University of Southern California  
SCHOOL OF PHARMACY  
Ph.D. in Clinical and Experimental Therapeutics

Program Learning Objectives

The purpose of the USC School of Pharmacy Ph.D. program in Clinical and Experimental Therapeutics (CXPT) is to prepare graduates to execute original, high-level translational research in the areas of drug discovery, development, efficacy and toxicity of novel therapeutics with the perspective of industry and healthcare outlook. The specific area of emphasis of the graduate will be defined early on during the course of the educational program. Perspective employment of the graduates are normally at leading research universities, in pharmaceutical and biotechnology industries, in any research-centric, government (e.g., FDA) or health-care arena.

Doctoral students enrolled in the program will be able to:

- Demonstrate deep understanding of the processes of experimental drug discovery and development. This includes novel drug design, lead therapeutic development and optimization, preclinical development with the emphasis on metabolic profiling, toxicology and efficacy.
- Demonstrate understanding of basic, translational and clinical research, ability to discuss clinical pharmacology and healthcare related aspects of novel therapeutics.
- Develop understanding of contemporary technologies/techniques and hands-on methodological skills of these innovative techniques. Demonstrate ability to successfully implement the methodological skills in the research project(s) related to their PhD theses under guidance of faculty advisor(s) and in concert with their research team.
- Demonstrate ability to interact in multidisciplinary research teams and effectively engage within the basic and clinical translational research under the guidance from the primary mentor from the School and the clinical partner if warranty for the specific research project.
- Develop and demonstrate problem-solving skills, effective scientific communication skills, collaborator and team-player skills. Develop and demonstrate leadership skills, independence while engaging in their respective area of research, mentoring Master students and fellow Ph.D. students who are less advanced than they are, providing teaching assistance to Pharm.D. students.
- Complete and orally defend a dissertation based on original investigation and supervised by a dissertation committee showing mastery of an area of emphasis within clinical translational research, capacity for independent research, and a scholarly result,
which may include development of manuscripts based on the conducted original research.