

Pharmacology at Oregon State University College of Pharmacy

Pharmacology is the study of mechanisms of drug action. Research in pharmacology requires a wide array of knowledge and techniques developed in different biomedical disciplines. Pharmacology faculty members at the College of Pharmacy emphasize research in areas related to cellular signaling, but utilize experimental techniques that encompass everything from *in vivo* to biochemical and molecular systems. Accordingly, course curricula in the graduate program in pharmacology will vary from student to student.

Students in pharmacology must complete Phar 735, Foundations of Drug Action, in their first year and Phar 564, Receptors and Signal Transduction, taught spring term in odd number years. Pharmacology students should complete the Pharmacology I, II, and III series (Phar 591, 592, and 593, 5 credits each). Exemptions may be made for incoming students with sufficient background in pharmacy. However, students will be expected to demonstrate knowledge of pharmacological principles during the preliminary exam. The Biochemistry series (BB 590, 591 and 592) is also highly recommended. Students lacking undergraduate coursework in physiology are urged to consult with their major advisor. Other recommended courses are listed below.

Before choosing a thesis laboratory, most students will be expected to complete three laboratory rotations (one per quarter) in Pharmaceutical Sciences during the first year of their program.

Courses of potential interest to Pharmacology graduate students

Biochemistry lab I, II, and III

BB 593, 594, 595

Methods of Data Analysis

ST 511, 512, 513

Drug Design

Phar 585

Advanced pharmacokinetics

Phar 580

Advanced Xenobiotic Metabolism

Phar 575

Proteins

BB 654

Cell cycle and Cancer

BB 650

Physical Methods in Biochem & Biophys

BB 664

Hormone action

BB 662

Microbial Genetics

MCB 554

Structure/function of eukaryotic cells

MCB 553

Eukaryotic Molecular Genetics

MCB 555

Cell Signaling and Development

MCB 556