

Pharmacology

Overview

Training in Pharmacology at the James L. Winkle College of Pharmacy centers on molecular, biochemical, and physiological effects of chemicals on cellular systems. Results from this research contribute to identification of new, therapeutically valuable molecular targets and enhances understanding of mechanisms of drug action. To learn details of ongoing research projects in Pharmacology, please visit the websites of the following faculty:

- [Arthur R. Buckley, Ph.D.](#) (hormone-responsive cancer, tumor progression)
- [Carol A. Caperelli, Ph.D.](#) (bioorganic chemistry, purine biosynthesis)
- [Karen A. Gregerson, Ph.D.](#) (pituitary hormone, neuroendocrinology)
- [Gary A. Gudelsky, Ph.D.](#) (neuropharmacology/toxicity, MDMA)
- [Kenneth A. Skau, Ph.D.](#) (neuropharmacology, acetylcholine)
- [Georg F. Weber, M.D./Ph.D.](#) (tumor growth/metastasis, osteopontin)

Curriculum

The Pharmacology curriculum is designed to provide students with a strong background in pharmacology and molecular/cellular biology, as well as statistics. These courses provide the basics in the principles of pharmacodynamics, protein biochemistry, cell structure and function, and statistical analysis of scientific data. Elective courses allow students to tailor their education to match their specific interests. Examples of electives include: receptor pharmacology, biochemical neuropharmacology, scientific writing, regression analysis, cancer biology, cell signaling, systems/behavioral neuroscience, and neuronal signaling.

Doctor of Philosophy (Ph.D.)

Courses	Graduate Credits
A. Core Courses:	30
• Ethics in Research (1 graduate credit)	
• Statistics (4 graduate credits)	
• Seminar in Pharmaceutical Sciences (3 graduate credits)	
• Pharmacodynamics (4 graduate credits)	
• Molecular Biology of the Cell 1 & 2 (6 graduate credits)	
• Elective Courses relevant to related focus area (12 graduate credits)	
B. General Electives/Research Courses:	60
C. Ph.D dissertation research	<u>-45</u>
Total:	135

Master of Science (M.S.)

Courses	Graduate Credits
A. Core Courses:	22
• Ethics in Research (1 graduate credit)	

<ul style="list-style-type: none"> • Statistics (4 graduate credits) • Seminar in Pharmaceutical Sciences (1 graduate credits) • Pharmacodynamics (4 graduate credits) • Molecular Biology of the Cell 1 (3 graduate credits) • Elective Courses relevant to related focus area (9 graduate credits) 	
B. General Electives/Research Courses:	8
C. M.S. thesis research	-15
Total:	45

Admission

To understand the administrative process it is imperative to submit all requested documents according to the specified deadlines. Please low http://pharmacy.uc.edu/msphd_admissions.cfm for more details on the application process.

Contact Us

If you have questions about the graduate program or the application process please contact Ms. Marcia Silver (marcia.silver@uc.edu). For research-related information please contact individual faculty member directly.