

PHD PROGRAM IN PHARMACEUTICAL SCIENCES AT THE UNIVERSITY OF TENNESSEE

Transforming Healthcare with Cutting-Edge Research



THE UNIVERSITY OF TENNESSEE
HEALTH SCIENCE CENTER.

PHARMACEUTICAL SCIENCES

The UT Health Science Center College of Pharmacy is a top-ranking research institution offering prospective PhD students the chance to elevate their research skills while preparing for a career in the pharmaceutical sciences.

Our mission is to advance pharmaceutical sciences through focused, cross-cutting, collaborative research and graduate education relevant to career advancement.

ABOUT OUR PROGRAM

The Department of Pharmaceutical Sciences offers PhD degrees through the College of Graduate Health Sciences. The graduate program aims to equip students with comprehensive knowledge in pharmaceutical sciences while emphasizing their chosen area.

We provide expertise in four focused research areas:

THERAPEUTIC TARGETS AND MOLECULAR MECHANISMS OF DISEASE

Research in this area aims to identify and validate new drug targets (endogenous proteins) relevant to treating diseases such as cancer, neurological conditions, metabolic disorders, and infectious diseases using biochemical and biological approaches.

DRUG DISCOVERY AND DEVELOPMENT

Research in this area includes the design, synthesis, and biological evaluation of new chemical entities with potential use in treating diseases such as cancer, infections, and disorders of the endocrine, cardiovascular, central, and peripheral nervous systems.

PHARMACOMETRICS

Research in this area includes the quantitative assessment of drug disposition (pharmacokinetics) and effects (pharmacodynamics) using mathematical models based on biology, physiology, pharmacology, and different disease states.

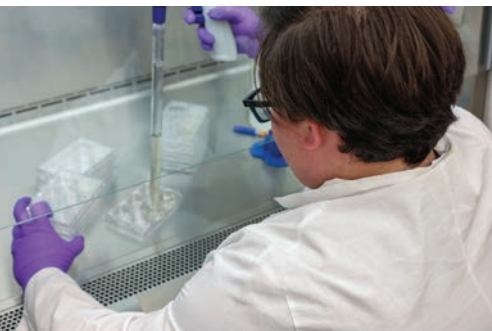
DRUG DELIVERY AND TARGETING

Research in this area includes the design and evaluation of novel and translational drug delivery systems, which can lead to targeted delivery systems to different organs in the body to enhance the in vivo stability and permeability of novel molecules with reduced toxicity.

WHY CHOOSE US?

Founded in 1928, the College of Graduate Health Sciences is part of UT Health Science Center. Our mission is to advance pharmaceutical sciences through focused, cross-cutting, and collaborative research, as well as graduate education relevant to career advancement.

Graduates of the PhD Program in Pharmaceutical Sciences are prepared to assume positions of responsibility in academia, government, and the pharmaceutical industry. The nature and variety of research projects available to students reflect the stimulating and dynamic environment of the health science center. Our alumni hold leadership positions throughout the pharmaceutical industry, academia, and government agencies.



PROGRAM HIGHLIGHTS

Rotations and Direct Placement: Students can opt for direct placement by requesting direct entry to a specific research lab or choose a rotation path that allows them to explore various research labs before selecting their preferred one.

Student Life and Opportunities: PhD students are given ample room to study, congregate, and collaborate in the modern, purpose-built College of Pharmacy building, including: a desk in a student area outside yet near the laboratory; access to a kitchen, study areas, and private student areas to interact; and a personal PC with top tier software provided by the UT Health Science Center College of Pharmacy.

Students at the college also work to support and celebrate each other's successes and achievements. The department hosts an annual luncheon where faculty and students come together to recognize student accomplishments, including prestigious fellowships, summer internships in the pharmaceutical industry, publications in high-impact journals, and earning notable awards from scientific societies.

Grants, Fellowships, and Patents: Students are encouraged to apply for grants and fellowships, and the College of Graduate Health Sciences provides cash incentives for each application submitted. Many students in the program have published in high-impact scholarly journals, often marking their first publication. They have also received awards from prestigious scientific societies, such as the American Heart Association, the American Association of Pharmaceutical Scientists, and the American Society of Pharmacology and Experimental Therapeutics. Additionally, students have their names listed on patents for projects they have collaborated on with faculty members.

Internships: Graduate students are encouraged and supported to participate in internships during their time in the program. Students have joined internships at top-ranking companies and government institutions, including Merck, Eli Lilly, Pfizer, Novartis, and the US Food and Drug Administration.

Entrepreneurship: The college takes great pride in encouraging students to pursue entrepreneurial opportunities and start a business. Students interested in start-up companies receive entrepreneurship training in pharmaceutical and biomedical sciences. The UT Research Foundation teaches a three-credit course, Entrepreneurship in Pharmaceutical and Biomedical Sciences, in which students are trained in developing and commercializing innovation and igniting startups.

MEMPHIS LIFE

The University of Tennessee Health Science Center is part of an investment region spanning downtown, Mud Island, South Bluffs, and the medical district. Twenty-six thousand residents enjoying the heart of the city trend younger, highly educated, and active. The city touts 167 parks totaling 3,219 acres, 60 miles of bike lanes, 300 bikes from 45 Bike Share stations, fleets of thousands of electric scooters, and miles of running/biking/walking paths along the Mississippi River, the Green Line, Overton Square, and Shelby Farms, the second largest urban park in the nation.

There are no on-campus living accommodations. Off-campus living is available close by. Although one of the largest metro areas in the Southeastern U.S., the region's small-town atmosphere fosters a close-knit community, making it an attractive place for families to settle. Memphis has one of the lowest living costs in a large metro area. Rent prices and mortgage expenses are considerably lower than the national average. Expenses for food and services are also significantly lower than in other major regions. Home to FedEx, St. Jude Children's Research



Hospital, and Le Bonheur Children Hospitals, numerous sports and music venues, museums, and growth opportunities abound.

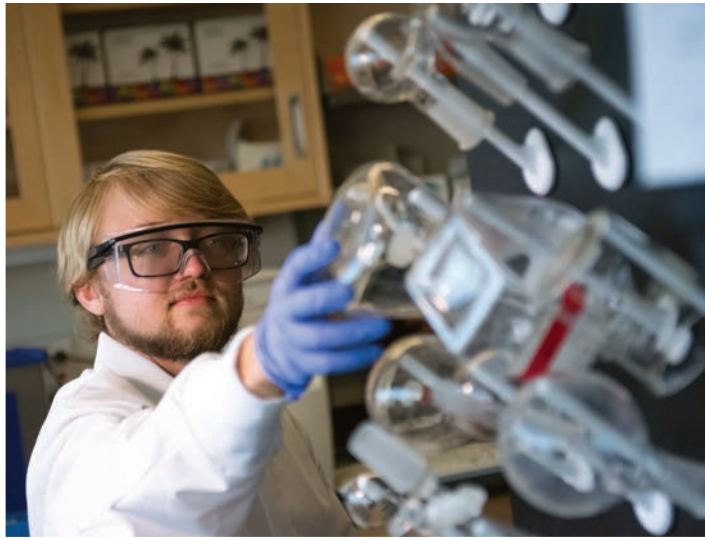
Named the “Next Hot Southern City” by Travel and Leisure Magazine, Memphis is emerging as a destination for living, working, and playing. Consistently recognized as one of the most affordable cities in the nation, the city allows students to enjoy numerous festivals, museums, and cultural landmarks. Between the Memphis in May International Festival, iconic Beale Street, the National Civil Rights Museum, Rock ‘n Soul Museum, Sun Studios, Stax Museum, Dixon Gardens, the Broadway Series at the Orpheum, the Memphis Grizzlies, Redbirds, and one of the most diverse food scenes in the country, it’s no wonder Memphis was included in TIME Magazine’s “100 of the World’s Greatest Places”.

The city’s rich cultural history has been shaped by the roots of blues, soul, and rock ‘n roll, a legacy of civil rights movements, and an authenticity that can embrace character and welcome the future at the same time.

FACULTY LABS AND RESEARCH

The researchers and scientists at the UT Health Science Center College of Pharmacy tackle critical healthcare challenges through various stages of drug development, including drug discovery, preclinical and clinical development, drug optimization, outcome research, and clinical studies. This comprehensive approach enables the college to address research questions throughout a drug's life cycle, from its initial stages as a potential candidate to its clinical application in specific patient populations.

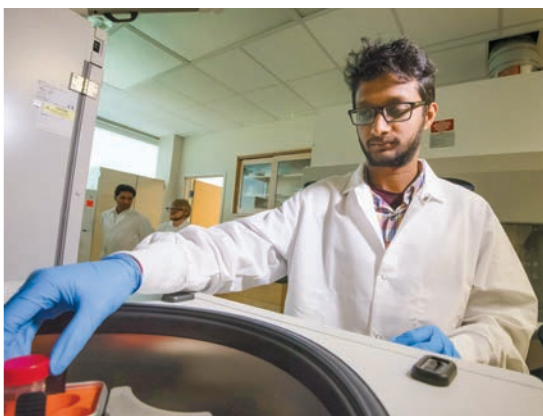
The college specializes in several areas, including pediatrics, infectious diseases, cancer chemotherapy, and cardiovascular and metabolic diseases. Its wide range of research activities is supported



by a diverse portfolio of funding sources, including federal and state agencies, foundations, and commercial entities.

Research labs are equipped with state-of-the-art technology and led by nationally recognized faculty and researchers who are prepared to mentor graduate students to achieve high levels of success.

The college has affiliated faculty in the Department of Pharmacy and Pharmaceutical Sciences and the Chemical Biology and Therapeutics Department at St. Jude Children's Research Hospital. In addition, faculty from St. Jude Children's Research Hospital and UT Health Science Center, as well as researchers in the Pharmaceutical Industry, are invited to speak to students at the weekly seminars hosted by the Pharmaceutical Sciences department each semester.



ADMISSIONS

Requirements: Applications are accepted from students with a BS or MS degree in relevant fields such as pharmacy, chemistry, biology, mathematics, engineering, etc. Key requirements include:

1. Minimum GPA of 3.0
2. Three letters of recommendation
3. No application fee
4. Personal and research statement
5. Curriculum vita
6. Transcripts from all colleges attended
7. TOEFL or IELTS from International applicants

GRE is optional, but in the absence of peer-reviewed publications, it is highly recommended.

Submit your completed application for admission to the Fall Semester by March 15.

For Non-US Applicants: Transcripts from non-US institutions must be verified via services like ECE or WES.

Mail documents to: UT Health Science Center Office of Enrollment Services
910 Madison Avenue, Suite 525 | Memphis, Tennessee 38163

CONTACT INFORMATION



For information about the PhD program in Pharmaceutical Sciences at the UT Health Science Center, please visit uthsc.edu/pharmacy/dps or contact the Program Director:

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Join us at UT Health Science Center and contribute to groundbreaking advancements in pharmaceutical sciences!



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