# **Pharmaceutical Sciences**

Master of Science in Pharmaceutical Sciences Doctor of Philosophy

## For More Information

Campus address: Pharmacy Building (PHR) 4.220, phone (512) 471-6590; campus mail code: A1900

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E-mail: PGSGradStudies@austin.utexas.edu

URL: https://pharmacy.utexas.edu/programs/ms-phd

## **Facilities for Graduate Work**

State-of-the-art research facilities are available for graduate education. Laboratories are equipped with the latest instrumentation and specialized support units for research in all of the areas of study mentioned below. Research space on the Austin campus is located in two pharmacy buildings, the Biomedical Engineering Building, the Dell Pediatric Research Institute, and in the Animal Resources Center. In San Antonio, basic laboratory and clinical research space is available in the McDermott Building on the campus of the University of Texas Health Science Center, and at affiliated institutions. Additional facilities for collaborative research in Austin are available in the College of Natural Sciences, the Cockrell School of Engineering, the Institute for Neuroscience, and the Institute for Cellular and Molecular Biology. Students pursuing either the MS or PhD in the Pharmacotherapy and Translational Sciences area will have courses, lab and clinical hours in San Antonio. Students in both Austin and San Antonio have access to extensive electronic journal holdings through the University Libraries website.

The Innovating for Health Institute (i4Health)- Formerly the Drug Dynamics Institute. The Innovating for Health Institute (i4Health) is a collaborative center, bringing together extensive scientific expertise and experience across industry, academia, and global partners. i4Health has created a variety of ways to help industry, start-ups, and academic researchers move ideas from the lab to human clinical trials on the path to commercialization via preclinical evaluation and development (TherapeUTex), experiential innovation preparation (UT Advance), and wet lab incubator facilities (UTech Dorm Room).

#### Texas Center for Health Outcomes Research & Education

(TxCORE). Texas Center for Health Outcomes Research and Education (TxCORE). TxCORE addresses population and individual patient health through innovative, high-quality research and education, and serves our community by responding to critical health care issues that impact patients' daily lives. The interdisciplinary team of researchers has expertise in health care utilization and costs, health outcomes and value assessment, medication use and adherence, health behavior and health disparities, public health and policy, and integrative clinical practice, pharmacy practice, and education. The Center's researchers and graduate students provide research design, data collection, and data analysis expertise to health care providers, payers, institutions, and organizations, as well as the pharmaceutical industry. Center personnel also develop, present, and support educational programs focused on the delivery of high-quality health care. For more information, visit the TxCORE website.

Center for Molecular Carcinogenesis and Toxicology. The University of Texas at Austin has established an interdisciplinary Center for Molecular Carcinogenesis and Toxicology (CMCT). The mission of the CMCT is to provide leadership for the expansion of programs of excellence in environmental health sciences education and research and to prepare students for careers that address the molecular and cellular mechanisms by which environmental agents instigate toxicity and disease, including cancer. CMCT faculty come from a variety of colleges and departments of The University of Texas at Austin including: the Division of Pharmacology and Toxicology and the Division of Chemical Biology & Medicinal Chemistry of the College of Pharmacy: the Department of Cell and Molecular Biology and the UT Marine Science Institute in the College of Natural Sciences; the Departments of Nutritional Science and Pediatrics of the Dell Medical School; and the Department of Epigenetics and Molecular Carcinogenesis of the UT MD Anderson Cancer Center.

The CMCT fosters interdisciplinary graduate training programs by providing the mechanism by which students can work with a range of faculty interested in toxicology. This includes facilitating interdisciplinary research collaborations and providing ancillary student and research infrastructure support. The center's faculty represent a wide variety of scientific disciplines, including pharmacology, toxicology, medicinal chemistry, pharmaceutics, neuroscience, nutrition, biochemistry, chemistry, marine biology, and civil and mechanical engineering.

#### Targeted Therapeutic Drug Discovery & Development Program (TTP).

The Targeted Therapeutic Drug Discovery & Development Program (TTP) is funded by a CPRIT Core Facilities Support Award (grant #RP210088) and provides researchers with access to cutting-edge technologies and expertise to enable the translation of their research into new treatments for cancers.

The goal of TTP is focused on assisting cancer scientists and clinicians by utilizing a truly integrated approach of targeted molecular drug discovery, uniting every key discipline to achieve their goals in a single platform.

# **Areas of Study**

The College of Pharmacy offers graduate study leading to the Master of Science in Pharmaceutical Sciences and the Doctor of Philosophy with a major in pharmaceutical sciences. Both degrees are STEM Designated Degree Programs, as identified by the Department of Homeland Security for purposes of the 24-month STEM optional practical training extension. Areas of doctoral specialization are: chemical biology and medicinal chemistry, pharmacology and toxicology, and molecular pharmaceutics and drug delivery. Areas of master's and doctoral specialization are: health outcomes and pharmacotherapy and translational sciences. Students pursuing either the Master of Science or the Doctor of Philosophy who hold a PharmD degree from a pharmacy program accredited by the Accreditation Council for Pharmacy Education have opportunities for advanced practice training. They may complete a specialty practice residency while pursuing the graduate degree. More information is available from the graduate advisor.

## **Graduate Studies Committee**

The following faculty members served on the Graduate Studies Committee (GSC) in the spring 2025 semester.

Anton Avancena Regina A Mangieri
Jamie C Barner Michela Marinelli
Carolyn M Brown Robert Messing
Maria A Croyle S J Mihic

Zhengrong Cui Leticia R Moczygemba Kevin N Dalby Somshuvra Mukhopadhyay

Sharon DeMorrow Luis A Natividad John Digiovanni Kimberly Nixon Chanhyun Park Laura K Fonken Christopher R Frei Nicholas A Peppas Debadyuti Ghosh Samuel Poloyac Rueben A Gonzales John T Powers Andrea C Gore Karen L Rascati Juan Guan Kelly Renee Reveles Lucas Grant Hill Kristin McKeithan Richards

Michael T Johnsrud

Hyeun Ah Kang

Hugh D Smyth

Nayun Kim

Carla L Vandenberg

Jim M Koeller

Kenneth A Lawson Jr

Grace Lee

Christian P Whitman

Robert O Williams III

Seongmin Lee Kun Yang Hung-Wen Liu Feng Zhang

# **Admission Requirements**

The applicant should have a bachelor's degree in pharmaceutical sciences, biology, chemistry, or a related field, or a professional pharmacy degree from an accredited institution in the United States or another country. Students are admitted to the program upon recommendation of the Graduate Studies Committee, provided that their undergraduate training includes appropriate work in fields related to the pharmaceutical and health sciences. Applicants without the appropriate background may be required to complete additional coursework after admission. For some areas of study, preference is given to students who have a Doctor of Pharmacy degree from a college accredited by the Accreditation Council for Pharmacy Education. Preference is also given to applicants for the doctoral degree.