UK COLLEGE OF PHARMACY 2020 ANNUAL REVIEW



150TH ANNIVERSARY COMMEMORATIVE EDITION

THE FRONTLINE

In spring 2020, more than 70 students, faculty, and staff worked with University of Kentucky's James B. Beam Institute for Kentucky Spirits to help bottle over 2,000 gallons of sanitizer for essential workers throughout Kentucky.

"Our role in this is to help where we can and get the sanitizer in a form where people can use it. We'll be here to help for as long as it takes."

CLARK KEBODEAUX, PHARMD, BCACP

READ THE STORY ONLINE: bit.ly/ukcopsanitizer *Photo by Peter Comparoni*





FEATURES

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NIH Awards \$11.2 Million for Pharmaceutical Research and Innovation Center at UK

The grant will help fund the College of Pharmacy's Center of Biomedical Research Excellence in Pharmaceutical Research and Innovation (CPRI).

by Alicia Gregory

24

Pharmacists On the Frontlines: What Does it Mean to Be Essential?

During the pandemic, we've celebrated essential workers like physicians, nurses, paramedics, firefighters, and other hospital staff. However, we often overlook one key player: the pharmacist.

by Jacob Lewis

32

UK Launches Clinical Trial to Assess COVID-19

The study focuses on antibody testing to begin understanding how many people in Central and Eastern Kentucky may have already contracted and recovered from COVID-19.

by Allison Perry



34

The Changing Landscape of the Pharmacy Job Market

We continue to prepare our graduates to be agile and flexible in a tumultuous job market by training them to manage stress, advocate for patients, and practice with the utmost professionalism.

by Kristie Colón







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DEAN'S LETTER



Abby Bailey, UKCOP Alum, Emergency medicine pharmacist gets her vaccination from UK HealthCare nurse Janie Lawson, RN, as UK administered its first round of COVID-19 vaccine on December 15, 2020. Photo by Mark Cornelison | UKphoto

150 Years of the UKCOP Effect

This year, the UK College of Pharmacy turned 150, a testament to the continuous work of all of our pharmacy family. We couldn't do what we do without each one of you. You are part of this College's legacy. Whether you're new here or have been part of our pharmacy family for years, your commitment to this community allows us to be one of the leading colleges of pharmacy in the United States.

In 2020, we graduated our first class of PharmD students who have been taught entirely under a new curricular model. We believe that the integrated focus of this new model means our students graduating today are the most practice-ready we have ever sent into the world. Not only have we delivered on that curriculum, but we did it while adapting on the fly to reorganize our entire curricular delivery method as forced by the pandemic. We prepared for a reimagined fall semester. And in true Kentucky fashion, we never gave up.

At the same time, we managed to have a significant positive impact on our friends, families, and community.

We distributed over 8,000 UKCOP branded masks to students, alumni, and employees. We hosted our first virtual White Coat Ceremony with over 1,000 people watching. Students, faculty, and alumni provided COVID-19 testing to the Commonwealth, launched clinical trials and worked to educate pharmacists in the community on best practices for the pandemic. We compounded and packaged hand sanitizer for essential workers, we standardized wellness check-ins with our students, we called to check-in on alumni, and we stayed true to our mission through it all. We train leaders in pharmacy practice and science and this year was no exception.

We have all been affected by what is happening in our world right now. No matter your politics, religion, or identity, this year has been difficult. We cannot pretend otherwise. However, I have seen this community rise to the challenge; we are patient with each other, working to live well together. As we watched and participated in the political turmoil surrounding the Black Lives Matter movement, we've made an effort to understand what the people in our community need to feel safe and valued. And we are embracing necessary change to make sure everyone is embraced.

To have a community that supports one another, we must be intentional. It is on all of us to do the work. We are working to recognize the unique burdens each person in our community carries and act to support each person, according to their unique needs, simply because it matters to us that they are okay. We will continue to come together and take care of each other. And we will continue to push for greatness in the midst of turmoil. Thank you for everything you have done to get us to this point.

I am proud to be part of such an exceptional community.

TK Kyp &

R. Kip Guy, Dean & Professor

STAFF

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STUDENTS & EMPLOYEES



409 KENTUCKY RESIDENTS



58 GRADUATE STUDENTS



21% FIRST GENERATION STUDENTS



STUDENTS FROM HISTORICALLY UNDERREPRESENTED GROUPS

9%

PHARMD

PROGRAM



GRADUATE

PROGRAM

9% POSTDOC

POSTDOC PROGRAM

RELATIONSHIP-BASED RECRUITMENT

HERE'S HOW WE'RE REACHING STUDENTS IN 2020

6,300

3,700

2,100 PHONE CALLS 425 ADVISING APPOINTMENTS

> 190 BUILDING TOURS

188 ON-SITE INTERVIEWS



FACULTY & STAFF

147

FACULTY MEMBERS 63 FULL-TIME 3 PART-TIME 81 ADJUNCT

5333 VOLUNTARY FACULTY (PRECEPTORS)

142 STAFF MEMBERS 137 FULL-TIME 5 PART-TIME

6 | 2020 ANNUAL REVIEW 150TH ANNIVERSARY COMMEMORATIVE EDITION

NORTH AMERICAN PHARMACIST LICENSURE EXAMINATION (NAPLEX) PASS RATE					
	2016	2017	2018	2019	2020
UK PASS RATE	95	99	97	96	91
NATIONAL PASS RATE	85	90	92	91	92

MULTISTATE PHARMACY JURISPRUDENCE EXAMINATION (MJPE) PASS RATE

	2016	2017	2018	2019	2020
UK PASS RATE	96	97	98	97	95
NATIONAL PASS RATE	84	83	85	84	85

MORE THAN



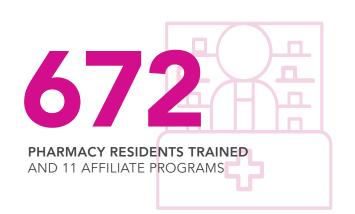
OF OUR GRADUATES ARE **EMPLOYED WITHIN THREE** MONTHS OF GRADUATION



MATCH RATE FOR THE CLASS OF 2021 RESIDENCY PLACEMENT



MATCH RATE FOR THE CLASS OF 2020 RESIDENCY PLACEMENT



OF THE CLASS OF 2020 STUDIED ABROAD DURING PHARMACY SCHOOL

OUTCOMES



U.S. WORLD NEWS

5 **UKCOP ALUMNI CURRENTLY SERVE** AS DEANS AT OTHER COLLEGES OF PHARMACY

DEAR ALUMNI

During our sesquicentennial year, we are grateful to all who have contributed to the College! Your gifts have created professorships and scholarships, have led to a state-of-the-art pharmacy building, and ensure that our students receive White Coats to start each year.

Although it is impossible to count every way in which our alumni have contributed, we do want to celebrate our most recent win. UKCOP reached its campaign goal of \$20M this spring in the midst of a pandemic, when we were all adapting to our new normal.

To each of you who have played a part in this success, we THANK YOU. If you would like to contribute, there is still time to join the thousands of others who have supported our campaign. Gifts of any size are welcomed, whether done through estate planning or an annualized commitment at bit.ly/giveukcop

Thanks for contributing to the legacy of UKCOP!

William Fleming '92 Chair, Philanthropy Campaign Committee

Mary Beth Neiser Director of Philanthropy When people ask us what our alumni do, our answer is simple: They save lives every day and rarely take credit. They keep entire communities safe and informed. They vaccinate, test, care, and assist. They are friends and advocates. They know how to analyze and interpret data. And they are on the frontlines in every way right now.

Our pharmacists and scientists are our superheroes. If we have learned nothing else from our work, it's that every person from this College will go to extraordinary lengths for their patients and their people. (And they'll often never tell us because it was never about the accolades).

Seeing our alumni do that work, often without any recognition, reminds us to hope. That's what our alumni do, too. They give us hope for a better future; hope for today. And we don't know about you, but we could all use a bit more of that right now.

To all UKCOP alumni, thank you for your life-saving work.

Kristie Colón Communications Director

Rosa Mejia-Cruz Director of Alumni Relations

Without UKCollegeOfPharmacy

When you come across that special variety of @JimBeam Thank you to Jim Beam and @UK_HealthCare for their efforts and supplies. Our pharm fam was happy to help make sure more hospitals have access to more hand sanitizer. #TeamKentucky #TogetherKy #ukcopeffect #COVID19



ClarkKebodeaux and 3 others
 4:47 PM · Apr 1, 2020 · Twitter Web App





Natalie Conley @NConleyPharmD · 18h

Three years ago we sat next to each other in the same classrooms at @UK_COP that we came back to teach in today as PGY2 residents. Taking on this year with someone like Meg makes residency more fun!



University of Kentucky College of Pharmacy

Thank you!

To our pharmacist colleagues and alumni who are working to keep their communities safe and healthy: we see you.

Thank you for being the frontline workers during this crisis.

15,919 People Reached	1,656 Engagements	Boost Post
OO You and 126 others		79 Share

Jordan Covvey, PharmD, PhD, BCPS @jcovvey

#WhyImAPharmacist - it's the intersection of people, #science and #publichealth. As a #PharmEd health outcomes researcher, I work to solve problems that improve care for patients. Thanks to @UK_COP and @VCUPharmacy for this campaign and both of their hands in training me.

10:39 AM · Nov 19, 2019 · Twitter Web App

SOCIAL MEDIA

MAKING AN IMPRESSION

See what the pharm fam is reading, sharing and liking online. Here are some of our top-performing posts from the year. Share your favorite UKCOP moments with us on social media by tagging us.



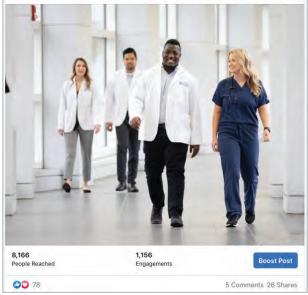


Thank you to @UK_COP for keeping us engaged and informed on all the amazing news for your students. Having some good news during this challenging time is a good thing. #proudalum #RxMatchDay #lafamilia @universityofky @kentuckyalumni

WKCollegeOfPharmacy @ @UK_COP · Mar 13
BIG MOOD!
 Congrats to Shirin Bigdeliazari who'll be joining TriHealth - Good
Samaritan Hospital as a PGY1. #UKMatch2020 #RxMatchDay

University of Kentucky College of Pharmacy April 20 · 🕲

We are quick to celebrate essential workers like physicians, nurses, paramedics, and firefighters. However, we often overlook one key player: the pharmacist. We caught up with pharmacists at UK HealthCare and UKCOP to see how their lives have changed during this pandemic and what they are doing to keep us and their families safe. Read more here: https://pharmacy.uky.edu/news/pharmacists-frontlines-what-does-it-mean-be-essential





Beyond the Script

the (bi)monthly dose

The Monthly Dose is the College's bi-monthly online newsletter for alumni and friends delivered right to your inbox. Here are a few of the many highlights from the past year.

- Kim Brouwer '81, '83, R103 was honored as Inventor of the Year.
- Pharmacists from UKCOP, Sullivan University's College of Pharmacy & Health Sciences, and the Kentucky Pharmacists Association banded together to create a COVID-19 best practices guide for pharmacists statewide. Contributors included Joel Thornbury '92, Misty Stutz '02, Brooke Hudspeth '07, CR '08 and Daniel Malcom (Sullivan).
- UKCOP pharmacy students won the national bid to host the regional SNPhA conference while Kappa Psi won a national collegiate chapter award.
- Pharmacists Jessica Tackett, '07 and Brittany Bissell from UK HealthCare were highlighted in Pharmacy Times for their work to fit test N95 masks and disseminate information to team members.

READ MORE @ BIT.LY/UKMONTHLYDOSE

AWARDS & ACHIEVEMENTS

Dr. Jimmi Hatton Kolpek Receives 2019 Paul Parker Award



Jimmi Hatton Kolpek, R151, has held many roles at the UK College of Pharmacy, including tenured professor and chair of the Department of Pharmacy Practice. She provides advanced pharmacy practice, clinical research ethics, and critical care therapeutics instruction to

professional students, residents, and graduate students in the Colleges of Pharmacy and Medicine. At the hospital, she has been an active preceptor and director of the PGY2 Critical Care Program. In her earlier years, Hatton Kolpek worked primarily with the UK HealthCare neurosurgery team and became a fixture in the neurological intensive care unit (ICU). Her integration of research and teaching with her practice creates a unique environment for resident learning. Hatton Kolpek's clinical practice has transitioned from acute critical care to ICU Recovery Clinics, treating patients suffering post-ICU syndrome. She continues pharmacokinetic and pharmacodynamic research projects with critical care colleagues and the Spinal Cord and Brain Injury Research Center. Her research has been funded by the National Institutes of Health (NIH), private foundations, industry and by UK. She has served on the study section and participated as a scientific reviewer for NIH NINDS and DOD.

Nationally, Hatton Kolpek has made substantial contributions to the profession and most recently was elected as President for ACCP. She is truly a national figure representing the highly esteemed pharmacy programs at the University of Kentucky.

ALUMNI

READ MORE ABOUT OUR DISTINGUISHED ALUMNI AT BIT.LY/HODA2020

A Commitment to **Elevating Care & Scientific Inquiry**













Donald Letendre

Ashlee Mattingly

John Wu

Bill Crouthamel

Lvnn Harrelson

College Announces 6 New Inductees into Hall of Distinguished Alumni

The 2020 inductees include Young Alumni Award winners Ashlee Mattingly ('11) and John Wu ('10), as well as Lifetime Achievement Award winners William "Bill" Crouthamel ('70), Patricia "Trish" Rippetoe Freeman ('87, '91), Lynn Harrelson ('73), and Donald E. Letendre ('79). Their peers selected these six new inductees for their exceptional contributions to their respective fields and their embodiment of UKCOP values.

The UK College of Pharmacy is a top-ranked program in pharmacy education and research, in part, because of our outstanding alumni. They have committed their lives to improve the world around them, and we are inspired by their bold innovation, collaboration, and dedication to patient health and scientific rigor. It was an honor to celebrate their contributions to the field of pharmacy and pharmaceutical sciences this fall.

Nominate a UKCOP Leader

nominee's CV/resume. Questions can be directed to the Alumni Director,

ALUMNI

Lyman T. Johnson Torch of Excellence Awards

From left to right: Karen Blumenschein and Dominique Medaglio; Kinglsley Uzodinma, Jasmine Browning.





BY MEREDITH WEBER

The UK Alumni Association Lyman T. Johnson African American Alumni Group honored students and alumni during the awards ceremony as part of the 2019 Lyman T. Johnson Homecoming Celebration.

UK's academic colleges and units selected one African American alum whose faith, hard work and determination have positively affected the lives of people on the UK campus, the city, state or nation. These individuals received the Lyman T. Johnson Torch of Excellence Award. These units also chose an African American student within their respective colleges/departments whose academic achievement and ability to impact the lives of others warrant them the Lyman T. Johnson Torch Bearer Award.

UK COLLEGE OF PHARMACY AWARD WINNERS

Torch of Excellence Dominique Medaglio '11

Torch of Excellence (UK Libraries) Kingsley Uzodinma '22

Torch Bearer Jasmine Browning '21

IN ONE

10 FROM 2010

Young alumni share thoughts and memories from their time at the UK College of Pharmacy, where those experiences led them, and what UKCOP means to them.

Jordan Covvey

Associate Professor of Pharmacy Administration, Duquesne University School of Pharmacy Pittsburgh, PA

UKCOP IN ONE WORD: TRANSFORMATIVE

What's the value of a UKCOP degree? The network for people connected with UKCOP is one of the biggest benefits of being an alumnus. No matter where you meet or how you meet, any alumni of UKCOP instantly feels like extended family. Having lived in a few states now, I think Kentucky is a friendly and close-knit state anyway, and since UKCOP is a small group, the alumni are even more connected. I've had several experiences where I interacted with other alumni from different decades, but it always feels like there's a sense of connection. I met David Allen '93 when his child was looking at pharmacy school at Duquesne. I really enjoyed talking with him and comparing UKCOP notes. When I was doing my residency, Joe DiPiro '81 R93 was the dean at VCU School of Pharmacy. And most recently, the newly appointed interim dean for Duquesne University School of Pharmacy where I work is Jim Drennen '91, also a UKCOP grad.

Vanessa Taylor Paradee

Staff Pharmacist, CVS Health Edwardsville, IL

UKCOP IN ONE WORD: FAMILY

What do you miss most about pharmacy school?

The connection to other people. We sat in the same building every day. We come back to Kentucky once or twice a year. We make a point to visit Anna Bastin, who sat next to me in pharmacy school. I landed in Kentucky instead of Purdue because the campus was beautiful. I wanted to stay forever — I loved the years when I lived in Kentucky.

James Curtis

Assistant Director of Pharmacy, Chester County Hospital - Penn Medicine West Chester, PA

UKCOP IN ONE WORD: NURTURING

What's been one of your proudest moments? In 2018, I completed a Master's in Health Administration from Drexel. I managed to finish in two years with three kids and a full-time job as Associate Director of Pharmacy at the hospital. I'm glad I did it then—I look back and have no idea how I managed everything. I'm also very proud of what I've accomplished at the hospital. There was virtually no clinical program when I arrived; I was the only one. I've now grown the program to have 18 pharmacists working throughout the hospital.

Paige Kapp

Clinical Pharmacist with Southern Ute Indian Tribe Durango, CO

UKCOP IN ONE WORD: INNOVATIVE

How do pharmacists impact underserved

communities? We have to make a lot of choices to provide cost-effective care and be able to provide for everyone. I serve as a bridge between our providers and our patients. Our Primary Care Providers only have so much time, so I see patients in-between visits, especially diabetes patients, and provide a lot of much-needed education in small bites for the patients. I help a lot with monitoring and patients bring meters with them for weekly visits with me. I provide frequent hands-on care. We also have a generous formulary. and pharmacists play a big role in getting payment. We have a 340B program, which is used in hospitals, to acquire drugs at really low prices compared to retail. Those programs provide low prices to facilities that serve certain populations. It's a great way to save some money for our patients of whom many are uninsured.

Taylor Lundy, '20

Postdoc, UNC-Chapel Hill Chappell Hill, NC

UKCOP IN ONE WORD: COMMUNITY

What professor had the biggest impact on you?

I picked UKCOP specifically because it had the biggest group of natural product researchers. Most other places have one or two people who do my type of research, but UK had many people in that area, and a natural products core. My major adviser and PI, Sylvie Garneau-Tsodikova, was a fantastic mentor for me the entire time I was there. She is so supportive of me. She had this foresight to know what I needed to do and when I needed to apply for things. She pushed me to be a better scientist and really helped me be as successful as I could be in graduate school.

Doug Oyler

Assistant Professor, UK College of Pharmacy Lexington, KY

UKCOP IN ONE WORD: HOME

What's an accomplishment you're proud of?

My journey began with my residency at UK HealthCare, where I served as a trauma pharmacist, the catalyst for my opioid research. After residency, I contributed to the development of the Kentucky opioid stewardship program in 2016, focusing on safe prescribing practices. My opioid research and collaboration with hospitals across Kentucky contributed to receiving the American Society of Health-System Pharmacists Best Practice Award in 2019. I didn't really know what I wanted to do until a couple of years into pharmacy school. I realized I'd like to teach, and I'm thrilled to be able to do that at UK.

Major John Wu

Pharmacy Flight Commander at the 18th Medical Support Squadron Kadena Air Base, Japan

UKCOP IN ONE WORD: DICTIONARY

(I need a whole dictionary, one word doesn't do it justice)

Why UK College of Pharmacy? As a Kentucky native and a lifelong bleeder of blue, UK was the obvious choice for my pharmacy education. I've always loved the philosophy that you are the sum of who you surround yourself with. UK has the best students, the best staff, and the best alumni, so that made it an obvious choice for me.

Lindsay Villalobos

Clinical Pharmacist - Pediatric Hematology & Oncology, UK Children's Hospital Lexington, KY

UKCOP IN ONE WORD: DEDICATED

What makes your job rewarding? I think it's so rewarding to see patients in the clinic after they have been in-patient, and I can see them getting better. I think if I only worked with them when they were really sick, it might be a real downer, but because I see them getting better too, it is very rewarding. One of my favorite activities is my volunteer work through the Kids Cancer Alliance. It's a camp for oncology patients and their siblings. I go at the beginning of a camp to make sure all the meds are managed and ready to go and then stay for a couple of days to work with campers and see how much fun they have. There are so many pharmacist volunteers that we have to split the weeks to make sure everyone gets to go. I found it especially rewarding one year when I saw one of my patients there. He was in hospice care and had listed attending the camp as one of his goals.

"The people at the College of Pharmacy make you feel worthy of what you're doing and that your profession really counts."

PUJA SHAH, UKCOP GRADUATE

Puja Shah

Regulatory Project Manager, GlaxoSmithKline London, England

UKCOP IN ONE WORD: HUMBLING

What advice would you give future pharmacy

students? Work hard, play hard and be yourself. You're living a completely different life than anyone else in university, and you're doing it all together. You will achieve so much more than you know. Embrace it, and take it all in. Enjoy your fourth year — it's the best year ever.

Chris Harlow

Co-founder, St. Matthews Community Pharmacy Louisville, KY

UKCOP IN ONE WORD: INNOVATIVE

What's a notable accomplishment since graduation? Being appointed president of the Kentucky Pharmacists Association was a big accomplishment professionally. But from a patient care standpoint, being able to implement the Opioid Use Disorder Protocol for the state of Kentucky, helping shape what that looks like, was extremely rewarding and important for our profession. I never thought I would be working in the area that I am—the opportunity to do something I'm very passionate about is a privilege.

Shital Patel

Safety Evaluator, U.S. Food & Drug Administration Washington, DC

UKCOP IN ONE WORD: INSPIRING

What's an accomplishment you're proud of? The very first job I took out of residency was at a community hospital in Chattanooga, TN. They had a residency program in place and a desire to push toward a more clinical atmosphere. I asked to be a preceptor in the program and really engaged with the physicians (some of whom I still keep in touch). I worked hard to develop a lot of their clinical services, particularly their anticoagulation and oncology programs. I feel like I was able to make a huge impact on — and really get involved in — direct patient care. I helped physicians understand the impact that a pharmacist can have on their team when they're managing those types of patients. It really became more of a partnership. To this day, I love that hospital, and I'm really proud of where they're headed. I think they had one residency spot when I was there, and now they have four. It was a wonderful place to work and I had a wonderful team to help me.

PERSPECTIVES

Going Virtual During a Pandemic



Shelby Ferrell Class of 2021

"I worked full time at Meijer pharmacy helping prepare medications for delivery and shipment to our elder and immunosuppressed patients to keep them adherent. I had the opportunity to volunteer at the KY Poison Control COVID-19 Hotline, which was a unique experience! I volunteered at

the college helping compound hand sanitizer for Johnson Control and the University Hospital. This semester is very different than how I had imagined my last in-class semester to be prior to APPEs. I was displaced from my first block but was fortunate to pick up a rotation in clinical pediatric pharmacy and academia where I was able to attend remote rounds and present on MIS-C associated with COVID. To learn more about the global response of the pandemic, I enrolled in a 12-week interprofessional global health course in which I was able to explore and compare global responses to COVID through my discussions with pharmacists from the United Kingdom."



Alex Flannery Assistant Professor, PharmD 2011, R398

"Our transition to online learning has gone surprisingly well thanks to lots of rapid preparation work by the College's education office prior to full social distancing measures. While we certainly miss getting to see each other in person during class, our students' determination to not let this

interrupt their education has been remarkable to observe. They've continued to engage with us via Zoom class sessions and are asking more questions than during in-person class using the chat feature in Zoom--which I happen to love as a faculty member! Students in our evidence-based medicine class this week are diving into the evidence behind some of the proposed therapies for COVID-19 to gear themselves up for heading out to APPEs."



Joe Chappell

Chair, Pharmaceutical Sciences Department

"We moved to a remote working plan on March 18th, 2020, with only essential work being allowed in the research laboratories. Essential pertains to animal husbandry, work that could not be stopped without irreparable consequences, or work that is of importance to addressing the current

pandemic. The current graduate students have been incredibly resourceful during this period — working on writing projects, exploring new conceptual frontiers and even mastering new computational and software skills. We are very proud of them as we know you are too."



Brianna Henson (Mills)

Director of Assessment

"My transition to remote working went very smoothly. I am very thankful to have leadership that understand how much our lives have changed and are willing to be flexible with us as we navigate this new role. I miss seeing my colleagues and hearing about the different things going on in their

lives, but I have been able to maintain and support relationships from afar thanks to Teams, staff meetings, Facebook, and text message. We have all had to change our job duties to meet the ever-changing demands of the college and everyone has been accommodating by giving grace to others."

I Remember When...

It was July 1970 when alumni from the UK College of Pharmacy decided to celebrate their history at the Kentucky Pharmacists Association meeting in Covington, Kentucky. Alumni dressed up to represent the different decades the college has known in its long legacy; this was one part of the kick-off celebration for the college's centennial year.

Photos provided by UK Libraries, Special Collections Research Center, College of Pharmacy collection



FROM THE ARCHIVES

Miss Ida Mae Lambert, 1906 First woman to graduate the College of Pharmacy

Stella Vincent, 1979 First female PhD

Ann Mazone, 1971 First female PharmD

Stanley Morris and Vertner Taylor, 1958 and 1960 First Black men to graduate from UCKOP

Angie Adams, 1980 First Black woman to graduate from UKCOP

January 1970

The first Pharm.D. degrees were conferred upon two Kentuckians, Jerry B. Johnson and Patricia Moynahan.

"The first hundred years of the history of the Louisville College of Pharmacy, more recently the University of Kentucky College of Pharmacy, are woven tightly throughout with the history of pharmacy in America, so tightly in fact that often it is difficult to separate changes in the college's programs from changes in the philosophy of the growing, changing profession and science of pharmacy."

SYLVIA WROBE, AUTHOR

The First Hundred Years of the University of Kentucky College of Pharmacy: 1870-1970



Jane Alcorn '02 Dean, University of Saskatchewan College of Pharmacy and Nutrition



Joseph T. DiPiro '81, R93

Dean, Virginia Commonwealth University at the Medical College of Virginia Campus School of Pharmacy



Mark Luer R192

Dean, Southern Illinois University Edwardsville School of Pharmacy



David D. Allen '85, '93

Dean & Professor, University of Mississippi School of Pharmacy



James Drennen '91

Interim Dean, Duquesne University Mylan School of Pharmacy



Henry J. Mann '76, '80, R89

Dean & Professor, The Ohio State University College of Pharmacy



Sara Brouse R248

Regional Dean, Texas Tech University Health Sciences Center School of Pharmacy - Abilene



Donald E. Letendre '79, R76 Dean, University of Iowa College of Pharmacy



Steven Pass '95, '96

Regional Dean, Texas Tech University Health Sciences Center School of Pharmacy - Dallas

WE TRAIN LEADERS



Samuel Poloyac '95 '99

Dean, University of Texas Austin College of Pharmacy



Cindy Stowe '90, '91, R201

Dean, University of Arkansas for Medical Sciences College of Pharmacy



Jose O. Rivera '79, R77

Founding Dean, University of Texas at El Paso School of Pharmacy



Misty Stutz '02 Dean, Sullivan University College of Pharmacy and Health Sciences

DEAN'S LIST

The 2020 Dean's List includes our alumni currently servicing as deans of other colleges of pharmacy. Our alumni continue to boldly lead in the clinic, the lab, and their institutions.

THROUGH THE DECADES



William Danhauer '50

Co-Owner, Danhauer Drugs | Owensboro, KY

"My career has been everything I expected it to be. Technology started changing so quickly, and there was a learning curve, but I powered through because I love helping people and making a difference."



Denny Briley '70, '73, R12

Retired; 47 Years Working in Computerization of Drug Delivery Systems | Olathe, KS

"Do what makes you happy; making money is the wrong reason. If you like being a pharmacist and making people better, you have found what you need to do. The more you put in, the more you get back."



Jeff Danhauer '81

Co-Owner, Danhauer Drugs | Owensboro, KY

'What I miss most about UKCOP is the close interaction of students and faculty together. The faculty fostered a genuine love of learning in us, and it has stuck with me as I've gone through my career."



Kim Brazzell '75, '80

Chief Medical Officer, Kala Pharmaceuticals | Lexington, KY

"Understanding all of your options, whether it be academia, industry, or government, is crucial to grasping your full potential. Talk to people in these positions and understand what their life is like before deciding your career path."



Carol Wishnia '60

Retired; Owner of Wish's Drug for 25 Years | Middleton, KY

"The hospital pharmacy is when I really felt a sense of camaraderie. I loved knowing I was a part of a team where every single one of us cared about helping people."



Jake Wishnia '59

Retired; Owner of Wish's Drug for 25 Years | Middleton, KY

"I'm proud of my career and happy with what I've been able to accomplish with my education. It is a true honor that people trust me with their lives and that I'll have the knowledge to be able to help."



Denise Rhoney '90, '91, R20

Ron & Nancy McFarlane Distinguished Professor and Associate Dean for Curricular Innovation, UNC Eshelman School of Pharmacy | Chappell Hill, NC

"UKCOP is full of great mentors and they really emphasize the importance of applying logic and reasoning to your work. I have taken a little piece of all my different professors to help me become the person I am today."

Laila Akhlaghi '00

Senior Technical Advisor, John Snow, Inc. and is a Senior Technical Advisor | Vienna, VA

"My job now is something I could've only dreamt of back in school. Being able to travel the world while doing good in places that need it most is incredibly rewarding."



NIH Awards \$11.2 Million for Pharmaceutical Research and Innovation Center at UK

BY ALICIA GREGORY

The University of Kentucky was recently awarded a prestigious Centers of Biomedical Research Excellence (COBRE) grant to study translational chemical biology from the National Institutes of General Medical Sciences, part of the National Institutes of Health. The \$11.2 million grant will fund UK's Center of Biomedical Research Excellence in Pharmaceutical Research and Innovation (CPRI).

Jon Thorson, a professor in the College of Pharmacy Department of Pharmaceutical Sciences, and the principal investigator on this grant, serves as CPRI director. Thorson said the COBRE theme in translational chemical biology is "the nexus of chemical biology (the application of chemical biology principles to develop validated models to advance our understanding of biology) and pharmaceutical science (the application of pharmaceutical principles to advance materials and devices that address unmet clinical needs)."

"Our outstanding researchers at the University of Kentucky are leading the way in translational chemical biology, and the recently awarded COBRE grant is a testament to UK CPRI's success in their constant pursuit of discovery," said UK President Eli Capilouto. "As Kentucky's land-grant institution, we have a profound responsibility to serve and care for the Commonwealth. Because of the CPRI's exceptional work, we can continue to find cutting-edge solutions to the problems that challenge Kentuckians the most."

"We have benefited greatly by the NIH COBRE program, which has had an immense impact on the research infrastructure and support of junior investigators within a targeted theme," said Lisa Cassis, UK Vice President for Research. "The CPRI NIH COBRE is well-positioned to augment the lead discovery and development objectives of many of UK's outstanding translational research centers focused on disproportionate health challenges in the Commonwealth, continuing our legacy of these high-impact programs at UK."

This new COBRE funding leverages an impactful College of Pharmacy center launched as CPRI in 2012, in partnership with the UK Center for Clinical and Translational Science, Markey Cancer Center and the Office of the Vice President for Research.

"CPRI has increased UK's access to compound libraries, molecular modeling, virtual screening, assays, and other resources to ensure UK remains a leader in scientific discovery," said Kip Guy, dean of the UK College of Pharmacy. "Receiving the COBRE grant further demonstrates UK College of Pharmacy's commitment to cutting-edge interdisciplinary and interprofessional science. With all of our colleges sharing one campus, we're uniquely positioned to collaborate across the spectrum, ensuring our research stays relevant to the needs of Kentuckians."

"This COBRE is an incredible incubator for scientific crosscultivation and disruptive innovation — an outstanding set of fearless junior PIs with scientific training in diverse disciplines unified by their shared interests in the development, application and potential translation of novel molecular probes and tools," said Thorson.

Four early-stage investigators, mentored by teams of clinicians and scientists from a variety of disciplines, departments and colleges at UK, will lead major research projects.



The COBRE grant will support four early career researchers, top: Carrie Shaffer, Gluck Equine Research Center, and Martha Grady, College of Engineering, bottom: Samuel G. Awuah, College of Arts & Sciences, and Vincent Venditto, College of Pharmacy.

"An exceptional team of young investigators, mentors, core leaders, advisors and proposal development experts made this possible," Thorson said. "We expect our COBRE to bring new technologies and ways of thinking into the conventional field of pharmaceutical science and expose a broader range of basic and clinical researchers to pharmaceutical science fundamentals."

This research is supported by the National Institute of General Medical Sciences of the National Institutes of Health under Award Number P20GM130456. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health. PHARMACISTS ON THE FRONTLINES:

WHAT DOES IT MEAN TO BE **ESSENTIAL?**

BY JACOB LEWIS

Photos, from top: Regan Baum, PharmD '12 R403 – Emergency medicine clinical specialist at UK HealthCare and UKCOP adjunct professor; Brittany Bissell, PharmD, PhD – UK HealthCare medical ICU clinical pharmacist and assistant professor at UK's Colleges of Medicine and Pharmacy; Brooke Hudspeth, PharmD '07 – Chief Practice Officer and faculty member at UKCOP

24 **2020 ANNUAL REVIEW** 150TH ANNIVERSARY COMMEMORATIVE EDITION







We sat down with pharmacists from UK HealthCare and UK College of Pharmacy—Regan Baum, Brittany Bissell, Brooke Hudspeth—to get their unique perceptive on the pandemic and the pharmacist's role within our hospitals and the communities.

While COVID-19 has forced many Americans from the workplace and into their homes, a select group of people is still on the front lines. We celebrate essential workers like physicians, nurses, paramedics, firefighters, and other hospital staff. However, we often overlook one key player: the pharmacist.

Whether in a hospital, working in a long-term care facility, or behind a counter at your local pharmacy, pharmacists and pharmacy technicians are essential frontline workers. Pharmacists are the go-to medication experts at a time when misinformation can prove lethal.

Often pharmacists can seem like the unsung heroes of the healthcare field, playing a vital role but not as readily visible. What do you think people should know about pharmacists and their position right now?

BAUM: We are essential health care providers and are working alongside the doctors, nurses, and other healthcare professionals. I think most people hear the word "pharmacist" and tend to think of the equally critical retail pharmacists. However, the field is so diverse; there are many of us in hospitals right now working to deliver patient bedside care.

BISSELL: We are the voice of reason. This pandemic has created a unique situation, one very different from what medical professionals are used to. A lot of data is being published quickly and misinforming the general public. The anxiety of the unknown, public scrutiny and the desire to treat can be overwhelming for physicians. Pharmacists have been essential in evaluating these data, educating physicians at the bedside, and being the constant advocate of primum non-nocere or "first, do no harm."

HUDSPETH: Pharmacists have long-been known as the most accessible healthcare providers. During this time, pharmacists are caring for their patients and living out the Oath of a Pharmacist in extraordinary ways. Pharmacists are positioned to help in unique ways. They are working diligently to continue to be a trusted source for their patients. They are working each day on the frontlines and play a key role in helping to contain the pandemic.

COVID-19 has put the training of all of our nation's healthcare providers to the test. How has your training at the University of Kentucky College of Pharmacy helped to prepare you for this kind of situation?

BAUM: We trained to be proactive, looking forward to anticipating patient care needs. Our team has extensive training for disaster preparedness and the potential for mass casualties. We evaluate therapies, patient management strategies, and the science generated. We can dispel some of the circulating myths and combat misinformation.

BISSELL: When it comes to patient care, I feel like this is what those of us who went into critical care at UKCOP trained for specifically – a PGY2 residency trains you to take care of high acuity patients in high numbers. This is the environment I feel most comfortable in. Plus, I have always felt that pharmacy residency is unique in contrast to other disciplines in its consistent undertones of evidence-based medicine and literature evaluation. Knowing how to critique literature is vital right now.

HUDSPETH: Pharmacists are highly trusted, clinically knowledgeable healthcare providers with the capacity to improve public health in the communities they serve. There are many examples of pharmacist-delivered care to result in improved clinical and economic outcomes.

Many pharmacists train to provide flu and strep testing and are already becoming a valuable resource in ordering and administering COVID-19 testing.

Lastly, in a time of such uncertainty and doubt, it is easy for one to become frustrated or discouraged. What offers you hope as you navigate this turbulent period?

BAUM: The kindness in others is humbling. The outpouring of support—texts of love and appreciation mean a lot to me. Things like people making sure children, restaurant workers, and the unemployed have food and necessities give me hope. I notice all the people and companies around me that are working to take care of other people. The innovation is incredible. Distilleries working with our pharmacy students to make sanitizers and companies working to crank out PPE are amazing to see.

BISSELL: Seeing patients get "better." It's a long course for a lot of the ICU folks. So, sometimes it's hard to see the victories in the day-to-day. But finally seeing them tolerate breathing trials and come off the ventilator, it gives me hope. I also think this has taught the healthcare profession a lot about each other and brought us all closer. We are reconnecting with and learning about other disciplines, our management, colleagues from across the country in ways we never have.

HUDSPETH: Seeing how our pharmacists and pharmacy teams have stepped up in this time of need has been so incredible to watch. Pharmacists should be—and finally are being—recognized for their service to their communities. I am hopeful that due to their response and role in this crisis, it will only further validate the critical role of pharmacists on the healthcare team.

COMMUNITY

Life-saving Vaccines & The Role of One Community Pharmacist

BY JACOB LEWIS

Independent Community Pharmacist Heidi Romero ('08) is a third-generation pharmacist at Griffith & Feil Drug. Her family's pharmacy, located in the small town of Kenova, WV was established in 1892, surviving both the 1918 Spanish Flu and COVID-19.

Like many community pharmacists, Romero has faced the challenges of the pandemic head-on. With the authorization of the COVID-19 vaccines in the latter part of December 2020, the governor of West Virginia issued a directive that required all residents of long-term care facilities and their staff to be provided with their first dose of vaccine. The West Virginia vaccination rollout recruited every willing pharmacy in the state to begin providing vaccines as soon as they were shipped. With service to her community as her top priority, Romero and other pharmacists across the state spent the days leading up to and following the Christmas holiday administering vaccines in a coordinated approach that achieved the governor's lofty goal.

In addition to the long-term care facilities, Romero coordinated vaccination clinics for educators and students, healthcare professionals, manufacturing plant employees, and members of those rural communities hardest hit by COVID outbreaks. Thus, further demonstrating just how essential community pharmacists are to public health. While these types of vaccine clinics reached a large number of patients in a short amount of time, many people throughout West Virginia could not easily obtain the vaccine because they homebound or live greater than 45 minutes from the closest clinic.

To promote better access to the vaccine, Romero spent several days driving throughout rural counties administering vaccines to patients in their homes. "The relief and gratitude of homebound patients upon receiving a dose of the vaccine has been one of the most rewarding experiences I have had during the vaccination efforts," said Romero. She estimates that their pharmacy has administered over 2500 vaccines to date. Their greatest challenge has been the limited supply of vaccines shipped to West Virginia. "Now that a steadier supply is available, it is my hope that we may expand our in-home vaccinations to include additional counties across the state," said Romero.

Thank you to all of our preceptors and community pharmacists who continue to make a difference in the areas in which they live.

> Heidi Romero, '08, administering a COVID-19 vaccine at her family's independent community pharmacy.



PRECEPTORS

THE **POWER** OF A KENTUCKY DEGREE

BY JA'NAE CLAPP

A pharmacist's role goes beyond checking pills and managing refills; they build relationships with patients and make a difference. O'Shea Hudspeth, '07, is a testament to the high moral character the University of Kentucky (UK) hopes to foster in its students.

Originally from Murray, Ky., Hudspeth knew he wanted to find the same hometown feeling while pursuing a pharmacy education. When he found his place at UK College of Pharmacy (UKCOP), he didn't look back.

"Going to UK, and then working here in Lexington after I graduated, I knew this is where I wanted to be and start a family. The UK College of Pharmacy had the facilities and location and was top-ranked as well. It was an easy choice," says Hudspeth.

Hudspeth originally started as a pharmacy technician at Kroger in 2002 while attending Georgetown College, where he played football and majored in biology. It was there he decided on his career path, and in the fall of 2003, he began pharmacy school at UKCOP and joined Kroger as a pharmacy intern.

When asked about his most meaningful interactions with patients, Hudspeth shares about helping patients

through their battles with cancer and heart disease, many of whom mentioned how important it was that he spoke directly to them and asked how they were doing. He notes, "I'm grateful to be able to further relationships with my patients in a unique way. While pharmacists are true medication experts, we're also one of the most trusted healthcare professionals. I take that responsibility seriously."

After pharmacy school, Hudspeth worked at over 20 Kroger locations throughout central Kentucky. "I was at a different store nearly every day," he remembers.



"Floating to those pharmacies allowed me to learn some great lessons on how I wanted to practice. The second weekend after obtaining my license, I was also fully prepared to work solo. That's the power of a Kentucky degree," he states.

In all, Hudspeth spent 17 years with Kroger. He had patients that came in every day to see him. "I found something I was passionate about," he says. "It clearly came out in my work." He is also quick to note the additional impact he has as a Black man working in healthcare.

"I am a Black pharmacy manager at a time when there are not many Black men and women in community pharmacy. I can be an example for kids who don't have a Black doctor or dentist or don't often see someone like me in this type of position. There aren't many of us in the pharmacist role."

Recent data supports Hudspeth's experience, showing that Black pharmacists make up only 5% of the professionals in their field, and 9% of those currently enrolled in pharmacy school for the 2018-2019 academic year, according to the American Association of Colleges of Pharmacy. This is most likely due to systematic and systemic discrimination, often linked to mandatory

"I can be an example for kids who don't have a Black doctor or dentist or don't often see someone like me in this type of position."

> standardized tests like the Pharmacy College Admission Test (PCAT) or inequitable hiring practices. Hudspeth notes, "I'm glad to see that UKCOP is starting to take more deliberate steps to make pharmacy a more appealing choice for young Black students interested in the medical field."

> During his tenure at Kroger, Hudspeth impacted countless lives, and he continues to be an example and mentor for other Black students hoping to pursue a healthcare career.

Most recently, Hudspeth joined UK HealthCare to manage its retail location within Chandler Hospital. In addition to traditional community pharmacy duties, he reviews patient charts, consults on medication, and assists in discharging patients. He is also involved in the hospital's Meds-to-Bed program, a free concierge bedside service specifically to help patients leave the hospital with their necessary medications without additional hassle. He also serves as a preceptor for the College of Pharmacy.

"I believe in taking advantage of the many roles a pharmacist can play," says Hudspeth. "There is so much out there, so many opportunities to have relationships with your patients. I enjoy working with the public, but there is an array of options within this profession. Whether it be community, hospital, nuclear, research, or another pharmacy field, you have to find something that you enjoy."

Hudspeth continues to lean into what it means to be a patient-centered provider. When asked about his proudest accomplishment since graduating, he talks about his new position at UK Chandler or working at Lexington's busiest Kroger store. "Professionally, every step along the way has been an accomplishment," Hudspeth says. This includes all techs and interns who have worked under him who now have blossoming careers.

In terms of his personal life, Hudspeth says he is blessed with a beautiful family. "My wife is passionate about pharmacy, and we have three awesome kids. I am so happy about the family life this career has allowed," he says.

Hudspeth met his wife Brooke (Hicks) Hudspeth while the two were at pharmacy school. Brooke is UKCOP's newly appointed Chief Practice Officer and another alum of the Class of 2007. Caring for patients and making a difference is a passion for both husband and wife, and the University of Kentucky is proud to recognize Drs. O'Shea and Brooke Hudspeth as part of the alumni family. 2021 PRECEPTOR OF THE YEAR

A DEDICATED LEADER IN THE CLINIC AND CLASSROOM

BY CAITLYN ROMANSKI

PRECEPTORS

When it comes to displaying leadership in a pharmacy career, Mark Huffmyer excels. Huffmyer, a 2014 graduate of the University of Kentucky College of Pharmacy, is the UK College of Pharmacy 2021 Preceptor of the Year award recipient and works as a Clinical Staff Pharmacist in the Anticoagulation Clinic at the UK HealthCare Gill Heart and Vascular Institute. He helps patients taking high-risk blood thinning medications and adjusts their medication doses based on laboratory monitoring, goals of care, provider recommendations and duration of therapy.

On top of his clinical duties, Huffmyer has also held a 5-year-long position as a preceptor for UK College of Pharmacy students. His desire to become a preceptor originated from his personal experience as a pharmacy student and the mentorship his preceptors provided him. He wants to give back to students the same way his preceptors invested in his education.

"I knew from an early age that I enjoyed teaching and educating. Before finding pharmacy, I had originally planned to become a teacher," Huffmyer said. "My experiences in pharmacy school showed me how pivotal preceptors are for their students. Precepting is one of my favorite methods for teaching and learning because it is so hands on and impactful for both the learner and the teacher." Huffmyer shared that forming bonds with students that are eager to learn is the most rewarding aspect of being a preceptor. "I love watching the students' confidence grow in decision making and communication as they spend more time in my clinic. It brings me pleasure to watch them flourish and hone their skills through patient interactions, documentation and interprofessional collaboration," said Huffmyer. "I like to think the bonds formed between preceptors and students are lifelong and unbreakable. I enjoy seeing my previous students go on to have bright careers in pharmacy and interacting with them as colleagues."

One piece of advice that Huffmyer has for students is for those having trouble determining the path they want to take in practicing pharmacy. "There are so many options and fields within pharmacy to specialize in, which can be daunting," Huffmyer said. "My advice is to get as many different experiences as you can now, even ones you may not be sure about. You never know what you may enjoy or what passions you may find if you take the opportunity to seek them out."



RESEARCH

New UK Clinical Trial to Assess COVID-19 Prevalence

BY ALLISON PERRY

The University of Kentucky and UK HealthCare have launched a new clinical trial designed to assess the prevalence of COVID-19 in central and eastern Kentucky. Known as Serologic Testing to Accelerate Recovery and Transition (START), the study focuses on antibody testing to begin understanding how many people in the region may have already contracted and recovered from COVID-19.

The trial is a partnership between the UK College of Medicine, UK HealthCare Infection Prevention and Control (IPAC), the UK Markey Cancer Center, and University Health Service, and is co-led by IPAC Medical Director Dr. Derek Forster and UK College of Pharmacy faculty and Precision Medicine Clinic Director Jill Kolesar, PharmD.

"One of my big interests in this study is understanding how much COVID-19 is out there, and to better understand what the risk factors are for coming into contact with this disease," Forster said. "We'll be collecting a variety of data points to try to assess that in our community."

The test for an active COVID-19 infection is the polymerase chain reaction (PCR) diagnostic test, which involves a nasal or oral swab. The UK study will be focusing on an antibody blood test, which can identify who has had COVID-19 in the past.

"One driver of this study is that people may have had an asymptomatic infection," Kolesar said. "This study will tell us how many people have had an asymptomatic infection, which is critical to understanding the disease prevalence in our population."

Phase one of the study will focus on performing the antibody test on the highest-risk population at UK HealthCare, health care workers who are part of higherrisk areas of the hospital including the medical intensive care unit, emergency department, Division of Infectious Diseases, and UK HealthCare's COVID-19 drive-thru testing site.

The team describes this approach as "depth versus breadth" – rather than randomly testing as many people as possible, the group is focusing first on a high-risk population to see what the results are. Next, they hope to take away some practical implications from those results and apply them to larger populations outside the UK HealthCare system.

"The expansion of antibody testing is going to depend on our initial results," Kolesar said. "If the prevalence rate is low in the high-risk population, we're going to have to regroup and determine our next steps. On the other hand, if prevalence rates are high in our high-risk population, then that would give us an indication that it would be much more realistic to go out into low-risk populations to assess the prevalence there." "I don't know that it's possible to test everyone," Forster said. "Obviously, testing expansion is going to be key moving forward, and we'll try to figure out how best to do that. I think this is one way to try to gain more information about testing strategies that can maximize your return."

Besides Forster and Kolesar, there are nearly two dozen people working on this study. The new and unexpected collaborations that have formed in response to COVID-19 have been a positive, Kolesar says.

"This study has brought together a large group of people from different areas across the medical campus," she said. "We have infectious disease experts, cancer researchers and employee health, whole groups of people that would never have thought about working together before."

All antibody testing will be processed in-house at UK HealthCare. By the end of June 2020, the team hopes to have tested almost 1,000 employees and patients to complete phase one. Those who are eligible to be tested in phase one of the START study will be contacted by UK HealthCare.

UKCOP COVID-19 VACCINE EFFORTS

WELCOME

- 300+ people in the College have participated in COVID-19 vaccine efforts, their efforts totaling more than 1,500 hours per week.
- We developed a rapid response vaccine task force, creating a "Vaccine Reserve Corps" (VRC) pool of volunteers, and developed an online system to streamline communications and coordinate opportunities from entities across the Commonwealth to the VRC. To date, 381 individuals from UKCOP have registered with our VRC and worked well over 700 hours per week vaccinating Kentuckians.
- We partnered with Kentucky Indigenous Peoples, the American Indian Movement, and the Kentucky Native American Heritage Commission to develop PSAs and vaccine education material for people throughout the state. Our collaborative efforts ensure vaccine education and access are improved for Kentucky's Indigenous and rural populations who have limited access to the internet and Indigenous Health Services.

The Changing Landscape ofthe Pharmacy Job Market

Annual Tuition (Resident)	1990	2020
UK College of Pharmacy	\$1,500	\$28,338
KY Minimum Wage	\$3.80	\$7.25
Number of hours you would need to work to pay tuition	395	3,909
Number of 40-hr weeks you'd need to work to pay tuition	9.9	97.7

What tuition would need to be to work the same number of hours in 1990 at today's minimum wage: **\$2,863.75**

What minimum wage would need to be to work the same number of hours as in 1990 for today's tuition: **\$71.74**

Annual Tuition (Non-Resident)	1990	2020
UK College of Pharmacy	\$4,500	\$52,631
KY Minimum Wage	\$3.80	\$7.25
Number of hours you would need to work to pay tuition	1,184	7,259
Number of 40-hr weeks you'd need to work to pay tuition	29.6	181.5

What tuition would need to be to work the same number of hours in 1990 at today's minimum wage: **\$8,584**

What minimum wage would need to be to work the same number of hours as in 1990 for today's tuition: **\$44.45**

Many have asked how we at the College are preparing students to enter potentially chaotic and understaffed work environments. To that, we say we have focused, and will continue to focus, on training our student pharmacists to be care providers. We prepare our graduates to be agile and flexible in a tumultuous job market by training them to manage stress, advocate for patients, and practice with the utmost professionalism.

What are the difficulties facing pharmacists in the workforce?

Pharmacists are the healthcare system's medication experts. Unfortunately, payment for their services has historically been tied to a product—the medication itself. Pharmacists are feeling the impact of reduced reimbursements associated with drug dispensing. We are actively working with legislators on more modernized payment models which include fairer compensation for pharmacists in alignment with their most valuable asset: their expertise as care providers.

What would you say to students interested in pharmacy but worried about the job prospects?

We have an established track record of preparing graduates for life-long careers in pharmacy. We

continue to place our graduates in the best jobs in the profession and they continue to excel. More than 95% of our graduates are employed within three months of leaving the College. Our school continues to be recognized as a leader within the profession and our graduates are still among the most sought after.

What's your response to the lack of jobs for pharmacists?

The decline in market demands for pharmacists is not consistent across all practice types – some areas are experiencing dramatic growth (specialty pharmacy), while other areas are experiencing contraction (chain pharmacies). That is not to say concerns are misplaced or the strain on a good portion of our alumni is not real; rather the concerns in the news may be specific to one segment of the pharmacy profession. We have focused and continue to focus on ensuring that our graduates can excel in any setting – thereby giving them the base skills to manage this fluid situation for their entire career.

Pharmacy graduates have substantial debt, putting more pressure on individuals to find employment quickly even if conditions are unfavorable. Can the College lower tuition?

Unfortunately, no. Tuition is determined by the University and its Board of Trustees in consultation with state policymakers. Tuition costs, debt levels, and starting salaries have all changed over the past 30 years, sometimes not in favor of the value. We work to mitigate the cost of tuition as much as we can. We also encourage our students and alumni to advocate for the change they want to see; we at the administrative level will do the same.

We have taken several concrete actions in support of our students and alumni, to better support them.

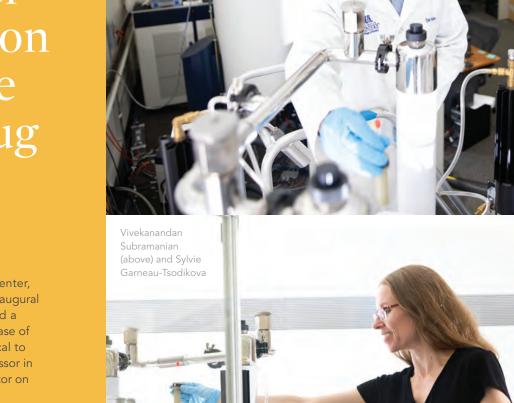
- Increasing resources available for career development and mentoring, ensuring new graduates have the support they need before and after graduation.
- Initiating discussions with the UK Alumni Association to provide free career training to ensure our alumni have career support after graduation.
- Advocating for expanded scope of practice for pharmacists and compensation models that recognize the role of pharmacists in providing care more fairly.
- **Surveying our graduates** to capture employment and job satisfaction data to inform our efforts to prepare trainees for their careers and support alumni.
- **Continuing our new ResCATS program** to support the more than half of the graduating class who pursue residency training after graduation. The program involves mentoring for residency-bound 4th-year pharmacy students.

ACCELERATING DISCOVERY

PharmNMR Center Awarded \$1.5 Million Grant to Accelerate Chemistry and Drug Discovery at UK

The College created a new Nuclear Magnetic Resonance (NMR) Center, recruiting Vivekanandan Subramanian, PhD to serve as the Center's inaugural director. Following the Center's creation, the College was awarded a prestigious NIH High-End Instrumentation grant to support the purchase of an additional state-of-the-art NMR spectrometer, an instrument critical to supporting chemistry efforts at UK. Sylvie Garneau-Tsodikova, a professor in the Department of Pharmaceutical Sciences, is the principal investigator on the \$1.5M grant.

VISIT BIT.LY/NMRPHARM TO READ MORE



RESEARCH

VIEW OUR NEW GOOGLE SCHOLAR RESEARCH DASHBOARD @ BIT.LY/UKCOPDASH

RESEARCH FUNDING HAS INCREASED BY 35.7% FROM FY19

\$66.3 MILLION IN COLLABORATIVE FUNDING



2020

\$28.7M



\$17.9M

2017

PRIMARY RESEARCH FUNDING

\$21.9M

2018

\$21.2M

2019

30

25

20

15

10

\$11.9M

2016

DOLLARS (IN MILLIONS)

FACULTY AWACCOMPLISHMENTS

With bold leadership, UKCOP faculty continue to impact the world of pharmacy and pharmaceutical sciences. ABBY BAILEY Chair of Emergency Medicine ACCP PRN

BJOERN BAUER Extramural Funding from NIH Funding (3) and PhRMA Foundation, PY2 Professor of the Year

BRITTANY BISSELL Chair-elect of Pulmonary ACCP PRN

DAVID BURGESS Chair of ACCP Foundation Board of Trustee

JEFF CAIN PY4 Professor of the Year, William T. Miles Award

JOSEPH CHAPPELL Extramural Funding from Enepret

AARON COOK Fellow of Neurocritical Care, ASHP Foundation Award

CHRIS DELCHER Extramural Funding from University of Florida (3) and Department of Justice

HOLLY DIVINE Mentor for Wal-Mart Scholar, Spencer Tungate

LINDA DWOSKIN Extramural Funding from NIH (4) and Kentucky Cabinet for Health and Family Services (KYNETIC)

ALEX FLANNERY Chair-elect of Critical Care ACCP PRN, SCCM Fellow, Rho Chi Alumni Award (Alpha Xi chapter)

TRISH FREEMAN KPhA Distinguished Service Award, Mentor for Wal-Mart Scholar, Ashley Martinez

SYLVIE GARNEAU-TSODIKOVA Extramural Funding from NIH and American Foundation for Pharmaceutical Ed

GREGORY GRAF NIH Funding

KIP GUY

Extramural Funding from the NIH, Mathile Family Foundation, Medicines for Malaria Venture, Global Health Innovative Technology Fund, Oregon Health & Science University, and University of Cambridge

TAMELA HARPER Extramural Funding from Kentucky Cabinet for Health and Family Services

JIMMI HATTON KOLPEK ACCP President Elect, Paul Parker Award

BROOKE HUDSPETH Secretary of 2020-2021 KPhA Board of Directors

HANNAH JOHNSON Professor of the Year PY3

KYUNG-BO KIM Extramural Funding from Arisu Therapeutics, Inc.

JILL KOLESAR Finished 3-year term of Board of Regents, ACCP

MARKOS LEGGAS Extramural Funding from Kentucky Pediatric Cancer Research Trust Fund and the NIH

PATRICK MARSAC Extramural Funding from the PhRMA Foundation

CRAIG MARTIN Extramural Funding from Eastern Kentucky University

MEGAN MAY Preceptor of the Year

TERA MCINTOSH Michael J. Lach Award

TRENIKA MITCHELL PY1 Professor of the Year

DANIELA MOGA Extramural Funding from the NIH **HUI PENG** Extramural Funding from University of Texas

PEGGY PIASCIK George R. Spratto Biological Sciences Distinguished Service Award (AACP)

THOMAS PRISINZANO Extramural Funding from the NIH (2), Biomedical Research Institute of New Mexico (2), and UT Health

Science Center at San Antonio FRANK ROMANELLI ACCP. Education Award

MELODY RYAN USP 2020-2025 Council of Experts, Elected Chair of the USP Healthcare Safety and Quality Expert Committee, UK Global Impact Award for Distinguished Faculty Achievement in Internationalizing the Curriculum

JEFFERY TALBERT

Extramural Funding from Indiana University, University of Pittsburg, Kentucky Cabinet for Health and Family Services (9), and Medical University of South Carolina, Named Director of Institute for Biomedical Informatics

STACY TAYLOR Michael J. Lach Award

JON THORSON NIH Funding (5)

JILL TURNER Extramural Funding from NIH and Tufts University

STEVEN VAN LANEN NIH Funding (2)

VINCENT VENDITTO Extramural Funding from the NIH and American Heart Association

CHANG-GUO ZHAN Extramural Funding from the NIH and University of South Carolina

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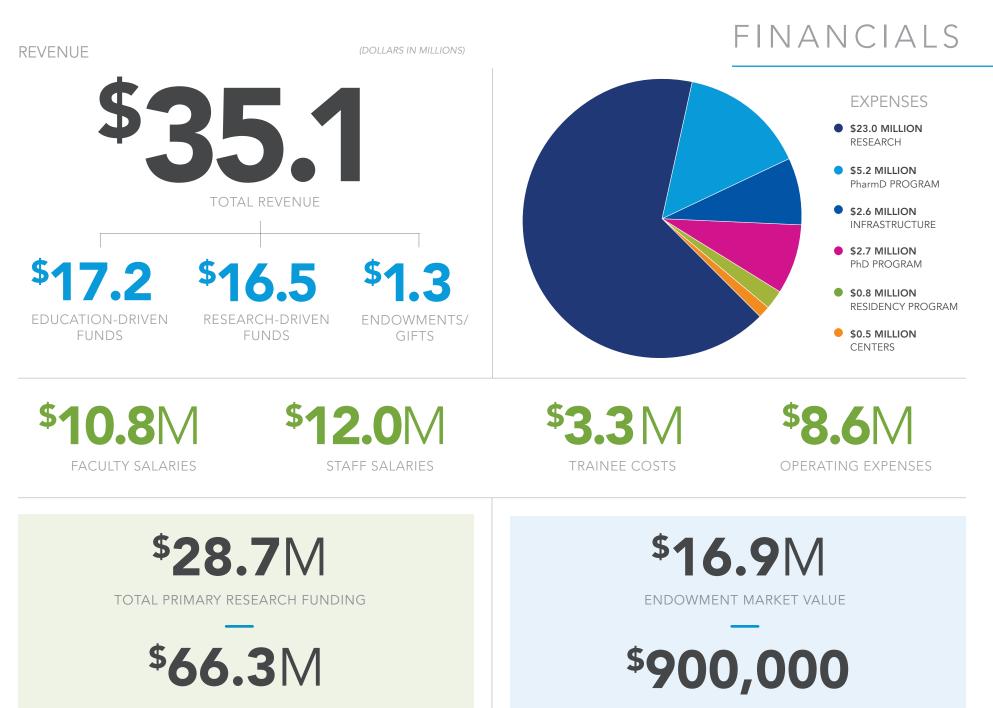
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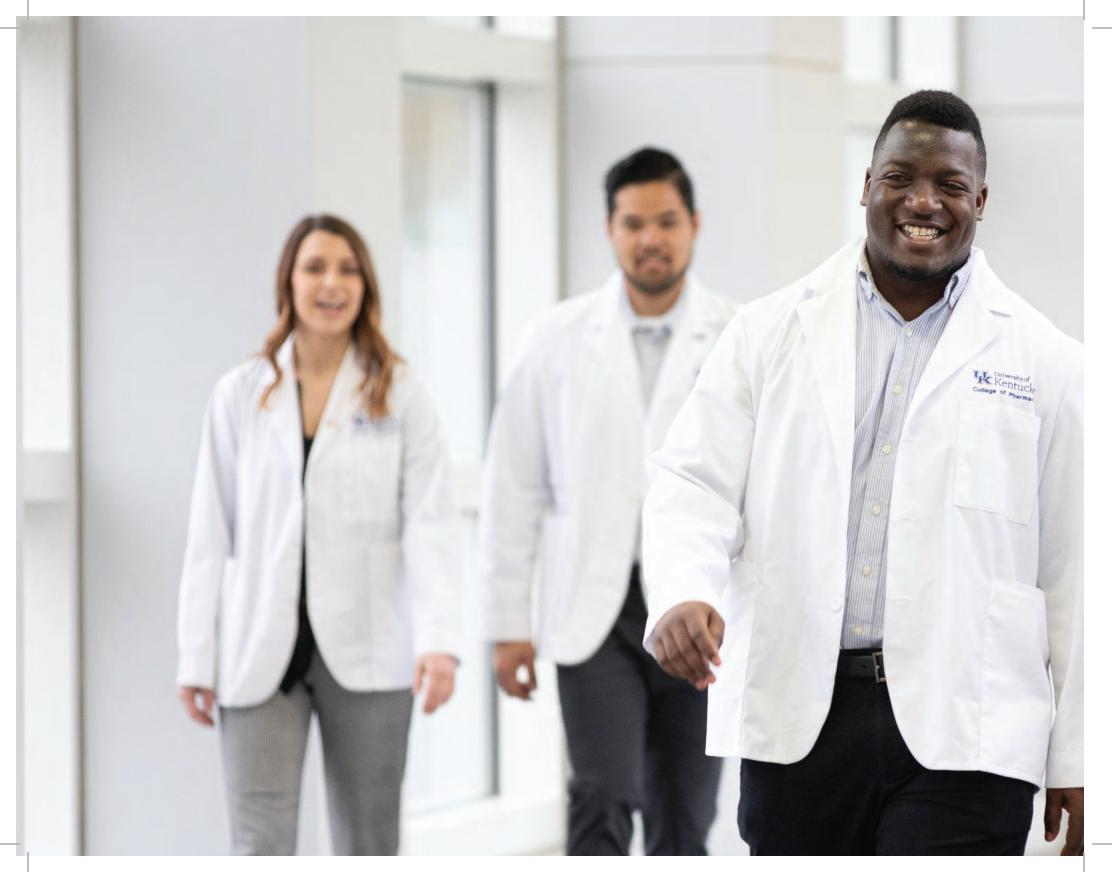
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