



## Module2: Drug development from quality by design to clinical studies:

an integrated course for the pharmaceutical  
industry and hospital pharmacy

### PROGRAM

17 - 19 June 2019

Hotel Bergse Bossen, Driebergen,  
the Netherlands

#### Monday, 17 June 2019

**Themes: Drug substance, Medicinal chemistry, pharmaceutical formulations, large scale production, Quality by Design, Hospital pharmacy**

- 09.30: Welcome and Introduction  
Ineke Jonker-Hoogerkamp and  
Jan-Jaap Scherpbier
- 09.45: Introduction of the case study:  
antidepressant BODL2000  
-The profile of BODL2000; R&D  
steps and R&D data  
-Registration of BODL2000; role of  
RA department  
-The quality of the registration  
dossier for BODL2000  
Ineke Jonker-Hoogerkamp
- 10.45: The importance of Quality  
-Quality from a regulatory and  
GMP perspective  
-Legislation  
-ICH and regional guidelines  
Jan-Jaap Scherpbier
- 11.00: Break
- 11.15: Medicinal chemistry: quality in  
lead finding and lead optimization  
Jac Wijkmans
- 12.15: Lunch
- 13.15: Quality requirements from process  
chemistry to large scale production  
Jac Wijkmans
- 14.15: Pharmaceutical formulations  
-The development of drug  
products  
-Quality management and cGMP  
in pharmaceutical development

- Small scale production  
-From small scale to large scale  
Erik Frijlink
- 15.45: Break
- 16.00: From R&D to production  
-Quality by Design  
-PAT and PCT in industry and  
hospital pharmacy  
Erik Frijlink
- 17.30: Break
- 18.00: Drug development in Dutch  
hospital pharmacies  
Katja van Rij
- 19.00: Dinner

#### Tuesday, 18 June 2019

**Themes: Regulatory requirements, GMP for clinical supplies, Quality by Design applied, Nonclinical development, Pharmacology, Toxicology**

- 08.30: The Quality part of the registration  
dossier  
-The Common Technical  
Document (CTD)  
-Development and manufacture of  
Drug substance and Drug  
Product  
-Clinical Trial Applications; quality  
requirements during  
development  
Jan-Jaap Scherpbier

- 09.30: The Total Quality Management  
obtained by Quality by Design  
-Real life examples in industry  
Wim Oostra

- 10.30: Break
- 10.45: GMP for Clinical Supplies  
TBD
- 11.45: GMP Case  
TBD, Jan-Jaap Scherpbier
- 12.30: Lunch
- 13.30: Introduction GLP and Nonclinical  
RA  
Ineke Jonker-Hoogerkamp
- 13.45: Pharmacokinetics and  
pharmacodynamics (PK/PD) in  
industrial practice  
Peter Vis
- 15.15: Break
- 15.30: Toxicology  
Eric de Waal
- 17.00: Break
- 17.30: Case study BODL2000: GLP and  
nonclinical development program:  
-Deficiencies for registration in the  
BODL2000 nonclinical program  
Ineke Jonker-Hoogerkamp and  
Eric de Waal
- 19.00: Group presentations  
Wrap up of the case study  
Ineke Jonker-Hoogerkamp and  
Eric de Waal
- 19.30: Dinner

## Wednesday, 19 June 2019

**Themes: GLP applied, Clinical development, GCP applied, Inspectorate perspective**

08.30: Introduction to GLP  
Chris Mitchell

09.15: Case study BODL2000: GLP and nonclinical development program:  
-Action steps preparation and execution of a GLP compliant study

-GLP in a multi-site study  
Chris Mitchell and Ineke Jonker-Hoogerkamp

10.00: Group presentations  
Wrap up of the case study  
Chris Mitchell and Ineke Jonker-Hoogerkamp

10.15: Break

11.00: Clinical development Phase I  
-Principles, clinical study documents, requirements for a Phase I

-Clinic, clinical pharmacology, types of Phase I studies  
Leo de Leede

12.00: Lunch

13.30: Clinical development Phase II and III (continued)

-Regulation of clinical trials in historical context

-Practical and methodological aspects of clinical trials

-Clinical development strategy, label as driver  
Tjeerd Korver

14.30: Perspective from Dutch Inspectorate

Mieke van der Meulen

15.15: Break

15.30: Case study BODL2000: GCP and clinical development program  
-Possible deficiencies in the clinical program

-Outline for a clinical trial  
-Possible deficiencies in the informed consent

-Audit report  
Eveline Krijger and Lisette Vromans

16.30: Group presentations

Wrap up of the case study  
Eveline Krijger and Lisette Vromans

17.00: Evaluation of the course and learned lessons

Jan-Jaap Scherpbier and Ineke Jonker-Hoogerkamp

17.15: Close

## Drug development from quality by design to clinical studies Faculty

### COURSE LEADER

Dr. A. (Ineke) Jonker-Hoogerkamp  
*Eagle Pharma Consult, the Netherlands*

Drs. J.J. (Jan-Jaap) Scherpbier  
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### LECTURERS

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*JanssenPharmaceutica N.V., Beerse, Belgium*

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*Griffin Discoveries, Amsterdam, the Netherlands*

### GENERAL INFORMATION

See last page for information on registration, dates and costs is available on the website of [www.paofarmacie.nl](http://www.paofarmacie.nl)

Select course **Quality Management**

For more information contact Hans Noordhuis, email address [h.noordhuis@paofarmacie.nl](mailto:h.noordhuis@paofarmacie.nl)