

✧ Stronger.  
Better.  
**Together.** ✧



**2020**

*A Year to Celebrate*

# Table of Contents

|                                 |           |
|---------------------------------|-----------|
| <b>Dean's Message</b>           | <b>3</b>  |
| <b>Our School</b>               | <b>4</b>  |
| <b>Education Programs</b>       | <b>6</b>  |
| <b>Research Enterprise</b>      | <b>12</b> |
| <b>Practice Advancement</b>     | <b>14</b> |
| <b>Accelerating Innovation</b>  | <b>16</b> |
| <b>From Global to Local</b>     | <b>18</b> |
| <b>Culture of Collaboration</b> | <b>20</b> |
| <b>Our People</b>               | <b>22</b> |
| <b>Investing in the Future</b>  | <b>26</b> |
| <b>The Eshelman Way</b>         | <b>27</b> |

# Dean's Message

## STRONGER. BETTER. TOGETHER.

In last year's impact report, I noted that we were in an excellent position and well prepared for the future. Despite what 2020 brought us, last year's message stands strong today.

Despite the challenges of the novel coronavirus pandemic, and the significant instances of racial injustice in our country, the resiliency and dedication of our students, faculty, staff, preceptor partners, alumni and friends have resulted in an incredible year of accomplishments.

Many of these are highlighted in this report, but I want to note just a few here:

- We received an 8-year Pharm.D. reaccreditation from the Accreditation Council for Pharmacy Education
- We were once again ranked as the No. 1 school of pharmacy by the US News & World Report
- We rose to 4th in the Academic Rankings of World Universities
- We delivered over 250,000 online instructional hours, keeping our PY4 students on track for graduation
- We raised over \$12 million in donations as part of The Campaign for Carolina, putting us at of 92.6% of our \$175 million goal
- We introduced a new online Master of Science Degree in Health Systems Pharmacy Administration
- We rapidly scaled up 14 labs to advance COVID-19 research
- We achieved a new record of research funding at nearly \$40 million
- We implemented a Diversity, Equity and Inclusion strategic plan to support the population we serve
- We established an office of Well-Being and Resiliency and expanded support for our School community
- We welcomed 8 new faculty members to the School
- We launched the Rapidly Emerging Antiviral Drug Discovery Initiative (READDI) to develop medicines to prevent the next viral pandemic
- We graduated 165 future healthcare leaders from our professional and graduate degree programs
- We achieved a first time NAPLEX pass rate of 97.4% for our PharmD graduates, an improvement of 3.1 points over last year. This compares to 91.7% nationally.

We are truly **STRONGER. BETTER. TOGETHER.**

And while we celebrate our many accomplishments, we realize there is even more we can do to help people in North Carolina, across the United States and around the world live longer, healthier lives as we continue our relentless pursuit of **Advancing Medicine For Life.**



**Angela Kashuba,**  
**BScPhm, Pharm.D., DABCP, FCP**  
*Dean,*  
*UNC Eshelman School of Pharmacy*

# Our School

The UNC Eshelman School of Pharmacy is an internationally recognized leader in innovative pharmacy and pharmaceutical sciences education, research, and practice advancement. The School has built a reputation nationally and globally for its rigorous education and training programs, progressive pharmacy practices, and cutting-edge multidisciplinary translational research.

## Our Rankings

# #1

School of Pharmacy  
in the US – US News  
& World Report

# #2

Global University in  
Pharmacology & Toxicology  
– US News & World Report

# #4

Pharmacy &  
Pharmaceutical Sciences  
– Academic Rankings of  
World Universities

# #9

Pharmacy &  
Pharmaceutical Sciences  
– QS World University  
Rankings

## Mission

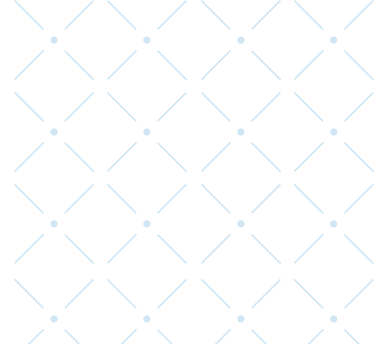
To develop leaders in pharmacy education, pharmacy practice and pharmaceutical sciences through innovation in teaching, practice and research.

## Our Values

- Pursuing **excellence** in all that we do
- Inspiring a **culture of innovation**
- Seeking and valuing **collaboration**
- Upholding the values of **integrity, trust, honesty and accountability**
- Fostering **professional growth** for students, staff and faculty
- Embracing **diversity and inclusion**
- **Serving** students, patients and society with dedication and care







## Strategic Plan

Our 2018 – 2020 Strategic Plan has seven key initiatives that have successfully guided us over the past three years:

- Prepare future leaders who will transform healthcare and make a positive difference in people's lives
- Optimize medication use, advance health care delivery and improve patient care
- Conduct cutting-edge research and translate inventions and discoveries into patient outcomes
- Achieve local and global impact through education, research, and service to the State of North Carolina and beyond
- Increase resources, improve operational efficiency, and enhance a world-class environment
- Ensure that the School has and nurtures the talent, leadership, and culture to execute our vision and mission
- Foster a culture of strategic planning and data-driven decision-making that results in positive impact

**8,380**

Alumni  
living in

**49**

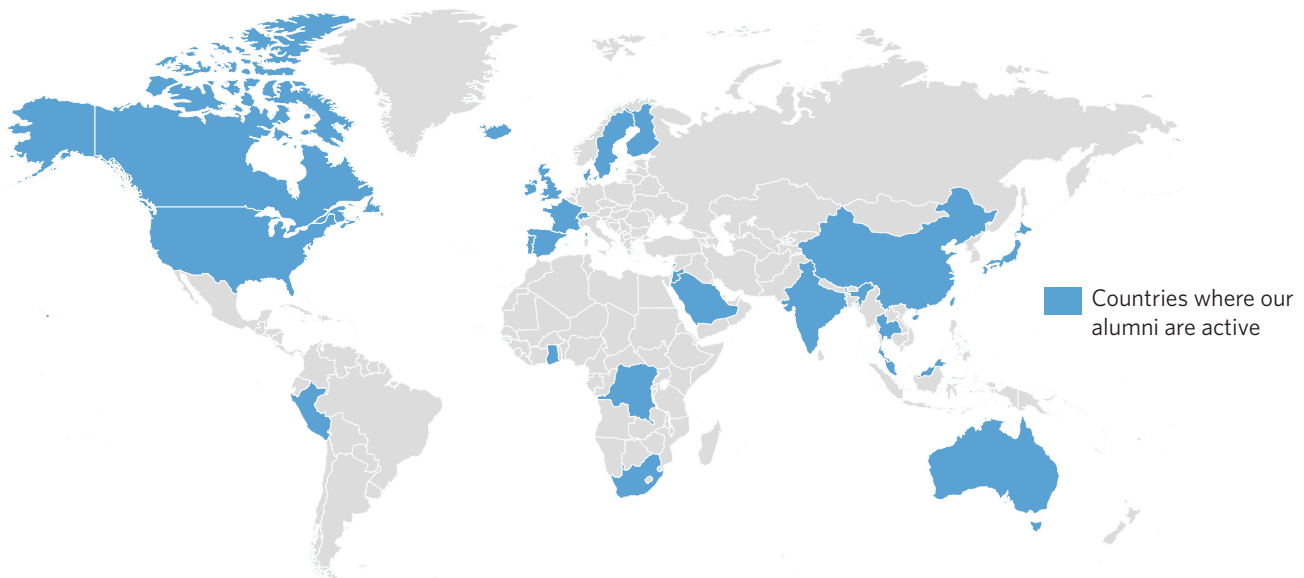
States  
and

**27**

Countries

## Global Impact

Our graduates are advancing medicine for life around the world.



# Education Programs

We are preparing the next generation of pharmacist, scientist and educator leaders to care for patients and discover innovative solutions to the world's most challenging health care issues.



**603**

Professional  
Students

**123**

Graduate  
Students

**107**

Postdoctoral  
Fellows

**122**

Full-Time  
Faculty

**2**

Campuses

## Pharm.D. Programs

- Pharm.D. Degree
- Pharm.D./MBA Degree
- Pharm.D./MPH Degree

## Ph.D. in Pharmaceutical Sciences

- Drug Discovery: Chemical Biology and Medicinal Chemistry
- Drug Delivery: Pharmacoengineering and Molecular Pharmaceutics
- Drug Optimization: Pharmacotherapy and Experimental Therapeutics
- Patient Outcomes: Pharmaceutical Outcomes and Policy
- Pharmacy Practice: Practice Advancement and Clinical Education

## MS in Health Systems Pharmacy Administration

- Residential Program
- Online Program

## Postdoctoral Fellowships

- NIH-sponsored
- Industry-sponsored
- Innovation and Entrepreneurship
- Global Engagement
- Center for Innovative Pharmacy Education and Research
- Office of Next in Education

## Residency Programs

- Community Pharmacy
- Independent Pharmacy
- Hospital Pharmacy
- Ambulatory Care

# Pharm.D.

We are preparing our student pharmacists to be leaders and innovators in a wide range of settings, including hospital pharmacy, community pharmacy, primary care, research and drug development, pharmaceutical industry, managed care, nuclear pharmacy, home health care, regulatory and government agencies, and academia.



# #1

School of Pharmacy in the U.S.

# 149

Graduates

# #2

Residency Match Rate

# 88%

of Graduates Receive 1st/2nd Choice Career Position



“I want to continue to serve patients in any way possible, but I am passionate about making change at the institutional level. I hope to develop and refine programs that help serve lower income populations and increase access to health care for all.”

— **Aliyah Cruz**

Class of 2022, and president-elect of the Student National Pharmaceutical Association 2021-22

# Ph.D.

The Ph.D. program in pharmaceutical sciences prepares tomorrow's scientists for basic, translational, or health outcomes research careers. Students concentrate in one of the stages in the drug development cycle corresponding to our academic divisions.

## #2

Best Global Universities  
in Pharmacology and  
Toxicology

## #4

Pharmacy and  
Pharmaceutical  
Sciences

## 99

Students

## 11

Graduates

### Drug Discovery

**Chemical Biology and Medicinal Chemistry**

### Drug Delivery

**Pharmacoengineering and Molecular Pharmaceutics**

### Drug Optimization

**Pharmacotherapy and Experimental Therapeutics**

### Pharmacy Practice

**Practice Advancement and Clinical Education**

### Patient Outcomes

**Pharmaceutical Outcomes and Policy**

### Industry Postdoctoral Fellowships

- Clinical Research and Drug Development
- Medical Affairs
- Global Drug Safety/Pharmacovigilance
- Pharmacokinetics/Pharmacodynamics/Pharmacometrics
- Global Regulatory Affairs
- Pharmaceutical Outcomes

### NIH Postdoctoral Fellowships

- UNC-Duke Clinical Pharmacology T32 Postdoctoral Training Program
- Carolina Cancer Nanotechnology T32 Postdoctoral Training Program

### Eshelman Innovation and Entrepreneurship Fellowship

### Global Engagement Fellowship

### Academic Research Fellowships



“I think the T32 translational medicine program will help me develop clinical aspects of my own thesis work and to understand how the ongoing communication between physicians and scientists that do clinical work happens. Being keyed in on these things will hopefully put me on a path towards a career in translational research when I enter the workforce.”

— **Anthony Sanchez**

Ph.D. candidate who is focused on understanding HIV latency and one day developing a cure for the virus.

# MS

The Master of Science Degree in Pharmaceutical Sciences with a specialization in health system pharmacy administration prepares pharmacists for leadership positions in health care. It combines classroom instruction with a two-year residency in a health system setting.

This year, we launched a new online Master of Science Degree in Health Systems Pharmacy Administration for working professionals.

## Residential Program

- Designed for full-time students with a Pharm.D. degree seeking a residency training experience
- Classes taught via live synchronous instruction over a video conferencing network
- Instruction by UNC Eshelman School of Pharmacy faculty and residential partners
- Residency training at one of nine partner sites
- 24-month program

## Online Program

- Designed for working professionals with a pharmacy degree who want to secure their degree while working
- Classes taught via on-demand and live instruction
- Instruction by UNC Eshelman School of Pharmacy faculty
- 24-month program

**The residential program is offered in collaboration with UNC Hospitals, Duke University Health System, Wake Forest Baptist Health, Mission Hospitals, Cone Health, BayCare, Penn Medicine and Massachusetts General Hospital.**



“The need for well-trained pharmacy leaders in hospitals and health systems is as critical as ever. The UNC Eshelman School of Pharmacy has been helping to address this need over the past decade by partnering with hospitals to train new graduates to take these positions. We have received requests over the years to open our MS program to working professionals and we are excited to now offer this online MS degree option.”

— **Stephen Eckel, Pharm.D., M.H.A.**  
Associate Dean for Global Engagement

# 2

Academic  
Programs

# 8

Residency  
Partners

# 24

Residential  
Students

# 100%

Graduates  
Placed

# Education Programs

## Learner Awards and Recognition

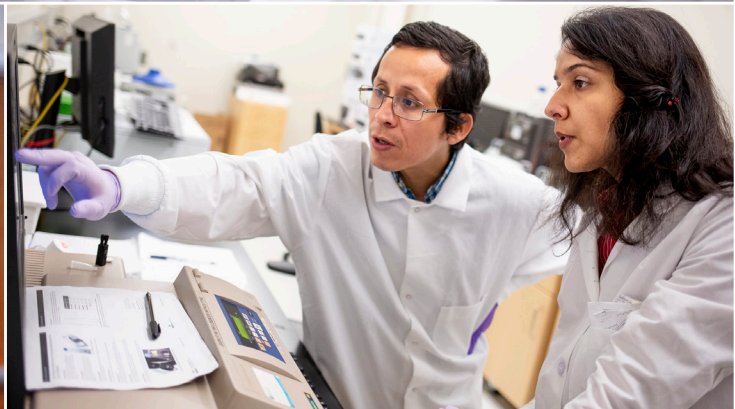
### Pharm.D.

- **Mary “Catie” Cash and Sara Scott, Pharm.D. students**, placed 1st in ASHP National Clinical Skills Competition
- **Sara Scott, Pharm.D. student**, inducted as an ASHP Pharmacy Student Forum Executive Committee member
- **Michelle Yi, Sara Scott, Erin Mays, and Henry Clark, Pharm.D. students**, received ASHP’s Outstanding Professional Development Project
- **Christopher Wang, Pharm.D. student**, received American Foundation for Pharmaceutical Education (AFPE) Gateway to Research Scholarship
- **Ashley Buige, Ashley Kang and Wendy Sun, Pharm.D. students**, presented at CPNP 2020 conference
- **Ashley Mauch, Ben Penley, Thomas Wert and Jefferson Pike, Pharm.D. students**, secured second place in AMCP’s national Pharmacy & Therapeutics Competition
- **Lauren Mozingo, Vraj Patel and Clara Kim, Pharm.D. students**, launched medication safety comic series, ‘Enox the Bear Pharmacist’
- **Matthew Broadwater, Pharm.D. student**, elected for APhA-ASP national member at large
- **Amy Guisinger, Pharm.D.-MPH dual-degree student; Andrew Stenger, Pharm.D. candidate; Erin Scholtz, Ph.D. candidate; and Jefferson Pike Jr., Pharm.D. student**, placed first in Duke-UNC National Case Competition
- **Carolyn Rath, graduating Pharm.D. student**, honored with Chancellor’s Award
- **UNC ESOP SNPhA Chapter** won Clinical Skills Competition, Social Media Surge, and Chapter with the Most Attendees

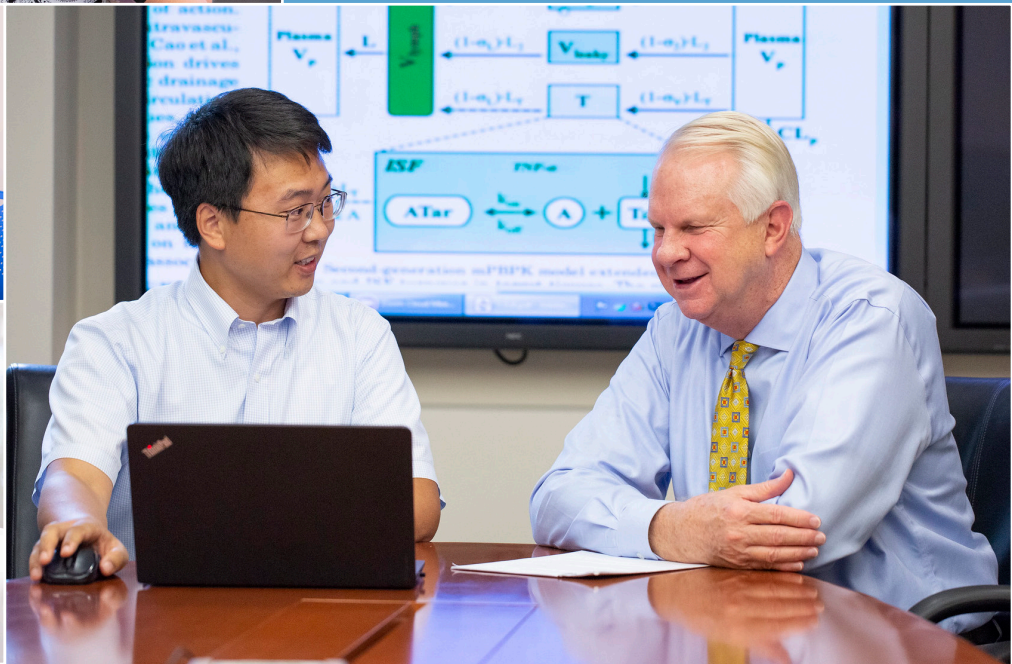
### Ph.D.

- **Jordan Baer Joiner, Ph.D. student**, received National Science Foundation fellowship to fund pancreatic cancer research
- **Zoey Tang, Ph.D. student**, received Presidential Trainee Abstract Award
- **Rebeca Stiepel, Ph.D. student**, won Ford Foundation Fellowship; aims to promote diversity, inclusion in academia
- **Alison Mercer-Smith, Ph.D. student**, won student talk awards for the 35th annual MD/Ph.D. National Conference; won UNC 3-Minute Thesis competition and placed first at the regional competition; is a finalist in the BioRender graphical abstract contest; and was awarded an NRSA Fellowship (F30) from the National Cancer Institute; received 2019 Kathryn A. Brewington Award
- **Daisy Zhu, third-year graduate student**, inducted into the Frank Porter Graham Honor Society
- **Estefany Garcia, first-year graduate student in Rao Lab**, received PharmAlliance E-symposium Award **Jackie Gerhart, third-year graduate student in Gonzalez Lab**, received PharmAlliance E-symposium Award; and the Heyward Hull Travel Award
- **Jaiwei Zhou, third-year graduate student in Cao Lab**, placed third at the 2019 UNC Lineberger Cancer Center Annual Retreat
- **Kulchanok “Liw” Panichakornkul** was selected for the national Zada M. Cooper Scholarship, an annual award given by the Kappa Epsilon Foundation





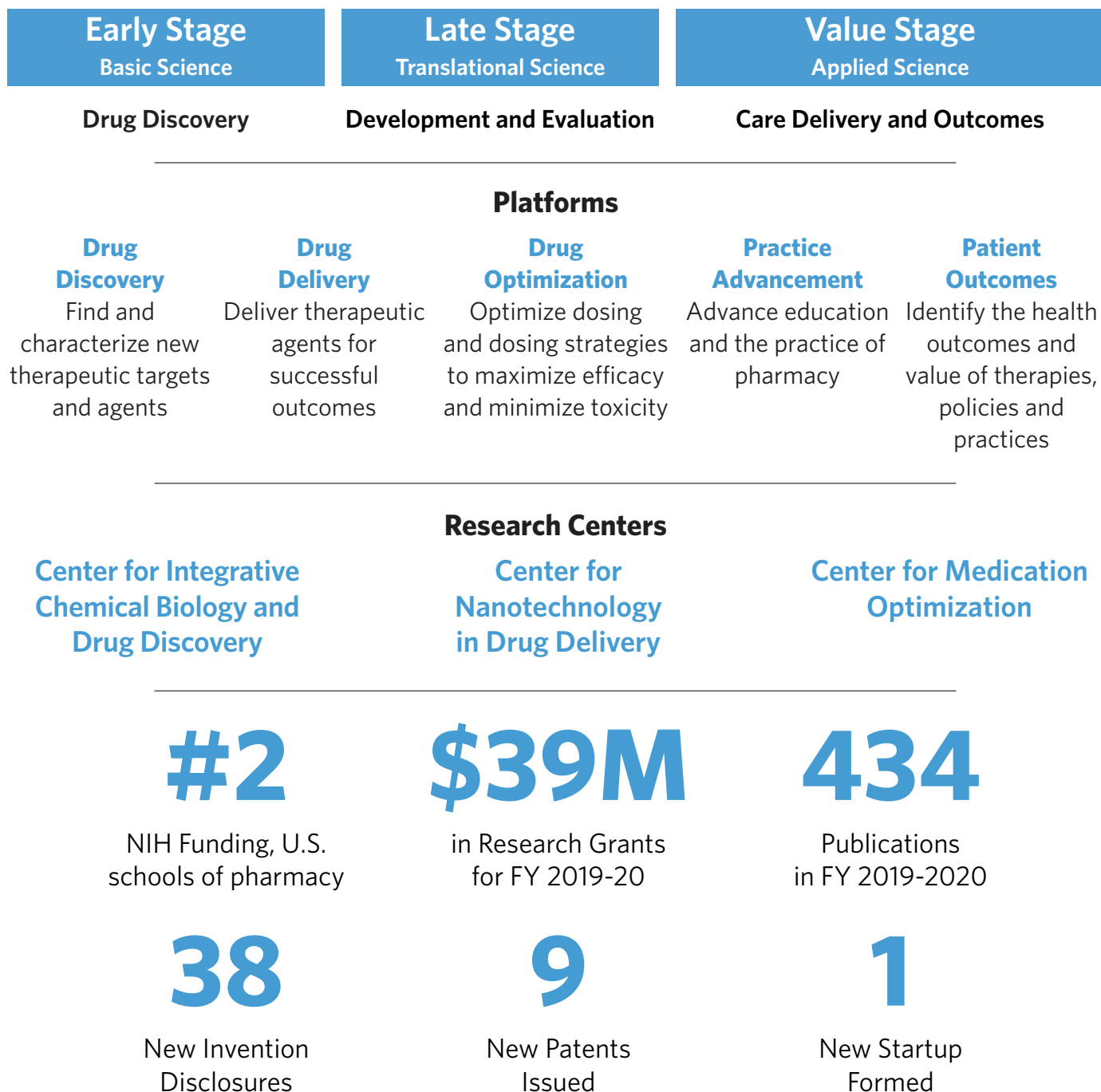
ESHELMAN SCHOOL  
OF PHARMACY





# Research Enterprise

Our dynamic and highly collaborative research enterprise spans the entire drug development and delivery lifecycle. We are discovering the medicines of tomorrow and maximizing the benefits of medicine today.



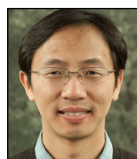
# Responding to COVID-19

We are actively pursuing solutions to combat the COVID-19 virus. We have 17 researchers who have quickly scaled up to develop antiviral therapies, vaccines and services for the coronavirus.



**Jon Easter, CMO**

*"Expanding Telehealth Services to Prevent COVID-19 in Rural North Carolina"*



**Gang Fang, DPOP**

*Testing a novel AI synthetic sampling (SynSam) technology to boost machine-learning prediction accuracy for adverse drug events.*



**Anthony Hickey, DPMP**

*Using his expertise in pharmaceutical formulations of antivirals and aerosol therapeutics to develop inhaled therapeutics.*



**Alex Kabanov, CNDD**

*Developing mechanisms to deliver anti-CoV drugs and therapeutic agents directly to the respiratory tract.*



**Angela Kashuba, DPET**

*Using mass spectrometry imaging to analyze how potential therapeutic drugs might behave in cells.*



**Sam Lai, DPMP**

*Developing a variety of muco-trapping monoclonal antibody candidates as inhaled immunotherapies.*



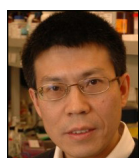
**Jian Liu, CBMC**

*Researching the COVID-19 spike protein that creates infection in a host by binding to its cell receptors.*



**Kuo-Hsiung Lee, CBMC**

*Developing a series of novel antiviral agents from natural products for use in treatment of COVID-19.*



**Rihe Liu, CBMC**

*Investigating techniques to reduce the immune response that occurs in severe COVID-19 cases.*



**Juliane Nguyen, DPMP**

*Developing new formulations and biomaterials to create new therapeutics.*



**Ken Pearce, CICBDD**

*Rapidly Emerging Antiviral Drug Discovery Initiative (READDI) to develop antiviral drugs.*



**Gauri Rao, DPET**

*Studying the pharmacokinetics and pharmacodynamics of novel antivirals.*



**Alex Tropsha, CBMC**

*Leading computational research on possible targets and drug discovery for the SARS-CoV-2 virus.*



**Tim Willson, UNC-SGC**

*The SGC-UNC laboratory is working with UNC virologists to identify drugs that slow the ability of SARS-CoV-2 to multiply inside cells.*



**Delesha Carpenter, DPOP; Stefanie Kiser, PACE; Greene Shepard, PACE;**  
*"Rural community pharmacies' preparedness for and responses to COVID-19"*

# Practice Advancement

We are working across the continuum of care to optimize medication use for patients, improve patient outcomes and transform the role of pharmacists in providing patient-centered, team-based care.

## COMMUNITY

### **Independent Pharmacy Ownership Residency (IPOR)**

This postgraduate program prepares our graduates to be entrepreneurs and pharmacy owners. Our residents spend the majority of their time working at the primary residency site to gain experiences designed to prepare them for an evolving healthcare market.

### **Community Pharmacy Residency Program (CPRP)**

This postgraduate program prepares our graduates to be innovative clinical practitioners who can be leaders in the profession. They will have the skills, confidence and experience to create change and advance patient care services in community pharmacy practice. Our program has residency sites at independent and national chain pharmacies throughout North Carolina.

## HOSPITAL

### **Partnership in Patient Care**

The Partnership in Patient Care, launched in 2010, combines the resources of the School and the UNC Hospitals pharmacy department to increase pharmacy services available to patients at UNC Hospitals through enhanced engagement of students and residents, the quality and quantity of experiential education

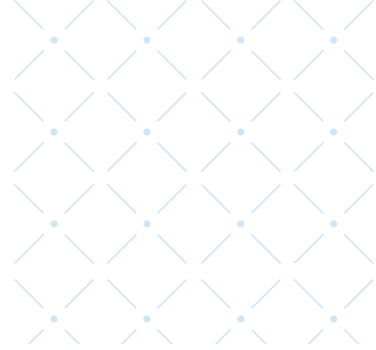
that the UNC Eshelman School of Pharmacy students receive, and the breadth and depth of point-of-care research being conducted. The pharmacists at UNC Health have become well-integrated into the School's teaching and point-of-care research mission.



“Our relationship with the UNC Eshelman School of Pharmacy represents a true commitment to collaboration and partnership. Annually we are able to define joint activities, align on common goals, and create an innovative environment anchored with the pursuit of excellence in practice, education, and research. We feel this partnership is the exemplar for a health system department of pharmacy and a school of pharmacy.”

— **Udobi Campbell, Pharm.D., MBA**

Executive Associate Dean  
Regional Director of Pharmacy – Triangle West, UNC Health



## RESEARCH

### Center for Medication Optimization (CMO)

The Center for Medication Optimization at the UNC Eshelman School of Pharmacy was launched in 2015. The Center's mission is to collaborate with the pharmacy practice community, health care providers, patients, payers, policymakers and other key stakeholders to develop and evaluate

evidence-based interventions that optimize medications and patient outcomes across care settings. Critical to this research is the need to integrate scalable interventions into emerging value-based payment models that enable a sustainable pathway to reimbursement.



“Our research is based in the primary care and community pharmacy settings, focused on key areas like telehealth and rural health, diabetes management, COVID-19 services, as well as behavioral health interventions. We are collecting evidence on how these interventions work and how well they work. These insights provide us with an opportunity to take a lead role in disseminating new and innovative sustainable practice models that we believe will improve patient care while advancing our profession in North Carolina and beyond.”

— Jon Easter, R.Ph

Professor of the Practice and Director of the Center for Medication Optimization

## CONTINUING EDUCATION

The School, in partnership with UNC Health network, and North Carolina's nine regional Area Health Education Centers (AHECs) and the North Carolina Association of Pharmacists (NCAP), provides a wide range of professional educational programs for pharmacists and

pharmacy technicians to help them advance their education, skills and practices. Our largest event, the Annual Pharmacy Seminar, was seamlessly transitioned to online with over 100 pharmacists participating in 12 hours of live continuing education.

1,193

Program Hours

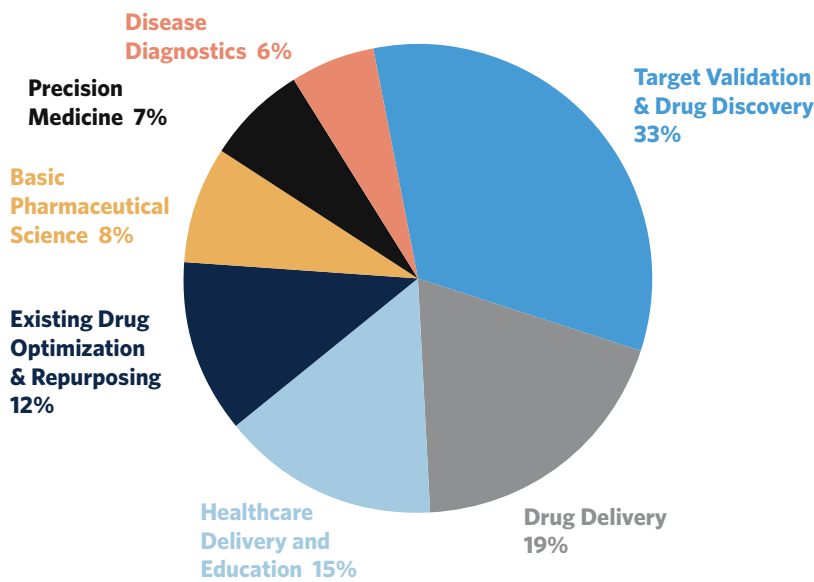
12,700

Program Participants

# Accelerating Innovation

The [Eshelman Institute for Innovation \(EII\)](#) at the UNC Eshelman School of Pharmacy was established in 2014 with a \$100M commitment from Dr. Fred Eshelman. The Institute serves as an [Innovation Engine](#) enabling the School to pursue bold, new ways to move the mission forward and extend its position as a global leader through grant funding, commercialization and training.

## Research Areas Funded



131

Projects Funded

\$26.1M

Grants Awarded

\$11M

Startup Funds Raised

## Commercialization

55

Invention Disclosures

19

Patent Applications

18

Technologies Licensed

12

Startup Companies

## Training

86

High School Students

157

Professional and Graduate Students

5

Postdoctoral Fellows

## Drug Discovery Initiative

We launched the [Drug Discovery Initiative](#) (DDI) to help faculty advance projects focused on therapeutics. As part of DDI, we have established a collaboration with the UNC School of Medicine to access a DNA-encoded library of more than 500 billion compounds that will accelerate screening against targets of interest. This includes the establishment of the University's first CRISPR screening facility.

# Preventing Future Pandemics

Open science drug discovery partnership aims to invest \$500 million to put drugs “on the shelf” for clinical trial testing in anticipation of future viral pandemics.



In April 2020, the UNC Eshelman Institute for Innovation, the Structural Genomics Consortium (SGC), and the University of North Carolina at Chapel Hill Schools of Pharmacy, Medicine and Public Health launched the Rapidly Emerging Antiviral Drug Discovery Initiative (READDI), to discover and develop drugs to make them shelf-ready for clinical trial testing in anticipation of future viral pandemics.

## A new approach to preparedness driven by ambitious goals

**3**

Virus  
Families

**5**

Antiviral  
Drugs

**20**

Partnerships with government,  
the pharmaceutical industry, and  
leading research institutions

**\$500M**

Research  
Funding

READDI is modeled after DNDi, a proven model for non-profit drug research and development. Projects will adopt extreme open science methods – sharing drug discovery progress in real time, so that all can benefit. The focus will be on the three viral families that cause the majority of epidemics and pandemics. It will target the cellular changes that are critical for infection by known viruses and that are predicted to be used by viruses that we do not even know to exist.



“The EII has invested in the science behind READDI. It is truly fulfilling to see this project come to fruition so we can help ensure the global community is better prepared for future pandemics,”

— **John Bamforth, Ph.D.**

Director of the Eshelman Institute for Innovation



# From Global to Local

As the world becomes increasingly interconnected, it is critical for our students to embrace, experience and exercise their cultural competency, global awareness, and service learning. They must also be able to communicate, analyze and solve problems through different perspectives, and in different settings, so they are prepared for whatever the field may hand them.

## Global Pharmacy Scholars

Our Global Pharmacy Scholars (GPS) program sends more than 50 students annually to one of nine international locations for a one-month Advanced Pharmacy Practice Experience rotation. Students are exposed to different health care systems, cultures, and may participate in research initiatives at select sites. This year due to the pandemic, our students are working with rural communities and underserved populations in North Carolina that have health challenges of global significance. Through this 'global to local' effort, our students are gaining a greater understanding of how local health issues have global implications, and vice versa.

### GPS locations

1. Melbourne, Australia
2. Colomarigua, Honduras
3. Addis Ababa, Ethiopia
4. Mysuru, India
5. Tokyo, Japan
6. Lilongwe, Malawi
7. Chisinau, Moldova
8. London, U.K.
9. Lusaka, Zambia



“Being able to push myself to speak up more and being able to initiate conversations with different people that have different background than me, has helped me gain more confidence.

More than this, I feel like my team has become part of my family – we’ve experienced so much together in just a short period of time from food to challenges to conversations to many, many laughs. This has definitely been a humbling experience.”

— **Bemnat Agegehu, Pharm.D.**  
Class of 2020





# PharmAlliance

## PharmAlliance

PharmAlliance is a partnership among the pharmacy schools/faculty at UNC-Chapel Hill, USA, Monash University, Australia, and UCL, UK, which strives to address major global challenges in pharmacy profession and human healthcare through collaboration in advancing pharmacy/pharmaceutical sciences education and research, and pharmacy practice. The partnership has been renewed for another five year term during which time we will be focusing on joint education offerings, advocacy for the profession, global health and research with global impact and mentorship and community development.

**\$1.3M**

in Extramural  
Funding

**54**

Joint  
Publications

**31**

Funded Grant  
Applications

**44**

Joint  
Presentations

**76**

Student  
Exchanges

## Rural Health Scholars Program

The demand for pharmacists is often higher in rural communities where access to medical services may be limited by geography, distance and economic challenges. Our Rural Pharmacy Health Certificate program prepares student pharmacists for collaborative, interprofessional practices that serve the health care needs of North Carolinians living in rural and small communities.

Our Rural Pharmacy Scholars gain valuable skills in cultural competency and provide pharmacy solutions to populations that have limited access to health systems, difficulty understanding complicated treatment plans, limitations in access to, and affordability of, health care providers, and challenges with following and maintaining medication plans. Twelve graduates have completed the program since 2017.



“The rural health scholar program really equipped me for my current role as an ambulatory care pharmacist. The curriculum taught me how to collect useful community resources and gave me a unique skill set to better serve my patients who struggle with various health disparities. I learned how to meet my patients where they are and how to build relationships that allow patients to succeed in reaching their goals. The rural health scholar program was one of the most valuable pieces of my professional education!”

— **Emily Owens, Pharm.D., BC-ADM**

Clinical Pharmacist Practitioner at Holston Medical Group in Kingsport, TN

# Culture of Collaboration

We are actively partnering to advance research, education and practice across the campus, state, nation and around the world.

## UNC Health Sciences Campus

UNC is a leading public research university that fosters and supports collaborative, interdisciplinary teams.

**#1**

Cited university for  
Coronavirus research -  
Microsoft Academic

**#5**

Ranked U.S. university  
for federal research,  
totaling \$701M

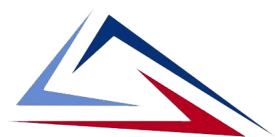
**48**

Research centers  
and institutes

**\$1.14B**

of sponsored research  
from all sources

The UNC Eshelman School of Pharmacy is part of a robust UNC Health Sciences campus. We are actively partnering with the School of Medicine, Gillings School of Public Health, the School of Nursing, Adams School of Dentistry, UNC Hospitals and the Lineberger Comprehensive Cancer Center to improve human health.



THE RESEARCH  
TRIANGLE PARK

## Research Triangle Park

A triangle of pharmaceutical, biotech and healthcare talent anchored by three founding universities: UNC-Chapel Hill, Duke University, and N.C. State University.

## Strategic Partnerships

**PINNACLE HILL**

The University of North Carolina at Chapel Hill and Deerfield Management have created Pinnacle Hill, LLC, a company seeking to discover new medicines to address the significant unmet medical needs of our times. Deerfield has committed \$65M in targeted funding as part of the partnership.



UNC Health Sciences at MAHEC, located in Asheville, NC, includes the UNC School of Medicine Asheville Campus, a master of public health program led by UNC Gillings School of Global Public Health, and innovative educational and research collaborations with UNC Eshelman School of Pharmacy.

## Pinnacle Hill Announces First Project Agreement

Pinnacle Hill, the research and development partnership between the University of North Carolina at Chapel Hill and Deerfield Management Company, an investment management firm, recently announced its first project agreement to advance the preclinical development of new medicines.

Pinnacle Hill will support a project of Lindsey James, an assistant professor in the UNC Eshelman School of Pharmacy's Division of Chemical Biology and Medicinal Chemistry. Her work focuses on multiple myeloma, a devastating cancer that develops in bone marrow.

James and her research team are interested in epigenetic abnormalities that lead to cancer and are working to apply medicinal chemistry, chemical biology, and cancer biology approaches to discover potential therapeutic agents. Through this first project, Pinnacle Hill will devote targeted resources to advancing discoveries which have great therapeutic potential for patients with the disease.

"There's no doubt this initial agreement from Pinnacle Hill will accelerate Dr. James' life changing work," said Vice Chancellor for Research and Pinnacle Hill Steering Committee Member Terry Magnuson. "The project is a testament to the power of the partnership between Deerfield and UNC-Chapel Hill."

"The goal of our alliance with UNC-Chapel Hill is to identify and advance the most important discoveries that could improve the lives of patients and their families," said James E. Flynn, Managing Partner at Deerfield. "Professor James' work exemplifies this and is outstanding. We are delighted to advance her novel research and are optimistic about continued progress in Dr. James' laboratory as well as other milestones to come at UNC. They have been a great partner."



UNC Eshelman School of Pharmacy Assistant Professor  
Lindsey James

“UNC is one of the leading research universities in the world. It is their ability to build interdisciplinary teams and utilize diverse perspectives to collaborate on healthcare challenges that attracted us. Carolina's network of research centers and institutes, including the Eshelman Institute for Innovation, will play a crucial role in helping us collaborate to solve problems, discover new technologies and save lives.”

— **James Flynn**  
Managing Partner, Deerfield

# Our People

We are committed to building a diverse and inclusive community of people who are excited to come to work every day in a positive, supportive environment that allows them to grow and develop.

## Diversity, Equity and Inclusion

The School's vision is grounded in our aspiration to be a diverse and inclusive community of people to accelerate new thinking and ideas in education, research, and practice that have a positive impact on human health worldwide.



## Strategic Priorities

- **Strategic Priority 1:** Recruit and Retain Diverse Talent: Increase and retain the compositional diversity of our students, faculty, and staff to reflect the demographics of US citizens.
- **Strategic Priority 2:** Prepare Culturally-Intelligent Professionals: Prepare students to be culturally intelligent to meet societal healthcare needs.
- **Strategic Priority 3:** Build an Inclusive Community: Create a School community where everyone is connected, valued, and has an opportunity to contribute.



“We envision a school that reflects, in all its dimensions, the population we serve.”

— **Carla White, BSPharm**

Associate Dean for Organizational Diversity and Inclusion





## Well-Being and Resilience

Effective June 1, 2020, Suzanne Harris, Pharm.D., was named the School's first Director of Well-Being and Resilience with responsibility for overseeing, implementing, and assessing strategies that support and promote a culture of well-being within the School.

A new support system and a wide range of resources for students, faculty and staff have been developed using the Eight Dimensions of Wellness model.

### The Eight Dimensions of Wellness



### Eshelman Care Team

The Eshelman Care Team provides coordinated assistance and support to students who are struggling with well-being, academics, or professional issues through a centralized resource of outreach, referral and case management.



“The School is aligned with national pharmacy organizations that have well-being on the forefront of their initiatives. By developing strategies that focus on the well-being and resilience of our students, faculty, and staff, we strive to create a culture of balance, purposeful engagement, and fulfillment within our people.”

— **Suzanne Harris, Pharm.D**

Assistant Professor and Director of Well-Being and Resilience

# Our People

## Faculty/Staff Awards & Recognition

### Division of Chemical Biology and Medicinal Chemistry

- **David Lawrence, Ph.D.**, received the UNC Distinguished Teaching Award
- **KH Lee, Ph.D.**, received an honorary Doctor of Pharmaceutical Degree from Kaohsiung Medical University of Taiwan

### Division of Pharmacoengineering and Molecular Pharmaceutics

- **Juliane Nguyen, Ph.D.**, named 2019 AAPS Emerging Leader of the Year; 2019 Young Innovators of Cellular and Molecular Bioengineering
- **Leaf Huang, Ph.D.**, keynote speaker, Virginia Nanomedicine Forum, Virginia Commonwealth University; keynote speaker, School of Pharmacy, University of Pittsburg; Highly Cited Researchers 2018 in "Pharmacology & Toxicology" by Clarivate Analytics
- **Sasha Kabanov, Ph.D., DrSci**, becomes first Russian-American scientist elected to Russian Academy of Sciences

### Division of Pharmacotherapy and Experimental Therapeutics

- **Angela Kashuba, BScPhm, Pharm.D., DABCP, FCP**, received 2020 ASCPT Rawls-Palmer Progress in Medicine Award
- **Merrie Mosedale, Ph.D.**, received 2020 ASPET Early Career Award
- **Niyati Vachharajani, Ph.D.**, post-doc fellow received Society of Toxicology's Colgate-Palmolive Postdoctoral Fellowship Awards in In Vitro Toxicology; won one of the inaugural Biomedical Research Core Voucher Awards to conduct pilot experiments at the Flow Cytometry Core; awarded 2nd place at the NCSOT Annual Meeting (Virtual) Poster Pitch Competition
- **Andrew Lucas, Pharm.D.**, received the 2020 Junior Faculty Development Award for \$10,000 from the UNC Committee on Faculty Research and Scholarly Leaves
- **Benyam Muluneh, Pharm.D.**, received Best Paper Award (Research) for International Society of Oncology Pharmacist Practitioners
- **Amber Cipriani, Pharm.D.**, named one of the 2020 Experiential Precepting Stars for UNC Medical Center and UNC Eshelman School of Pharmacy

### Division of Practice Advancement and Clinical Education

- **Jill S. Bates, Pharm.D., M.S., BCOP, FASHP**, recognized with an ASHP Distinguished Service Award
- **Stefanie Ferreri, Pharm.D.**, named Henry L. Smith and James L. Olsen, Ph.D. Distinguished Professor in Pharmacy Practice; awarded the Walmart Teachers Seminar Scholarship (AACP)
- **Kimberly Sanders, Pharm.D.**, selected to serve in the American Association of Colleges of Pharmacy (AACP) House of Delegates



- **Scott W. Savage, Pharm.D., M.S.**, was part of the team including UNC Health that received the ASHP Best Practices Award and was also honored with The Ohio State's Clinical Achievement Award
- **Jackie Zeeman, Pharm.D.**, received New Investigator Award; 2019 International Pharmacy Education Symposium
- **Suzanne Harris, Pharm.D.**, recognized by the PY4 class as Overall Instructor of the Year; received the Academic Excellence Award for Service
- **Mary McClurg, Pharm.D., MHS**, selected to the National Academies of Sciences, Engineering, and Medicine (NASEM) Committee on Implementing High-Quality Primary Care
- **Greene Shepherd, Pharm.D.**, won two Platinum Hermes Award for his work with The Crash Cart
- **Kathryn Morbitzer, Pharm.D., MS**, recognized by the PY3 class as Instructor of the Year
- **Amanda Savage, Pharm.D.**, selected to serve AACP House of Delegates
- **Carla White, BSPHarm**, received Distinguish Alumni Award, University of Pittsburgh School of Pharmacy
- **Stephen Eckel, Pharm.D. MHA**, completed three years of service on the ASHP Board of Directors
- **Sachi Ozawa, Ph.D., MHS**, received the 2020 Junior Faculty Development Award
- **Charlene Williams, Pharm.D.**, received Kappa Epsilon (KE) Career Achievement Award
- **Bob Shrewsbury, Ph.D.**, served on the USP Expert Compounding Committee
- **Mollie Scott, Pharm.D.**, selected to serve as a North Carolina Delegate in the ASHP House of Delegates; and completed six years of service on the ASHP Section of Ambulatory Care Practitioners Executive Committee

### **Division of Pharmaceutical Outcomes and Policy**

- **Megan Roberts, Ph.D.**, received silver award for Collaborative Group of Americas on Inherited Gastrointestinal Cancer
- **Josh Thorpe, Ph.D., MPH**, received VA R01-equivalent grant to study deprescribing, prescribing safety at end-of-life
- **Betsy Sleath, Ph.D.**, received UCONN School of Pharmacy Distinguished Alumna Award

### **Staff**

- **MEDIA team** captured three platinum and five gold awards in this year's international Hermes Awards
- **Joel Floyd** earned a silver place in the Telly Awards general education for the non-broadcast category



# Investing in the Future

As of June 2020, we have raised \$166.7 million toward our campaign goal of \$175 million. A total of 2,499 alumni and friends have contributed to the campaign.

## Five Key Strategic Investment Priorities:

|   |   |   |                           |
|---|---|---|---------------------------|
|    | <b>Students</b><br>Attracting and training the next generation of healthcare leaders    |    | <b>\$8.3M</b><br>Raised   |
|    | <b>Faculty</b><br>Recruiting, retaining and supporting talented faculty and researchers |    | <b>\$44.8M</b><br>Raised  |
|   | <b>Innovation</b><br>Funding big ideas in pharmacy education, research and practice     |   | <b>\$109.2M</b><br>Raised |
|  | <b>Global</b><br>Transforming human health globally                                     |  | <b>\$0.9M</b><br>Raised   |
|  | <b>Building</b><br>Creating a 21st-century environment for learning and discovery       |  | <b>\$3.5M</b><br>Raised   |

# The Eshelman Way

***We believe we are in the business of taking care of people.***

We come to work in our labs, pharmacies, classrooms and offices every day striving to help people live longer, healthier lives.

***We believe everything we do begins and ends with a patient in mind.***

We have faith in each other and a fierce belief in the work that we do.

***We believe that knowledgeable people who care for others and work together can conquer pain, sickness and disease.***

While we come from different backgrounds, disciplines and places, we are all Tar Heels united by a relentless pursuit of healthier lives for all humankind.

***We believe our learning, innovating and caring never ends.***

We are dedicated to making a positive difference in people's health in North Carolina, the United States and the world.

***We are Advancing Medicine For Life.***



ESHELMAN SCHOOL  
OF PHARMACY

*Advancing Medicine For Life*

[pharmacy.unc.edu](https://pharmacy.unc.edu)

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