ANTIMICROBIAL POPULATION PK/PD MODELLING AND DOSE OPTIMISATION:

Using the Pmetrics package for R and the BestDose web-based tool

Venue: Hôtel Vatel Nîmes, 140 RUE VATEL 30900 Nimes - France
July 3-4, 2019

Faculty & Tutors

- A/Prof Michael Neely, The University of Southern California, USA
- Dr Jean-Baptiste Woillard, University of Limoges, France
- Prof Sylvain Goutelle, Claude Bernard University, Lyon, France
- Mr Clement Boidin, Claude Bernard University, Lyon, France
- Dr Claire Roger, CHU Nimes, France
- Nicolas Garbez, University of Montpellier, France
- Prof Jason Roberts, The University of Queensland, Australia

Course Objectives

Using the Pmetrics package for R, users will be able to:
- Define pharmacokinetic (PK) and pharmacokinetic/pharmacodynamic (PK/PD) structural models that can be solved analytically and models that require differential equations.
- Analyse PK and PK/PD datasets.
- Perform basic Monte Carlo simulations for PK and PK/PD analysis.

With the BestDose web-based software tool, users will explore:
- Application of pharmacometric methods to dose individualization
- Optimise dosing for an individual patient.

Suitable for health care practitioners involved in complex drug dosing including clinical pharmacists, infectious diseases physicians, intensive care physicians, transplant physicians and clinical pharmacologists. Also suitable for basic researchers including pharmacologists and translational scientists.

Workshop Program

DAY 1 – Pharmacokinetic modelling		
08:00-08:25	Registration	
08:25-08:30	Welcome	Prof. Jason Roberts
08:30-09:00	Introduction to Pharmacometrics	A/Prof. Michael Neely
09:00-09:30	Review of pre-workshop tutorial	Prof Sylvain Goutelle
09:30-10:30	Understanding Pmetrics model and data files	A/Prof. Michael Neely
10:30-11:00	Morning Tea	
11:00-12:30	Fitting data to models in Pmetrics	Dr Jean-Baptiste Woillard
12:30-13:30	Lunch	
13:30-15:00	Details and plotting of Pmetrics objects	Mr Clement Boidin
15:00-15:30	Afternoon Tea	
15:30-17:30	Pmetrics modelling exercises*	Tutors
18:30- 21:30	Networking Dinner	
DAY 2 – Pharmacokinetic simulations / Pharmacodynamic modelling		
09:00-10:30	Simulating and probability of target attainment with Pmetrics	A/Prof. Michael Neely
10:30-11:00	Morning Tea	
11:00-12:30	Simulation exercises*	Tutors
12:30-13:30	Lunch	
13:30-14:00	Pharmacodynamic principles	Prof Jason Roberts
14:00-15:30	Building pharmacodynamic models Pharmacodynamic modelling exercises*	A/Prof. Michael Neely
15:30-16:00	Afternoon Tea	
Software-based dose optimisation		
16:00-17:55	Using BestDose and Exercises	Tutors
17:55-18:00	Closing	

Tutorial exercises