Computational Modeling

Applications in biology and drug discovery / development

**Date:** January 22, 2018 through April 16, 2018
(Excluding March 12, due to national SOT meeting)

**Location:** B408, Life Sciences Building

**Instructors:** Derek Leishman, other Eli Lilly scientists and MSU faculty

**Overview:**
This course is designed to provide an introduction to the use of modeling and simulation in drug discovery and development. It is intended to provide the student with a broad overview of the utility and intricacies of modeling.

This is a 1 credit course and the format will comprise weekly 2 hour sessions for a total of 8 weeks. All lectures will be provided by Dr. Derek Leishman and other Drug discovery and development scientists from Eli Lilly and Co, as well as MSU faculty.

This course is offered Credit/No Credit. Course will require a minimum of 10 students be enrolled, and will be limited to a maximum of 12 students.

**Course Description:**
Quantitative structure activity relationship (QSAR), Physiologically based pharmacokinetics, pharmacokinetics/pharmacodynamics, systems pharmacology and toxicology, health outcomes.

**Course Coordinators:**

Derek Leishman PhD, DSP  
Senior Research Fellow  
Global PK/PD and pharmacometrics  
Eli Lilly Co.

Marc Bailie, DVM, PhD, DSP  
Director, InVivo Facility  
Dept of Pharmacology & Toxicology  
Michigan State University

Please contact Steve Stofflet (at 517-884-0409 or phm@msu.edu) in the Student Office of the Department of Pharmacology and Toxicology for course registration/ override.