Purpose: The modern approach in the field of PK/PD is the development of models based on mechanisms of drug action and their alteration of physiologic processes. This course will provide a comprehensive overview of the principles, techniques, and applications of PK/PD modeling with a partial emphasis on modeling therapeutic proteins. Such modeling allows the optimal design and interpretation of pharmacologic experiments that range from molecular biology to human responses and can expedite the drug development process. Lectures and examples from the recent literature will be provided with course notes for each participant. Selected models or examples will have a computer listing to show how to quantitate typical experimental data. At the conclusion of this course, the pharmaceutical scientist with basic knowledge in pharmacokinetics will be able to understand the diverse array of available models and begin to apply them to experimental data and to simulate anticipated drug responses.

William J. Jusko, PhD
Dr. Jusko is Distinguished Professor and Chair of Pharmaceutical Sciences at the School of Pharmacy and Pharmaceutical Sciences at the University of Buffalo and Director of the Center of Excellence in Pharmacokinetics and Pharmacodynamics. Dr. Jusko supervises a research program on the pharmacokinetics and pharmacodynamics of immunosuppressive drugs such as corticosteroids, tacrolimus and sirolimus and holds two NIH grants in the areas of corticosteroid PK/PD and mathematical modeling. He has authored over 520 publications, consults for the FDA, NIH, and the pharmaceutical industry, and is listed in ISI Most Highly Cited in Pharmacology.

Donald E. Mager, PhD
Dr. Mager is an Associate Professor of Pharmaceutical Sciences at the University at Buffalo, State University of New York. He has been a fellow of the American Foundation for Pharmaceutical Education and received the New Investigator Award in Pharmacokinetics, Pharmacodynamics, and Drug Metabolism from the American Association of Pharmaceutical Scientists in 2007. Dr. Mager has served as a Visiting Professor at the Université Paris Descartes and on the Advisory Committee on Clinical Pharmacology to the FDA. His research invokes PK/PD systems analysis to characterize drug effects, with particular interest in anti-cancer and immuno-modulatory pharmacotherapy.
COURSE PROGRAM

January 8 Tuesday
08:00 Continental breakfast
08:30-09:45 W. Jusko: Introductions: Overview, History & Highlights
09:45-10:45 D. Mager: Theory, Art, & Practice of PK/PD Modeling
10:45-11:00 Break
11:00-12:00 D. Mager: Basic Pharmacology & Simple Direct Effects
12:00-13:30 Lunch
13:30-14:30 W. Jusko: Functional Adaptation Models
14:30-15:30 D. Mager: Target-Mediated PK/PD Models
15:30-15:45 Break
15:45-17:00 W. Jusko: Disease Progression Models

January 9 Wednesday
08:00 Continental breakfast
08:30-09:30 D. Mager: Review and Exercises
09:30-10:30 D. Mager: Transduction Processes
10:30-10:45 Break
10:45-12:00 D. Mager: Animal Scale-Up of PK/PD
12:00-13:30 Lunch
13:30-14:30 D. Mager: Antibody PK/PD
14:30-15:30 W. Jusko: Computational Issues in Modeling
15:30-15:45 Break
15:45-16:45 D. Mager: Systems PK/PD Modeling
16:45-17:00 W. Jusko: Summary

January 9 Wednesday, Cont’d.
12:00-13:30 Lunch
13:30-14:30 W. Jusko: Functional Adaptation Models
14:30-15:30 D. Mager: Target-Mediated PK/PD Models
15:30-15:45 Break
15:45-17:00 W. Jusko: Disease Progression Models

January 10 Thursday
08:00 Continental breakfast
08:30-09:30 W. Jusko: Review and Exercises
09:30-10:30 W. Jusko: Modeling Drug Interactions
10:30-10:45 Break
10:45-12:00 D. Mager: Animal Scale-Up of PK/PD
12:00-13:30 Lunch
13:30-14:30 D. Mager: Antibody PK/PD
14:30-15:30 W. Jusko: Computational Issues in Modeling
15:30-15:45 Break
15:45-16:45 D. Mager: Systems PK/PD Modeling
16:45-17:00 W. Jusko: Summary

REGISTRATION INFORMATION

Course location: Faculté des Sciences Pharmaceutiques et Biologiques, Université de Paris Descartes, http://www.pharmacie.univ-paris5.fr/fc. Tél : 01 53 73 97 98, Fax : 01 43 29 57 16, email: formation.continue@pharmacie.univ-paris5.fr

Fee: Individual fee: 2100 euros before December 1, 2012, which includes course documentation, mid-session refreshments, and lunches (2400 euros after this date).

Registration: Please register ASAP in view of the limited course capacity. Confirmation of registration will be returned upon receipt, together with an invoice for the course fee. Registration will not be final until payment is received.

Cancellations: Cancellations with a full refund may be made until December 14, 2012. No refund is possible on cancellations received after this date. Substitutions may be made at any time.


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