University of Southern California

SCHOOL OF PHARMACY

M.S. in Clinical and Experimental Therapeutics

Program Learning Objectives

The purpose of the USC School of Pharmacy Master program in Clinical and Experimental Therapeutics is to prepare students with foundational coursework in experimental drug discovery and development practices, pharmacokinetics, pharmacodynamics and related sciences, and to initiate and enhance their skills in original, high-level basic and translational research. The areas include drug discovery, development, efficacy and toxicity of novel therapeutics with the industry and healthcare outlook. Graduates are commonly recruited to top Ph.D. programs in pharmaceutical sciences, pharmacology, and related disciplines or employed in the pharmaceutical or biotech industry, or government (e.g., FDA).

Masters students enrolled in the program will be able to:

• Demonstrate general understanding of basic concepts of fundamental, translational and clinical research. These include novel drug design, lead development and optimization, preclinical development with the emphasis on metabolic profiling, toxicology and efficacy.
• Develop understanding of contemporary technologies/techniques and hands-on methodological skills of these innovative techniques.
• Demonstrate ability to successfully implement the methodological skills in their respective research project with the help and guidance of their faculty advisor.
• Develop knowledge and demonstrate the ability to generate and integrate data from diverse sources into their research. Demonstrate an understanding of the statistical methods required to conduct research.
• Develop skills to interact in multidisciplinary research teams if warranty by the specific research project the graduate is engaged with, effective scientific communication skills. Demonstrate ability to work in a team; mentored by a senior Ph.D. student and mentor a fellow Master student.
• Complete a research-based thesis or literature review in their respective area of emphasis under the guidance of their faculty advisor.