
Pumas for Non-linear Mixed Effects Modeling

Presented by Pumas-AI, Inc.

Saturday, October 29, 2022-Sunday, October 30, 2022 (Two Day Course)

This hands-on workshop is designed for beginners and relatively experienced individuals dealing with pharmacometrics and related data analytics in their day-to-day work. Pharmaceutical Modelling and Simulation (Pumas) is a domain-specific extension of the Julia differential equation solver libraries for performing analyses of pharmacometric models. Attendees will learn how to build PKPD workflows in Pumas as well as how to perform common pre-clinical and clinical data analytics workflows such as non-compartmental analysis, bioequivalence, and optimal design.

At the end of the workshop, participants will:

- Gain an overview of the Pumas modelling ecosystem
- Learn how to perform NCA, BE, OD, and PopPK modelling in Pumas
- Learn how to simulate using non-linear mixed effects models in Pumas
- Learn how to perform post-processing of results for reporting

Saturday, October 29, 2022

08:30-08:50 Setting up the workspace

08:50-09:15 JuliaHub Instances and File Explorer

09:15-10:00 Non-compartmental Analysis

10:00-10:15 Coffee Break

10:15-10:45 Bioequivalence

10:45-12:30 Population Pharmacokinetic Modeling Part 1- Overview of Pumas and Pumas Workflow

12:30-13:30 Lunch Break

13:30-14:30 Population Pharmacokinetic Modeling Part 2- Iterative Model Building

14:30-14:45 Coffee Break

14:45-15:30 Model-based Optimal Design

Sunday, October 30, 2022

08:30-10:00 Model Diagnostics Part 1- Plotting

10:00-10:15 Coffee Break

10:15-11:15 Model Diagnostics Part 2- Model Qualification

11:15-12:30 Sequential PKPD

12:30-13:30 Lunch Break

13:30-14:30 Data Wrangling

14:30-14:45 Coffee Break

14:45-15:30 DeepPumas Preview

Fees: \$500 for ISoP Members, \$500 for Non-members, \$200 for Trainees