2018 | $21.8 | $30.0
2019 | $21.1 | $57.7

OUR RESEARCH

“The research we are able to do is both cutting edge and collaborative, crossing the spectrum from basic science to translational science, to outcomes and policy. The UKCOP effect is real—we are pushing the field forward.”

LINDA DWOSKIN, Ph.D., CHIEF RESEARCH OFFICER

234 PUBLICATIONS PRODUCED BY UKCOP FACULTY IN 2019

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#4 IN TOTAL RESEARCH GRANTS

#3 IN FUNDING PER PI

PRIMARY & COLLABORATIVE RESEARCH FUNDING (Dollars in Millions):

FISCAL YEAR | PRIMARY RESEARCH FUNDING | COLLABORATIVE FUNDING
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2016 | $11.9 | $12.8
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234 PUBLICATIONS PRODUCED BY UKCOP FACULTY IN 2019

“T
ELEVATING CARE

UKCOP is improving health care through pioneering research and innovative clinical practice.
First School of Pharmacy to Require Coursework in Differential Diagnosis as Part of PharmD Program

When we launched our new core curriculum in the fall of 2016, we did so with the commitment to continue advancing the pharmacy profession. As the pharmacy practice model has moved from hometown apothecaries to pharmacists being a central point of care for many in the United States, we wanted to make sure our students were more than equipped to practice at the top of their license. As a result, we introduced Differential Diagnosis as a required 2-credit hour stand-alone course for our third-year professional students.

We are continuing to develop collaborative patient care protocols with our medical colleagues and work toward building more sustainable models of pharmacy practice in the ever-changing landscape of healthcare. To that end, we believe it is important to utilize a common language and be explicit about what students are learning in terms of pharmacists’ clinical decision-making abilities using diagnostic reasoning.

When pharmacists provide patient-centered care, they engage in the differential diagnosis process, whether they realize it or not. Differential diagnosis is the process of developing a list of potential causes of a patient’s presenting symptoms, prioritizing and risk stratifying the possibilities in terms of severity, probability, and ability to treat. Actively engaging in the differential thought process enables students to see and discuss how differential diagnosis is applied in pharmacy practice and how it differs from its application in medical practice, which is an important distinction. For example, pharmacists utilize differential diagnosis when patients present to the pharmacy counter with a symptomatic complaint and ask for a recommendation, when evaluating whether a patient’s symptoms are due to a potential drug therapy problem, or when evaluating the appropriateness, safety, and efficacy of drug therapy for an established diagnosis.

Our instructors for the class work as an interprofessional team, which consists of physicians, physician assistants, and pharmacists. Each section of the class meets weekly for 110 minutes to review patient cases with the instructors and think through and discuss possible diagnoses. The course emphasizes the application of clinical reasoning through the process of differential diagnosis, a formalized and tangible process that enables instructors to add varying degrees of complexity and depth to the education students already receive, with the ultimate goal of preparing them to fully utilize the Pharmacist’s Patient Care Process.

Being clear about the fact that our students are learning differential diagnosis allows the use of a common language across professions and fosters a necessary skill to address healthcare gaps in primary care. Using common language enhances interprofessional communication, mutual understanding in terms of clinical decision-making abilities, and mutual respect regarding roles, responsibilities, and scopes of practice among health professions.

Our students tell us that differential diagnosis training in pharmacy school improved their critical thinking skills, developed their clinical judgment, and built their confidence in communicating with patients and medical professionals regarding patient care. With this type of advanced training, our student pharmacists can be better advocates for their patients and better collaborators and communicators with other healthcare professionals. Our hope is to see this translate into confident pharmacists and change-agents for advancing the profession of pharmacy.
Top 5 Reasons to Update Your Info with UKCOP

1. REUNIONS. What better way to reconnect with classmates than reunion weekend? As if you needed another excuse to visit Lexington just in time for football, Big Blue Madness, and Keeneland, you’ll also get a chance to reminisce about your golden days at UKCOP with old friends. And have you seen the new building?

2. MENTORSHIP. Our current students and recent graduates love hearing the success stories of our more established alumni. Our alumni love to share their tips and tricks for cracking the pharmacy industry. Moving to a new city? Looking to redirect your career? Let us be your mentorship matchmaker – no red roses required.

3. CHALLENGE COINS. Been there, done that, got the coin. Oh, you don’t have a challenge coin yet? We’re happy to mail you one so you can join in on our newest tradition. Or, you could end up buying a round of drinks for not having your coin at the next conference. Your choice.

4. FLAGS. Perfect for epic group photos at wedding receptions, showing off your pharmacy pride while advertising ahead, or displaying in your super cool man cave or she shed (you’d still have to send us pictures). We’ve got you covered.

5. THE (BI)MONTHLY DOSE. If your inbox is not receiving the bi-monthly alumni newsletter, you’re seriously missing out! We celebrate college wins, recognize alumni milestones, and keep you up to date on upcoming events, so you never have to wonder when the next reunion weekend will be (it’s October 10th, 2020). And we promise, no spam.

READY TO UPDATE YOUR INFO? Send your first and last name, degree year, and the best email address to rosa.mejia@uky.edu or text it to 859-363-5577. We’ve got you covered.

Would you be willing to help by making a gift in honor of our 150 year anniversary as a college? Every penny helps.

- **$15/month**
  - covers the cost of membership dues for a student to join a student organization

- **$50/month**
  - helps cover cost of tuition for any student in need

- **$150/month**
  - helps sponsor a student traveling for job/residency interviews

- **$1,500/month**
  - helps cover cost of an iPad and Apple Pen for one student for four years

Consider setting up a recurring monthly gift to the College of Pharmacy Annual Fund to ensure the UKCOP legacy continues.

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