

# The European Summit for Clinical Nanomedicine and Targeted Medicine – The Translation to Knowledge Based Medicine

**Eighth Conference and Exhibition, June 28 – July 1, 2015**

**Sunday, June 28, 2015**

General Assembly of the European Society for Nanomedicine (15.30 h)

Meeting of the International Society for Nanomedicine (16.30 h)

Editorial Board Meeting, European Journal of Nanomedicine (18.00 h)

**Welcome Dinner for Speakers & Invited Guests (19.45 Swissôtel Le Plaza, 1st Floor)**

Co-funded by the Swiss Confederation, Swiss Department of Economic Affairs, Education and Research

## In Collaboration with:



## SUMMIT-PROGRAMME (FINAL VERSION 23.6.15)

**Scientific Committee:** • Prof. Dr. med. Patrick Hunziker, University Hospital Basel (CH). • Prof. Dr. Yechezkel Barenholz, Hebrew University, Hadassah Medical School, Jerusalem (IL). • Dr. med. h.c. Beat Löffler, MA, European Foundation for Clinical Nanomedicine, Basel (CH) • Prof. Dr. Gert Storm, Institute for Pharmaceutical Sciences, Utrecht University, (NL). • Prof. Dr. Marisa Papaluca Amati, European Medicines Agency, London (UK). • Prof. Dr. med. Janos Szebeni, Bay Zoltan Ltd and Semmelweis/Miskolc Universities, Budapest (HU). • Prof. Dr. med. Christoph Alexiou, University Hospital Erlangen (D). • Prof. Dr. Claus-Michael Lehr, Helmholtz-Institute for Pharmaceutical Research Saarland (HIPS), Saarbrücken (D). • Prof. Dr. Gerd Binnig, Nobel Laureate, Munich (DE). • Patrick Boisseau, CEA-Léti, / Chairman of the ETPN, Grenoble (F) • Prof. Dr. Viola Vogel, Laboratory for Biologically Oriented Materials, ETH, Zürich (CH). • Prof. Dr. Jan Mollenhauer, Lundbeckfondens Center of Excellence NanoCAN, University of Southern Denmark, Odense (DK). • Dr. Yanay Ofan, Systems Biology & Functional Genomics, Bar Ilan University, Ramat Gan (IL).

**Conference Venue:** Congress Center, Messeplatz 21, 4058 Basel, Switzerland, Phone + 41 58 206 28 28, [info@congress.ch](mailto:info@congress.ch)

**Organizers Office:** CLINAM-Foundation, Alemannengasse 12, P.B. 4016 Basel Phone +41 61 695 93 95, [clinam@clinam.org](mailto:clinam@clinam.org)

## Introduction

### Worldwide Platform

The CLINAM-Foundation and its collaborators have the pleasure to announce the European Summit for Clinical Nanomedicine and Targeted Medicine in Basel. The meeting has become a worldwide interdisciplinary Nanomedicine platform with every year between 400 and 500 experts from over 40 countries attending the Summit. CLINAM's major goal is to support of development and application of Nanomedicine and Targeted Medicine from the stage of basic research all the way to the clinics for the benefit of the patient and humankind. The CLINAM Summit has achieved a unique position in bringing together all stakeholders in field of Nanomedicine and Targeted Medicine including regulatory authorities from all continents, clinicians, researchers and industrial innovators.

### Catalyst Function

The CLINAM Summit has emerged as valuable interaction place to launch collaboration, get new ideas and learn about novel methodologies and technologies as well as novel projects, including numerous EU-wide efforts, in Nanomedicine and Targeted Medicine. The field represents one of the most exciting and promising arenas for novel technologies, assisting to combat devastating diseases in developing and industrialized countries and to generate novel concepts for addressing the challenges associated with demographic changes in the European society and World-wide. Nanomedicine and Targeted Medicine are the catalyst disciplines for developing diagnostics and treatments accounting for the nanoscale, molecular and cellular origin of disease and one of the enabling disciplines for the Knowledge-Based Medicine of tomorrow.

### Translation from Innovation to Product

The pathway from the innovative idea to the application, the development, regulatory approval and commercialization of nanomedical drugs is complex and first and primarily requires understanding the cause of the disease. The nature of nano-drugs and their use require high level of knowledge in many other disciplines including physics, chemistry, pharmacy, biology, engineering and nanotechnology. A cross talk between all these disciplines is a "must". The translation process from research findings to applications in Nanomedicine and Targeted Medicine has been well developing and is now on the agenda of the global players in the pharmaceutical industry. The decision makers in pharmaceutical companies start appreciating the quality and potential of Nanomedicine and Targeted Medicine for significantly increasing the output of diagnostics and therapeutic products, which are less invasive and possess reduced side effects. By bringing the relevant stakeholders together, the CLINAM Summit has achieved an actively promoting role in this process.

### Towards Personalized Medicine

In the next decades, medicine will experience a transformation to personalized diagnosis and treatment, taking the individual aspects of the patient and his/her disease into consideration. Key roles play high-resolution molecular profiling techniques having been enabled, and have been made inexpensive by Nanomedicine. The CLINAM Summit offers excellent opportunities for the huge number of organizations, which are worldwide working towards this goal, to exchange expertise and to launch joint ventures for further acceleration of the process.

### The Three Medical Focus-Fields for 2015

As all years, the scientific committee votes for three fields in medicine to be extra focused on. For this Summit, the topics chosen are • Infection and Inflammation • Cancer and • Metabolic Disease / Diabetes.

### Why to Participate in the CLINAM Summit

At **CLINAM 8/2015**, speakers have the unique opportunity to highlight and discuss their work with experts from the different fields that comprise Nanomedicine and Targeted Medicine, including regulatory authorities, industrial, academic, and clinical experts. CLINAM is the most comprehensive feedback that you can obtain. Leading Exhibitors show their novel equipment and concepts and promote the interaction between industry and the researching and developing community.

### Collaborating Organizations

The Board of the CLINAM Foundation is grateful for the collaboration with many organizations that are willing to bring into this meeting skilled expertise and make the Summit to an international melting pot for the medicine of the future on the floor of a neutral platform provided by the non-for-profit Foundation for Clinical Nanomedicine (CLINAM) in Basel.

## Programme

**Monday, June 29, 2015**

### Sector 1: Plenary Session

Plenum **Monday, Hall Montreal**

#### **1. Opening**

08.30 **Opening Address from the European Foundation for Clinical Nanomedicine**

**Dr. med. h.c. Beat Löffler, MA**, CEO of the European Foundation for Clinical Nanomedicine, Basel (CH)

#### **Opening Address from the European Commission**

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

#### **Opening Address from the Kanton of Basel**

**Dr. Lukas Engelberger**, Member of the Executive Council of the Canton of Basel-Stadt, Basel (CH)

#### **Opening Address from Switzerland**

**Dr. Gregor Haefliger**, Vice Director, Head of National Research and Innovation Division, State Secretariat for Education, Research and Innovation SERI, Bern (CH)

Scientific Introduction:

09.10 **The Principles of Knowledge Based Medicine and the Role of Nanomedicine**

**Prof. Dr. med. Patrick Hunziker**, President of the International Society for Nanomedicine, Basel (CH)

#### **Break (09.30 – 10.00)**

Plenum **Monday, Hall Montreal**

#### **2. Medicine of the Future**

Chair **Dr. med. h.c. Beat Löffler MA**, CEO of the European Foundation for Clinical Nanomedicine, Basel (CH)

Keynote Summit-Opening Lecture

10.00 **Manipulating Memory Engram Cells to Attenuate Depression in Mice**

**Prof. Dr. Susumu Tonegawa**, Nobel Laureate, Picower Professor of Biology and Neuroscience, Investigator, Howard Hughes Medical Institute, Director, RIKEN-MIT Center for Neural Circuit Genetics, Department of Brain and Cognitive Sciences, Massachusetts Institute of Technology, Cambridge (USA)

10.35 **Questions and Debate**

Plenum **Monday, Hall Montreal**

#### **3. Unsolved Problems and Clinical Challenges in Medicine**

Chair **Prof. Dr. med. Christoph Alexiou**, Head and Neck Surgery, University Hospital Erlangen (D)

11.00 **Unsolved Problems in Diabetes**

**Prof. Dr. med. Marc Donath**, Chief of the Department of Endocrinology, Diabetes and Metabolism. University Hospital Basel, Basel (CH)

11.10 **Unsolved Problems in Cancer**

**Dr. med. Dr. phil. Andreas Wicki**, Member of the Board of the Swiss Society for Medical Oncology, Head of Phase 1 Oncology, and University Hospital Basel (CH)

11.20 **Unsolved Problems in Infection**

**Prof. Dr. med. Manuel Battegay**, Professor of Infectious Diseases and Internal Medicine, President of the European Aids Clinical Society (EACS), University Hospital Basel, Basel (CH)

11.30 **Questions and Debate**

Plenum **Monday, Hall Montreal**

**4. Targeted Medicine in Cancer Therapy**

Chair **Prof. Dr. Dan Peer**, Head, Laboratory of Nanomedicine | Dept. of Cell Research & Immunology, and Dept. of Materials Science & Engineering, Director, FTA: Nanomedicines for Personalized Theranostics, Director, Leona M. and Harry B. Helmsley Nanotechnology Research Fund, Tel Aviv University, Tel-Aviv (IL)

Keynote Lecture

11.40 **Antibodies and Antibody Combinations in Treating Cancer**

**Prof. Dr. Michael Sela**, Garfield Weston Professor of Immunology, Weizmann Institute of Science, Rehovot (IL)

12.10 **Questions and Debate**

**Lunch (12.30 – 13.30)**

**Sector 2: Parallel Sessions (1-5)**

Parallel 1 **Monday, Hall Montreal**

**5. Assessing Complex Drug Similarity - The Regulation of Follow-on Nanomedicines & Non-Biologic Complex Drugs (NBCDs)** (15' including first questions after each presentation)

**Session in cooperation with the NBCD-Group, Leiden (NL)**

Chair **Prof. Dr. Daan J.A. Crommelin**, Emeritus Professor at the Department of Pharmaceutics, Utrecht University (NL), Adjunct Professor at the Department of Pharmaceutics and Pharmaceutical Chemistry at the University of Utah (USA), Co-founder of Octoplus, Leiden (NL)

**Introduction**

The session deals with the question on how to evaluate drugs that are complex mixtures of structures and where the active component is inseparable and/or unknown. Another aspect is that in this area compositions of batches are hard to standardize. This raises the challenge of how manufacturers and regulators will deal with these types of complex drugs. With targeted therapies, nanomedicines, and combination drug/imaging theranostics filling biopharma product pipelines, these are not idle questions. In addition, as patents on the first generation of "futuristic" drugs begin to expire, regulators, scientists and industry are under pressure to come up with novel answers.

13.30 **Overview**

**Dr. Scott E. McNeil**, Director, Nanotechnology Characterization Laboratory, National Cancer Institute, Vice President, Leidos Biomedical Research, Inc., Frederick, (USA)

13.45 **Regulatory Matters, US-View**

**Dr. Wenlei Jiang, Deputy Director (Acting)**, Office of Research and Standards, Office of Generic Drugs, Center for Drug Evaluation and Research, U.S. Food & Drug Administration (FDA) Silver Spring, MD (USA)

14.00 **Regulatory Matters, EU-View**

**Dr. med. Falk Ehmann, Ph.D., MSc**, Scientific Support and Project Section, European Medicines Agency (EMA) London (UK)

14.15 **Industry Case Study #1 Iron Nanoparticles**

**Prof. Dr. Stefan Mühlebach** Chief Scientific Officer, Vifor Pharma Ltd, Villars-sur-Glâne, Professor of Pharmaceutical Sciences, University of Basel, Basel (CH)

14.30 **Industry Case Study #2 Glatiramoids**

**Dr. Iris Grossman**, Vice President, Global Head of Personalized Medicine & Pharmacogenomics, Teva IsraGene, Teva Pharmaceutical Industries Ltd., Rosh HaAin (IL)

14.45 **Industry Case Study #3 Abraxane**

**Dr. Neil Desai**, VP Strategic Platforms, Celgene Corporation, Los Angeles (USA)

15.00 **Questions and Debate**

**Break (15.15 – 15.45)**

Parallel 2 **Monday, Hall Sydney**

**6. New Nanotechnologies for Medical Applications 1**

Chair **Prof. Dr. Bert Müller**, Thomas Straumann-Chair for Materials Science in Medicine, University Basel (CH)

13.30 **Ex Vivo Imaging of Brain Tissue in Health and Disease**

**Prof. Dr. Bert Müller**, Thomas Straumann-Chair for Materials Science in Medicine, University Basel (CH)

13.40 **Computer-aided Design of Liposomal Drugs: In Silico Prediction and Experimental Validation of Drug Candidates**

**Dr. Ahuva Cern**, Laboratory of Membrane and Liposome Research, Department of Biochemistry, IMRIC, The Hebrew University — Hadassah Medical School, Jerusalem and Molecular Modeling and Drug Design Laboratory, the Institute for Drug Research, the Hebrew University of Jerusalem, Jerusalem (IL)

13.50 **Smart Nanoparticles for Ultrasensitive Quantification of Cancer Mutations**

**Dr. Dejia Zhou**, Senior Lecturer and Principal Investigator, School of Chemistry, University of Leeds (UK)

14.00 **Design, Preparation and in Vitro and in Vivo Antitumor Effects of Intracellularly Degradable Amphiphilic Block Copolycurcumin Nanoparticles**

**Prof. Dr. Shengrong Guo**, Professor in Pharmaceutics, School of Pharmacy, Shanghai, Jiaotong University, Shanghai (RC)

14.10 **Utilizing RNA for in Vivo Drug Discovery and Potential Therapeutics**

**Prof. Dr. Dan Peer** Head, Laboratory of Nanomedicine, Dept. of Cell Research & Immunology, and Department of Materials Science & Engineering, Director, FTA: Nanomedicines for Personalized Theranostics, Director, Leona M. and Harry B. Helmsley Nanotechnology Research Fund, Tel Aviv University, Tel-Aviv (IL)

14.20 **New Betulin-based Nanoemulsion Effective in Early Melanoma: in Vivo Molecular Changes in Treated Skin Assessed by Confocal Raman Spectroscopy in Mice Models**

**Dr. Simona Cinta Pînzaru**, Associate Professor, Cluj-Napoca, Babes-Bolyai University, Biomolecular Physics Department, Cluj-Napoca (RO)

14.30 **Magnetic Nano-assemblies with PEG Graft Copolymers for the Targeted Delivery of Cisplatin to Tumors**

**Prof. Dr. Konstantinos Avgoustakis**, Associate Professor, Department of Pharmacy, University of Patras, Patras (GR)

14.40 **Small and Biocompatible Coatings for Iron Oxide-based Nanoparticles**

**Débora Bonvin**, Powder Technology Laboratory, Institute of Materials, School of Engineering, Ecole polytechnique fédérale de Lausanne (EPFL), Lausanne (CH)

14.50 **Questions and Debate**

**Break (15.15 – 15.45)**

Parallel 3 **Monday, Hall Singapore**

**7. Nanomedicine for Atherosclerosis and Cardiovascular Disease**

Chair **Dr. med. Panagiotis N. Trohopoulos**, Cardiologist, Founder and Scientific/Exploitation/Strategic Coordinator, EU FP7 NMP Funded CosmoPHOS-nano Project, Founder and Managing Director of the CosmoPHOS Ltd, Thessaloniki (GR)

13.30 **Atherosclerosis – an Update 2015**

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

13.45 **NanoAthero – State of the Art and First Results of this FP7-EU-Programme**

**Dr. Didier Letourneur**, Director of Cardiovascular Bioengineering, Laboratory for Translational Vascular Science, INSERM, Paris (F)

14.00 **Beyond Cholesterol - New Cardiovascular Biomarkers**

**Prof. Dr. med. Harald Mangge**, Head of the Research Unit on Lifestyle and Inflammation-associated Risk Biomarkers, Vice-Speaker of the Cardiovascular RF Clinical Institute for Medical and Chemical Laboratory Diagnosis, Medical University of Graz (A)

- 14.15 **Frontier Integrated Intracoronary Structural-Nanomolecular Imaging of High-Risk Plaque**  
**Prof. Dr. med Jin Won Kim**, Korea University, Guro Hospital, Seoul (ROK)
- 14.30 **Exploitation of High Density Lipoproteins for Nanomedicine**  
**Prof. Dr. med. Arnold von Eckardstein**, Professor of Medicine and Head of the Institute of Clinical Chemistry, University Hospital Zürich (CH)
- 14.45 **Questions and Debate**
- Break (15.15 – 15.45)**
- Parallel 4 **Monday, Hall Rio**  
**8. New Nanotechnologies for Medical Applications 2** (15' including first questions after each presentation)
- Chair **Prof. Dr. Mike Eaton**, ETP Nanomedicine, Oxford (UK)
- 13.30 **Simulation in Nanomedicine: from Physiochemical Properties to Toxicity**  
**Prof. Dr. Wolfgang Wenzel**, Research Leader Nanoscale and Bimolecular Simulation, Karlsruhe Institute of Technology (KIT), Karlsruhe (D)
- 13.45 **Targeted Polymeric Nanomedicines for the Delivery of Anti-inflammatory Biologic Proteins**  
**Dr. Nazila Kamaly**, Instructor, Laboratory of Nanomedicine and Biomaterials Harvard Medical School, Brigham and Women's Hospital, Boston (USA)
- 14.00 **Light-Emitting Vesicles for Diagnostic Applications**  
**Prof. Dr. Dong June Ahn**, Professor of KU-KIST Graduate School of Converging Science & Technology, and Depts. of Chemical & Biological Engineering, and Biomicrosystem Technology, College of Engineering, Korea University, President of the Korean Society for Nanomedicine, Seoul (KR)
- 14.15 **Integrating Molecular Machines into Nanoparticles: a New Drug-delivery Approach**  
**Prof. Dr. Avi Schroeder** Assistant Professor of Chemical Engineering, Technion, Israel Institute of Technology, Haifa (IL)
- 14.30 **Liposomal Drug Targeting Using Glycans as Ligands for Lectins – the Application of Doxorubicin in Cancer Treatment**  
**Dr. Stefan Halbherr**, Head of Research and Development, InnoMedica Holding AG, Bern (CH)
- 14.45 **Questions and Debate**
- Break (15.15 – 15.45)**
- Parallel 5 **Monday, Hall Osaka / Samarkand**  
**9. Bio Interactions of Nanoscale Particles and Innovative Materials in Nanomedicine**  
**Session of the Swiss National Research Programmes NRP 62 and NRP 64**
- Chair **Prof. em. Dr. Louis Schlapbach**, President of NRP 62, Berne (CH) and **Prof. em. Dr. Peter Gehr**, President of NRP 64, Bern (CH)
- Introduction**
- Switzerland is well advanced and brings exciting outcomes in technological research on innovative and nanoscale materials, including toxicity, safety and regulatory aspects. The National Research Programs (NRP) of the Swiss National Science Foundation, NRP 62 "Smart Materials" and NRP 64 "Opportunities and Risks of Nanomaterials", will soon to be concluded and some of the most recent data of their research projects will be presented. These projects are focusing on the impact of new intelligent materials and combinations of such with new functions for Nanomedicine. Research on nanomaterials and their applications in the biological sector shall lead to the development of tools that maximize the advantages of nanomaterials and minimize their risks for humans and the environment.



### Swiss National Research Programme 64

- 13.30 **Biomedical Nanoparticles as Immune-modulators**  
Prof. Dr. Barbara Rothen-Rutishauser, Adolphe Merkle Institute, University of Fribourg (CH)
- 13.55 **Nanoparticle Transport Across the Human Placenta**  
Dr. Peter Wick, Laboratory for Materials-Biology Interactions, Empa - Materials Science & Technology, St. Gallen (CH)
- 14.20 **In Vitro Test for Risk Assessment of Nanoparticles in Food**  
Prof. Dr. Hanspeter Nägeli, Institute of Veterinary Pharmacology and Toxicology, University of Zurich (CH)
- 14.45 **Questions and Debate**
- Break (15.15 – 15.45)**

### Swiss National Research Programme 62

- 15.45 **From Antimicrobial Coatings for Implants to Smart Bacterial Detection and Drug Delivery**  
Prof. Dr. Katharina M. Fromm, Department of Chemistry, University of Fribourg (CH)
- 16.10 **Mechanosensitive Vesicles for Targeting Critically Stenosed Arteries**  
Prof. Dr. Andreas Zumbühl, Department of Chemistry, University of Fribourg (CH)
- 16.35 **Synthesis NRP 62 "Smart Materials"**  
Prof. Dr. Louis Schlapbach, President of NRP 62 Berne (CH)
- 17.05 **Questions and Debate**
- Short Break (18.00 – 18.10) (Go for Plenary Session in Hall Montreal)**

### Sector 3: Parallel Sessions (1-4)

#### Parallel 1 Monday, Hall Montreal

- 10. Novel Approaches for Therapeutic Intervention and Drug Delivery** (15' including first questions after each presentation)  
Chair Prof. Dr. Jan Mollenhauer, University of Southern Denmark, Head Molecular Oncology, Odense (DK)
- 15.45 **Radiolabeled Exosomes: Endogenous Nanomedicine**  
Prof. Dr. med. Dong Soo Lee, PhD., Dept. of Nuclear Medicine, College of Medicine, National University Seoul, Seoul (ROK)
- 16.00 **How Exosomes Target Tumor Cells - Lessons Learned from Nature**  
Dr. Silke Krol, Fondazione IRCCS Istituto Neurologico "Carlo Besta" IFOM-IEO-campus, Milan (I)
- 16.15 **Neutron Capture Therapy with Boron Containing Magnetic Nanoparticles - Targeted Local Radiation Enhancement**  
Prof. Dr. med. Christoph Alexiou, Ass. Medical Director, Else Kröner-Fresenius-Foundation Professorship, Head Division Experimental Oncology and Nanomedicine, ENT-Clinic, University Clinic, Erlangen (D)
- 16.30 **Functionalized Protein Nanocages as a Platform of Targeted Therapy and Immunodetection**  
Prof. Dr. Sang Jeon Chung, Professor of Department of Chemistry, Dongguk University, Seoul (ROK)
- 16.45 **Multi-layer Nanocapsules as Carriers for Multi-target Oncological Nanotherapies**  
Prof. Dr. María José Alonso full professor of Biopharmaceutics and Pharmaceutical Technology at the University of Santiago de Compostela (USC) (SP)
- 17.00 **Exploring bio-inspired Nanocomposites of Nanogels and Pulmonary Surfactant for Small Interfering RNA Delivery to the Lung**  
Dr. Koen Raemdonck FWO Postdoctoral Researcher, Lab of General Biochemistry and Physical Pharmacy, Ghent Research Group on Nanomedicines, Ghent (B)

17.15 **Mucus Permeating Nanocarriers for the Delivery of Proteins**  
**Prof. Dr. Costas Kiparissides**, Professor of Chemical Engineering Department, Aristotle University, Thessaloniki (GR)

17.30 **New Approaches for Sepsis Diagnosis and Therapy: The Era of Microvesicles and Nanoparticles**  
**Dr. sc. Inge Herrmann**, Group Leader, Empa - Swiss Federal Laboratories for Materials Science and Technology, St. Gallen (CH)

17.45 **Questions and Debate**

**Short Break (18.00 – 18.10)** (Go for Plenary Session in Hall Montreal)

Parallel 2 **Monday, Hall Sydney**

**11. Guidance for Publishing, Strategies for Marketing, Translation and Development in Nanomedicine**  
(15' including first questions after each presentation)

Chair **Dr. Jan Mous**, CEO, Pharmida AG, Basel (CH)

15.45 **Peer Review, or Not Peer Review?**

**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)

16.00 **Categorization, Classification & Clustering Strategy Targeting at the Example of Personalized Healthcare**

**Dr. Mira Marcus-Kalish**, Senior Research Fellow, International Research Affairs, Tel Aviv University (IL)

16.15 **Nanomedicine: Science, Business, and Impact**

**Dr. Michael Hehenberger, Ph.D.**, Partner, HM NanoMed, Westport CT (USA)

16.30 **How Public Private Partnerships Drive Innovation in Drug Research and Development**

**Dr. Jon de Vlieger**, Manager Strategy & Business Development, TIPharma, Leiden (NL)

16.45 **Dendrimer Based Nanomedicine: Engineering Nanoparticle "Critical Nanoscale Design Parameters (CNDP)" as an Optimization Strategy from Discovery to Clinical Translation**

**Prof. Dr. Donald Tomalia**, Distinguished Visiting Professor, Columbia University, NY, Affiliate Professor, Virginia Commonwealth University, Richmond, Adjunct Professor, University of Pennsylvania, Philadelphia, CEO & Founder NanoSynthons LLC National Dendrimer & Nanotechnology Center Mt. Pleasant, MI (USA)

17.00 **Open Access Funding and Subscription Journals**

**Dr. med. vet. Karin E. Lason**, Managing Editor, European Journal of Nanomedicine, De Gruyter, Berlin (D)

17.15 **Nanotechnology in Medical Devices: Horizon Scan, Risk Assessment and Regulatory Developments**

**Robert E. Geertsma, M.Sc.**, Senior Scientist, Centre for Health Protection RIVM - National Institute for Public Health and the Environment, Bilthoven (NL)

17.30 **Questions and Debate**

**Short Break (18.00 – 18.10)** (Go for Plenary Session in Hall Montreal)

Parallel 3 **Monday, Hall Singapore**

**12. Nanomedicine in Infection and Inflammation** (15' including first questions after each presentation)

Chair **Prof. Dr. Gert Storm**, Department Pharmaceutics, Utrecht Institute for Pharmaceutical Sciences (UIPS), Utrecht and Division Imaging, University Medical Center Utrecht (UMCU and Targeted Therapeutics, MIRA Institute for Biomedical technology and Technical Medicine, University of Twente (NL)

15.45 **Less is More? Nanoscale Systems for the Delivery of a Tuberculosis DNA Vaccine**

**Prof. Dr. Gerrit Borchard**, Professor Biopharmaceutical Sciences, President of the Swiss Society of Pharmaceutical Sciences, Vice President of the European Federation of Pharmaceutical Sciences, School of Pharmaceutical Sciences, Universities of Geneva and Lausanne (CH)

16.00 **Macrophage-targeted Nanosystems Anti-inflammatory Therapy**

**Prof. Dr. Mansoor Amiji**, Distinguished Professor and Chairman Department of Pharmaceutical Sciences, School of Pharmacy, Bouvé College of Health Sciences, Northeastern University, Boston (USA)



- 16.15 **Nanoparticle-enabled Delivery of Antigens to Hair follicles - a Perspective for Needle-free Transcutaneous Vaccination**  
**Prof. Dr. Claus-Michael Lehr**, Head, Department of Drug Delivery (DDEL), Helmholtz-Institute for Pharmaceutical Research Saarland (HIPS), Helmholtz Center for Infection Research (HZI) Saarland University, Saarbrücken (D)
- 16.30 1) **Gold Nano Particles in Diabetes Immunotherapy** and 2) **Presentation of in Vivo Data**  
**Prof. Dr. Colin Dayan, Professor of Clinical Diabetes and Metabolism**, Director, Institute of Molecular and Experimental Medicine Wales, Cardiff University, Cardiff (UK)
- 16.55 **Broad-Spectrum Virocidal Peptides: A Novel Approach to Hepatitis C Virus Therapy**  
**Prof. Dr. Nam-Joon Cho, Ph.D.** Nanyang Associate Professor, Deputy Director, Nanyang Institute of Technology in Health and Medicine (NITHM), School of Materials Science and Engineering, School of Chemical and Biomedical Engineering, Nanyang Technological University, Nanyang (RC)
- 17.10 **Multistimuli-responsive Nanovesicles for Anti-inflammation and Cancer Therapy**  
**Prof. Dr. Sangyong Jon**, Head of Global Research Lab (GRL), Department of Biological Sciences, Korea Advanced Institute of Science and Technology (KAIST) Yuseong-gu, Daejeon (RK)
- 17.25 **Targeting Siglecs with a Sialic Acid-decorated Nanoparticle Abrogates Inflammation in an IL-10-dependent Manner**  
**Prof. Dr. Christopher Scott**, School of Pharmacy, Molecular Therapeutics, Centre for Cancer Research and Cell Biology, Queen's University, Belfast (UK)
- 17.40 **Questions and Debate**
- Short Break (18.00 – 18.10) (Go for Plenary Session in Hall Montreal)**
- Parallel **Monday, Hall Rio (Part 1)**  
4/1 **13. Nanoparticle-Cell Interactions from Different Angles**  
Chair **Prof. Dr. Alke Fink**, Adolphe Merkle Institute, University of Fribourg, Marly (CH)
- 15.45 **Ten Things You Should be Aware of When Working with Nanoparticles & Cells**  
**Profs. Dr. Alke Fink & Barbara Rothen-Rutishauser**, Adolphe Merkle Institute, University of Fribourg (CH)
- 16.05 **Correlating Particle Uptake by Cells with Physicochemical Parameters**  
**Prof. Dr. Wolfgang Parak**, Faculty of Physics, University of Marburg (D)
- 16.15 **Questions and Debate**
- Parallel **Monday, Hall Rio (Part 2)**  
4/2 **14. Late Breaking and Ongoing Trials**  
Chair **Dr. Neil Desai, PhD.**, VP Strategic Platforms, Celgene Corporation, Los Angeles (USA)
- 16.40 **Abraxane in Treatment of Early Stage (Neoadjuvant) Breast Cancer**  
**Dr. Neil Desai, PhD.**, VP Strategic Platforms, Celgene Corporation, Los Angeles (USA)
- 17.05 **Aldoxorubicin: Clinical Update of an Albumin-binding Prodrug of Doxorubicin**  
**Dr. Felix Kratz, Ph.D.**, Vice President of Drug Discovery, CytRx Corporation, Drug Discovery Branch, Innovation Center Freiburg, Freiburg i. Breisgau (D)
- 17.30 **Questions and Debate**
- Short Break (18.00 – 18.10) (Go for Plenary Session in Hall Montreal)**

#### Sector 4: Plenary Session

Plenum **Monday, Hall Montreal**

##### **15. Individualization of Medical Intervention**

Chair **Prof. Dr. Gerrit Borchard**, Professor Biopharmaceutical Sciences, President of the Swiss Society of Pharmaceutical Sciences, Vice President of the European Federation of Pharmaceutical Sciences, School of Pharmaceutical Sciences, Universities of Geneva and Lausanne (CH)

Keynote Lecture

18.10 **Multi-Stage Vectors and Transport Oncophysics**

**Prof. Dr. Mauro Ferrari**, Ernest Cockrell Jr. Presidential Distinguished Chair President and CEO, Houston Methodist Research Institute, Director, Institute for Academic Medicine at Houston Methodist Hospital, Executive Vice President, Houston Methodist Hospital System Houston, TX (USA)

18.40 **Questions and Debate**

**19.00 End of Day 1**

19.35 **Leaving for the Evening Event in front of the Swissôtel Le Plaza by Extra-Tramway**

20.00 **Evening Brokerage Event with Cultural Moments at Landgasthof in Riehen**

**Tuesday, June 30, 2015**

#### Sector 5: Plenary Session

Plenum **Tuesday, Hall Montreal, PANEL**

##### **16. The CLINAM 8 / 2015 Panel - Towards Surviving Cancer - Major Techniques Now and in the Future**

Chairs **Prof. Dr. Jan Mollenhauer**, University of Southern Denmark, Head Molecular Oncology, Odense (DK)  
**Prof. Dr. med. Patrick Hunziker**, Dep. Head of the Intensive Care Unit, University Hospital Basel (CH)

08.30 • **Prof. Dr. Michael Sela**, Garfield Weston Professor of Immunology, Weizmann Institute of Science, Rehovot (IL)  
• **Prof. Dr. Gerd Binnig**, Nobel Laureate, Founder and CTO of Definiens AG, Munich (DE) • **PD Dr. med. Jens Hasskarl**, Hematologist, Oncologist, Global Clinical Leader CTL019 Novartis Pharma AG, Basel (CH) • **Prof. Dr. Jerome Galon**, Research Director, Chief French National Institute of the Health and Medical Research (INSERM) laboratory of Integrative Cancer Immunology, Cordeliers Research Center, Paris (F) • **Prof. Dr. Dan Peer** Head, Laboratory of Nanomedicine, Dept. of Cell Research & Immunology, and Dep. of Materials Science & Engineering. Director, FTA: Nanomedicines for Personalized Theranostics, Director, Leona M. and Harry B. Helmsley Nanotechnology Research Fund, Tel Aviv University Tel-Aviv (IL) • **Prof. Dr. Mauro Ferrari**, Ernest Cockrell Jr. Presidential Distinguished Chair President and CEO, Houston Methodist Research Institute, Director, Institute for Academic Medicine at Houston Methodist Hospital, Executive Vice President, Houston Methodist Hospital System Houston (USA)

**Break (10.00 – 10.30)**

Plenum **Tuesday, Hall Montreal**

##### **17. Pushing the Limits in Novel Medicine - Gene Transfer, Cells, Targeting, Materials**

Chair **Dr. med. h.c. Beat Löffler, MA**, European Foundation for Clinical Nanomedicine, Basel (CH) and  
**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))

10.30 **New Functional Nano-materials for Molecular Theranostics: Applications for Degenerative Disorders, Metabolic Diseases and Cancer**

**Prof. Dr. Ehud Gazit, FRSC**, Professor and Incumbent of the Chair for Biotechnology of Neurodegenerative Diseases, Tel Aviv University, Tel Aviv (IL)

10.45 **Reprogramming the Immune System to Fight Cancer**

**PD Dr. med. Jens Hasskarl**, Hematologist, Oncologist, Global Clinical Leader CTL019 Novartis Pharma AG, Basel (CH)

- 11.00 **The Pros and the Cons of Polymeric Micelles as Delivery Platform by Minimally-invasive Administration Routes: Make it the Sticky Way**  
**Prof. Dr. Alejandro Sosnik**, Pharmacist, Ph.D., Associate Professor, Department of Materials Science and Engineering, Technion-Israel Institute of Technology, Technion City, Haifa (IL)
- 11.15 **Translating Innovative Supercomputing into Clinical Application: Challenges and Opportunities**  
**Dr. Matthias Reumann**, Research Staff Member, Systems Biology IBM Research, Rueschlikon (CH)
- 11.30 **Questions and Debate**
- Plenum **Tuesday, Hall Montreal**
- Chair **18. Biology and Rich Quantification – a Key to Understand the Immune Response against Cancer**  
**Prof. Dr. Gerd Binnig**, Nobel Laureate, Founder and CTO of Definiens AG, Munich (DE)
- Keynote lecture
- 12.00 **Understand Tumor Progression and Immune Reaction against Cancer by Using Integrative Biology and Bioinformatics**  
**Prof. Dr. Jerome Galon**, Research Director, Chief French National Institute of the Health and Medical Research (INSERM) Laboratory of Integrative Cancer Immunology, Cordeliers Research Center, Paris (F)
- 12.30 **Questions and Debate**
- Lunch (12.50 – 14.00)**
- Sector 6: Parallel Sessions (1-4)**
- Parallel 1 **Tuesday, Hall Montreal**
- Chair **19. Cancer Nanomedicine: Challenges and Solutions** (15' including first questions after each presentation)  
**Prof. Dr. Jan Mollenhauer**, Director NanoCAN Center of Excellence, Head Molecular Oncology, University of Southern Denmark, Odense (DK)
- 14.00 **Cancer Stem Cells and Personalized Cancer Nanomedicine**  
**Prof. Dr. med. Simo Schwartz, Jr., PhD, Director** Molecular Biology and Biochemistry, Research Center for Nanomedicine (CIBBIM-Nanomedicine) Univ. Hospital Vall d'Hebron and Vall d'Hebron Institut de Recerca (VHIR) Barcelona (E)
- 14.15 **Kadcyla: Realizing the Promise of Antibody-drug Conjugate Technology in Treating Solid Tumors**  
**Dr. John M. Lambert, Ph.D.** Executive Vice President, Distinguished Research Fellow, ImmunoGen, Inc. Waltham, MA (USA)
- 14.30 **Anti-Inflammatory Liposomes in Oncology**  
**Prof. Dr. Gert Storm**, Department Pharmaceutics, Utrecht Institute for Pharmaceutical Sciences (UIPS), Utrecht and Division Imaging, University Medical Center Utrecht (UMCU and Targeted Therapeutics, MIRA Institute for Biomedical technology and Technical Medicine, University of Twente (NL)
- 14.45 **Extracellular Vesicles for Drug Delivery: Two Steps Forward, One Step Back**  
**Prof. Dr. Raymond Schiffelers**, Professor of Nanomedicine, Clinical Chemistry and Haematology, UMCU, Utrecht (NL)
- 15.00 **Multistage Delivery of siRNA Therapeutics**  
**Joy Wolfram, MS**, Department of Nanomedicine, The Methodist Hospital Research Institute, Houston, TX (USA); CAS Key Laboratory for Biomedical Effects of Nanomaterials & Nanosafety, National Center for Nanoscience & Technology of China, Beijing (RC)
- 15.15 **miRNA-Inhibitors for Cancer Stem Cell Eradication**  
**Prof. Dr. Jan Mollenhauer**, Director NanoCAN Center of Excellence, Head Molecular Oncology, University of Southern Denmark, Odense (DK)
- 15.30 **Molecular Diagnostic Test for the Personalization of Cancer Immunotherapy**  
**Dr. Julianna Lisziewicz**, President and CSO, eMMUNITY, Inc. Budapest (H)

15.45 **Possible Clinical Ap(Im)PLICATIONS of Data Obtained with an Apparatus that can Measure the Metabolic Activity of Cells Circulating in the Peripheral Blood (one by one if necessary)**  
**Prof. Dr. Giacinto Scoles**, Department of Medical and Biological Sciences, University Hospital, University of Udine, Udine (I) and Biology Department, Temple University, Philadelphia, PA (USA)

16.00 **Questions and Debate**

**Break (16.30 - 17.00)** Next Session Plenum, Hall Montreal

Parallel 2 **Tuesday, Hall Sydney**

**20. Safety, Toxicology and Immunogenicity in Nanomedicine** (15' including first questions after each presentation)

Chair: **Prof. Dr. med. Janos Szebeni**, Nanomedicine Research and Education Center, Semmelweis University, Budapest (H)

14.00 **What are the Primary Requirements in Toxicology and Immunology? An Overview**

**Dr. Nadja Prang**, CSO, TECObiosciences GmbH, Munich Area (D)

14.15 **Testing for Immune Reactivity and Immunogenicity of Nanomedicines.**

**Prof. Dr. med. Janos Szebeni**, Nanomedicine Research and Education Center, Semmelweis University, Budapest (H)

14.30 **Metabolomics of Polycation Cytotoxicity: Mechanistic Aspects**

**Prof. Dr. S. Moein Moghimi, FloN**, Professor of Nanomedicine and Director, Centre for Pharmaceutical Nanotechnology and Nanotoxicology, Faculty of Health and Medical Sciences, University of Copenhagen, Copenhagen (DK)

14.45 **Interactions of TiO<sub>2</sub> Nanoparticles with the First Portal of Entry: the Oral Cavity**

**Dr. Birgit Teubl, Mag.pharm**, Institute of Pharmaceutical Sciences/Pharmaceutical Technology, Karl Franzens University of Graz, Graz (A)

15.00 **Toxicology Biomarkers: - Liver and Kidney**

**Martin Shaw**, Biosafety Specialist, TECOmedcial AG, Sissach (CH)

15.15 **Human Immune System Reconstitution in the Mouse for Better Safety/Tox Profiling and Predictive Translational Efficacy**

**Prof. Dr. Patrick Nef**, CEO & President TransCure bioServices, Geneva (CH)

15.30 **Complement Activation and Immune Recognition of Superparamagnetic Iron Oxide (SPIO) Nanoworms in Mice versus Humans**

**Prof. Dr. Dmitri Simberg, PhD** Assistant Professor, University of Colorado, Skaggs School of Pharmacy and Pharmaceutical Sciences, Aurora, CO (USA)

15.45 **Inhalable Targeted Nanomedicine: Safety and Efficacy**

**Prof. Dr. Elias Fattal**, Director of the Institut Galien Paris-Sud, UMR CNRS 8612, University of Paris-Sud, School of Pharmacy, Châtenay-Malabry (F)

16.00 **Standardized Toxicological Assays for Risk Assessment of Colloidal Nanoparticles**

**Dr. Christoph Rehbock**, Scientific Coordinator, Technical Chemistry I and Center for Nanointegration Duisburg-Essen (CENIDE), University of Duisburg-Essen, Essen (D)

16.15 **Questions and Debate**

**Break (16.30 - 17.00)** Next Session Plenum, Hall Montreal

Parallel 3 **Tuesday, Hall Singapore**

**21. Pharmaceutical Development of Nanomedicine Medications** (15' including first questions after each presentation)

This session is established in collaboration with the International Association for Pharmaceutical Technology (APV), Mainz (D)

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

14.00 **The Use of Phospholipids as Nanomaterials in Drug Delivery Systems**

**PD Dr. Peter van Hoogevest**, Lipoid GmbH, Scientific Department Ludwigshafen (D)

- 14.15 **Selection of Materials for Nanomedicines - Using a Quantitative Metric for Hydrophobicity as a Selection Criterion for Nanomedicine Biocompatibility**  
**Dr. Lea Ann Dailey**, Senior Lecturer, Institute of Pharmaceutical Science, Pharmaceutical Sciences Clinical Academic Group, King's College London, London (UK)
- 14.30 **Albumin Based Disease Targeting Diagnostic/Therapeutic Nano-platform**  
**Prof. Dr. med. Yun-Sang Lee**, Department of Nuclear Medicine, Seoul National University, College of Medicine, Seoul (KR)
- 14.45 **Antibody Mediated Targeted Therapies**  
**Dr. Irmgard Thorey**, Senior Scientist, Lead Identification, Roche Innovation Center Penzberg, Roche Diagnostics GmbH, Penzberg (D)
- 15.00 **Delivering Nanomedicines to Patients: A Practical Guide to Translation**  
**Prof. Dr. Mike Eaton**, ETP Nanomedicine, Oxford (UK)
- 15.15 **Translation of Biopharmaceuticals from Bench to Clinics – Examples for a New Recombinant Tuberculosis Vaccine and Dense Bodies as Cytomegalovirus Vaccine**  
**Dr. Steffi Hansen**, Project Manager, Pharmacist, Vakzine Projekt Management GmbH Hannover (D)
- 15.30 **ApidSOL Micellar Nanocarriers for Enhanced Local Drug Delivery**  
**Dr. Doris Gabriel**, R&D Manager, Apidel SA, Geneva (CH)
- 15.45 **Reprogramming T-cells: Manufacturing challenges of CAR therapies**  
**Dr. Alexander Huber**, Technical Project Leader, Cell & Gene Therapy Unit, Novartis Pharma AG, Basel (CH)
- 16.00 **The Pathway of Industry to Horizon 2020**  
**Heico Frima, MSc**, Programme Officer, EC, Directorate-General for Science & Innovation DG - Industrial Technologies, Brussels (B)
- 16.15 **Questions and Debate**
- Break (16.30 - 17.00) Next Session Plenum, Hall Montreal**

Parallel 4 **Tuesday Hall Rio**

**22. CLINAM Universities "Small Speeches" and ETP Nanomedicine Brokerage**

Chair **Dr. Sc. Nat. Ruth Schmid**, Vice President Marketing, SINTEF Materials and Chemistry, Biotechnology and Nanomedicine, Polymer Particles and Surface Chemistry Trondheim (N) and **Nicolas Gouze**, Project Leader, VDI/VDE Innovation, ETPN, Berlin (D)

14.00 **Brokerage:**

With the launch auf Horizon 2020, the new EU Framework Programme for Research and Innovation, Nanomedicine is gaining a new dimension with the funding of excellent research but also of translational projects with clear clinical applications. Find here the brokerage to discuss jointly projects, existing and approaching application calls and find your project-mates and members for cooperation.

15.00 **Universities Small Speeches**

Posters and Results of Scientists at Universities participating in the University Village 2015 are welcome to submit for a small speech of 4 minutes, serving to highlight the research activities in Nanotechnology / Health. The speeches comprise a maximum of three slides. • Slide 1: general introduction to the topic future and outlook on translation of the work 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 and Targeted Medicine including showing the future and outlook on translation of the work.

**More than 30 presentations have been accepted.** (See list inserted in conference wallets)

**Break (16.30 - 17.00) Next Session Plenum, Hall Montreal**

## Sector 7: Plenary Session

Plenum **Tuesday, Hall Montreal, Panel**

**23. The Regulation Environment in Nanomedicine and Targeted Medicine – We Must Come to Terms**

Session organized together with the FDA, EMA, the European Commission, the NIHS Japan and CAS China

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

17.00 The chance of the CLINAM SUMMIT 2015 in Basel is the presence of the interdisciplinary community in the field of Nanomedicine and Targeted Medicine, including the clinicians and all those developing findings to products to the benefit for patients. No group is more important as the regulatory authorities to seeking globally to align the processes of approval of drugs and devices for Nanomedicine and targeted delivery. Industry has now started to build up their first departments in the field and the progress over the last years was huge. This makes the debate on the regulatory framework even more important: the need for a mutual agreement of understanding - a framework in which industry and patients feel at ease and which will secure for the highest scientific and regulatory standards. This pathway towards trust and close cooperation between all stakeholders is getting urgent for the future development of drugs and devices to the benefit for patients. Every step to minimize potential risks of Nanomedicine will be a big step forward in the development of tomorrow's medicine where Nanomedicine is one of the big building blocks. There is need for definitions, standards and harmonisation of Nanomedicine to become a part of Targeted Medicine and Markets. It will take further steps for the maturation of Nanomedicine but compared to 5 years ago we have enormously progressed. The CLINAM-Summit proves to be the useful platform to further Nanomedicine in a reliable continuation of the discussion leading to novel results.

**Europe:** Dr. med. Falk Ehmann, Ph.D., MSc, Scientific Support and Project Section, European Medicines Agency (EMA) London (UK)

**Japan:** Dr. Kumiko Sakai-Kato, Section Head, Division of Drugs, National Institute of Health Sciences (NIHS), Ministry of Health, Labour and Welfare (MHLW), Tokyo (J)

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

**China:** Prof. Dr. Guangjun Nie, CAS Key Laboratory for Biomedical Effects of Nanomaterials & Nanosafety National Center for Nanoscience and Technology of China, Chinese Academy of Sciences (CAS), 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. Paul Ohrii, Director General, National Agency for Food and Drug Administration and Control (NAFDAC), Abuja, Nigeria (AFR)

**IMI:** Dr. Fatiha Sadallah, Principal Scientific Manager, Innovative Medicines Initiative (IMI), Brussels (B)

18.45 **Aperitif, Poster Awards for the Best 3 Posters from the 3 Fields**

**19.40 End of Day 2**

20.15 **Dinner for Speakers and Officially Invited Guests (Leaving Lobby Le Plaza 20.00)**

**Wednesday July 1, 2015**

## Sector 8: Parallel Session (1-4)

Parallel 1 **Wednesday, Hall Montreal**

**24. Diagnostic and Theranostic Applications of Nanoparticles (15' including first questions after each presentation)**

Chair **Dr. Twan Lammers, PhD, DSc**, Experimental Molecular Imaging, RWTH Aachen, Aachen (D) and Department of Targeted Therapeutics, University of Twente, Enschede (NL)

08.30 **Longitudinal Biodistribution Studies of Inhaled Nanomedicines using SPECT/CT Imaging**  
**Dr. Lea Ann Dailey**, Institute of Pharmaceutical Science, King's College London, London (UK)

08.45 **Latest Insights in Medical Imaging Based on Nanoparticles**  
**Dr. Alessandro Maiocchi**, Research Projects Manager, Centro Ricerche Bracco, Bracco Imaging SpA, Colleretto (I)

09.00 **Diagnostic Barcoded Nanoparticles for Personalized Cancer Medicine**  
**Prof. Dr. Avi Schroeder**, Assistant Professor of Chemical Engineering, Technion, Israel Institute of Technology, Haifa, (IL)



- 09.15 **Direct and Indirect Imaging of EPR-mediated Tumor Targeting**  
**Dr. Twan Lammers, PhD, DSc**, Experimental Molecular Imaging, RWTH Aachen, Aachen (D) and Department of Targeted Therapeutics, University of Twente, Enschede (NL)
- 09.30 **ICG-loaded PEGylated Liposomal Doxorubicin as a Theranostic Nanodrug**  
**James Gubbins**, Nanomedicine Lab, Faculty of Medical and Human Sciences, University of Manchester (UK)
- 09.45 **Novel Targeted Medicine to Modulate Tumor-associated Macrophages for the Treatment of Breast Cancer**  
**Dr. Jai Prakash**, Assistant Professor Targeted Therapeutics Department of Biomaterials, Science and Technology MIRA Institute for Biomedical Technology and Technical Medicine, University of Twente, Enschede (NL)
- 10.00 **Decoding the EPR Effect: Investigating the Influence of Tumour Features on Nanomedicine Accumulation, Distribution, and Retention**  
**Dr. Jennifer Hare**, Postdoctoral Research Associate, AstraZeneca R&D | Oncology iMed (Innovative Medicines and Early Development) Macclesfield, Cheshire (UK)
- 10.15 **Questions and Debate**
- Break (10.30 – 11.00)**
- Parallel 2 **Wednesday, Hall Sydney**
- 25. New Measurement Techniques and Standards to Meet the Needs of Nanomedicine**
- Chair **Dr. Marieluise Wippermann**, CEO, TECOMedical AG, Sissach (CH)
- 08.30 **Precise, Repeatable and Verifiable Nano-measurement is Required for Nanomedicine to Advance to Routine Medical Use**  
**Hans van der Voorn, BE (Hons)**, CEO, IZON SCIENCE Ltd, Christchurch (NZL)
- 08.40 **Limits and Highlights of Detection with the ZetaView Nanoparticle Tracking Analysis (NTA)**  
**Dr. Clemens Helmbrecht**, Head of Research & Development, Particle Metrix GmbH, Diessen, (D)
- 08.50 **Using Nanoparticle Tracking Analysis (NTA) for Accurate and Complete Nanosuspension Characterisation**  
**Dr. Patrick Hole**, Engineering Manager for NTA, Malvern Instruments Ltd., Malvern, Wiltshire (UK)
- 09.00 **ARTIDIS® - Using the Nanomechanical Signature to Predict Disease Course**  
**Dr. med. Marko Loparic, PhD**, Chief Medical Officer, Nuomedis, Liestal (CH)
- 09.10 **Super-resolution Interference Microscopy for Nanoparticles 3D Measurements**  
**Cnd.Dr. Pavel Ignatyev**, CEO, AMPHORA Laboratories LLC Moscow (RU)
- 09.20 **Novel Single Cell Manipulation Approaches for Nanomedicine by FluidFM**  
**Dr. Patrick Frederix**, Head of Application Engineering and Services, Nanosurf AG, Liestal (CH)
- 09.30 **Optical Observation and Hyperspectral Characterization of Label Free Nanomaterials in Biological Matrices**  
**Nicolas Gonzalez, MSc**, Commercial Engineer, Schaefer Techniques, Nozay (F)  
representing CytoViva, Inc. Auburn, AL (USA)
- 09.40 **Questions and Debate**
- Break (10.30 – 11.00)**
- Parallel 3 **Wednesday, Hall Singapore**
- 26. Nanomedicine for Alzheimer and other Brain Diseases**
- Chair **Prof. Dr. Rutledge Ellis-Behnke**, Director of the Nanomedicine Translational Think Tank Department of Ophthalmology, Medical Faculty Mannheim, Ruprecht-Karls-University, Heidelberg (D)
- Session keynote 1
- 08.30 **Innovative Neurotechnologies for Theranostics Brain Interface**  
**Prof. Dr. med. François Berger**, Director of the CLINATEC, Centre De Recherché Biomedical Edmond J. Safra, CEA, Grenoble (F)

Session Keynote 2

- 08.45 **Improving the Treatment of Alzheimer and Parkinson by Novel Design of Micro- and Nanoparticles**  
**Dr. Enara Herran**, Researcher, Department of Pharmacy and Pharmaceutical Technology  
UPV/EHU, University of the Basque Country Leioa, Vizcaya (SP)
- 09.00 **AMYPOSOMES®: Multi-functional Liposomes for Therapy of Alzheimer's Disease Waiting for Clinical Trials**  
**Prof. Dr. Massimo Masserini**, Professor of Biochemistry, Director of the Nanomedicine Center of Milano Bicocca (NANOMIB), Medical School University of Milano-Bicocca (I)
- 09.10 **Polymeric Nanocapsules as a Promising Approach for Drug Targeting to Brain: Studies in Alzheimer / Schizophrenia Models**  
**Prof. Dr. Sílvia Stanisçuaski Guterres**, Full Professor of Pharmaceutical Technology, College of Pharmacy, Federal University of Rio Grande do Sul (BR)
- 09.20 **Peptide-modified Nanoneedles for Systemic Delivery to Brain Cancer**  
**Dr. Khuloud T. Al-Jamal**, Senior Lecturer in Nanomedicine Drug Delivery Group, Institute of Pharmaceutical Science, King's College London, London (UK)
- 09.30 **Peptide-functionalized Nanoparticles as Dual Targeting Drug Delivery System for Brain Tumors Therapy**  
**Dr. Salvador Borros**, CSO Sagetis-Biotech, Barcelona, (SP)
- 09.40 **Peptide Nanofiber Complexes with siPLK1 for the Neurosurgical Treatment of Glioblastoma Multiforme: Targeting Tumor Proliferation**  
**Dr. Mariarosa Mazza**, Nanomedicine Lab, Faculty of Medical and Human Sciences, University Manchester (UK)
- 09.50 **Questions and Debate**

**Break (10.30 – 11.00)**

Parallel 4 **Wednesday, Hall Rio**

**27. Routes Through the Body and the Cell: Pharmacokinetics and Intracellular Trafficking of Nanocarriers**  
Chair: **PD Dr. med. Volker Mailänder**, Leader of the joint research group between the University Clinic Internal Medicine III, Johannes-Gutenberg University Mainz and the Max Planck Institute (MPI) for Polymer Science, Mainz (D)

- 08.30 **Biodistribution and Excretion of Biodegradable versus Non-degradable Nanoparticles**  
**Dr. Tore Skotland**, Centre for Cancer Biomedicine, Institute for Cancer Research, Oslo University Hospital and University of Oslo, Oslo (N)
- 08.40 **Understanding Intracellular Nanoparticle Drug Delivery Pathways by Combining Proteomics with Molecular Biology**  
**PD Dr. med. Volker Mailänder**, Leader of the joint research group between the University Clinic Internal Medicine III, Johannes-Gutenberg University Mainz and the Max Planck Institute (MPI) for Polymer Science, Mainz (D)
- 08.50 **Cellular Uptake of Nanoparticles: Mechanisms and Consequences**  
**Prof. Dr. Kirsten Sandvig**, Centre for Cancer Biomedicine, Institute for Cancer Research, The Norwegian Radium Hospital, Oslo, University Hospital and University of Oslo, Oslo (N)
- 09.00 **Iron Oxide Nanoparticles: Can we reach the Hospital yet?**  
**Prof. Dr.-Ing. Heinrich Hofmann**, Director Powder Technology Laboratory, Institute of Material EPFL, Lausanne (CH)
- 09.10 **Translation of Drug Exposure Between Virtual Populations to Support Drug Development**  
**Dr. Martin Hobe**, Technology Packages Management Computational Biology, Bayer Technology Services GmbH Leverkusen (D)
- 09.20 **A Physiologically Based Pharmacokinetic Model to Predict the Superparamagnetic Iron Oxide Nanoparticles (SPIONs) Accumulation in Vivo**  
**Dr. Marco Siccardi**, Lecturer, Department of Molecular and Clinical Pharmacology, Institute of Translational Medicine, University of Liverpool (UK)

09.30 **RNA-Lipid Nanoparticles: A Robust and Potent Tool for Gene Knockdown and Expression in Primary Neurons**

**Dr. Gesine Heuck, Ph.D., Pharm.D. (eq)**, Drug Formulation, MITACS Fellow, Precision NanoSystems, Inc., Vancouver (CND)

09.40 **Questions and Debate**

**Break (10.30 – 11.00)**

### **Sector 9: Plenary Session**

Plenum **Wednesday, Hall Montreal**

**28. Improving our Knowledge in the Medicine of the Future – Two Views**

Chair **Prof. Dr. Gerd Binnig, Nobel Laureate, Founder and CTO of Definiens AG, Munich (D)**

Keynote Lecture

11.00 **Targeted Nanotechnologies for Cancer Therapy: From Discovery to Clinical Trials and Lessons Learned**

**Prof. Dr. med. Omid Farokhzad**, Blend Founder and Associate Professor and Director of Laboratory of Nanomedicine and Biomaterials, Harvard Medical School and Brigham and Women's Hospital; Cambridge, Boston (USA)

11.30 **Questions and Debate**

Keynote Lecture

11.45 **Liposomes' Based Steroidal Nano-drug Prevents Cerebral Malaria**

**Prof. Dr. Yechezkel (Chezy) Barenholz**, Head of Membrane and Liposome Research Lab, Hebrew University Hadassah Medical School, Jerusalem (IL)

12.15 **Questions and Debate**

**Lunch (12.30 – 13.45)**

### **Sector 10: Parallel Session (1-4)**

Parallel 1 **Wednesday, Hall Montreal**

**29. Nanomedicine for Rare and Neglected Diseases**

Chair **Prof. Dr. Reto Brun**, Head Parasite Chemotherapy, Swiss Tropical and Public Health Institute, Basel (CH)

13.45 **Neglected Diseases: Current Status and Future Needs**

**Prof. Dr. Reto Brun**, Head Parasite Chemotherapy, Swiss Tropical and Public Health Institute, Basel (CH)

Session Keynote

13.55 **Next Generation Malaria Medicines**

**Prof. Dr. Paul Herrling**, Chairman of the Board of the Novartis Institute for Tropical Diseases, Singapore (SGP) and Vice-President of the ETH Board. Zürich (CH)

14.15 **Polyamidoamine Nanoparticles as Carriers for the Delivery of Drugs to Malaria Parasite Stages in the Mosquito Vector**

**Prof. Dr. Xavier Fernández Busquets, PhD**, Nanomalaria Joint Unit, Associate, Institute for Bioengineering of Catalonia, Barcelona, Member of the Barcelona Centre for International Health Research, Barcelona (SP)

14.25 **A Point-of-care Diagnostic Platform for Infectious Diseases Based on Centrifugal Microfluidics.**

**Dr. Konstantinos Mitsakakis** IMTEK, Department of Microsystems Engineering, University of Freiburg (D)

14.35 **Nanomaterial Strategies Against Neglected Diseases by Nanomedicine in South America**

**Prof. Dr. Eder Lilia Romero**, Programa de Nanomedicinas, Universidad Nacional de Quilmes, Buenos Aires (AR)

14.45 **Interaction of Novel Antimalarial Nanoformulation with Cells**

**Prof. Dr. med. Anthony A. Attama** Professor, Department of Pharmaceutics, University of Nigeria, Nsukka, Enugu State Nigeria.

14.55 **Questions and Debate**

**Break (15.15 – 15.45)**

Parallel 2 **Wednesday, Hall Sydney**

**30. Ethics: Value of Patient Involvement in the Personalized Treatment with Nanomedicine**

Session in collaboration with the European Forum for Good Clinical Practice (EFGCP) and the Drug Information Association (DIA)

Chair **Dr. med. Ingrid Klingmann**, PhD, Chairman, European Forum for Good Clinical Practice (EFGCP), Brussels, (B) and **Dr. Jytte Lyngvig**, Senior VP and Managing Director, DIA Europe, Middle East & Africa, Basel (CH)

13.50 **Benefits and Complexities of Patient Involvement in the Development of Personalized Nanomedicine Treatments**

**Dr. med. Detlef Niese, lic.pharm.**, Dr. Niese Health Science & Policy, Freiburg i.Br. (D)

14:00 **Responsible Innovation Approach Involving all Stakeholders for Successful Development and Translation to Clinic of Nanomedicine**

**Robert E. Geertsma M.Sc.**, Centre for Health Protection, RIVM - National Institute for Public Health and the Environment, Bilthoven (NL)

14.10 **Development of Nanomedicines for Better Treatments – my Needs, my Fears, my Contributions**  
Invited Speaker to be announced

14.20 **Enabling Patient Involvement in Benefit-risk Assessment in Nanomedicines Development – the Clinicians View**

**Prof. Dr. med. Christoph Alexiou**, Head and Neck Surgery, University Hospital Erlangen (D)

14.30 **Ethical Issues in Patients' Involvement in Decisions Making on Personalized Treatments with Nanomedicine/s: Protection versus the Frontiers of Hope**

**Prof. Dr. med. Jozef Glasa**, Institute of Health Care Ethics and Institute of Pharmacology and Clinical Pharmacology, Slovak Medical University in Bratislava, Institute of Medical Ethics and Bioethics n. f., Bratislava, Slovak Republic

14:45 **Questions and Debate**

**Break (15.15 – 15.45)**

Parallel 3 **Wednesday, Hall Singapore**

**31. Nanomaterials: Cellular Handling and New Cellular Targets, Evaluation of Mechanisms**

This session is created in collaboration with the European Materials Research Society (E-MRS)

Chair **Prof. Dr. Alejandro Sosnik**, Pharmacist, Ph.D., Associate Professor, Department of Materials Science and Engineering, Technion-Israel Institute of Technology, Technion City, Haifa (IL)

13.45 **Improvement of Patient's Care and Therapeutic Efficiency towards Melanoma with Dendritic Nanoobjects**  
**Dr. Delphine Felder-Flesch**, Strasbourg Institute of Materials, Physics & Chemistry (IPCMS), Strasbourg (F)

13.55 **ACS Surgical Hemostat™ is an Effective Hemostatic Agent in Anticoagulated Animals Using a Non-compressible, Penetrating Liver Wound Model**

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

14.05 **Evaluation of Nanoparticle PEGylation: Quantitative and Qualitative Determination**

**Dr. Ýrr Mørch**, Research Scientist, SINTEF Materials and Chemistry Biotechnology and Nanomedicine, Trondheim (N)

14.15 **How are Anisamide-decorated Colloids Taken up by Tumoral Cells?**

**Athanasia Dasargyri**, MSc., Drug Formulation and Delivery' Research Group of the Institute of Pharmaceutical Sciences, ETH Zurich, (Professor Jean-Christophe Leroux), Zürich (CH)

14.25 **Aqueous Synthesis of Iron Oxide Nanoparticles Suitable for Hyperthermia Treatment**

**Dr. Marijana Mionic Ebersold**, Scientific collaborator, Powder Technology Laboratory, Institute of Materials, School of Engineering, Ecole polytechnique fédérale de Lausanne, (EPFL) Lausanne (CH)

14.35 **Peptide Nanofiber Complexes with siPLK1 for the Neurosurgical Treatment of Glioblastoma Multiforme: Targeting Tumor Proliferation**

**Dr. Mariarosa Mazza**, Nanomedicine Lab, Faculty of Medical and Human Sciences, University Manchester (UK)

14.45 **How Immune Cells Wrestle with their Prey**  
**Prof. Dr. Dr. h.c. Viola Vogel**, Laboratory of Applied Mechanobiology Department of Health Sciences and Technology  
ETH Zurich (CH)

14.55 **Debate and Questions to all speakers**

**Break (15.15 – 15.45)**

Parallel 4 **Wednesday, Hall RIO**

**32. Platform in Nanomedicine - The European Pathway of Nanomedicine**

Session organized by the **European Technology Platform on Nanomedicine**

Chair **Patrick Boisseau**, CEA-Léti, / Chairman of the ETPN, Grenoble (F)

Facilitating translation in Nanomedicine has been commonly recognized as a main topic for Europe to concentrate efforts on and to help stakeholders, in particular SMEs, entrepreneurs and researchers in order to stimulate the emergence of a profitable industrial sector. With the concrete implementation of the “Translation Hub” concept defined by the ETPN – i.e. funding of the Translation Advisory Board and of the EU-NCL - the European Commission confirmed its interest in such concept, its adequacy to support future nanomedical products and its potential to address other Key Enabling Technologies (KETs) targeting healthcare. The contribution of Nanomedicine in this cross-KETs approach is addressed by selected speakers and to be discussed with the audience.

13.45 **Introduction**

**Patrick Boisseau**, CEA-Léti, / Chairman of the ETPN, Grenoble (F)

14.00 **Building Support from Concept to Commercialization - the UK Story**

**Dr. David Bott**, Principal Fellow at WMG, former Director of the UK Technology Strategy Board

14.15 **Delivering Nanomedicines to Patients: A Practical Guide**

**Dr. Laurent Lévy**, Nanobiotix, CEO, Paris (F)

14.30 **Lab-on-Chip for IVD: from Product Development to Market Access**

**Vivienne Williams**, MSc. CEO, Cellix Ltd., Dublin (IRL)

14.45 **Industrial Challenges (and opportunities) for the Effective Translation of Innovative Technologies in the Regenerative Medicine Sector**

**Felix Michnacs**, Tetec AG, Head of Clinical Operations, Reutlingen (D)

15.00 **Questions and Debate**

**Break (15.15 – 15.45)**

## **Sector 11: Plenary Session**

Plenum **Wednesday Hall Montreal**

**33. Late Breaking and Ongoing Trials (15' presentations including first questions)**

Chair **Prof. Dr. Mike Eaton**, ETP Nanomedicine, Oxford (UK)

15.45 **A Phase I Open-label, Safety, Pharmacokinetic and Preliminary Efficacy Study of CriPec® Docetaxel in Patients with Solid Tumors**

**Dr. Cristianne JF Rijcken**, PharmD, CSO, Cristal Therapeutics, Maastricht (NL)

16.00 **RNA Nanomedicines for Individualized Tumor Immunotherapy: Translation from Basic Research into Clinical Phase I Trials**

**Dr. Heinrich Haas**, Vice President Drug Delivery, BioNTech RNA Pharmaceuticals GmbH, Mainz, (D)

16.15 **Safety of Nanolipids in Different Research Lines and Potential of Lipidic Therapy after Clinical Trial in Oncology**

**Dr. Eusebio Gainza**, PRAXIS GROUP R&D Manager, Biopraxis Research AIE General Manager, Miñano (SP)

16.30 **Mirvetuximab Soravtansine, an Antibody-Drug Conjugate Utilizing a Maytansinoid Payload which Targets the Folate Receptor FOLR1**

**Dr. John M. Lambert, Ph.D.**, Executive Vice President Distinguished Research Fellow, ImmunoGen, Inc. Waltham, MA (USA)

- 16.45 **Pegylated Liposomal Mitomycin-C Prodrug Enhances Tolerance of Mitomycin C: A Phase 1 Study in Advanced Solid Tumor Patients**  
**Prof. Dr. Alberto A. Gabizon**, Hebrew University - School of Medicine - Shaare Zedek MC Oncology Institute, Jerusalem (IL)
- 17.00 **Questions and Debate**
- 17.30 **Closing remarks**
- 17.45 End of Day 3 and End SUMMIT 2015**
- 18.30 **Light Farewell Dinner for all Speakers and Poster members at Restaurant Brauerei**

This programme is subject to changes; all copyrights: Dr. Beat Löffler, CLINAM Foundation, Basel, Switzerland

## NEXT CLINAM SUMMIT 9/ 2016 June 26 - 29, 2016 in Basel, Switzerland

### Further Information on CLINAM 2015

<b>1. Breakout Sessions</b>	<b>4. Poster Installation</b>	<b>7. Organizer's Coordinates</b>	<b>10. Map of Venue</b>
<b>2. University Village</b>	<b>5. Small Speech Sessions</b>	<b>8. Exhibition / Fees</b>	<b>11. Sponsors</b>
<b>3. Late Poster Submissions</b>	<b>6. Target Audience</b>	<b>9. Registration Fees</b>	<b>12. Collaborators</b>

#### 1. Breakout Sessions

CLINAM introduces **during the programme Sessions** in the Foyer near the poster presentations and the University Village a "Topic Table". If you want in the regular programme a break and concentrate more in a small discussion group some science, breakout meetings are the good opportunity for it. We have nominated for each of these Sessions some experts that will start the debate. • **Atherosclerosis** • **Rare Diseases (Malaria)** • **Ethics** • **Drug Development (Translation)**

#### 2. University Village

The University Village is the space for universities and research institutes, giving them opportunity to present novel approaches, new research projects and initial outcomes of research and experimental results as well as first patents. Researchers and engineers can use the foyer to show the existing tools, instruments and materials in the field of regenerative medicine, diagnostics, targeted drug delivery systems, novel materials for nanoparticles, imaging, biomaterials / biosensors / biomarkers,



Nanomedicine-related medical tools and medical instrumentation as well as existing nanobased clinical medications. **Participating Countries:** • Italy, • Austria, • Norway, • Switzerland, • United Kingdom, • Hungary, • Netherlands, • Romania • Israel, • Spain

### 3. Late Poster Submissions (POSSIBLE UNTIL 5 Days before SUMMIT)

Posters must cover original research aimed at future or current applications of nanoscience and targeted medicine including clinical trial designs, reports of ongoing and completed clinical trials, preclinical work, and technology papers with clinical long-term vision. All fields leading to the development of personalized medicine are also issues of interest. **Mailing Address All Submissions of Posters have to be sent to [submit2015@clinam.org](mailto:submit2015@clinam.org)** Send us **poster abstract** in WORD (No PDF) The submission **must not be longer than three pages, including metadata and figures (one figure is obligatory)**. All illustrations, figures, and tables must be placed within the text at the appropriate points, **Index your file as follows: Last name.First name\_Submission15.xx** (xx = docx, or rtf, doc or word 13 document). **Curriculum Vitae Add** a short narrative CV (*1 page maximum, same format*) and your **portrait photo** (*in gif or jpg 300- 600 dpi and not copy paste!*) **Index your file as follows: Last name.First name\_CV15.xx** and **Last name.First\_Picture15.xx** . The decision for acceptance of your submitted work will be taken every week once until 8 days before the Summit. You will receive a Decision letter and in case of acceptance have to **register according to your category** within 3 days after acceptance (Students: 340.-- €; Others; 460.--€). You must bring handouts of your abstract since they will not be in the proceedings

### 4. Poster Installation and Poster Awards

Posters will be located in the Conference 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 kindly requested be present close to their poster. Posters are to be presented in **the size of 1.40 meter high and 1.00 meter wide**. Poster installation is on **June 29 as from 06.15 until 7.50 am** and can be removed on **July 1, 4.00 pm** As every year there will be given **prizes for best posters in 3 Categories:**

- A – **Basic Nanomedicine** (fundamental research)
- B – **Translational /Clinical Nanomedicine**
- C – **Nanotoxicology**

All three categories will have a first (EUR 150.--) and second (EUR 80.--) prize. Whereas CLINAM will sponsor the prizes for Category A and B, the BioNanoNet Forschungs GmbH, publisher of EURO-NanoTox, will sponsor the prize for category C. The members of the Award-jury are from multi-disciplinary fields of expertise combining high Level experience in the categories basic Nanomedicine, translational/clinical Nanomedicine, and/or Nanotoxicology. President of the Jury is **Prof. Dr. Chezy Barenholz**. Further members are **Dr. Ruth Schmid, Prof. Dr. Jan Mollenhauer, Prof. Dr. Lajos Balogh** and **Sonja Hartl, MSc., Prof. Dr. med. Christoph Alexiou**.

### 5. “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 3 slides, • Slide 1: general introduction to the topic • Slide 2: some of the highlights of submitters’ work and institutions’ work • Slide 3: the proof as to how the work fits into the area of Nanomedicine including a glimpse into the future. Application for Small Talk

Sessions is possible any time after acceptance of your poster in writing. Send your application to Dr. Ruth Schmid ([Ruth.B.Schmid@sintef.no](mailto:Ruth.B.Schmid@sintef.no)).

## 6. Target Audience

The faculty includes the pioneers and opinion leaders in the fields of medicine, nanoscience and targeted medicine, who share experience in an interdisciplinary and interactive manner that widens mutual understanding for both sides. The Summit and the exhibition are aimed at physicians, as well as nonscientists with a background in pharmacology, biology, physics, chemistry, biophysics, medicine materials science and engineering. The meeting is a particularly useful source of knowledge for the targeted medicine and delivery community. The Conference is also of interest for members of the regulatory authorities as well as policymakers, experts from industry in the field of life sciences, developers of new tools and materials for Nanomedicine, and all those investigating the potential of emerging technologies in the field of healthcare. Experts from venture companies can acquire knowledge on existing and upcoming developments and novel products in the emerging field of Nanomedicine and Knowledge Based Medicine. Government authorities can profit from of the regulator's international sessions. CLINAM is the worldwide melting pot for experts and a high-level communication platform where you meet those striving for equal goals.

## 7. Organizers Office

**European Foundation for Clinical Nanomedicine,**

Alemannengasse 12, P. O. Box, CH-4016 Basel, Switzerland

E-Mail [clinam@clinam.org](mailto:clinam@clinam.org)

Phone **+41 61 695 93 95** Fax : **+41 61 695 93 90**

web : [www.clinam.org](http://www.clinam.org)

Reference persons **Dr. med. h.c. Beat Löffler and Ruth Reuter**

## 8. Exhibition

The CLINAM-Exhibition 2015 will highlight all tools, techniques, developments and research results relating to Nanomedicine, Targeted Medicine and the Development of Personalized Medicine in Diagnostics, Drug Delivery, Nanomaterials, Targeting, Related Biotechnology, Nano-Systems, Antibody Systems, and Simulation-Systems. Together with the University Village and the Poster Area, the special sessions tables and the lounges the Foyer of the Congress Center becomes an exclusive forum to demonstrate the development of Nanomedicine and Targeted Medicine in industry, in university and in dedicated fields.

## The Exhibitors at CLINAM 8/2015



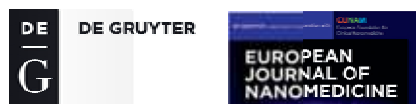
AmphoraLabs, Moscow, Russia  
[www.amphoralabs.com](http://www.amphoralabs.com)



Beckmann Coulter GmbH,  
Krefeld, Germany  
[www.beckmancoulter.com](http://www.beckmancoulter.com)



CytoViva, Inc., Auburn, Alabama, USA  
[www.cytoviva.com](http://www.cytoviva.com)



De Gruyter, Berlin, Germany  
[www.degruyter.com](http://www.degruyter.com)



Euresearch, Basel, Switzerland  
[www.euresearch.ch](http://www.euresearch.ch)



EVA - The Basel Start-up Agency, Basel, Switzerland  
[www.eva-basel.ch](http://www.eva-basel.ch)



i-Net Innovation Networks, Basel, Switzerland  
[www.i-net.ch](http://www.i-net.ch)



InnoMedica AG, Bern, Switzerland  
[www.innomedica.com](http://www.innomedica.com)



Izon Science Europe Ltd., Oxford, United Kingdom  
[www.izon.com](http://www.izon.com)



Lipoid AG, Steinhausen, Switzerland  
[www.lipoid.com](http://www.lipoid.com)



Malvern Instruments Ltd., Malvern, Wiltshire, United Kingdom  
[www.malvern.com](http://www.malvern.com)



NANOASSEMBLR  
NANOASSEMBLR, Vancouver, BC, Canada  
[www.nanoassemblr.com](http://www.nanoassemblr.com)



Nanosurf AG, Liestal, Switzerland  
[www.nanosurf.com](http://www.nanosurf.com)



NUOMEDIS AG, Liestal, Switzerland  
[www.nuomedis.com](http://www.nuomedis.com)



Particle Metrix GmbH, Meerbusch, Germany  
[www.particle-metrix.eu](http://www.particle-metrix.eu)



Polymun Scientific, Klosterneuburg, Austria  
[www.polymun.at](http://www.polymun.at)



Schaefer-Tec AG, 3422 Kirchberg, Switzerland  
[www.schaefer-tec.com](http://www.schaefer-tec.com)



Seroscience Ltd., Budapest, Hungary  
[www.seroscience.com](http://www.seroscience.com)



TECOmedical AG, Sissach, Switzerland  
[www.tecomedical.com](http://www.tecomedical.com)

## 9. Registration Fees and Exhibitors Fees

<b>REGISTRATION ONLY POSSIBLE ONLINE UNTIL JUNE 27, 2015 Noon.</b>		
After that, Registration has to be done and paid at the Summit Desk in Basel		
<b>ONLINE REGISTRATION MANDATORY FOR ALL GROUPS OF PARTICIPANTS (Participants, Speakers, Exhibitors, Poster Members, University Village Members)</b>		
No written registrations are accepted		
Category Currency is Euro	Registration (3 Days)	Registration (1 Day)
Academy	690.--	240.--
Government	970.--	350.--
Industry	1'400.--	500.--
Exhibitors	800.--	400.--
Students	460.--	170.--
<b>Paper/ Poster Submitters: Special rate of 460. -- €; Students: 340. --</b>		
Your contribution to the Brokerage Dinner on Monday, June 29, 8.15 pm is 60.-- €, <b>not included</b> in the Registration Fee		
Members of the European Society for Nanomedicine benefit from a 10% reduction <a href="http://www.esnam.org">www.esnam.org</a>		

Exhibition Space only		Booth Construction (if Needed)	
m <sup>2</sup>	In Euro	m <sup>2</sup>	In Euro
4	1'200.--	4	680.--
6	1'800.--	6	1'020.--
8	2'400.--	8	1'360.--
12	3'600.--	12	2'040.--
Beyond	250.-- per m <sup>2</sup>	Beyond	150.-- per m <sup>2</sup>
Company plate on Pillar A3	85.--	<b>Construction including 2 walls, 1 table, 2 chairs, power connection, wireless</b>	
Table & 2 Chairs 1 Pinboard Power Connection	120.--		
Conference Registration	800.-- as transferrable badge being used by different members of the booth		
<b>Start-up lump-sum booth: 4 m<sup>2</sup> for 1'400.-- € including registration for the summit</b>			
4 m <sup>2</sup> of Space, Table, Pin-board, Pillar A3 with Company Name, Power Connection. Wireless, for a <b>lump sum of 1'000. -- €</b>			
Conference <b>Registration at 400.-- €</b> (1-Day at 200.-- €) as transferrable badge being used by different members of the booth			



## 10. Maps of Venue

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

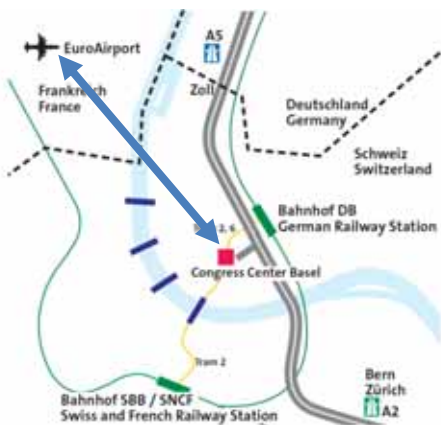


**RED** Congress Center  
CLINAM 8 / 2015  
Summit Halls

**Blue** Landgasthof Riehen  
EVENING EVENT)  
(Direct line Tramway No 6)

**Green** Merian-Spitz  
SPEAKERS DINNER  
(10 Minutes' Walk)

**Yellow** Brauerei Grenzacherstrasse  
FAREWELL DINNER  
(Ten Minutes' Walk)



By Taxi: 25 minutes

By Tram & Bus: via Station SBB 50 minutes.

## 11. The Sponsors of the European Summit for Clinical Nanomedicine 2015

The European Foundation for Clinical Nanomedicine is very grateful that this Summit becomes possible every year due to the great financial support of the State of Switzerland, the Canton of Basel, Institutions, Industrials and Private Donators. They all do not take any influence on the programme and respect that CLINAM is a strictly neutral platform. All these Sponsors believe that the best development for novel technology and novel applications profits enormously by having regularly a worldwide community meeting in the field. This creates cooperation, trust and leads to quantum leaps in the development, which are only happening, when people with knowledge and expertise strive *together* towards their common goal. The CLINAM-Foundation Members do everything they can, to respond in best way to the confidence that they receive.

- Federal Department of Economic Affairs, Education and Research of the Swiss Confederation, Bern (CH)
- Actelion Pharmaceuticals Ltd. Allschwil (CH)
- The Canton of Basel-Stadt (CH)
- Blend Therapeutics Ltd., Watertown, MA (USA)
- Clariant International AG, Pratteln (CH)
- Isaac Dreyfus Bernheim Foundation, Basel (CH)
- EMPA, Swiss Federal Laboratories for Materials Science, Dübendorf (CH)
- European Materials Forum, Brussels (B)
- European Materials Research Society (E-MRS), Strasbourg (F)
- Freiwillige Akademische Gesellschaft, Basel (CH)
- GAG AG, Basel (CH)
- Georg Endress Stiftung, Reinach (CH)
- Löffler & Associates GmbH - Concept Engineering, Basel (CH)
- Lonza Ltd., Basel (CH)
- Swiss Nanoscience Institute, Basel (CH)
- Swiss National Science Foundation, Bern (CH)
- Tecomedical Group, Sissach (CH)
- University of Basel (CH)

## 12. The Collaborators of European Summit for Clinical Nanomedicine 2015

The Board of the CLINAM Foundation is grateful for the collaboration with many organizations that are willing to bring into this meeting skilled expertise and make the Summit to an international melting pot for the medicine of the future on the floor of a neutral platform provided by the non-for-profit European Foundation for Clinical Nanomedicine (CLINAM).

- Federal Department of Economic Affairs, Education and Research of the Swiss Confederation, Bern (CH)
- BioNanoNet Forschungs-GmbH, Graz (A)
- Canton of Basel-Stadt (CH)
- Chinese Academy of Sciences, Beijing (RC)
- De Gruyter – European Journal of Nanomedicine, Berlin (D)
- DIA Europe, Middle East & Africa, Basel (CH)
- EMPA, Swiss Federal Laboratories for Materials Science, Dübendorf (CH)
- European Academy of Sciences and Arts, Salzburg (A)
- European Commission, Brussels (B)
- European Forum for Good Clinical Practice EFGCP), Brussels (B)
- European Materials Research Society, Strasbourg (F)
- European Medicines Agency (EMA), London (UK)
- European Society for Nanomedicine, Basel (CH)
- European Technology Platform of Nanomedicine (ETPN)
- Food and Drug Administration, (FDA) Silver Spring (USA)
- Helmholtz Institute for Pharmaceutical Research Saarland (HIPS), Saarbrücken (D)
- International Association for Pharmaceutical Technology (APV), Mainz (D)
- Key Laboratory for Biomedical Effects of Nanomaterials and Nanosafety, Beijing (RC)
- Lundbeckfonden Center of Excellence NanoCAN, Odense (DK)
- National Center for Nanoscience and Technology of China, Beijing (RC)
- Non Biological Complex Drugs Working Group, (NBCD) Leiden (NL)
- Nanotech Characterization Laboratory, National Cancer Institute, Frederick (USA)
- University of Basel, Basel (CH)



## CLINAM 8 / 2015 Overview from Sunday, June 28 – Wednesday, July 1 / 2015

Sunday 28/6		Hall Osaka / Samarkand	
15.30	General Assembly of the European Society for Nanomedicine		
16.30	Meeting of the International Society for Nanomedicine		
18.00	Editorial Board Meeting, European Journal of Nanomedicine		
19.45	Welcome Dinner for Speakers and Invited Guests at Swissôtel Le Plaza, Dining Room Helvetia, First Floor		
Monday 29/6		Hall Sydney	
08.30	1. Opening (08.30)		Hall Rio
09.30	BREAK		
10.00	2. Keynote: Prof. Dr. Susumu Tonegawa, Nobel Laureate		
11.00	3. Unsolved Clinical Problems & Challenges in Medicine		
11.45	4. Keynote: Prof. Dr. Michael Sela "Antibodies and Antibody Combinators "		
12.30	LUNCH		
13.30	5. Assessing Drug Similarity - Nanomedicines & Non-Biologic Complex Drugs (NBCDs)	6. New Nanotechnologies for Medical Application 1	7. Nanomedicine for Atherosclerosis and Cardiovascular Disease
15.15	BREAK		
15.45	10. Novel Approaches for Therapeutic Intervention and Drug Delivery	11. Guidance for Publishing Strategies for Marketing, Translation and Development in Nanomedicine	12. Nanomedicine in Infection and Inflammation
16.15			13. Nanoparticle-Cell Interactions from Different Angles
18.00	SHORT BREAK		14. Late Breaking and Ongoing Trials
18.10	15. Individualization of Medical Intervention: Prof. Dr. Mauro Ferrari (Multi-Stage Vectors and Transport Oncophysics)		
19.00	End of Day 1		
19.30	Swissôtel Le Plaza Lobby: Leaving by Tramway (Line 6) for Evening Brokerage Event with Cultural Moments and CLINAM Nano-Award (Landgasthof Riehen)		
Tuesday 30/6		Hall Sydney	
08.30	Hall Montreal		Hall Rio
10.00	16. CLINAM PANEL 8 / 2015: Towards Surviving Cancer – Major Techniques Now and in the Future (Michael Sela, Gerd Binnig, Jens Hasskarl, Jerome Galon, Dan Peer, Mauro Ferrari)		
10.30	BREAK		
10.30	17. Pushing the Limits in Novel Medicine – Gene Transfer, Cells, Targeting, Materials, Big Data (Ehud Gazit, Jens Hasskarl, Alejandro Sosnik, Matthias Reumann)		
12.00	18. Biology and Rich Quantification – a Key to Understand the Immune Response Against Cancer (Jerome Galon)		
12.50	LUNCH		
14.00	19. Cancer Nanomedicine: Challenges and New Solutions	20. Safety, Toxicology and Immunogenicity in Nanomedicine	21. Pharmaceutical Development of Nanomedicine Medications
16.30	BREAK		
17.00	23. The Regulation Environment in Nanomedicine and Targeted Medicine – We Must Come to Terms (EUROPE, USA, JAPAN, CHINA, CANADA, INDIA, AFRICA)		22. CLINAM Universities Small Speeches and ETP Nanomedicine Brokerage
18.45	APERITIF AND POSTER AWARDS		
19.40	End of Day 2		
Wednesday 1/7		Hall Sydney	
20.00	Swissôtel Le Plaza Lobby - Walking for Speakers Dinner (Terraces Merian-Spitz)		Hall Rio
08.30	Hall Montreal	24. Diagnostic and Theranostic Applications of Nanoparticles	25. New Measurement Techniques and Standards to Meet the Needs of Nanomedicine
10.30	BREAK		26. Nanomedicine for Alzheimer and Other Brain Diseases
11.00	28. Improving our Knowledge in the Medicine of the Future – Two Views (Omid Farokhzad, Yechezkel Barenholz)		27. Routes through the Body and the Cell: Pharmacokinetics and Intracellular Trafficking of Nanocarriers
12.30	LUNCH		
13.45	29. Nanomedicine in Rare and Neglected Disease	30. Ethics: Value of Patient Involvement in the Personalized Treatment with Nanomedicine	31. Nanomaterials: Cellular Handling and New Cellular Targets, Evaluations of Mechanisms
15.15	BREAK		32. European Technology Platform in Nanomedicine -The European Pathway of Nanomedicine
15.45	33. Late Breaking and Ongoing Trials		
17.30	Closing Remarks by CLINAM-Foundation		
17.45	End of Day 3		
19.00	Light Farewell Dinner for Speakers still staying in Basel and Invited Guests		

The European Summit for Clinical Nanomedicine and Targeted Medicine, CLINAM 8/15  
 Basel, Switzerland, Sunday, June 28 – Wednesday, July 1, 2015

Further Joint Collaborators of the CLINAM Summit



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



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



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

The Sponsors



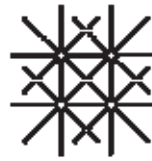
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 Confédération suisse  
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Swiss Confederation

Federal Department of Economic Affairs,  
 Education and Research EAER  
 State Secretariat for Education,  
 Research and Innovation SERI



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European Materials Forum

