

**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** is to prepare graduates to execute original, high-level research in the discipline specific to the graduate's area of emphasis, especially in the investigation of disease processes, drug development and the efficacy and toxicity of therapeutic regimens. Graduates might be employed at leading research universities, in industry, government or in any research-centric arena.

Doctoral students enrolled in the program will be able to:

- Achieve and demonstrate deep methodological skill and an understanding of contemporary research in their respective area of emphasis.
- Implement innovative research practices under guidance of their faculty advisor and in concert with their research team.
- Demonstrate understanding and applying contemporary research in their respective area of emphasis to industry contexts and be able to engage in innovative practices informed by such research pertinent to clinical translational research and their area of emphasis in diverse contexts.
- Demonstrate understanding of leading research teams in their respective area of emphasis by mentoring and providing teaching assistance to Pharm.D. students, master's students and fellow Ph.D. students who are less advanced than they are in their respective doctoral programs.
- Launch an independent research agenda in their respective area of emphasis under the guidance of their faculty advisor.
- Complete and orally defend an acceptable dissertation based on original investigation and supervised by their dissertation committee showing mastery of an area of emphasis within clinical translational research, capacity for independent research, and a scholarly result.

**University of Southern California**  
**SCHOOL OF PHARMACY**

**Ph.D. in Pharmaceutical Sciences**

Program Learning Objectives

The purpose of the USC School of Pharmacy **Ph.D. program in Pharmaceutical Sciences** is to prepare graduates to execute original, high-level research in the discipline specific to the graduate's area of emphasis, especially in basic as well as applied research in drug delivery and targeting, utilizing medicinal chemistry, computational chemistry, pharmaceuticals, pharmacokinetics, pharmacodynamics, immunology, and molecular and cell biology. Graduates might be employed at leading research universities, in industry, government or in any research-centric arena.

Doctoral students enrolled in the program will be able to:

- Demonstrate deep methodological skill and an understanding of contemporary research in their respective area of emphasis, and be able to implement innovative research practices under guidance of their faculty advisor and in concert with their research team.
- Demonstrate understanding of applying contemporary research in their respective area of emphasis to industry contexts and be able to engage in innovative practices informed by such research pertinent to pharmaceutical sciences and their area of emphasis in diverse contexts.
- Demonstrate understanding of leading research teams in their respective area of emphasis by mentoring and providing teaching assistance to Pharm.D. students, master's students and fellow Ph.D. students who are less advanced than they are in their respective doctoral programs.
- Launch an independent research agenda in their respective area of emphasis under the guidance of their faculty advisor.
- Complete and orally defend an acceptable dissertation based on original investigation and supervised by their dissertation committee showing mastery of an area of emphasis within pharmaceutical sciences, capacity for independent research, and a scholarly result.

**University of Southern California**  
**SCHOOL OF PHARMACY**

**Ph.D. in Molecular Pharmacology and Toxicology**

Program Learning Objectives

The purpose of the USC School of Pharmacy **Ph.D. program in Molecular Pharmacology and Toxicology** is to prepare graduates to execute original, high-level research in the discipline specific to the graduate's area of emphasis, especially in molecular and neuro-pharmacology, receptor pharmacology, and biochemical and oxidant toxicology. Graduates might be employed at leading research universities, in industry, government or in any research-centric arena.

Doctoral students enrolled in the program will be able to:

- Demonstrate deep methodological skill and an understanding of contemporary research in their respective area of emphasis, and be able to implement innovative research practices under guidance of their faculty advisor and in concert with their research team.
- Demonstrate understanding of applying contemporary research in their respective area of emphasis to industry contexts and be able to engage in innovative practices informed by such research pertinent to pharmacology and toxicology and their area of emphasis in diverse contexts.
- Demonstrate understanding of leading research teams in their respective area of emphasis by mentoring and providing teaching assistance to Pharm.D. students, master's students and fellow Ph.D. students who are less advanced than they are in their respective doctoral programs.
- Launch an independent research agenda in their respective area of emphasis under the guidance of their faculty advisor.
- Complete and orally defend an acceptable dissertation based on original investigation and supervised by their dissertation committee showing mastery of an area of emphasis within pharmacology and toxicology, capacity for independent research, and a scholarly result.