WEBINAR

Topic Applying Pharmacometrics to Enhance Translational Development and Clinical Use of Drug Therapies

Speaker Prof. Mitch A. Phelps

College of Pharmacy, Ohio State University

Time 2 / 20 / 2025（THU）

10:00~11:00 AM

Place Webex seminar

About **Prof. Mitch A. Phelps**

Dr. Phelps' lab is involved in both pre-clinical and clinical development of numerous small molecule anti-cancer and immuno-modulatory agents under development. Their work aims to understand the mechanisms involved in the absorption, distribution, metabolism, and excretion (i.e. pharmacokinetics, PK) of these agents, and how both the PK and pharmacodynamic (PD) effects of these agents are altered by genetic differences (polymorphisms) among individuals (i.e. pharmacogenetics, PG).

In this talk, Prof. Phelps will give an overview of their works at OSU, which will include brief introduction on several projects, potentially including: first-in-human study design/implementation for a novel DHODH inhibitor, optimal sampling design for abemaciclib/olaparib in experimental cancer trials and dealing with sparse/imperfect data, PK-guided dosing of melphalan in autologous transplant, use of modeling/simulation for TDM of busulfan, evaluating cefepime PK in patients receiving renal replacement therapy, aspirin pharmacology and biomarker discovery for prevention of preeclampsia in pregnancy, and translational modeling/simulation to evaluate mechanistic hypotheses for immunotherapies in cancer cachexia. This will include studies in oncology/hematology, infectious disease, and maternal/fetal medicine.