

# MOUSE MODELS OF HUMAN DISEASE - PATH 223

## Spring Quarter 2009

Course Director: Lars Eckmann

2-credit course. In vivo studies are becoming increasingly important in the postgenomic era for validating and extending cellular and molecular approaches into complex physiology. This course provides an overview of the use of mouse models in biomedical research. Initial sessions will discuss general mouse biology and genetics, and technologies for generating mutant mice. This will be followed by several sessions on mouse models in specific areas of human disease research, with a focus on model selection, methodological approaches, and data interpretation. The course will culminate with sessions on experimental design and ethics of animal research. Student participation will include opportunities for discussion as well as 10-15 minutes student presentations of original research papers employing murine models. Attendance required. Grading: S/U

The course will meet Tuesdays from 1 – 3 PM in MTF 275. If there are any questions, please contact the course director under [leckmann@ucsd.edu](mailto:leckmann@ucsd.edu)

### COURSE OUTLINE

Date	Topic	Instructor
Mar 31, 2009	Why the Mouse? Introduction to Mice in Biomedical Research, Comparative Genomics of Mice and Man	Lars Eckmann
Apr 7, 2009	Generation of Transgenic and Gene-Targeted Mice	Lesley Ellies
Apr 14, 2009	Mouse Models of Cardiovascular Disease	Francisco Villareal
Apr 21, 2009	Mice in Rheumatology Research	Maripat Corr
Apr 28, 2009	Imaging and Mouse Models in Surgery	Michael Bouvet
May 5, 2009	Inflammation and Infection Models in Mice, Murine Xenotransplantation Models	Lars Eckmann
May 12, 2009	Mouse Models of Cancer Growth and Metastases	Harvey Hershman
May 19, 2009	Murine Models of Neurological Disorders	Eliezer Masliah
May 26, 2009	Experimental Design and Ethics in Animal Research	Mike Kalichman
June 2, 2009	Regulations and Animal Protocols	Debra van Etten Lars Eckmann