

## The European CLINAM & ETPN Summit, June 23-26, 2013

**CLINAM**  
European Foundation for  
Clinical Nanomedicine

**CLINAM 6/13**  
Conference & Exhibition



# Clinical Nanomedicine & Targeted Medicine

From Antibodies to Nanodrugs, Diagnostic Systems and Targeted Delivery



### Previous Events on Sunday, June 23, 2013

- General Assembly of the European Society for Nanomedicine (15.30 h)
- Meeting of the International Society for Nanomedicine (16.30 h)
- Editorial Board Meeting of the European Journal of Nanomedicine (18.00 h – 19.00 h)
- Welcome Dinner for speakers and invited guests (19.45 h)

## CLINAM 6 / 2013 - FINAL PROGRAMME

The [European Foundation for Clinical Nanomedicine \(CLINAM\)](#) and the [European Technology Platform on Nanomedicine \(ETPN\)](#) organize the annual gathering on Clinical Nanomedicine and Targeted Medicine that has become an international landmark.

This year's focus topic is: "Nanomedicine & Targeted Medicine – the paradigm of precise, highly effective and safe medicine with subtle influence for the benefit of patients and mankind". - We aim presenting lessons learned, facts and figures regarding progress in development and characterization of nanomedicines.

Nanomedicines are now available and translated from Research to Targeted Medicines. Many of them are on the way to provide concrete benefit for patients. As the awareness of clinicians has largely increased and a significant number of proof-of-concepts, non-clinical and clinical studies are under development, this is attracting the venture capital community, large pharmaceutical companies, health-technology companies and SME's to invest in the field.

The interdisciplinary faculty of all stakeholders intends to share novel ideas in Basel for making innovative drugs and devices available. This is the unique forum for creative scientists to propose new ideas and for established research organizations, industries and funding organizations to provide opportunities for further growth of this area.

### The Communities of Academia, Government, Health Economy and Industry are Called to Participate

The Sessions will identify the challenges and indicate solution strategies for Nanomedicines and Targeted Medicines to provide new tools supporting the health care systems with cost effective approaches.

The 2013 summit strives to bring together the most skilled people in an effort to shape this scientific field and thereby push the boundaries of cutting-edge Nanomedicine.

**Venue: June 23-26, 2013 - Congress Center Basel, Messeplatz 21, Basel, Switzerland**



**REGISTRATION: ONLINE ONLY at [www.clinam.org](http://www.clinam.org)**

## Scientific Committee of the Conference of CLINAM 6/13

**Prof. Dr. med. Patrick Hunziker**, University Hospital Basel (CH) (Chairman) • **Prof. Dr. Yechezkel Barenholz**, Hebrew University, Hadassah Medical School, Jerusalem (IL) • **Beat Löffler, MA**, European Foundation for Clinical Nanomedicine (CLINAM), Basel (CH) • **Prof. Dr. Gert Storm**, Institute for Pharmaceutical Sciences, Utrecht University, Utrecht (NL) • **Prof. Dr. Marisa Papaluca Amati**, European Medicines Agency, London (UK) • **Prof. Dr. med. Janos Szebeni**, Nanomedicine Research and Education Center, Semmelweis University/Dept. Nanobiotechnology, Miskolc University and SeroScience Inc., Budapest (H) • **Prof. Dr. med. Christoph Alexiou**, Head and Neck Surgery, University Hospital Erlangen (D) • **Prof. Dr. Claus-Michael Lehr**, Helmholtz-Institute for Pharm. Research Saarland (HIPS), Saarbrücken (D) • **Patrick Boisseau**, CEA-Léti, Chairman of the Board of the ETPN, Grenoble (F) • **Prof. Dr. Viola Vogel**, Laboratory for Biologically Oriented Materials, ETH, Zürich (CH) • **Prof. Dr. Jan Mollenhauer**, University of Southern Denmark and NanoCAN, Odense (DK) • **Dr. Yanay Ofran**, Systems Biology & Functional Genomics, Bar Ilan University, Ramat Gan (IL)

## Joint Collaborating Parties

European Foundation for Clinical Nanomedicine (**CLINAM**), Basel (CH) • European Technology Platform on Nanomedicine (**ETPN**), Berlin (D) • The International Association for Pharmaceutical Technology, Focus Group “Drug Delivery” (**APV**), Mainz (D) • European Society for Nanomedicine (**ESNAM**), Basel (CH) • Helmholtz Institute for Pharmaceutical Research Saarland (**HIPS**), Saarbrücken (D) • BioNanoNet Research Association (**BioNanoNet**), Graz (A) • EU, Directorate-General for Research & Innovation (**RTD**), Brussels (B) • European Association for Predictive and Preventive and Personalized Medicine (**EPMA**), Brussels (B) • European Platform for Photodynamic Medicine (**EPPM**), Hull (UK) • European Materials Research Society (**E-MRS**), Strasbourg (F)

## Target Audience

The faculty includes the pioneers and opinion leaders in the fields of medicine, nanoscience and targeted medicine, who share their experience in an interdisciplinary and interactive manner that widens mutual understanding for both sides. The conference and the exhibition are aimed at physicians, as well as nanoscientists with a background in pharmacology, biology, physics, chemistry, biophysics, medicine materials science and engineering and for decision makers from Universities and Research Institutes. The meeting is of high knowledge profit for the community of targeted medicine and targeted delivery. The conference is also of interest for policymakers, experts from industry in the field of life sciences, developers of new tools and materials for nanomedicine, all those investigating in the future potential of emerging technologies. Many Executives from global pharmaceutical industry profit of the meeting and Experts from venture companies acquire knowledge on existing and upcoming developments and novel products in the emerging field of Nanomedicine; government authorities related to health profit of the regulator's sessions.

## Programme

### Monday, June 24, 2013 (Registration from 07.45 until 17.00)

#### Plenum (Hall Montreal)

Monday

#### 1. Opening (08.30 – 09.30)

- 08.15 **Opening on Behalf of the European Foundation for Clinical Nanomedicine (CLINAM)**  
**Beat Löffler, MA**, CEO of the European Foundation for Clinical Nanomedicine, Basel (CH)
- 08.20 **Opening Address on Behalf of the European Technology Platform on Nanomedicine**  
**Patrick Boisseau**, Chairman of the European Technology Platform for Nanomedicine, Paris (F)
- 08.25 **Opening Address on Behalf of the European Commission**  
**Dr. Rudolf Strohmeier**, Deputy Director General of the DG for Research, Brussels (B)
- 08.35 **Opening Address on Behalf of the Canton of Basel-Stadt**  
**Dr. Guy Morin**, President of the Executive Council of the Canton of Basel-Stadt, Basel (CH)
- 08.45 **Opening Address on Behalf of BaselArea Economic Promotion**  
**Iris Welten**, CEO and Member of the Life Sciences Commission of the Chamber of Commerce of Basel City and Basel Country (CH)
- 08.50 **Opening Address on Behalf of Switzerland**  
**Dr. Mauro Dell'Ambrogio**, Swiss State Secretary for Education and Research, Berne (CH)
- 09.10 **Scientific Introduction: Where Nanomedicine and Targeted Medicine Meet**  
**Prof. Dr. med. Patrick Hunziker**, President of the European Society for Nanomedicine, Basel (CH)

**Break (09.30 – 10.10)**

Monday

## 2. Keynote Lecture - Small Particle Development by Nature (10.10 – 11.00)

Chair **Prof. Dr. Yechezkel Barenholz**, Hebrew University, Hadassah Medical School, Jerusalem (IL)

10.10 **The Ribosome as a Nano Factory for Cellular Protein Production and a Highly Potent Drug Target**  
**Prof. Dr. Ada Yonath**, Nobel Laureate, Director, The Helen and Milton A. Kimmelman Center for Biomolecular Structure and Assembly, Structural Biology Department, Weizmann Institute of Science, Rehovot (IL)

10.45 **Questions and Debate**

Monday

## 3. Today's Unsolved Medical Problems (11.00 – 11.40)

Chair **Prof. Dr. med. Patrick Hunziker**, Deputy Chief of the Clinic for Intensive Care, University Hospital Basel (CH)

11.00 **From Metallic Stent and Bioresorbable Scaffold to Nano Platform?**

**Prof. Dr. med. Stephan Windecker**, Chief of Cardiology and Director of Invasive Cardiology at the Swiss Cardiovascular Center and President-Elect of the European Association of Percutaneous Cardiovascular Interventions (EAPCI), Berne (CH)

11.10 **Unsolved Problems in Cancer**

**Prof. Dr. med. Simo Schwartz, Jr.**, PhD, Nanomedicine Coordinator Molecular Biology and Biochemistry, Research Center for Nanomedicine (CIBBIM-Nanomedicine) Vall d'Hebron Univ. Hospital Research Institute, Barcelona (E)

11.20 **Unsolved Problems in Orphan Inborn Errors of Metabolism**

**Prof. Dr. med. Stefan Kölker**, Head of the Division of Inherited Metabolic Diseases, Centre for Paediatric and Adolescent Medicine, University Children's Hospital and University of Heidelberg, Heidelberg (D)

11.30 **Questions and Debate**

Monday

## 4. Keynote Lecture on the Regulators' Role in the Translation from Bench to Bed (11.40 – 12.15)

Chair **Beat Löffler, MA**, CEO of the European Foundation for Clinical Nanomedicine (CLINAM), Basel (CH)

11.40 **The Regulators' Role in the Responsible Development of Nanotechnology to the Patients' Benefit**

**Dr. med. Frank F. Weichold, Ph.D.**, Director of Critical Path and Regulatory Science Initiatives, Office of Regulatory Science & Innovation (ORSI) and Office of the Chief Scientist / Office of the Commissioner Food and Drug Administration, (FDA), Silver Spring, MD (USA)

**Lunch (12.15 – 13.20)**

**Track 1 (Hall Montreal)**

Monday

## 5. Lessons Learned from the US Nanotechnology Characterization Lab (NCL) – Linking Nanomaterial Physicochemical Properties to Safety and Efficacy (13.20 – 17.40)

Chair **Dr. Scott E. McNeil**, Director, Nanotechnology Characterization Laboratory, National Cancer Institute (USA)

13.20 **Opening Remarks and NCL - Overview**

**Dr. Scott E. McNeil**, Director, Nanotechnology Characterization Laboratory, National Cancer Institute at Frederick, MD (USA)

13.50 **Physicochemical Characterization**

**Dr. Anil Patri**, Deputy Director, Nanotechnology Characterization Laboratory, National Cancer Institute at Frederick, MD (USA)

- 14.35 **Nanotoxicology and Pharmacology**  
**Dr. Steve Stern, DABT**, Senior Scientist, Nanotechnology Characterization Laboratory, National Cancer Institute at Frederick, MD (USA)

**Break (15.20 – 15.50)**

- 15.50 **Nanoimmunology and Sterility**  
**Dr. Marina Dobrovolskaia**, Senior Scientist, Nanotechnology Characterization Laboratory, National Cancer Institute at Frederick, MD (USA)

- 16.35 **Case Studies from NCL Characterization**  
**All NCL Scientists**

- 17.20 **Meeting Wrap Up**  
**Dr. Scott E. McNeil**, Director, Nanotechnology Characterization Laboratory, National Cancer Institute at Frederick, MD (USA)

**Break (17.40 – 18.00)**

## **Track 2 (Hall Singapore)**

Monday

### **6. Nanomedical Applications in Imaging and Diagnostics (13.20 – 14.30)**

Chair **Prof. Dr. Lajos P. Balogh**, Editor-in-Chief, Nanomedicine, Nanotechnology, Biology and Medicine, Elsevier and Member of the Executive Board, American Society for Nanomedicine, Boston (USA)

- 13.20 **Analysis in Nanomedicine and Targeted Delivery – Understanding the Images**  
**Prof. Dr. Gerd Binnig**, Founder of Definiens AG, Nobel Laureate, München (D)

- 13.30 **Luminescent Nanoparticles for Imaging in Cells and Blood Flow**  
**Dr. Zoe Pikramenou PhD, BSc, MRSC CChem**, Reader in Supramolecular Photochemistry, School of Chemistry, University of Birmingham, Birmingham (UK)

- 13.40 **Non-invasive and High-resolution Optoacoustic Imaging Techniques of Nanomedicines**  
**Dr. Antonio Augusto Nunes**, Institute for Biological and Medical Imaging (IBMI), Technical University of Munich and Helmholtz Centre Munich, Neuherberg (D)

- 13.50 **Albumin Trafficking in Tumour Tissues Measured by MRI: a New Tool to Predict the Distribution of Macromolecular Drugs in Cancer Lesions**  
**Dr. Alessandro Maiocchi**, Research Projects Manager, Centro Ricerche Bracco, Bracco Imaging SpA, Colleretto Giacosa, TO (I)

- 14.00. **Tetraphenylporphyrin and Tetraphenylchlorin Tethered Chitosan Based Carriers for Photochemical Internalization**  
**Prof. Dr. Már Másson**, Faculty of Pharmaceutical Sciences, School of Health Sciences, University of Iceland, Reykjavik (IS)

- 14.10 **Questions and Debate**

Monday

### **7. Novel Tools for Development, Discovery in Nanomedicine and to Achieve Targeted Delivery (14.30 – 15.20)**

Chair **Prof. Dr. med Christoph Alexiou**, Head Division Experimental Oncology/Nanomedicine, University Hospital Erlangen (D)

- 14.30 **Shaping the Future of Nanomedicine: Next Generation Drug Screening, Development and Discovery**  
**Dr. Stefan Harrer**, Hon. Associate Professor, Department of Electrical and Electronic Engineering, University of Melbourne, IBM Lab Carlton, VIC (AUS)

14.40 **Novel Biomedical Nanocarriers for a Controlled Interaction with Cells**  
**Prof. Barbara Rothen-Rutishauser**, Chair Bio-Nanomaterials, Adolphe Merkle Institute Université de Fribourg, Marly (CH)

14.50 **Nanomechanics – Future Targets in Molecular Medicine?**  
**Prof. Dr. Viola Vogel**, Laboratory of Applied Mechanobiology, Department of Health Sciences and Technology, ETH Zürich, Zürich (CH)

15.00 **Questions and Debate**

**Break (15.20 – 15.50)**

Monday

**8. ETP Nanomedicine Brokerage and CLINAM Universities “Small Speeches” (15.50 – 17.50)**

Chair **Dr. Sc. nat. Ruth Schmid**, Chief Business Developer SINTEF Materials and Chemistry Synthesis and Properties Polymer Particles and Surface Chemistry, Trondheim (N) and **Nicolas Gouze**, Project Leader, VDI/VDE Innovation, ETPN, Berlin (D)

15.50 **Brokerage:**  
Calls for proposals within the EC Framework Programmes for RTD, relevant for the Nanomedicine community are currently being prepared. On the first day of the CLINAM Summit you may briefly present your project to attract further project collaborators to improve or complete the consortium. The session is organized and chaired by Nicolas Gouze from the ETPN. Presentations shall be no longer than 4 minutes and contain a maximum of 4 slides. Submissions are to be done to the Chairman of the Session ([nicolas.gouze@vdivde-it.de](mailto:nicolas.gouze@vdivde-it.de))

16.50 **Universities Small Speeches** Posters of scientists participating in the University Village 2013 and elected poster authors are welcome to submit for a small speech of 4 minutes, serving to highlight the research activities in Nanotechnology / Health. The “Small Speech” comprises a maximum of three slides, • Slide 1: general introduction to the topic of your field, presented in a way that is accessible to the highly interdisciplinary audience • Slide 2: some of the highlights of submitters work and institutions work • Slide 3: The prove, how the work at the university/institute fits into the area of Nanomedicine / Targeted Medicine including showing the outlook on the translation of the work. *30 presentations will be selected.* Submissions are to be addressed to the University Village Director, Dr. Ruth Schmid. ([ruth.schmid@clinam.org](mailto:ruth.schmid@clinam.org))

**Break (17.50 – 18.00)**

**Track 3 (Hall Osaka /Samarkand)**

Monday

**9. First Requirements to Get from Research to Drugs (13.20 – 15.20)**

Chair **Andreas Falk, MSc**, CEO, BioNanoNet Forschungsgesellschaft mbH, Graz (A)

13.20 **Ideation as First Step for Translation**  
**Dr. Douglas K. R. Robinson** PhD, MSS, MPhys, Managing Director, Teqnode Sarl, Paris (F)

13.30 **Regulatory Requirements (GMP /GLP / GCP)**  
**Dr. Markus Limberger, Dipl. Chem.**, Technical Director, Head of Quality Control, PHAST GmbH, Homburg/Saar (D)

13.40 **Business Development Strategy**  
**Dr. Peter Burckhardt**, CEO, EVA The Basel Life Sciences Start-up Agency, Basel (CH)

13.50 **Talking to Members of Venture Capital – how to Get Success**  
**Andreas Falk, MSc**, CEO, BioNanoNet Forschungsgesellschaft mbH, Graz (A)

14.00 **Successful Patent Strategies for Nanomedical Research**  
**Dr. Karsten Cremer**, European Patent Attorney, Pharma Concepts GmbH, Basel / Berlin (CH / D)

- 14.10 **What to Look at to Achieve in European Programmes-Applications**  
**Heico Frima**, Programme Officer, EC, Directorate-General for Science & Innovation DG - Industrial Technologies, Brussels (B)
- 14.20 **Pharmaceutical Development Stages of Parenteral Nanomedicine: From Discovery to Clinical Phase 1**  
**Dr. Andreas Fisch**, Fellow Pharmaceutical Development Parenterals at Novartis, Basel (CH)
- 14.30 **Questions and Debate**

**Break (15.20 – 15.50)**

Monday

**10. Active and Intelligent Implants and Scaffolds in Regenerative Medicine (15.50 – 17.50)**

- Chair **Prof. Dr. habil. Witold Lojkowski**, Polish Academy of Sciences, Member of the Board of the European Society for Materials Research (E-MRS), Warsaw (PL)
- 15.50 **Langerhans Islets Encapsulation in Microfluidic Cartridge, for Diabetes Cell Therapy**  
**Patrick Boisseau**, CEA-Leti, Head of the Business Development Nanomedicine and Chairman of the European Technology Platform on Nanomedicine, Grenoble (F)
- 16.05 **Fabrication and Characterization of Three-dimensional Bone Scaffolds**  
**Dr. Bert Müller**, Thomas Straumann-Chair for Materials Science in Medicine, University Basel (CH)
- 16.20 **Development of Bioactive Nanostructured 3D-scaffolds for Regenerative Medicine**  
**Prof. Dr.-Ing. habil. Aldo R. Boccaccini**, Head, Institute of Biomaterials Department of Materials Science and Engineering University of Erlangen-Nuremberg (D)
- 16.35 **Bio-inspired 3-dimensional Nano-and Micro-structured Biomaterials for Tissue Engineering**  
**Prof. Dr. Wojciech Swieszkowski**, Biomaterials Group, Materials Design Division, Faculty of Materials Science and Engineering, Warsaw University of Technology, Warsaw (PL)
- 16.50 **Microwave and Sonochemical Technology to Produce Active Bone Regrowth Scaffolds**  
**Prof. Dr. habil. Witold Lojkowski**, Institute Wysokich Ciśnień PAN, Institute of High Pressure Physics, Polish Academy of Sciences, Member of the Board, European Society for Materials Research (E-MRS), Warsaw (PL)
- 17.05 **Light as an Activator of Nanoparticles and Cells**  
**Dr. Andrei Sommer**, Institute of Micro and Nanomaterials University of Ulm (D)
- 17.20 **Questions and Debate**

**Break (17.50 – 18.00)**

**Plenum (Hall Montreal)**

**Panel of the Nobel Laureates**

Monday

**11. A Scientist in the Modern World - Science and Technology for the Future (18.00 – 19.00)**

- Chair **Prof. Dr. med. Patrick Hunziker and Beat Löffler, MA**
- 18.00 **Prof. Dr. Werner Arber**, President, Pontifical Academy of Sciences, Nobel Laureate, Basel (CH)  
**Prof. Dr. Ada Yonath**, Director of the Helen and Milton A. Kimmelman Center for Biomolecular Structure and Assembly, Structural Biology Department, Weizmann Institute of Science, Nobel Laureate, Rehovot (IL)  
**Prof. Dr. Gerd Binnig**, Founder of Definiens AG, Nobel Laureate, Munich (D)
- 19.00 **End of 1<sup>st</sup> Day**
- 20.00 **Official Evening Event: Brokerage, Sonic Moments, Dinner and “vávoç-award“ -Presentation**  
 (Booking Mandatory; Departure from Lobby Swissôtel Le Plaza at 19.40)

## Tuesday, June 25, 2013 (Registration from 07.45 until 17.00)

### Plenum (Montreal)

Tuesday

#### 12. Targeted and Personalized Cancer Nanomedicine 1 (08.00 – 09.40)

Chair **Prof. Dr. Jan Mollenhauer**, NanoCAN, University of Southern Denmark, (DK)

In the public view, nanomedicine is often associated with a dangerous attitude, not considering that many successful cancer treatments are based on nanomedical principles or are attempted to be optimized for the patients` benefit using biological engineering at nanoscale. Targeted therapy and nanomedicine now essentially converge. Targeted therapy uses nanomedical conceptions to modulate the size and shape of drugs, aiming at improved delivery to cancer cells. Vice versa, nanomedicine will increasingly deal with targeted therapy approaches. The session aims at providing a survey of this exciting area and the prospects for personalization of cancer treatment, which is intimately linked to new technologies and genomics.

08.00 **Looking and Listening to Light from Liposome Nanostructures for Cancer Theranostics**

**Prof. Dr. Kostas Kostarelos, FRSM, FlON, FRSA**, Chair of Nanomedicine, Head of the Centre for Drug Delivery Research, Nanomedicine Lab UCL School of Pharmacy, University College London, London (UK)

08.15 **Questions and Debate**

08.20 **Targeting Lung Cancer Using RNAi Against TUBB3**

**Prof. Dr. Maria Kavallaris**, Head, Tumour Biology & Targeting Program, NHMRC Senior Research Fellow, Children's Cancer Institute Australia for Medical Research, Lowy Cancer Research Centre, UNSW; Co-Director Australian Centre for NanoMedicine (ACN), School of Chemical Engineering Chemical Sciences University of NSW, Sydney (AUS)

08.35 **Questions and Debate**

08.40 **Doxil – The First FDA-approved Nano-drug: Lessons Learned & Mechanism of Drug Release in Tumors**

**Prof. Dr. Yechezkel Barenholz**, Hebrew University, Hadassah Medical School, Jerusalem (IL)

08.55 **Questions and Debate**

09.00 **Off-Target Nanoparticle Interactions**

**Prof. Dr. Kenneth A. Dawson**, Professor of Physical Chemistry School of Chemistry & Chemical Biology ; Director, Centre for BioNano Interactions, Dublin (IRL)

09.15 **Questions and Debate**

09.20 **DNA Origami Tetrahedral DNA for siRNA Delivery to Cancer**

**Prof. Daniel G. Anderson, PhD**, Department of Chemical Engineering, Harvard-MIT Division of Health Sciences & Technology, David H. Koch Institute for Integrative Cancer Research, Massachusetts Institute of Technology (MIT) Cambridge, MA (USA)

09.35 **Questions and Debate**

#### Break (09.40 – 10.10)

### Track 1 (Montreal)

Tuesday

#### 13. Targeted and Personalized Cancer Nanomedicine 2 (10.10 – 13.00)

Chair **Prof. Dr. Jan Mollenhauer**, NanoCAN, University of Southern Denmark, Odense (DK)

10.10 **Cancer Stem Cells as Preferential Target for Personalized Cancer Nanomedicine**

**Prof. Dr. med. Simo Schwartz, Jr., PhD**, Nanomedicine Coordinator Molecular Biology and Biochemistry, Research Center for Nanomedicine (CIBBIM) Vall d'Hebron Univ. Hospital Research Institute, Barcelona (SP)

- 10.25 **Questions and Debate**
- 10.30 **A New High Throughput Low Cost Apparatus for Circulating Tumor Cells Counting and Analysis**  
**Prof. Dr. Giacinto Scoles**, University Hospital, University of Udine, Udine (I) and Biology Department, Temple University, Philadelphia, PA (USA)
- 10.45 **Questions and Debate**
- 10.50 **Mining Genome Information for New Starting Points in Personalized Cancer Nanomedicine**  
**Prof. Dr. Jan Mollenhauer**, NanoCAN, University of Southern Denmark (DK)
- 11.05 **Questions and Debate**
- 11.10 **Targeted and Personalized Cancer Therapy via Tumor Stroma-Attacking Nanodrugs**  
**Dr. Neil P. Desai**, Senior Vice President, Global Research & Development, Abraxis BioScience LLC, Los Angeles (USA)
- 11.25 **Questions and Debate**
- 11.30 **Controlled Drug Release via Thermo-Labile Nanoparticles for Cancer Treatment**  
**Prof. Dr. David Needham**, Niels Bohr Professor, Director Center for Single Particle Science and Engineering, Institut for Fysik, Kemi og Farmaci, University of Southern Denmark, Odense (DK)
- 11.45 **Questions and Debate**
- 11.50 **Controlled (bio-) Conjugation of Inorganic Nanoparticles for Targeted Delivery**  
**Prof. Dr. Wolfgang Parak**, Faculty of Physics, University of Marburg, Marburg (D)
- 12.05 **Questions and Debate**
- 12.10 **Multifunctional Nanoparticle-based Probes for Cancer Cells and Biomarkers Detection**  
**Prof. Dr. med. Yuri Volkov**, Department of Clinical Medicine, Trinity College Dublin, Dublin (IRL)
- 12.25 **Questions and Debate**
- 12.30 **Targeted Cancer Therapy via Magnetic Nanoparticles**  
**Prof. Dr. med Christoph Alexiou**, Head Division Experimental Oncology/Nanomedicine, University Hospital Erlangen, Erlangen (D)
- 12.45 **Questions and Debate**
- Lunch (13.00 – 14.00)**

## **Track 2 (Hall Singapore)**

Tuesday

### **14. Intracellular Biologic Targets (10.10 – 11.10)**

- Chair **Prof. Dr. Joachim Seelig**, Past Chairman of Biozentrum, University Basel, Riehen (CH) and  
**Dr. Ulf Grawunder**, CEO, NBE-Therapeutics GmbH, Basel (CH)
- 10.10 **Hapten-binding Bispecific Antibodies for Targeted Payload Delivery**  
**Dr. Ulrich Brinkmann**, Ph.D., Senior Principle Scientist, Scientific Director Roche Pharma Research and Early Development - Large Molecule Research, Penzberg (D)
- 10.30 **Rational Design of Biologics & Computational Target Selection**  
**Dr. Yanay Ofran**, Systems Biology & Functional Genomics, Bar Ilan University, Ramat Gan (IL)
- 10.50 **Questions and Debate**



Tuesday

## 15. Impacts of Blood-Brain Barrier in Drug Delivery and Targeting (11.10 – 13.00)

Chair **Prof. Dr. Kostas Kostarelos, FRSM, FloN, FRSA**, Chair of Nanomedicine, Head of the Centre for Drug Delivery Research, Nanomedicine Lab UCL School of Pharmacy, University College London, London (UK)

11.15 **The Spider Effect how the Immune System in the Brain can be Measured and Modulated with Nanotechnology**

**Prof. Dr. Rutledge Ellis-Behnke**, Director of the Nanomedicine Translational Think Tank, Department of Ophthalmology, Medical Faculty Mannheim, Ruprecht-Karls-University, Heidelberg (D)

11.25 **Questions and Debate**

11.30 **Functional Recovery of Parkinsonism by Carbon Nanotube-mediated siRNA Gene Silencing**

**Katie Bates**, Nanomedicine Lab, UCL School of Pharmacy, UCL School of Life and Medical Sciences, Institute of Neurology, University College London, London (UK)

12.40 **Questions and Debate**

11.45 **Glutathione PEGylated Liposomes: a Safe Way to Enhance Drug Delivery Across the Blood-brain Barrier**

**Dr. Marco de Boer**, Head of Research, to-BBB\_technologies BV, Leiden (NL)

11.55 **Questions and Debate**

12.00 **Nanoparticles for Therapy of Alzheimer's Disease**

**Prof. Dr. Massimo Masserini**, Department of Health Sciences, Medical School-University of Milano Bicocca, Milan (I)

12.10 **Questions and Debate**

12.15 **Cerebral Open Flow Microperfusion: In-vivo Monitoring of Nanoparticle Transport across the Intact Blood-Brain Barrier**

**Dipl.-Ing. Thomas Birngruber**, Scientist, Cerebral PK/PD Joanneum Research Health Institute for Biomedicine and Health Sciences, Graz (A)

12.25 **Questions and Debate**

12.30 **Nanotechnology Application to a Novel Cell-based, Personalized, in Vitro Model of Neuro-degenerative Diseases**

**Dr. Daniela Cesselli**, Researcher, University of Udine, Udine (I)

12.40 **Further Questions and Debate**

**Lunch (13.00 – 14.00)**

### Track 3 (Hall Rio)

Tuesday

## 16. Practises for Nanoparticles in Targeting and Drug Delivery (10.10 – 11.15)

Chair **Dr. Yanay Ofran**, Systems Biology & Functional Genomics, Bar Ilan University, Ramat Gan (IL)

10.10 **Flash Nano-Precipitation Enables the Production of Nanoparticle Drug Cocktails and Multivalent Targeted Nanoparticles for Imaging and Drug Delivery**

**Prof. Dr. Robert K. Prud'homme**, Professor and Director Program in Engineering Biology, Department of Chemical & Biological Engineering, Princeton University, Princeton, NJ (USA)

- 10.20 **Passive vs. Active Targeting**  
**Dr. Twan Lammers, PhD, DSc**, Experimental Molecular Imaging, RWTH Aachen, Aachen (D) and  
 Department of Targeted Therapeutics, University of Twente, Enschede (NL)
- 10.30 **Toxicity Profiles of Gold Nanoparticles regarding Drug Delivery**  
**Prof. Dr. Wolfgang Wenzel**, Speaker of the Competence Field Nanosciences of the Karlsruhe Institute of  
 Technology (KIT), Karlsruhe (D)
- 10.40 **Thermosensitive Liposomes for Enhanced Drug Delivery to Tumors**  
**Dr. Gerben Koning**, Leader, Innovative Targeting Group, Laboratory Experimental Surgical Oncology,  
 Erasmus Medical Center, Rotterdam (NL)
- 10.50 **Targeted Drug Delivery in Inflammatory Disease. Comparison of Liposomes with other Nanocarrier  
 Systems**  
**Prof. Dr. Gert Storm**, Pharmaceutics Faculty of Science, Department of Pharmaceutical Sciences, Utrecht  
 University, Utrecht (NL)
- 10.50 **Questions and Debate**

Tuesday

## 17. Nanomedicine and Targeted Medicine in Cardiology (11.15 – 12.15)

- Chair **Dr. med. Panagiotis N. Trohopoulos**, Founder and Scientific / Exploitation / Strategic Coordinator of the FP7  
 “CosmoPHOS-nano” Project, Cardiologist, CosmoPHOS Ltd, Thessaloniki (GR)
- 11.15 **Nanodevices for Actuating and Monitoring Engineered Cardiac Tissues**  
**Dr. Tal Dvir, MSc**, Head, Laboratory for Tissue Engineering and Regenerative Medicine Dept. of Molecular  
 Microbiology & Biotechnology, George S. Wise Faculty of Life Sciences and the Center for Nanoscience and  
 Nanotechnology Tel Aviv University, Tel Aviv (IL)
- 11.25 **The Eradication of Atherosclerosis**  
**Prof. Dr. med. Patrick Hunziker**, Deputy Head of the Intensive Care Unit, University Hospital Basel (CH)
- 11.35 **Diagnosis and Treatment of Vulnerable Atherosclerotic Plaques – Projects “NanoPlaque” and  
 FP7 “NanoAthero”**  
**Prof. Dr. med. Harald Mangge**, Head of the Research Unit on Lifestyle and Inflammation-associated Risk  
 Biomarkers, Vicespeaker of the Cardiovascular RF Clinical Institute for Medical and Chemical Laboratory  
 Diagnosis, Medical University of Graz (A)
- 11.45 **Nanomedicines for Targeted Drug Delivery to Combat Atherosclerosis**  
**Dr. med. Varvara Karagkiozaki**, Nanomedicine Group, Lab for “Thin Films -Nanosystems & Nanometrology”,  
 Department of Physics, Aristotle University of Thessaloniki, and AHEPA Hospital, AUTH, Thessaloniki (GR)
- 11.55 **Questions and Debate**

Tuesday

## 18. Nanomaterial Interaction with Life: Modelling and Multimodality

- Chair **Prof. Dr. Wolfgang Wenzel**, Speaker of the Competence Field Nanosciences of the Karlsruhe Institute of  
 Technology (KIT), Karlsruhe (D)
- 12.20 **Computer Modelling of Nanoparticle Targeting to Enhance Selectivity**  
**Prof. Dr. Elena Dormidontova**, Associate Professor, The Institute for Materials Science and Physics  
 Department of the University of Connecticut Storrs, CT (USA)
- 12.30 **Preparation of Multifunctional Multimodal Nanoparticles Using Specific Amphiphiles**  
**Prof. Dr. med. Dong Soo Lee, Ph.D.**, Faculty of Nuclear Medicine and Molecular Imaging, Seoul National  
 University, Seoul (KR)
- 12.40 **Questions and Debate**

Lunch (13.00 – 14.00)

**CLINAM Satellite Track 1 (Hall Osaka /Samarkand)**

Tuesday

**19. Biological Responses to Nanoscale Particles (10.00 – 13.00)**

**The Priority Programme 1313 of the Deutsche Forschungsgemeinschaft (DFG)** aims at • the manufacturing and characterization of NPs • the transition of NPs into an interaction with the biological environment • the impact of NPs on fundamental biological functions.

**The Swiss Research Programme 62 of the Swiss National Science Foundation** aims at • developing new intelligent materials and combinations of such with new functions • establishing their application potential for various sectors of industry • serving as a model for future cooperation between SNSF and CTI.

**The Swiss National Research Programme 64 of the Swiss National Science Foundation** aims at • identifying opportunities arising from the use of nanomaterials for health care, the environment and natural resources. • revealing the potential risks that nanomaterials pose • developing tools that maximize the advantages of nanomaterials and minimize the risks for humans and the environment • enhancing expert knowledge and competencies for developing innovative nanomaterials and assessing risk in Switzerland.

10.10 **German Priority Programme SPP 1313**

Chair **Prof. Dr. rer. nat. Dr. h.c. Reinhard Zellner**, Senior-Professor of Physical Chemistry, University of Duisburg-Essen and Coordinator of SPP1313, Essen (D)

**Impact of the Nanoparticle - Protein Corona on Biomedical Applications**

**Prof. Dr. Roland Stauber**, Molecular and Cellular Oncology/ENT Department/University Medical Center of the Johannes-Gutenberg University Mainz (D)

**Quantitative Fluorescence Studies of Nanoparticles interacting with Proteins and Cells**

**Prof. Dr. G. Ulrich Nienhaus**, Karlsruhe Institute of Technology (KIT) and Center for Functional Nanostructures (CFN), Karlsruhe (D)

**The Fate of Nanoparticles in Vivo**

**PD Dr. Peter Nielsen**, Head Department of Biochemistry and Molecular Cell Biology Universitätsklinikum Hamburg-Eppendorf, Hamburg (D)

11.05 **Swiss National Research Program 62**

Chair **Prof. Dr. Louis Schlapbach**, President of NRP 62, Berne (CH)

**Nanoparticle Transport Across the Human Placenta**

**Dr. Peter Wick**, Group leader, Empa Swiss Federal Laboratories for Material Science and Technology, Laboratory for Materials-Biology Interactions, St. Gallen, Switzerland

**Mechano-sensitive Nanocontainers for Innovative Targeted Drug Delivery**

**Dr. med. Till Saxer**, Cardiology Department, University Hospitals of Geneva, Switzerland

**Polymer Nanoparticles for Drug-delivery and Localized Synthesis of Antibiotics.**

**Dr. Nico Bruns**, Chemistry Department of Chemistry, University Basel (CH)

12.05 **Swiss National Research Program 64**

Chair **Prof. em. Dr. Peter Gehr**, University of Berne, President of NRP 64, Berne (CH)

**On the Relationship between Cell Entry and Nanoparticle Toxicity**

**Prof. Dr. Francesco Stellacci**, Institute of Materials, EPFL Lausanne (CH)

**Biomedical Nanoparticles as Immune-modulators**

**PD Dr. med. Christophe von Garnier**, Department of Clinical Research, University of Berne (CH)

## Transport of Nanoparticles after Release from a Biodegradable Implant

**Prof. Dr. med. vet. Meike Mevissen**, Division Veterinary Pharmacology & Toxicology, Vetsuisse University of Berne, Berne (CH)

**Lunch (13.00 – 14.00)**

### Plenum (Hall Montreal)

Tuesday

## 20. The Regulation Environment in Nanomedicine – The Step to the Last Phase of Translation (14.00 – 15.15)

Chair **Dr. Rudolf Strohmeier**, Deputy Director General of the DG for Research, Brussels (B)

14.00 Generally, companies that have a product under development want to make sure their submission is of the highest scientific and regulatory quality. For nanomedicine-based applications, this is also true and the clinical benefit should outweigh the potential risks. Addressing additional regulatory considerations is as important as mastering of uncertainties to provide for security in advancing the field. Nanomedicine is - as every emerging technology - in need of thorough investigation to address scientific gaps in knowledge methods or tools. Joint efforts are needed to accelerate the promise while minimizing the risk of Nanomedicine; **Members from academia, government, and industry are called to participate.**

**Europe** **Dr. Falk Ehmann**, Scientific Support and Projects, European Medicines Agency, London (UK)

**Japan** **Dr. Kumiko Sakai-Kato**, National Institute of Health Sciences, Tokyo (J)

**Canada** **Hripsime Shahbazian, MSc**, Senior Science Advisor, Office of Science, Therapeutic Products Directorate, Health Canada, Ottawa (CND)

**China** **Prof. Dr. Guangjun Nie**, Professor of Nanobiology and Medicine, National Center for Nanoscience and Technology, China, Beijing, (RC)

**USA** **Dr. med. Frank F. Weichold, Ph.D.**, Director of Critical Path and Regulatory Science Initiatives, Office of Regulatory Science & Innovation (ORSI) and Office of the Chief Scientist / Office of the Commissioner Food and Drug Administration (FDA), Silver Spring, MD (USA)

**Africa** **Dr. med. Jean-Bosco Ndiokubwayo**, Regional Adviser, Labs & Clinical technologies, WHO-Regional Office for Africa, Brazzaville, Republic of Congo (AFR)

**Australia** **Prof. Dr. Maria Kavallaris**, Head, Tumour Biology & Targeting Program, NHMRC Senior Research Fellow, Children's Cancer Institute Australia for Medical Research, Lowy Cancer Research Centre, UNSW; Co-Director Australian Centre for NanoMedicine (ACN), School of Chemical Engineering Chemical Sciences University of NSW, Sydney (AUS) **briefed by** CSIRO Animal, Food & Health Sciences, North Ryde (AUS)

**Break (15.15 – 15.45)**

### Track 1 (Hall Montreal)

Tuesday

## 21. Pharmaceutical Development - Requirements to Get from Drug Candidate Selection to Market (15.45 – 17.30) Organized by the International Association for Pharmaceutical Technology (APV), Mainz (D)

Chair **Dr. Bernd Riebesehl**, Principal Fellow Novartis Pharma AG, Basel (CH)

15.45 **Bioequivalence Criteria for Generic Liposome Products**  
**Prof. Dr. Gert Storm**, Pharmaceutics Faculty of Science, Department of Pharmaceutical Sciences, Utrecht University, Utrecht (NL)

15.55 **Questions**

16.00 **Nanotubes for Oral Dosage Forms?**  
**Dr. Carsten Timpe**, Pharma Early Research and Development Formulation, Research NCE Basel, Senior Principal Scientist, F. Hoffmann-La Roche AG, Basel (CH)

- 16.10 **Questions**
- 16.15 **Nanomilling Case Study**  
**Dr. Olaf Behrend**, Boehringer Ingelheim Pharma GmbH & Co. KG, Ingelheim (D)
- 15.25 **Questions**
- 16.30 **How to offer a Nanoproduct to Pharmaceutical Development**  
**Dr. Georg Boeck**, Boehringer Ingelheim Pharma GmbH & Co. KG, Ingelheim (D)
- 15.40 **Questions**
- 16.45 **Not yet Realized Nanoapplications For Transdermal Route**  
**Dr. Michael Horstmann**, Acino AG, Aesch (CH)
- 16.55 **Questions**
- 17.00 **Critical Considerations in Development, Scale-up and Manufacturing of Injectable Nanomedicines**  
**Dr. Danny van Hoorn**, Program Manager, OctoPlus NV, Leiden (NL)
- 17.10 **Questions**
- 17.15 **Quality Requirements for Phospholipid Excipients in Liposomal Formulations**  
**Dr. Peter van Hoogevest**, Lipoid GmbH, Ludwigshafen (D)
- 17.25 **Questions**

**Break (17.30 – 17.45)**

**Track 2 (Hall Singapore)**

Tuesday

**22. Immunology and Immunotoxicity of Nanomedicines (15.45 – 17.30)**

- Chair **Prof. Dr. med. Janos Szebeni**, Nanomedicine Research and Education Center, Semmelweis University/Dept. Nanobiotechnology, Miskolc University and SeroScience Inc., Budapest (H)
- 15.45 **The Special Role of the Immune System in Nanosafety Assessment**  
**Prof. Dr. Albert Duschl**, Head of the Department of Molecular Biology, University of Salzburg, Salzburg (A)
- 16.00 **Complement Monitoring of Nanomedicines**  
**Dr. med. Andrey Sokolov, PhD**, Institute of Immunology, University of Oslo (N)
- 16.15 **Complement-mediated Hypersensitivity Reactions to Nanomedicines and Biologicals: New Tests and Mechanistic Insights**  
**Prof. Dr. med. Janos Szebeni**, Miskolc University and SeroScience Inc., Budapest (H)
- 16.30 **A Microbial Approach for By-passing Polymeric Nanoparticle-mediated Infusion Reactions**  
**Prof. Dr. Moein Moghimi**, Centre for Pharmaceutical Nanotechnology and Nanotoxicology, Department of Pharmaceutics and Analytical Chemistry, University of Copenhagen (DK)
- 16.45 **Biodegradation of Nanomaterials**  
**Prof. Dr. med. Bengt Fadeel, PhD**, Inst. of Environmental Medicine (IMM) Karolinska Institutet, Stockholm (S)
- 16.55 **In Vitro Models Showing Limited Oral Uptake of Nanoparticles**  
**Dr. Hans Bouwmeester**, Senior Scientist Toxicology, Wageningen University and Research Center (NL)
- 17.05 **Questions and Debate**

**Break (17.30 – 17.45)**

**Track 3 (Hall Osaka / Samarkand)**

Tuesday

**23. Functional and Bioresponsive Materials and Novel Methods in Nanomedicine (15.45 – 17.30)**

Chair **Dr. Neil P. Desai**, Senior Vice President, Global Research & Development, Abraxis BioScience LLC, Los Angeles (USA)

15.45 **Bioresponsive Materials and Nanomedicine – Trends, Challenges and Beyond**

**Prof. Dr. Lajos P. Balogh**, Editor-in-Chief, Nanomedicine, Nanotechnology, Biology and Medicine, Elsevier and Member of the Executive Board, American Society for Nanomedicine, Boston (USA)

15.55 **Star Polymer Nanoparticles: Nanogel Star Polymer Architectures: A Nanoparticle Platform for Modular Programmable Macromolecular Self-Assembly, Intercellular Transport, and Dual-Mode Cargo Delivery**

**Dr. Robert Miller**, Manager, Advanced Organic Materials, San Jose CA (USA)

16.05 **Functionalized Nanoparticles as Intelligent Non-toxic Inhibitor for Viruses**

**Dr. Silke Krol**, Fondazione IRCCS Istituto Neurologico "Carlo Besta" IFOM-IEO-campus, Milan (I)

16.15 **Potential Impact of DermaVir Nanomedicine in HIV Eradication**

**Prof. Dr. Julianna Lisziewicz**, CEO, Genetic Immunity, Inc., Budapest (H)

16.25 **Nanoparticles for Transcutaneous Vaccination**

**Dr. Steffi Hansen**, Helmholtz-Institute for Pharmaceutical Research Saarland (HIPS), Saarbrücken (D)

16.35 **Multilayered Nanotechnology for Personalised Nanomedicine: from Diagnostics to Theranostics**

**Dr. Adriele Prina-Mello, MSc**, NAMDIATREAM - Project Coordination Team and ETP-Nanomedicine Nanodiagnostic WG vice-chair, School of Medicine and CRANN Trinity College Dublin (IRL)

16.45 **Development of Biodegradable Nano-fiber Based Systems for Drug Delivery**

**Prof. Dr. Stergios Logothetidis**, Lab for "Thin Films -Nanosystems & Nanometrology", Department of Physics, Aristotle University of Thessaloniki, (GR)

16.55 **Questions and Debate**

**Break (17.30- 17.45)**

**Plenum (Hall Montreal)**

Tuesday

**24. Ethics and Implications (17.45 – 18.30)**

Chair **Dr. Klaus Weltring**, Bioanalytik-Münster e.V., Münster (D)

17.45 **Medicine in the Information and Knowledge Society**

**Prof. Dr. Rafael Capurro**, International Center for Information Ethics, Karlsruhe (D)

18.30 **Aperitif / Poster Reviews**

19.30 **End of 2<sup>nd</sup> Day**

20.15 **Speakers Dinner**

## Wednesday, June 26, 2013 (Registration from 07.45 until 15.00)

### Plenum (Hall Montreal)

Wednesday

#### 25. The ETPN Session: Next Steps in the Development of Nanomedicine in Europe (8.30 – 9.30)

Chair **Dr. Laurent Lévy**, PhD, CEO of Nanobiotix, Member of the ETPN and Nanomed2020, Paris (F)

08.15 **The Future of Nanomedicine Research and Development in Europe – Shaping the Nanomedicine in Horizon 2020 of the EC**

**Patrick Boisseau**, CEA-Leti-Minatec, Chairman of the Board of the ETPN, Grenoble (F)

08.30 **The ETP Nanomedicine Policy–Industry Table**

Nanomedicine is an important source of innovation for new medical products as well as an essential growth factor for European health-care industry. Nano-based medical products can be found in advanced development stages or already in marketed products. This proves that Nanomedicine offers a high potential for a future with more targeted and personalized medicine. Nanomedicine stakeholders, elaborating new concepts and implementation plans faced as one of the main challenges the high complexity to equally consider patients' and doctors' needs and at the same time take into account industrial requirements. The new ETPN *Nanomedicine Strategic Research and Innovation Agenda* and the related *White Paper* focus on efficient translation and proposes concrete policy actions and plans for novel R&D infrastructures. Parts will be a Translation Advisory Board, a proposal for a European Nano-Characterization Laboratory as well as a GMP pilot line for clinical batches. These measures are well embedded into a larger Nanomedicine funding program, focusing on discovery and clinical needs.

Wednesday

#### 26. NanoMed2020 (09.15 – 10.00)

Chair **Prof. Dr. Furio Gramatica**, Head of Department Polo Tecnologico (Biomedical Technology Department) Fondazione Don Gnocchi, Milano (I)

09.15 **Presenting the Contents of the FP7 Coordination Project**

**Nicolas Gouze**, Project Manager of the European Technology Platform on Nanomedicine, Berlin (D)

09.25 **First Results and Activities**

**Dr. Laurent Lévy**, PhD, CEO of Nanobiotix, Member of the ETPN and Nanomed2020, Paris (F)

09.35 **Questions and Debate**

#### Break (10.00 – 10.30)

### Track 1 (Hall Montreal)

Wednesday

#### 27. Late Breaking and Ongoing Trials 1 (10.30 - 13.00)

Chair **Prof. Dr. Hans Joachim Güntherodt**, Honorary President, Swiss Nanoscience Institute (SNI), Basel (CH)  
**Prof. Dr. med. Patrick Hunziker**, President of the European Society for Nanomedicine, Basel (CH)

10.30 **Phase III Studies of Abraxane in the Treatment of Metastatic Melanoma and Advanced Pancreatic Cancer**

**Dr. Neil P. Desai**, Sen.Vice President, Global Research & Development, Abraxis BioScience LLC, L.A. (USA)

10.40 **Questions**

10.45 **BonyPid™ - a New Delivery System Using PolyPid Technology for the Treatment of Contaminated Open Bone Fractures**

**Dr. Noam Emanuel**, CTO, PolyPid Ltd, Petah Tikva (IL)

- 10.55 **Questions**
- 11.00 **A Novel Hepatitis B Treatment with RNAi**  
**Dr. Christopher R. Anzalone**, Ph.D., President and CEO, Arrowhead Research Corporation Pasadena, CA (USA)
- 11.10 **Questions**
- 11.15 **1) Marqibo a Lipid Nanoparticle Formulation of Vincristine for Treatment of Acute Lymphoblastic Leukemia**  
**2) Lipid Nanoparticle Formulations of siRNA for Silencing Genes in the Liver: Preclinical and Clinical Results**  
**Prof. Dr. Pieter R. Cullis**, PhD, FRSC, Director, NanoMedicines Research Group, Co-Chair, BC Personalized Medicine Initiative, Professor, Department of Biochemistry and Molecular Biology, University of British Columbia Vancouver (CDN)
- 11.40 **Questions**
- 11.45 **NBTXR3, a Real Nanotherapeutic in Phase I development for Patients with Soft Tissue Sarcoma**  
**Dr. Laurent Lévy, PhD**, CEO of Nanobiotix, Paris (F)
- 11.55 **Questions**
- 12.00 **Bupisome and Bupigel - an Ultra Long Acting Local Anesthetic (ULALA) - Formulations: From Design and Fabrication to Improved Stability**  
**Prof. Dr. Yechezkel Barenholz**, Hebrew University, Hadassah Medical School, Jerusalem (IL)
- 12.10 **Questions**
- 12.15 **Translation of Anti-inflammatory Nanomedical Treatment for Atherosclerosis into patients – First Experience**  
**Prof. Dr. med. Erik Stroes**, Chair Department of Vascular Medicine, Academic Medical Center (AMC), Amsterdam (NL)
- 10.25 **Questions**
- 12.30 **Debate**

**Lunch (13.00-14.00)**

**Track 2 (Hall Sydney)**

Wednesday

**28. Nanomedical Applications for Diagnostic and Therapeutic Settings (10.30 – 13.00)**

- Chair **Dr. Adriele Prina-Mello**, MSc, NAMDIATREAM - Project Coordination Team and ETP-Nanomedicine Nanodiagnostic WG vice-chair, School of Medicine and CRANN Trinity College, Dublin (IRL)
- 10.30 **Does the Cell Architecture Influences Engineered Nanomaterial Uptake? – an Experimental Approach**  
**Dr. Angela Schipanski**, Medical Technology and Engineered Nanomaterials (ENMs), Empa, Swiss Federal Laboratories for Materials Science and Technology, St. Gallen (CH)
- 10.40 **Sensing Sepsis - Technological Advances: Novel Biomarkers in Sepsis Diagnosis**  
**Dr. Inge Herrmann**, Department of Materials and Institute of Biomedical Engineering Imperial College London and University of Zürich, Dept. of Anesthesiology and Physiology, London (UK)
- 10.50 **Site-directed Protein Immobilization on Polymer Surfaces via Sortase A Transpeptidation Reaction**  
**Dr. Michael Richter** head Biocatalysis Group, Laboratory for Biomaterials, Empa, Swiss Federal Laboratories for Materials Science and Technology, St. Gallen (CH)



- 11.00 **Albuminated PLGA Nanoparticles for the Ophthalmic Delivery of Bevacizumab Intended for Retinal and Choroidal Neovascularization Treatment**  
**Reyhaneh Varshochian PharmD**, Teheran University of Medical Sciences, Teheran (IR)
- 11.10 **Ocular Pharmacoscintigraphic and Aqueous Humoral Drug Availability of Ganciclovir-loaded Mucoadhesive Nanoparticles in Rabbits**  
**Dr. Sohail Akhter**, Utrecht Institute for Pharmaceutical Sciences (UIPS) Utrecht University, Utrecht (NL)
- 11.20 **Questions and Debate**

Wednesday

## 29. Nanomedical Targeted Drug Delivery and Imaging in Cancer (11.40 – 13.00)

- Chair **Dr. Theresa Mary Allen**, Professor Emeritus, Pharmacology and Oncology, University of Alberta, Edmonton; Co-founder and Strategic Advisor, Center for Drug Research and Development, Vancouver (CDN)
- 11.40 **Ligand-targeted Liposomal Anticancer Drugs for the Treatment of Haematological Malignancies**  
**Dr. Theresa Mary Allen**, Professor Emeritus, Pharmacology and Oncology, University of Alberta, Edmonton; Co-founder and Strategic Advisor, Center for Drug Research and Development, Vancouver (CDN)
- 11.50 **Image-guided Heat-induced Drug Delivery Platform**  
**Dr. Marie-Edith Meyre**, Researcher, Nanobiotix, Paris (F)
- 12.00 **The Boosting Power of Photodynamic Medicine in Combination with Nanotechnology or Electromagnetic Fields Enhances Both Diagnosis and Therapy**  
**Prof. Dr. Heinrich Walt**, Group Leader, Oral Oncology Research University Hospital Zürich, Department of Oral- and Cranio-Maxillo-Facial Surgery, Zürich, (CH)
- 12.10 **In-vivo Tumor Imaging Using a novel RNAi-based Detection Mechanism**  
**Dr. habil. Wolfgang Kemmner** Research Group Surgical Oncology, Experimental and Clinical Research Center, the Charité Medical Faculty and the Max-Delbrück Center for Molecular Medicine, Berlin (D)
- 12.20 **Tumor-homing peptide Boosts Porous Silicon Nanovectors Accumulation in Vivo**  
**Dr. Hélder A. Santos**, Adjunct Professor & Principal Investigator in Pharmaceutical Nanotechnology; Academy of Finland Research Fellow, Helsinki (FIN)
- 12.30 **Development of New Multifunctional Nanoconstructs Bearing Antibody-derivatives for HER2-positive Cells Targeting in Breast Cancer**  
**Dr. Luisa Fiandra**, PhD, Researcher, Ospedale L. Sacco, Milano (I)
- 12.40 **Questions and Debate**

Lunch (13.00-14.00)

## CLINAM Satellite Track 2 (Hall Rio)

Wednesday

## 30. Tissue Engineering for Drug Development and Substance Testing (09.00 – 13.15)

Organized by the Swiss Competence Centre TEDD, Zürich (CH)

Chair **Prof. Dr. Ursula Graf-Hausner**, Zürich University of Applied Sciences, Wädenswil (CH)

- 09.00 **3D Tissue Models for Drug Development and Substance Testing – an Overview**  
**Prof. Dr. Ursula Graf-Hausner**, Zürich University of Applied Sciences, Wädenswil (CH)

**Innovative Technologies for 3D Cell Culture - Biomimetic Materials**  
**Dr. Martin Ehrbar**, Zürich University, Zürich (CH)

### **Bioprinting – a Promising Approach for 3D Tissue and Organ Fabrication**

**Marc Thurner**, CEO of regenHu Ltd., Villaz-St.-Pierre (CH)

### **3D Liver Microtissues to Test Nanoparticle Toxicity**

**Dr. Jens Kelm**, CSO of InSphero AG Zürich (CH)

#### **Break (10.00 – 10.30)**

### **Infectious Disease Model in Cell Cultures**

**Dr. Bruno Schnyder**, University of Applied Sciences and Art, Western Switzerland, Sion (CH)

### **A Novel Approach to Print an Air-blood Tissue Barrier**

**Prof. Dr. Barbara Rothen-Rutishauser**, Chair Bionanomaterials, and **Dr. Corinne Jud**, Adolphe Merkle Institute, Université de Fribourg, Marly (CH)

### **Co-culture of Human 3D Liver and Skin Equivalents in a Dynamic Two-tissue Microcirculation Chip**

**Dr. Uwe Marx**, Program Head "Multi-Organ-Chips", Technical University, Berlin and CEO TissUse, Berlin (D)

### **3D Microtissues for Regenerative Medicine and their Application in Cardiovascular Surgery**

**Prof. Dr. Dr. Simon Philipp Hoerstrup**, Head Cardiovascular Research and Swiss Center for Regenerative Medicine, Zürich University, Zürich (CH)

#### **Lunch (13.00 – 14.00)**

#### **Track 1 (Hall Sydney)**

Wednesday

#### **31. Nanomedicine and Targeted Delivery Characterization Tools (14.00 – 15.15)**

All speakers of this Session are Exhibitors

Chair **Dr. Marieluise Wippermann**, CEO, Tecomedical AG, Sissach (CH)

14.00 **Atomic Force Microscopes (AFM) for Nanomedicine**

**Dr. Robert Sum**, Head of Marketing and Business Development, Nanosurf AG, Liestal (CH)

14.10 **Multi-parameter Nanoparticle Analysis – Seeing is Believing**

**Dr. Bob Carr**, CTO, Inventor of NanoSight technology, NanoSight Ltd., Minton Park, Amesbury, Wiltshire (UK)

14.20 **Analysis of Micro- and Nano-sized Particles for the Precise Engineering of Drug Delivery Systems for Nanomedicine Applications**

**Hans van der Voorn, BE (Hons)**, Executive Chairman, IZON SCIENCE Ltd, Christchurch (NZL)

14.30 **Pico- to Microliter Spotting - A Tale of Arrays and Multiplexing**

**Ron Wolbert, M.Sc.**, Sales Manager DACH/ East Europe, Scienion AG, Berlin (D)

14.40 **GMP Production of Liposomes and LNPs Using the Polymun Technology**

**Dr. Andreas Wagner**, Head Liposome Technology, Polymun Scientific, Immunbiologische Forschung GmbH Klosterneuburg (A)

14.50 **Questions and Debate**

#### **Break (15.15 - 15.45)**

Individual Debate with Exhibitors during Breaks and over Lunchtime

## Track 2 (Hall Montreal)

Wednesday

### 32. Neglected Diseases: Nanoparticles for Control of Malaria, Dengue and Chagas (14.00 - 15.15)

- Chair **Prof. Dr. med. Patrick Hunziker**, Deputy Chief of the Clinic for Intensive Care, University Hospital Basel (CH)
- 14.00 **Neglected Diseases: New Drugs and Diagnostics through Public-Private-Partnerships**  
**Prof. Dr. Reto Brun**, Head Parasite Chemotherapy Swiss Tropical and Public Health Institute, Basel (CH)
- 14.10 **The Global Malaria Action Plan for a Malaria-free World**  
**Dr. med. Thomas Teuscher**, Ex. Director of the United Nations-backed Roll Back Malaria Partnership, Geneva (CH)
- 14.20 **Disc-shaped Point-of-Care Platform for Infectious Disease Diagnosis**  
**Dr. Konstantinos Mitsakakis, MSc**, Laboratory for MEMS Applications, Department of Microsystems Engineering (IMTEK) University of Freiburg, Freiburg i.Br. (D)
- 14.30 **Nanomedicines for Chagas's Disease Patients**  
**Prof. Dr. Eder Lilia Romero**, Programa de Nanomedicinas, Universidad Nacional de Quilmes, Buenos Aires (AR)
- 14.40 **A Tetravalent Dengue Nanoparticle Stimulates Antibody Production in Vivo**  
**Dr. Luiz FL Coelho**, Institute of Biomedical Science, Federal University of Alfenas, Minas Gerais (BR)
- 14.50 **Nanomedicine Against Malaria: Use of Poly(amidoamine)-based Nanovectors for the Targeted Drug Delivery to Plasmodium**  
**Prof. Dr. Xavier Fernández Busquets, PhD**, Barcelona Centre for International Health Research, Research Associate, Institute for Bioengineering of Catalonia, Centre Esther Koplowitz, Barcelona (E)
- 15.00 **Questions and Debate**

**Break (15.15 – 15.45)**

## Track 3 (Hall Singapore)

Wednesday

### 33. Late Breaking and Ongoing Trials 2 (14.00 – 15.15)

- Chair **Prof. Dr. med. Erik Stroes**, Chair Department of Vascular Medicine, Academic Medical Center (AMC), Amsterdam (NL)
- 14.00 **First in Human Gold Nanoparticles for Transbuccal Delivery of Insulin in Phase 1 Clinical Trial: Safety and Bio-Distribution**  
**Dr. Jan Mous, PhD**, CEO, PharMida AG, Basel (CH)
- 14.10 **Liposomes as Biological Ball-bearing, Initial Results from a Clinical Trial**  
**Dr. med. vet. Yaniv Dolev, MBA**, CEO, Moebius Medical Ltd. Ramat Hahayal, Tel Aviv (IL)
- 14.20 **CLINATEC: A Nanomedicine Clinic for an Optimized Safer and Accelerated Translation of Micro-nanotechnology at the Bedside**  
**Prof. Dr. Francois Berger**, Head of the Cell Biology Department in Joseph Fourier University Medical School and Head of the Clinico-biological Neuro-oncology Unit, Grenoble University Hospital, Grenoble (F)
- 14.30 **IG-001—A Non-Biologic Nanoparticle Paclitaxel for the Treatment of Ovarian Cancer – First Results of a Phase 2 Ovarian Trial**  
**Dr. Larn Hwang**, Chief Operating Officer IGDRASOL, Inc. Fountain Valley, CA (USA)
- 14.40 **Questions and Debate**

**Break (15.15- 15.45)**

## Plenum (Hall Montreal)

Wednesday

### 34. The Horizon of Nanomedicine and Targeted Drug Delivery

Chair **Prof. Dr. Kenneth A. Dawson**, Professor of Physical Chemistry School of Chemistry & Chemical Biology ; Director, Centre for BioNano Interactions, Dublin (IRL)

15.45 **Endocytosis and Intracellular Transport of Nanoparticles: Present Knowledge and how to Proceed**  
**Dr. Tore Geir Iversen Senior Scientist / Group Leader for Cancer Biomedicine, Centre for Cancer Biomedicine, Faculty Division Norwegian Radium Hospital, University of Oslo (N)**

16.05 **First Questions**

16.10 **Towards Personalized Diagnostics Based on Nanomechanics**  
**Prof. Dr. h.c. Christoph Gerber**, Director for Scientific Communication at the Institute of Physics, University of Basel, co-inventor of the Atomic Force Microscope and Co-inventor of Biochemical Sensors Based on AFM Technology, Basel (CH)

16.30 **First Questions**

16.35 **Nano: Hope and Coevolution**  
**Prof. em. Dr. med. Rolf Zinkernagel**, University Hospital Zürich, Nobel Laureate

17.05 **Questions and Debate**

17.30 **Closing Remarks and Announcement of CLINAM 7/14 from June 22-25, 2014 in Basel**

17.35 **End of CLINAM 6/13**

The Programme of CLINAM 6/13 is subject to changes

18.30 **Light Farwell Dinner for staying Speakers and Invited Guests**

## GENERAL INFORMATIONS

### 1. Submission of Posters

#### a) Fields of Posters

**Clinical Topics:** Sessions on clinical topics nanomedicine and targeted medicine for cardiovascular disease, rheumatic disease, oncology, gastrointestinal/hepatic disease, bacterial infection, viral infection, parasitic Infection, implant infection, tuberculosis, hematology, neurology, neurosurgery, implants, inflammation, orphan diseases, eye disease, ear disease, HIV, tissue repair, orthopedics, etc. **Sessions on Technology:** Nano-systems, nano-particles, nano-analytics and diagnostics, toxicology, nano-imaging, targeted drug delivery using nanoparticles, GMP and quality assurance, and others, propositions for solving a medical problem in a novel way by the use of nano-technology, novel concepts and ideas if they can be supported by thorough reasoning and could lead to novel research and solutions, materials for use in Nanotechnology and Targeted Medicine **Sessions on the Implications:** Implications of nanomedicine for society, developing countries, the environment, risks and benefits, public health finance, health economics, and other subjects. **Strategy, Government, Politics:** Sessions on strategy building and policy processes in Nanomedicine. Strategic approaches towards establishing a unified funding area for nanotechnologies for medical research. Policy processes to foster leadership in Nanomedicine, Regulatory Authority topics as well as financial and marketing matters. **Industry:** Industry projects and solutions in Nanomedicine and Targeted Medicine, Tools related to Nano- and Targeted Medicine.

#### b) Deadline for Submission of Posters

**The deadline for interventions submission is May 26, 2013. The organizer accepts further Poster submissions until June 11, 2013, however the accepted posters will not be published in the Proceedings anymore. Elected submitters are allowed to make handouts of their poster and bring them to Basel.**

### c) Submission Format and Procedure:

Please send us your poster-abstract (and not the Poster!) , a short CV and your portrait photo in gif or jpg to the address [submit2013@clinam.org](mailto:submit2013@clinam.org) The submission must be written in Microsoft Word, RTF, or Open document file format, using Times New Roman 12 point font size with single spacing and must not be longer than three pages, including metadata and figures (one figure is obligatory). All illustrations, figures, and tables are placed within the text at the appropriate points. *Check if you have included the following material before submitting:* • Your poster-abstract • Your short CV ( ½ - max. 1 page) • A portrait photo in best resolution (jpg or gif and not word copy paste!)

### d) Need for Invitation Letters for Visa

If you need an official invitation letter in order to get a visa, please state this in a separate letter and **include your passport number and all necessary documents that the Embassy in your country asks for**. Include this document marked as "Invitation Need".

### e) Application for Fellowships

*Fellowship does not include the welcome dinner, the farewell dinner and the evening brokerage dinner. There are 3 different grades of Fellowship.* **1.** Reduced ticket: 250.-- € for Students; 400.--€ for Academia; 650.-- € for Government; 800.-- € for Industrial SME's, **2.** Fully waived ticket **3.** Fully waived ticket, Travel Support and maybe / or accommodation (10-100%). **Eligibility:** In order to get a Fellowship **you must address a letter** (attachment to mail and not inserted mail) to the Board of the CLINAM Foundation, stating good arguments why the CLINAM Foundation should support you. State clearly which Fellowship you apply for. **Besides the letter you need a reference letter** by a Superior of your organization stating the motivation of your application. *You shall after application receive a decision in written form.* Send your application to [Fellow@clinam.org](mailto:Fellow@clinam.org) **The request-date for Fellowship ends on May 29, 2013**

### f) Notification on Acceptance or Rejection and Online Registration

Decisions of acceptance or declination of your submitted work will be taken continuously. You will receive a "Decision Form" In case of acceptance – you have to confirm your participation and to register immediately. Then you will receive a bill **which is to be paid before the conference and in exceptions in cash at the conference desk at arrival.**

### g) Presentation Times and Size of Posters, Installation of Posters

Posters will be located in the Foyer visible for all conference attendees. The meeting breaks and lunches will be the preferred time to study the posters. During lunch and breaks the authors are asked to be present close to their poster. After the sessions of the second day of the conference during the Aperitif some time is dedicated to viewing the posters. Posters are to be presented in the **size of 1.40 meter high and 1.00 meter wide**. There will be the CLINAM-Poster Prize as well as the special poster Award for Nanotoxicology by the European Center for Nanotoxicology, Graz. **Poster installation is on June 24 as from 06.30 until 8.15 h. and lasts until June 26, 4 pm**

### h) If you have Questions

For further questions please contact our submission team at [submit2013@clinam.org](mailto:submit2013@clinam.org)

## 2. University Village

As every year in Basel a "University Village" gives ample chances to be updated on the State of the Art at the Universities of Europe and on an international level. Participating in this part of the exhibition is reserved to Universities, Institutes and Research Organizations at a price of **590 Euro** including one transferrable Conference Ticket and a Table, Pin Boards and chairs. Registration is done by downloading the registration form at web <http://www.clinam.org> and sending it to [clinam@clinam.org](mailto:clinam@clinam.org)

**Until today the Universities of the following countries have registered:**

• Austria, • Switzerland, • Hungary, • Poland, • Ireland, • Israel, • Germany, • Norway, • Italy  
... and further Universities to come

## 3. "Small Speech" Sessions

Poster presenters and University Village members **are eligible for presentations** in a special session of Small Speeches, 3 minutes in length and serving to highlight the research activities in Nanotechnology and Targeted Medicine. They must comprise a maximum of three slides, • Slide 1: general introduction to the topic of your field, presented in a way that is accessible to the highly interdisciplinary audience • Slide 2: some of the highlights of submitters work and institutions work • Slide 3: the proof, how the work fits into the area of Nanomedicine including showing the future.

**Application for Small Speech Sessions is possible any time after acceptance of your Poster. There are only 30 slots available.** Apply to the University Village Director, **Dr. Ruth Schmid** ([ruth.schmid@clinam.org](mailto:ruth.schmid@clinam.org)) **before June 10, 2013. Accepted speakers will be notified by June 15, 2013**

#### 4. Credit Points for Continuous Education of MD's

The European Conference for Clinical Nanomedicine is subject to Credit Points for Switzerland; 24 points approved by the Swiss Medical Association(1) for Clinicians in all fields of Medicine. The procedure to acquire credit points for whole Europe at the European Union of Medical Specialists (UEMS) is applied.



#### 5. CLINAM 6/13 Satellite Meetings

During CLINAM 6/13 there will be for the first time several satellite events related to Nanomedicine and Targeted Medicine. The participants of these in the order of 3 – 4 hours-meetings will give the participants the chance to also visit lectures within the CLINAM Programme and have ample time for discussions with the international delegates of the CLINAM 6/13

Satellites: [Look up the Meetings in this Programme on the pages 11 and 18.](#)

#### 6. Fees and Registration for the Conference (For Questions: [clinam@clinam.org](mailto:clinam@clinam.org) or call + 41 61 695 93 95)

<b>ONLINE REGISTRATION IS MANDATORY FOR ALL: Participants, Invited and Submitted Speakers, Poster-Presenters, Satellite-Participants and Exhibitors! Please go <a href="http://www.clinam.org">www.clinam.org</a></b>							
<b><a href="http://www.esnam.org">www.esnam.org</a> Member Fee counts for members of the European Society for Nanomedicine</b>							
CURRENCY IS EURO	3 Days	3 Days	3 Days	3 Days	3 Days	1 Day	1 Day
Category	Regular	Member ESNAM	Regular <b>Late</b> <b>After 15.6.</b>	Member <b>Late</b> <b>After 15.6.</b>	Fellowship See rules Page 21 § e)	Regular	Member ESNAM
Academy	600.--	530.--	720.--	680.--	400.--	300.--	210.--
Government	850.--	780.--	950.--	900.--	650.--	400.--	350.--
Industry	1'200.--	1'100.--	1'400.--	1'300.--	800.--	600.--	550.--
Student	500.--	375.--	-----	-----	250.--	150.--	120.--
<b>WHEN REGISTERING FOR EVENING EVENT:</b> Your share to the Brokerage Dinner on Monday, June 24, 8.15 pm is 55.-- € and will be invoiced in addition.							

#### 7. Responsibility for the Conference & Exhibition & University Village

European Foundation for Clinical Nanomedicine (CLINAM Foundation)  
Beat Löffler, MA, CEO; Prof. Dr. med. Patrick Hunziker, CSO

**Correspondence:** European Foundation for Clinical Nanomedicine (CLINAM-FOUNDATION) Alemannengasse 12  
P.O. Box, CH-4016 Basel, Switzerland Phone: + 41 61 695 93 95 Fax: + 41 61 695 93 90 Mail: [clinam@clinam.org](mailto:clinam@clinam.org)

#### 8. The People behind the CLINAM and ETPN

##### The European Foundation for Clinical Nanomedicine

The CLINAM-Foundation is a nonprofit organization that brings together the leading physicians in Nanomedicine on a European and international level; it provides a network for actively engaged professionals in clinical Nanomedicine. The CLINAM-Foundation fosters the interdisciplinary cooperation of medical doctors with experts from research and industry in other fields of life sciences. Its purpose is to accelerate specifically the genesis of innovation within Nanomedicine.

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## The European Technology Platform on Nanomedicine

The ETP Nanomedicine is the initiative led by industry and set up together with the European Commission, addressing the application of nanotechnology to achieve breakthroughs in healthcare. The ETP supports its members in coordinating their joint research efforts and improving communication amongst the members as well as towards the European Commission and the European Member States. The Policy Objectives are to • Establish a clear strategic vision in the area resulting in a Strategic Research Agenda • Decrease fragmentation in nano-medical research • Mobilize additional public and private investment • Identify priority areas • Boost innovation in nanobiotechnologies for medical use. Three key priorities have been confirmed by the stakeholders: • Nanotechnology-based diagnostics including imaging • Targeted drug delivery and release • Regenerative medicine. Furthermore, the dissemination of knowledge, regulatory and IPR issues, standardization, ethical, safety, environmental and toxicity concerns, as well as public perception in general and input from other stakeholders such as insurance companies or patient organizations play an important role.

### The ETPN Executive Board

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## THE CLINAM 6/13 Foyer Exhibition

The European CLINAM & ETPN Summit on Clinical Nanomedicine & Targeted Medicine from June 23-26, 2013 is the gathering for large, small and medium sized companies, institutes and labs that aim at a relation with the community of Clinical Nanomedicine and Targeted Medicine. Here they meet the opinion leaders, the pioneers and the experts of Nanomedicine and targeted medicine who are driving cutting edge in Nanomedicine and Targeted Medicine. 400 community members from 30 countries are expected who will be eager to see the exhibitor's capacities, capabilities, tools, devices, consumables and services and last but not least their strategies of excellence. This is the place where new business cases between industrials from pharma- and from technology-companies will come up. Here you will find the lounges to debate and set the frames for future cooperation between experts. In contrast to the layout for a broad mix of participants you will meet here the community on a neatly arranged meeting entirely dedicated to the field. 2013 is the moment to enter as Exhibitor into CLINAM, encountering the following landscape: • Industry and Research Institutes in Nanomedicine and Targeted Medicine, • Delivery of Biocompatible Vehicles and Excipients • Functional Materials • Novel Pathways for Drug Delivery • Particles and Delivery Concepts • Tools / Procedures for Nanomedicine & Targeted Medicine • Drug Delivery Devices • Visualization Tools / Microscopes (Regular, Fluorescent, AFM etc.) • Imaging Structures • Screening Tools and Software • Nanoparticle-Design • Device Construction • Nano-Fabrication for Health Sciences • Modeling and Simulation • Pharmaceutical Manufacturing • Biotechnology Products for Nanomedicine and Targeted Medicine • Services for Toxicology Assessment • Clinical Trial Support Services • Regulatory Submission Assistance • Patenting Offices ..and further fields **Registration is done by downloading the registration form at <http://www.clinam.org> and sending it as SCAN to [clinam@clinam.org](mailto:clinam@clinam.org) or by Fax to +41 61 695 93 90**

### Advisory Board for Exhibition, Industrial Speakers and University Village

The honorable members of this Board have the common goal to establish within the next years besides the conference a Platform where the industry related to Nanomedicine, Targeted Medicine and Novel Development for Medicine shall come together and will show the contemporary advances and innovation in the field and available tools for the development of Nanomedicine towards the market.

- **Dr. Marie-Luise Wippermann**, TecoMedical Ltd Sissach (CH)
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- **Dr. Sc. nat. Ruth Schmid**, SINTEF, Trondheim (N) (For University Village)
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## Exhibitors of CLINAM 6/2013

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BASEL INKUBATOR - Start-up Center, University  
of Basel and the FHNW, Basel (CH)



# How to get to Basel and the Conference Center

## By Airplane

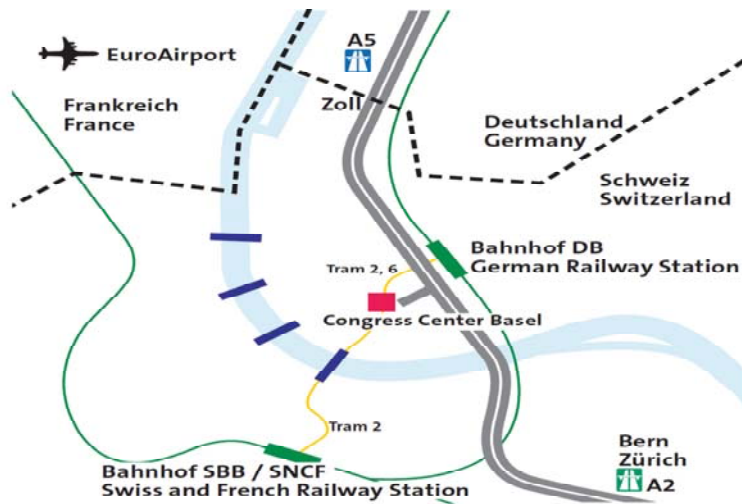
Basel-Mulhouse-Freiburg Airport is 15 minutes' drive from the Congress Center Basel. European airlines operate fast links to over 50 European cities. All direct intercontinental flights into Switzerland land at Zürich Airport, which is 55 minutes from Basel by train.

## By Car

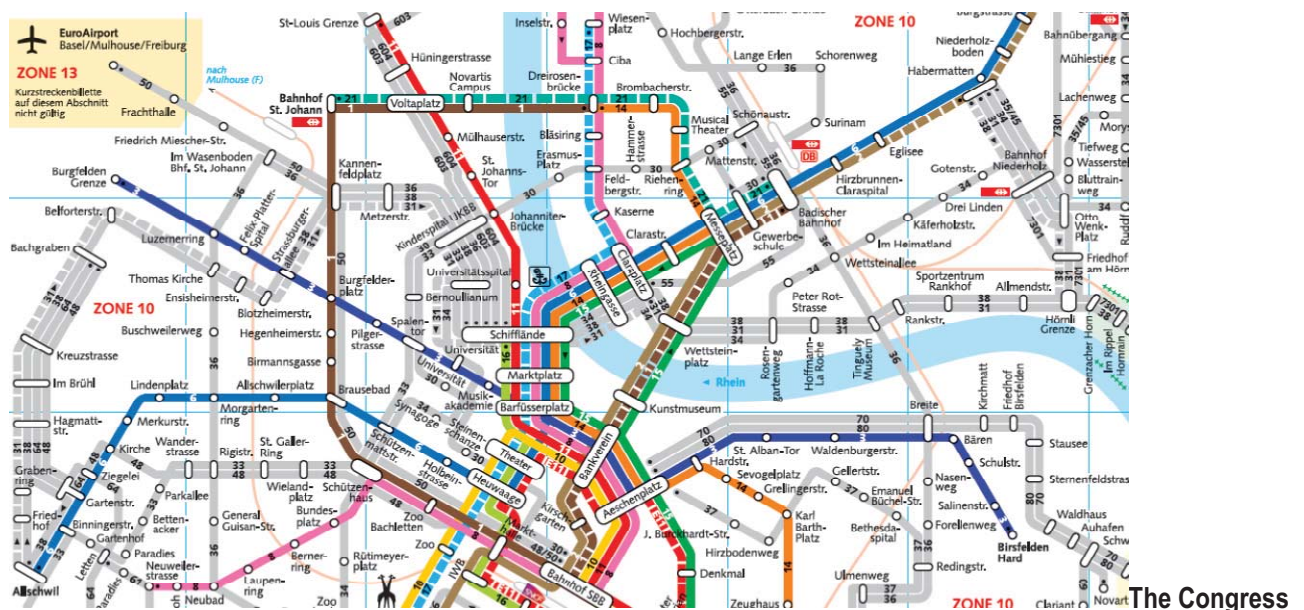
Basel is the point where the Swiss, French and German motorway networks meet. The Congress Center Basel and the trade-fair grounds have their own motorway exit. There is a Multi-storey car park with space for 1600 vehicles at the Exhibition Square.

## By Train

All three of Basel's railway stations – SBB (Switzerland), SNCF (France) and DB (Badischer Bahnhof, Germany) – are within 10 minutes of the Congress Center Basel and connected to Tramway No 2.



## Your Tramway and Busses in Basel (ticket included in your guest card)



CLINAM 6/13 Programme Overview		Red Numbers correspond to Programme	
Monday 24.6	Hall Hall Montreal	Hall Singapore	Hall Osaka / Samarkand
08.15	Opening (1)		Rio
09.30	Break		
10.10	Opening Keynote Prof. Ada Yonath Nobel Laureate (2)		
11.00	Today's Unsolved Medical Problems (3)		
11.40	Regulatory Keynote Dr. Weichold FDA USA (4)		
12.15	Lunch		
13.20	US Characterization Lab Session 1 (5)	Imaging and Diagnostics (6)	Requirements from Research to Drugs (9)
14.30		Development & Discovery for TD (7)	
15.20	Break		Break
15.50	US Characterization Lab Session 2 (5)	ETPN Brokerage & Village Small Speeches (6)	Intelligent Implants /Scaffolds in Reg. Medicine (10)
17.50	Short Break		Short Break
18.00	A Scientist in the Modern World – Science and Technology for the Future -The Nobel Laureates (11)		
19.00	End of First Day		
20.00	Official Evening Event		
Tuesday 25.6.	Montreal	Singapore	Rio
08.00	Targeted and Personalized Cancer NM (1) (12)		Osaka / Samarkand
09.40	Break		Break
10.10	Targeted and Personalized Cancer NM (2) (13)	Intracellular Biologic Targets (14)	Practices for Nanoparticles in Targeting / Drug Delivery (16)
11.15		Impacts of Blood –Brain Barrier in Drug Delivery and Targeting (15)	Nanomedicine & Targeted Medicine in Cardiology (17)
12.20			Nanomaterial Interaction with Life Modeling and Multimodality (18)
13.00	Lunch		Lunch
14.00	The Regulation Environment in Nanomedicine (20)		
15.15	Break		Break
15.45	Requirements to get from Drug Candidate to Market (21)	Immunology and Immunotoxicity of Nanomedicine (22)	Functional & Bioresponsive Materials and Novel Methods in NM (23)
17.30	Break		Break
17.45	Ethics and Implications Keynote, Rafael Capurro (24)		
18.30	Aperitif and Poster Viewing		
19.30	End of Second Day		
Wednesday 26.6.	Montreal	Sydney	Rio
08.15	Introduction of Session : Next Steps for Nanomedicine in Europe - The ETPN Nanomedicine Policy-Industry Table (25)		
08.30			
09.00			
09.15	NanoMed2020 (FP7 Project Report) (26)		
10.00	Break		
10.30	Late Breaking and Ongoing Trials 1 (27)	Nanomaterial Applications for Diagnostic and Therapeutic Settings (28)	Satellite Session Tissues Engineering for Drug Development and Substance Testing Organized by the Swiss Competence Centre TEDD, Zürich (CH) (30)
11.30		Imaging in Cancer (29)	
13.00	Lunch	Lunch	Lunch
14.00	Neglected Diseases: Nanoparticles for Control of Malaria, Dengue and Chagas (32)	Nanomedicine and Targeted Delivery Characterisation Tools (31)	Late Breaking and Ongoing Trials 2 (33)
15.15	Break	Break	Break
15.45	Horizon of Nanomedicine and Targeted Delivery (34)		
17.30	Closing Remarks		

# The European Summit for Clinical Nanomedicine and Targeted Medicine, CLINAM 6/13 Basel, Switzerland, Monday, June 24 – Wednesday, June 26, 2013

## Joint Collaborators of the CLINAM & ETPN Summit

All Joint Collaborators are non profit- organisations  
or governmental bodies



European Society for Nanomedicine  
(**ESNAM**), Basel (CH)



Helmholtz Institute for Pharmaceutical Research Saarland  
(**HIPS**), Saarbrücken (D)



EU, Directorate-General for Research & Innovation,  
(**RTD**) Brussels (B)



European Association for Predictive and Preventive  
and Personalised Medicine (**EPMA**), Brussels (B)



European Platform for Photodynamic Medicine's  
(**EPPM**), Hull (UK)



European Materials Research Society  
(**E-MRS**), Strasbourg (F)



BioNanoNet Research Association  
**BioNanoNet**, Graz (A)

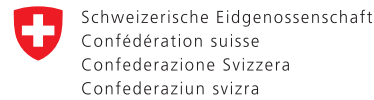


EURO-NanoTox – Austrian Hub for Nanosafety  
(**EURO-NanoTox**) Graz, (A)



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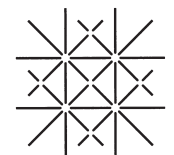


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