

## ISAP Workshop at the WCDA: Workshop 1 Wednesday, September 08, 2004, 08:00 AM – 10:30 AM

## **Preclinical Pharmacokinetics and Pharmacodynamics of Anti-infective Agents**

#### Conveners:

Johan W. Mouton, MD, PhD; Canisius Wilhelmina Ziekenhuis, Nijmegen, Netherlands. Hartmut Derendorf, PhD; Univ. of Florida, Gainesville, FL, USA.

#### Faculty:

Otto Cars, MD, MPH; Uppsala Univ. Hosp., Uppsala, Sweden. William A. Craig, MD; William S. Middleton Mem. VA Hosp., Madison, WI, USA. Hartmut Derendorf, PhD; Univ. of Florida, Gainesville, FL, USA. Johan W. Mouton, MD, PhD; Canisius Wilhelmina Ziekenhuis, Nijmegen, Netherlands. Ursula Theuretzbacher, PhD; Antibiotics Center, Vienna, Austria.

#### **Objectives:**

- Gain insight in pharmacokinetic and pharmacodynamic concepts of antimicrobial efficacy
- Application of in vitro models and animal models in pharmacodynamic research
- The limitations and use of serum and tissue concentrations
- Know how to calculate pharmacokinetic and pharmacodynamic parameters and interpret the results
- Drug resistance in vitro

Intended Audience:	Medical microbiologists, infectious diseases specialists, pharmacologists, and
	others interested
Level:	Beginning
Prerequisites:	None

 Program:
 Introduction to PK/PD (Derendorf)

 PK/PD indices (Mouton)

 Protein Binding/Tissue Distribution (Theuretzbacher)

 In vitro models (Mouton)

 Animal models (Craig)

 In vitro resistance (Cars)

(Coffee between 10:30 AM and 11:00 AM)



### ISAP Workshop at the WCDA: Workshop 2 Wednesday, September 08, 2004, 11:00 AM – 01:30 PM

# Clinical Relevance of Pharmacokinetics and Pharmacodynamics of Anti-infective Agents

#### Convener:

Johan W. Mouton, MD, PhD; Canisius Wilhelmina Ziekenhuis, Nijmegen, Netherlands.

#### Faculty:

Otto Cars, MD, MPH; Uppsala Univ. Hosp., Uppsala, Sweden. George L. Drusano, MD; Albany, NY, USA. Johan W. Mouton, MD, PhD; Canisius Wilhelmina Ziekenhuis, Nijmegen, Netherlands. Markus Mueller, MD; Univ. Vienna, Vienna, Austria. Paul M. Tulkens, MD; Univ. Louvain, Brussels, Belgium.

#### **Objectives:**

- Gain insight in the clinical significance of pharmacokinetic and pharmacodynamic modeling of antimicrobials
- Application of preclinical PK/PD into clinical drug development
- PK/PD of antivirals and antifungals
- Assessment of drug exposure at the site of infection
- Clinical drug resistance

Intended Audience:	Medical microbiologists, infectious diseases specialists, pharmacologists, and
	others interested
Level:	Intermediate/Advanced
Prerequisites:	None.

Program:Clinical applications of PK/PD (Tulkens)<br/>Drug exposure at infection site (Mueller)<br/>PK/PD of antivirals (Drusano)<br/>PK/PD of antifungals (Mouton)<br/>Clinical resistance (Cars)<br/>Clinical dose optimization (Tulkens)

(Lunch between 01:30 PM and 02:30 PM)



### ISAP Workshop at the WCDA: Workshop 3 Wednesday, September 08, 2004, 02:30 PM – 05:00 PM

# **PK/PD Modeling of Anti-infective Agents**

### Convener:

Hartmut Derendorf, PhD; Univ. of Florida, Gainesville, FL, USA.

#### Faculty:

William A. Craig, MD; William S. Middleton Mem. VA Hosp., Madison, WI, USA. Hartmut Derendorf, PhD; Univ. of Florida, Gainesville, FL, USA. George L. Drusano, MD; Albany, NY, USA. Alan Forrest, PhD; SUNY Buffalo, NY, USA.

#### **Objectives:**

- MIC based PK/PD modeling in vitro and in animals
- PK/PD based on kill curves
- Population PK/PD of anti-infective agents
- Monte Carlo Simulations
- Integration of preclinical and clinical PK/PD

Intended Audience:	Medical microbiologists, infectious diseases specialists, pharmacologists, and
	others interested
Level:	Intermediate/Advanced
Prerequisites:	None.

Program:In vitro MIC based PK/PD (Mouton)PK/PD in animals (Craig)PK/PD based on kill curves (Derendorf)Population PK/PD (Forrest)Modeling of anti-infective activity (Forrest)Monte Carlo Simulations (Drusano)

(End at about 05:00 PM)