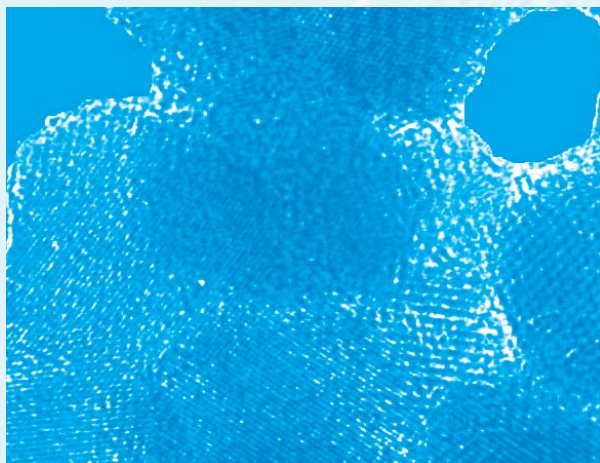


NanoMed 2006

5th International Workshop on Biomedical Applications of Nanotechnology

Logenhaus, Berlin, Germany
February 16 - 17, 2006



www.cc-nanochem.de/nanomed.htm

Organized by

CC-NanoChem and CC-NanoBioTech

Official networks for chemical nanomaterials and
nanobiotechnology of Germany

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- Federal Ministry of Education and Research of Germany
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- Fraunhofer Institute for Biomedical Engineering
- Saarland University
- The Institute of Nanotechnology
- BioTOP Berlin-Brandenburg
- TSBmedici
- kompetenznetze.de

Venue

Logenhaus Berlin
Emser Straße 12/13
D - 10719 Berlin, Germany

A historical building in the heart of Berlin, near Kurfürstendamm and Zoo station. www.logenhaus.de



Registration

Please register online at
www.cc-nanochem.de/nanomed-r.htm

Registration Fee

Members		
CC-NanoChem or		
CC-NanoBioTech	EUR	270.00
Non-Members	EUR	330.00
One-Day Ticket	EUR	230.00
Banquet	EUR	40.00

The full registration fee includes beverages during the conference, two coffee breaks per day, lunch buffet, conference package, book of abstracts and proceedings.

In case of cancellation before January 15, 2006, a fee of EUR 50.00 is due. For cancellation after January 15, 2006, you will be charged 75 % of the fee and receive the proceedings.

Accommodation

A limited number of rooms is available at a special rate of EUR 87.00 (single room) or EUR 99.00 (double room) per night at the AVALON Hotel Berlin, the adjacent building of the Logenhaus. You can make reservations through the organizing secretariat of the NanoMed 2006.

Conference Banquet

The conference banquet will take place on February 16 in the restaurant *eBkultur*, situated in the Museum of Ethnology in Berlin-Dahlem. Bus transfer from the Logenhaus and back to the AVALON Hotel is included.

Organizing secretariat

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PROGRAM

Oral Presentations

Wednesday, February 15

18:00 Registration & Welcome Reception

20:00 End

Thursday, February 16

08:00 Registration

09:00 Welcome

NANOSYSTEMS FOR DRUG DELIVERY

Chair: **Sascha General / Carsten Olbrich**, Schering AG, Berlin, Germany

09:15 **Nanoparticles for Drug Delivery - The Smaller the Better?**
Robert Gurny
School of Pharmaceutical Sciences, University of Geneva, Switzerland

09:40 **Nanoparticulate Drug Delivery Systems of Different Therapeutic Applications**
Alf Lamprecht
Faculty of Medicine and Pharmacy, University of Besançon, France

10:05 **Nanoparticles for Targeted Release of Fibrinolytic Drugs**
Anna Maria Piras
Department of Chemistry and Industrial Chemistry, University of Pisa, Italy

10:30 **Nanoparticulate Drug Delivery Systems for the Therapy of Restenosis**
Gershon Golomb
School of Pharmacy, The Hebrew University of Jerusalem, Israel

10:55 **Road Map for Nano Biopharmaceuticals in India**
Rakesh Chandra Srivastava
Department of Science & Technology, Ministry of Science & Technology, New Delhi, India

11:20 Coffee / Poster

NANOMEDICAL PRODUCTS ON THE MARKETS

Chair: **Ottilia Saxl**, The Institute of Nanotechnology, Edinburgh, UK

11:35 **Nanomedicines - Minimizing the Gap Between Reality and Promise**

Mike Eaton
Celltech Group plc, Slough, UK

12:00 **From Little Things Big Things Grow - Nanotechnology, Dendrimers and Drugs**

Tom McCarthy
Starpharma Pty Ltd, Melbourne, Australia

12:25 **AFM in Liquid Environment Simultaneous to Advanced Optical Microscopy**

Christian Löbke
JPK Instruments AG, Berlin, Germany

12:50 Lunch

14:00 **Intellectual Property Rights as a Cornerstone for High Tech Companies - Securing Your Business in the Long Run**

Michael Fleuchaus
Fleuchaus & Gallo, Munich, Germany

14:25 **Nanotechnological Medical Devices and Nanopharmaceuticals: the Regulatory Background and Research Needs**

David Rickerby
European Commission Joint Research Centre, Ispra, Italy

NANOPARTICLES - THERAPEUTIC POTENTIAL AND RISKS

Chair: **Wolfgang Kreyling**, GSF, Neuherberg, Germany

14:50 **Nanoparticles for Life Science Applications**

Horst Weller
Institut für Physikalische Chemie, Hamburg University, Germany

15:15 **Combination of Superparamagnetic Iron Oxide Nanoparticles (SPIONs) and Dynamic Magnetic Fields for Enhanced Transfection**

Heinrich Hofmann
Ecole Polytechnique Fédérale de Lausanne, Switzerland

15:40 **Boron Carbide Nanoparticles for T Cell Guided Boron Neutron Capture Therapy**

Michael Wrang Mortensen
Nano-Science Center, University of Copenhagen, Denmark

16:05 Coffee / Poster

16:20 **The Toxicology of Environmental Airborne Nanoparticles**

Ken Donaldson
Faculty of Medicine, University of Edinburgh, UK

16:45 **Fluorescence Fluctuation Spectroscopy: A Tool for the Detection of Nanometer Sized Particles in Living Cells**

Michael Edetsberger
Department for Biomolecular Structural Chemistry, University of Vienna, Austria

POSTER SESSION

17:10 Poster session
[click for list of poster presentations]

19:00 End

20:00 Dinner

Friday, February 17

TISSUE ENGINEERING AND BIOCOMPOSITES

Chair: **Eva Eisenbarth**, Technical University Hamburg-Harburg, Germany

09:00 **Sol-Gel Encapsulation of Living Cells**

Jacques Livage
Chimie de la Matière Condensée, Université de Paris, France

09:25 **Challenges for Tissue Engineering Scaffolds**

Jöns Hilborn
Polymer Chemistry, Uppsala University, Sweden

09:50 **Bionic Growth of Nano Hydroxyapatite onto Demineralized Bone Matrix**

Ramalingam Murugan
Division of Bioengineering, National University of Singapore

10:15 Coffee / Poster

NANOSURFACES AND NEW MATERIALS FOR MEDICAL APPLICATIONS

Chair: **Michael Veith**, INM, Saarbrücken, Germany

- 10:30 **Nanostructured Substrates Production for Biomedical Surface Interaction Studies**
Josep Samitier
Department of Electronics, Universidad de Barcelona, Spain
- 10:55 **Immobilized BMP-2 Physisorbed on Nanocrystalline Diamond Remains Strongly Bioactive**
Frank R. Kloss
Department of Oral Maxillofacial Surgery, University of Innsbruck, Austria
- 11:20 **Application of Nanotechnology in Preventive and Restorative Dentistry**
Matthias Hannig
Department of Dental Preservation and Parodontology, Saarland University Hospital, Homburg, Germany
- 11:45 **Nanostructured Surfaces for Bio-medical Applications**
Sanjay Mathur
Leibniz-Institut für Neue Materialien, Saarbrücken, Germany
- 12:10 **Research in Bioengineering and Nanotechnology**
Jackie Y. Ying
Institute of Bioengineering and Nanotechnology Singapore
- 12:35 Lunch

NANOTHERAPY FOR CANCER

Chair: **Heinrich Hofmann**, EPFL, Lausanne, Switzerland

- 13:35 **Dendrimer Nanocomposites for Imaging and Treatment of Cancer**
Lajos P. Balogh
NanoBiotechnology Center, Roswell Park Cancer Institute, Buffalo, USA
- 14:00 **Cancer Thermo-therapy with Nanoparticles**
Andreas Jordan
Center of Biomedical Nanotechnology at Charité, Berlin, Germany

NANOBIODIAGNOSTICS AND DIAGNOSTIC TOOLS

Chair: **Christian Löbke**, JPK Instruments, Berlin, Germany

- 14:25 **The Influence of Macrophage Priming on Bacterial Antigen-Receptor Interaction, Studied by Atomic Force Microscopy**
Marta Targosz
Institute of Physics, Jagiellonian University, Krakow, Poland
- 14:50 **Light Scattering from Phantom Nanoparticles Probes Biomolecular Interactions**
Davide Proserpi
Istituto di Scienze e Tecnologie Molecolari, Milan, Italy
- 15:15 **Nano and Micro Cantilevers - a Versatile Platform for Label-Free Detection**
Anja Boisen
MIC - Department of Micro and Nanotechnology, Danish Technical University, Lyngby, Denmark
- 15:40 Coffee / Poster
- 15:55 **Unraveling Molecular Details of Chromatin Structure Using Atomic Force Microscopy and Optical Tweezers**
Martin Bennink
MESA+ Research Institute, University of Twente, Enschede, The Netherlands
- 16:20 **Surface Engineering, Assay Development and Magnetic Nanoparticle Design for Magnetic Biosensing**
Randy De Palma
Interuniversity Microelectronics Center, Leuven, Belgium
- 16:45 **To be announced**
Garret Matthews
Department of Physics, University of South Florida, Tampa, USA
- 17:10 Closing Remarks
- 17:30 End

Proceedings will be published in a special issue of the "Journal of Nanoscience and Nanotechnology"

Steering Committee

Dr. Andreas Jordan

Conference President, Center of Biomedical Nanotechnology (CBN) at Clinic of Radiation Medicine Charité - University Medicine, Berlin

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