

(207-CL) Intermediate PK/PD Modeling using Phoenix

This is an intermediate level 3-day classroom course using Phoenix. The course will teach how to perform PK compartmental modeling of continuous responses for individual profiles as well as for the population. It includes an introduction to population PK/PD methodology. The goal is to teach students to go beyond NCA, learn to model data, and simulate different regimens. Participants will learn to interpret the model output to compare and select the best model including covariate analysis and population model validation (bootstrapping and VPC). This is a hands-on course using Phoenix WinNonlin and Phoenix NLME.

Software used:

Phoenix WinNonlin and NLME

Prerequisites:

- (100-CL or 100-OD) Introduction to Phoenix WinNonlin or equivalent.
- This course assumes that attendees know Phoenix WinNonlin basics including NCA, plots, data tools and tables.

Agenda:

Day 1:

- Phoenix overview
- Compartmental Model Overview
- Two Stage Method (i.e., individual modeling)
 - Comparing and selecting Structural and residual error models
 - Summarizing results
- Simulation using individual PK modeling
- Hands-on exercises

Day 2:

- Fundamentals of population PK methodology
- Covariate Evaluation
- Model Validation
- Reporting results
- Simulation using population PK modeling
- Hands-on exercises

Day 3:

- Building models graphically (BE/BA, and saturable clearance exercises)
- Customizing models via Textual mode (code a model with enterohepatic recycling)
- Simulation in Phoenix using publicized population PK results
- Hand-on exercises