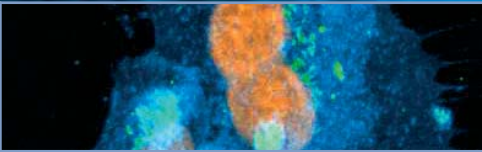




7th

Conference and Workshop on

**Biological Barriers and Nanomedicine –
Advanced Drug Delivery and
Predictive *non vivo* Testing Technologies**



20 – 29 February 2008

Programme Chairs and Organisers:
Prof. Dr. C.-M. Lehr, Dr. U. F. Schäfer,
Jun. Prof. Dr. M. Schneider, Dr. N. Daum
Saarland University, Biopharmaceutics
and Pharmaceutical Technology

www.uni-saarland.de/cellcourse2008



SAARLAND
UNIVERSITY

Europäische Akademie



Seminar I: Skin Barrier

Venue: Saarland University

12:30 **Opening and Welcome Address**

Interactions Nanoparticles and Skin

13:00 **Nanomaterial Interactions with Skin**

Nancy Monteiro-Riviere, North Carolina State University, USA

13:30 **Analytical Investigations of Nanosized Particles**

Marc Schneider, Saarland University, D

14:00 **Solid Lipid Nanoparticles for Dermal Delivery of Actives**

Rainer H. Müller, FU Berlin, D

14:30 Coffee Break

15:00 **Safety of Nanotechnology in Cosmetics and Sunscreens**

Gerhard J. Nohynek, L'OREAL R&D, F

15:30 **Follicular Transport Route**

Jürgen Lademann, Humboldt University, D

16:00 **Quantum Dots**

Michael S. Roberts, University of Queensland, AUS

16:30 Coffee Break

16:45 Round Table:

Potential and Risks of Nanoparticles and Skin

17:30 **Poster Session with Wine and Cheese**

Seminar I: Skin Barrier

Venue: Saarland University

Testing and Predicting Skin Permeation

- 9:00 **Assessment of Quality and Efficacy of Cosmetical and Dermatological Formulations**
Christian Surber, University of Basel, CH
- 9:30 **How to Conduct *in vitro* Permeation Experiments**
Manfred Kietzmann, University of Veterinary Medicine Hannover, D
- 10:00 **The 500 Da Rule. Fact or Fiction?**
Anton Stütz, Novartis, A
- 10:30 **Coffee Break**
- 11:00 **Influence of Diffusion Pathways and Physico-Chemical Properties on the Permeability Coefficient**
Dirk Neumann, Center for Bioinformatics, Saarland University, D
- 11:30 **Dermal Penetration Modelling: What's New?**
Gerald B. Kasting, University of Cincinnati, USA
- 12:00 **Simulation of Skin Permeation Based on Experimental Parameters**
Gabriel Wittum, University of Heidelberg, D
- 12:30 **Lunch Break With Experts on Table**

Understanding and Impact of Skin Barrier Function

- 14:00 **Epidermal Transport and Skin Metabolism**
Faith M. Williams, University of Newcastle upon Tyne, UK
- 14:30 **Does the Skin have Tight Junctions?**
Johanna Brandner, University Hospital Hamburg-Eppendorf, D
- 15:00 **Reconstructed Skin Models - Recent Developments**
Klaus Rudolf Schröder, Phenion, D
- 15:30 **Irritant Potential of Essential Oils**
Jürgen Reichling, University of Heidelberg, D
- 16:00 **Coffee Break**
- 16:30 **Penetration Enhancers**
Christel Müller-Goymann, TU Braunschweig, D
- 17:00 **Iontophoresis: Electrically-Assisted Molecular Transport Across the Skin**
Yogeshvar N. Kalia, University of Geneva, CH
- 17:30 **New Analytical Methods for Skin Drug Delivery**
Reinhard Neubert, University of Halle, D
- 18:00 **Get together**
- 18:30 **Poster Walk** with Snacks and Drinks

Lab Course I: Skin

Venue: Saarland University, Campus A 4 1

The four modules are running in parallel!
Number of participants is limited to 32 persons -

Early registration recommended

8:00 - 14:00

Skin Barrier

Module A **Preparation of Human Skin**

Ulrich F. Schäfer, Steffi Hansen, Andreas Henning,
Ana Melero
Saarland University, D

Module B **Setting-up *in vitro* Permeation Experiments
(Franz Diffusion Cell, etc.)**

Ulrich F. Schäfer, Steffi Hansen, Andreas Henning,
Ana Melero
Saarland University, D

Non Invasive Methods to Measure Skin Barrier Function

Module C ***in vitro* Visualisation
(Confocal and Multiphoton Microscopy)**

Marc Schneider, Saarland University, D
Sebastian Tätz, University of Paris, F

Module D **Physical Barrier Properties (TEWL, etc.)**

Joachim Fluhr, University of Jena, D
(In Co-operation with BioSkin, Berlin, D)

15:00 - 17:00 **Excursion to Fraunhofer Institute
for Biomedical Engineering IBMT, St. Ingbert, D**

Karsten König, Iris Riemann, Frank Stracke
Visualisation *in vivo*: Multiphoton Microscopy

Lab Course I includes

11:30 – 13:00 Catering/ Lunch Break

17:30 – 19:00 Catering/ Warm Snacks

Meditrans / Galenos / Management Training

Venue: Saarland University

Meditrans-Workshop

9:00 - 12:00 **Drug Targeting: Basics and Applications**

Gert Storm, Utrecht University, NL

Imaging-Guided Drug Delivery

Klaas Nicolay, University of Eindhoven, NL

12:30 Lunch Break

Galenos (for co-ordinators only)

14:00 - 16:00 **Galenos Co-ordinators Meeting**

Evaluation and Exchange of Experience

Management Training: Scientific Writing

14:00 - 17:00 **Interactive Author Master Class**

Jaap van Harten, Elsevier, NL

Gerrit Borchard, University of Geneva, CH

Social Programme

For Participants of Social Programme:

9:00 **Excursion to Saar-Lor-Lux Region**
Transfer directly to European Academy Otzenhausen

For Non-Participants of Social Programme:

16:00 **Departure from Saarbrücken to European Academy Otzenhausen (EAO)**

17:00 **Welcome at EAO**

18:00 **Dinner for Speakers and Participants**

19:30 **Steps Across Borders**
Helmut Ringsdorf, University of Mainz, D

20:30 **Get Together**

Seminar II: Mucosal Barriers and Nanomedicine

Venue: EAO - European Academy Otzenhausen

9:00 **Welcome and Opening Address**

Polymeric Nanocarriers

9:30 **Nanotechnologies for the Delivery of Nucleic Acids**
Elias Fattal, University of Paris, F

10:00 **Controlling the Surface Energy of Nanoparticles**
Dayang Wang, Max Planck Inst. of Colloids and Interfaces, D

10:30 Coffee Break

11:00 **Effect of Excipients on Oral Drug Absorptions**
Hassan Benameur, Capsugel, F

11:30 **Nanoparticles for Oral Drug Delivery**
Alf Lamprecht, University of Besancon, F

12:00 **Nanomedicines - Regulations and Clinical Use**
Rogerio Gaspar, University of Lisbon, P

12:30 **Lunch Break with Experts on Table**

Cellular Immortalisation and Differentiation

14:00 **Impedance Spectroscopy for Non Destructive Monitoring of 2D and 3D (Stem) Cell Culture Models**
Hagen Thielecke, Fraunhofer Institute for Biomedical Engineering IBMT, D

14:30 **Embryonic Stem Cell Test**
Andrea Seiler, ZEBET, D

15:00 **Immortalisation of Epithelial Cells**
May Griffith, University of Ottawa, CAN

15:30 Coffee Break

16:00 **Galenos Euro-PhD Presentations and Award Ceremony**

19:00 Dinner

21:00 **Poster Session with Drinks**

Seminar II: Mucosal Barriers and Nanomedicine

Venue: EAO - European Academy Otzenhausen

Air Blood Barrier

- 9:00 **New Polymers for Pulmonary Drug Delivery**
Thomas Kissel, University of Marburg, D
- 9:30 **Overview of *in vitro* Respiratory Epithelial Models**
Ben Forbes, King's College London, UK
- 10:00 **Interaction of Aerosol Powders with Pulmonary Epithelial Cells**
Per Gerde, Karolinska Institute, S
- 10:30 Coffee Break
- 11:00 **Cellular Effects of Synthetic Nanoparticles**
Jürgen Schnekenburger, University of Muenster, D
- 11:30 ***in vitro* Co-Culture Models of the Proximal and Distal Respiratory Tract**
Charles J. Kirkpatrick, Johannes Gutenberg University, D
- 12:00 **Co-Culture Epithelial and Dendritic Cells**
Barbara Rothen-Rutishauser, University of Bern, CH
- 12:30 Lunch Break

Targeting and Imaging

(in co-operation with European IP CellProm and Meditrans)

- 14:00 **Design of Recombinant G-CSF-Transferrin Fusion Proteins for Oral Delivery**
Wei-Chiang Shen, University of Southern California, USA
- 14:30 **Nucleic Acid Delivery/ Gene Therapy**
Raymond Schiffelers, Utrecht University, NL
- 15:00 **Intracellular Targeting**
Enrico Mastrobattista, Utrecht University, NL
- 15:30 **Advanced Microscopic Visualisation Tools**
Hans Hertz, Royal Institute of Technology, S
- 16:00 **Closing Remarks and Tea Time**
- 17:00 **Departure of Bus to Saarbrücken**

Lab Course II: Nanomedicine

Venue: Saarland University, Campus A 4 1

8:00 - 17:00 Each course module comprises an introductory seminar and experiments.

The six modules are rotating during these three days so that each participant will attend each module.

Number of participants is limited to 60 persons -

Early registration recommended

1. Preparation of Polymeric Nanoparticles

Marc Schneider, Manuel Santander Ortega, Nico Reum
Saarland University, D

2. Characterisation of Nanoparticles (Size and Charge)

Brigitta Loretz, Birgit Wahl, Christine Schulze
Saarland University, D
Daniel Gau, TF Instruments GmbH, D
(In Co-operation with TF Instruments)

3. Visualisation of Nanoparticles (Scanning Probe Microscopy)

Udo Bakowsky, Marburg University, D
Noha Nafee and Stefania Carino, Saarland University, D

4. Cellular Binding and Uptake

Franz Gabor, University of Vienna, A
Michael Bur and Fransisca Leonard, Saarland University, D

5. Cytotoxicity Assays (Biochemical Tests and FACS)

Nicole Daum, Katharina Meier, Andrea Neumeyer
Saarland University, D

6. Transport Studies Across Mucosal Epithelial Cells

Eva Collnot, Marco Mündörfer
Saarland University, D

Rates, Deadlines, Grants

	Corporate	Academic	Students
Seminar 1			20 – 21 Feb.
regular	500 €	300 €	300 €
early*	400 €	250 €	200 €
Seminar 1 and LabCourse 1			20 – 22 Feb
regular	800 €	450 €	450 €
early*	600 €	400 €	300 €
Seminar 2**			25 – 26 Feb
regular	950 €	700 €	700 €
early*	800 €	500 €	400 €
Seminar 2** and LabCourse 2			25 – 29 Feb
regular	1.300 €	1.000 €	1.000 €
early*	1.100 €	900 €	600 €
„all-in“ price			20 – 29 Feb
regular	2.100 €	1.400 €	1.400 €
early*	1.700 €	1.300 €	900 €

Management Training Course: Scientific Writing

optional/ no extra fees apply

23 Feb

Social Day/ Excursion to Saar-Lor-Lux Region

optional/ no extra fees apply

24 Feb

* Early bird fees apply when registration is submitted and fee paid before 14 December 2007.

** Registration fee for Sem 2 includes: Accommodation and all meals from Sunday evening (24 Feb, Dinner Time) to Tuesday (26 Feb, Tea Time) at EAO - European Academy Otzenhausen

Grants are available!

Students can apply until 1 December 2007!

Check www.uni-saarland.de/cellcourse2008 for details on application procedure

Poster

Posters of participants will be on display during the entire workshop. Participants who wish to give a poster presentation must submit a 1-page (A4) abstract by 15 January 2008 to cellcourse2008@mx.uni-saarland.de.

The poster may have a maximum size of 85 cm (horizontal) by 120 cm (vertical).

Details, Updates, Changes

See www.uni-saarland.de/cellcourse2008 for updates and changes of the programme.