R F P K

The Resource Facility for Population Kinetics
Introductory Workshops on Population Analysis with the System for Population Kinetics

Seattle, WA, USA: March 19-20, 2007
Padova, Italy: July 2-3, 2007
Pittsburgh, PA, USA: September 24-25, 2007
Perth, Australia: December 10-11, 2007

This introductory-level workshop is focused on nonlinear mixed-effects modeling and analysis and its applications in biosystem identification. We will start with single-subject kinetic model development and transition to modeling a population of subjects, e.g. in a clinical trial or a dose escalation protocol, explicitly accounting for between-subject variation. Through a combination of lecture and hands-on examples, the course will expose attendees to statistical modeling tools ranging from nonlinear regression to multi-compartmental mixed effects modeling with differential equation structural models. Data from the published literature will be used to walk participants through step-by-step practical applications of modeling and analysis in various areas of biomedical research. Some pharmacokinetics or mathematical modeling background will be useful, but is not essential.

The two-day workshop will feature: Model development, testing and identifiability; hands-on introduction to differential equation and numerical modeling; individual and population models, population distributions, pharmacostatistical modeling; assigning initial parameter estimates for individual and population models; assessing goodness of fit and model order; approaches to population analysis based on likelihood approximations. The understanding and especially the practical usage and implementation of the modeling concepts described in the workshop will be reinforced through hands-on use of published data sets.

Software: The System for Population Kinetics (SPK) will be used for workshop training. The SPK is a web-based service for modeling and simulation being developed by the Resource Facility for Population Kinetics (RFPK) at the University of Washington. SPK facilitates nonlinear least squares and mixed effects modeling via a web browser and Java interface and uses a NONMEM-compatible language for model specification. The service is freely available and individual accounts will be provided to workshop participants (pursuant to the SPK Terms of Service). The SPK is accessible through the website of the RFPK located at http://www.rfpk.washington.edu.

Registration and cost: Registration for any of the workshops can be done through http://workshops.rfpk.washington.edu. Cost of attendance for each workshop is USD 400 (USD 200 for students and postdoctoral fellows), and includes workbooks, coffee breaks and lunch both days. Space is limited for each workshop. Software and computer access during the workshops will be provided.

For more information about the RFPK, please see http://www.rfpk.washington.edu. For questions about the workshops, please contact David Salinger at salinger@u.washington.edu