

# Summer school 2007 – Final course programme

## Theme 1: Drug discovery and drug targets: experimental approaches

### *Course 1:1 - Basic medicinal chemistry*

A. IJzerman (Leiden) M. Smit, I. de Esch (Amsterdam)

### *Course 1:2 - Natural products as leads in drug research (2 days)*

S. Christensen (Copenhagen) and R. Verpoorte (Leiden)

### *Course 1:3 - PET in drug development (2 days)*

A. Lammertsma and B. Windhorst (Amsterdam)

## Theme 2: Drug discovery and targets: cheminformatics and *in silico* modeling

### *Course 2:1 - Pharmacogenomics – pitfalls and possibilities*

J. Meerman (Leiden)

### *Course 2:2 - Introduction to Bioinformatics*

M. Beukers (Leiden), F. Steen Jørgenson (Copenhagen), A. Wilderspin, and C. James (London)

### *Course 2:3 - Molecular modelling and quantitative SAR (2 days)*

M. Mor and A. Lodola (Parma)

### *Course 2:4 - Computational drug discovery and design (2 days)*

C. Oostenbrink and I. de Esch (Amsterdam)

## Theme 3: Systems biology and bio-analytical chemistry

### *Course 3:1 - Modern concepts of bioanalytical chemistry (2 days)*

D. Westerlund (Uppsala) H. Irth, and H. Lingeman (Amsterdam)

### *Course 3:2 - Metabolomics*

T. Hankemeier (Leiden) and B. Griffiths (London)

### *Course 3:3 - Proteomics and peptidomics (2 days)*

R. van der Heijden (Leiden), A. Wilderspin (London), and P. Andren (Uppsala)

## Theme 4: Drug delivery systems

### *Course 4:1 - Protein pharmaceuticals: formulation and analysis*

W. Jiskoot, M. Sutter (Leiden), and M. van de Weert (Copenhagen)

### *Course 4:2 - Colloidal and cyclodextrin-based drug delivery system, basic concepts*

D. Duchene, D. Labarre, and C. Vauthier (Paris)

### *Course 4:3 - specific applications of colloidal and cyclodextrin-based drug delivery systems*

G. Barratt, A. Bochet and D. Labarre (Paris)

### *Course 4:4 - Oral, inhalation and transdermal drug delivery systems*

P. Colombo, P. Santi, et al. (Parma)

## **Theme 5: Drug transport and drug targeting**

*Course 5:1 - Drug transport to the brain*

A. de Boer (Leiden)

*Course 5:2 - Methods in studies of drug delivery to the brain*

E. de Lange (Leiden) and M. Hammarlund-Udenaes (Uppsala)

*Course 5:3 - Drug delivery across the skin*

J. Bouwstra (Leiden) and P. Santi (Parma)

## **Theme 6: Preclinical drug development and safety evaluation**

*Course 6:1 - Drug Metabolism: interindividual variability and consequences for drug safety (2 days)*

J. Commandeur (Amsterdam)

*Course 6:2 - Cell signaling and drug safety I*

B. van de Water and J. Meerman (Leiden)

*Course 6:3 - Cell signaling and drug safety II*

J. Meerman and B. van de Water (Leiden)

## **Theme 7: Clinical drug development and PK-PD modeling**

*Course 7:1 - Introduction in clinical drug development*

Z. Diamant and A. Cohen (Leiden)

*Course 7:2 - Introduction to pharmacokinetics*

M. Danhof and E. de Lange (Leiden)

*Course 7:3 - Introduction to mechanism-based PK-PD modeling*

M. Danhof and O. Della Pasqua (Leiden)

*Course 7:4 - Determinants of drug response and variability in early clinical development*

O. Della Pasqua (Leiden)

## **Theme 8: Pharmaceutics and pharmaceutical technology**

*Course 8:1 - The role of thermal methods in the design and development of medicines*

Simon Gaisford (London)

*Course 8:2 - Process analytical technology*

J. Rantanen (Copenhagen) and G. Frenning (Uppsala)

## **Theme 9: Novel concepts of drug treatment – CNS disorders**

*Course 9:1 - Translational research in neuropsychopharmacology*

M. Oitzl (Leiden) and F. Nyberg (Uppsala)

*Course 9:2 - Silent pharmacogenomics: Gene silencing using small interference RNA*

E. Vreugdenhil, C. Fitzsimons and R. De Kloet (Leiden)

*Course 9:3 - Central pain mechanisms*  
F. Nyberg (Uppsala)

### **Theme 10: Novel concepts of drug treatment – Cardiovascular disorders**

*Course 10:1 - Modulation of lipoprotein metabolism for cardiovascular disease prevention*  
T. van Berkel (Leiden) and F. Bernini (Parma)

*Course 10:2 - Identification of novel therapeutic targets for atherosclerosis*  
T. van Berkel (Leiden) and F. Bernini (Parma)

### **Theme 11: Novel concepts of drug treatment – Cancer**

*Course 11:1 - Novel classes of drugs for anti-cancer chemotherapy*  
E. Danen (Leiden)

*Course 11:2 - Apoptosis in drug discovery and safety*  
F. Nagelkerke (Leiden)

### **Theme 12: Medicines in children and the elderly**

*Course 12:1 - Development of medicines for use in children*  
C. Knibbe (Leiden), C. Tuleu (London), and J. van den Anker (Washington)

### **Theme 13: Scientific communication**

*Course 13:1 - Scientific writing, a framework for writing a scientific paper*  
R. Watt (London) and S. Ghouti (Paris)

*Course 13:2 - Presentation skills*  
Ian Bates (London)

*Course 13:3 - Teaching and learning skills*  
Ian Bates (London)

### **Theme 14: Health policy**

*Course 14:1 - European patenting and intellectual property rights (IPR)*  
M. Johansson (Uppsala) and A.M. Lademann (Denmark)