CLINAM

European Foundation for Clinical Nanomedicine



CLINAM 5/12 with ETPN

European Summit for Clinical Nanomedicine

Basel, Switzerland, Monday, May 7, 09.00 h - Wednesday, May 9, 2012, 17.00 h



FINAL PPROGRAMME (Status April 5, 2012)

Conference, Foyer Exhibition and "University Village"

Pre- Meetings on Sunday, May 6, 2012

- General Assembly of the European Society for Nanomedicine (15.30 h)
- Meeting of the International Society for Nanomedicine (16.30 h)
- Welcome Dinner for speakers (19.45 h)

Main Sections of the Summit

5th European CLINAM Conference for Clinical Nanomedicine:

Focus Day: "The Interplay of Molecular Imaging and Diagnostics with Targeted Therapies"

3rd ETP Nanomedicine Brokerage Session

2nd ETP Nanomedicine Policy – Industry Table

3rd EU FP7 Nanomedicine Projects Meeting

5th Nanomedicine University Village & Foyer Exhibition

Venue

congress center | basel | Messeplatz 21, Basel, Switzerland

Scientific Conference Committee

Prof. Dr. med. Patrick Hunziker, Deputy Head of the Intensive Care Clinic, University Hospital Basel; President of the European Society for Nanomedicine, Basel (CH) (Medical Chair) Prof. Dr. Yechezkel Barenholz, Head, Lab of Membrane and Liposome Research Department of Biochemistry, Hebrew University - Hadassah Medical School, Jerusalem (IL) (Scientific Chair) Beat Löffler, MA, CEO of the European Foundation for Clinical Nanomedicine (CLINAM), Basel (CH) (Programme Chair) Dr. rer. nat. Andreas Jordan, CSO, MagForce Nanotechnologie AG, Berlin (D) Dr. Sc. nat. Ruth Schmid, Chief Business Developer SINTEF Materials and Chemistry Synthesis and Properties Polymer Particles and Surface Chemistry Trondheim (N) Prof. Dr. Gert Storm, Institute for Pharmaceutical Sciences, Utrecht University, Utrecht (NL) Prof. Dr. Marisa Papaluca Amati, Head of Scientific Support and Projects, European Medicines Agency, London (UK) Prof. Dr. med. Janos Szebeni, Director, Nanomedicine Research and Education Center, Bay Zoltan Ltd/Semmelweis/Miskolc Universities, Budapest (H) Prof. Dr. med. Christoph Alexiou, Head Division for Experimental Oncology and Nanomedicine at the Department of Oto-Rhino-Laryngology, Head and Neck Surgery, University Hospital Erlangen (D) Prof. Dr. Claus-Michael Lehr, Head, Department of Drug Delivery (DDEL), Helmholtz-Institute for Pharmaceutical Research Saarland (HIPS), Saarland University, Saarbrücken (D) Patrick Boisseau, CEA-Léti, Head of the Business Development Nanomedicine; Board-member of the European Technology Platform on Nanomedicine Chair, WG Nanodiagnostics, Grenoble (F) Prof. Dr. Viola Vogel, Department of Materials Laboratory for Biologically Oriented Materials, ETH Zürich, Zürich (CH)

Organisers Office

CLINAM-Foundation, Alemannengasse 12, CH-4016 Basel, Switzerland, Phone + 41 61 695 93 95 Fax + 41 61 695 93 90 E-Mail clinam@clinam.org

Largest Nanomedicine Gathering in Europe

The European Foundation for Clinical Nanomedicine (CLINAM) and the European Technology Platform on Nanomedicine organise the European Summit for Clinical Nanomedicine 2012. It is the largest gathering in Europe for discussing all facets of Nanomedicine. Here you will find the clinicians, drug product development scientists, the device engineers, the strategy developers, the regulators as well as researchers and industry presenting late breaking and ongoing clinical trials. Multiple organisations make this meeting a highlight event where the interdisciplinary mix of experts will illuminate the advancements and novel results in all fields of this complex discipline. Five European Nanomedicine research projects funded under the 7th Framework Programme in the area of Drug Delivery, Nanodiagnostics, Regenerative Medicine and Bio-artificial Organs will be presented and discussed in Basel.

CLINAM 2012 - the Summit shaping the Future of Medicine

- Bringing together cutting edge nanotechnologies, biomedical and clinical knowledge Presenting clinical trials that apply Nanomedicine to patients Facing the challenges in regulation, toxicology, ethics, and sustainability in medicine
- Exploring translation pathways from research to products Identifying strategic instruments in Nanomedicine.

Joint Collaborators for CLINAM 5/2012

All Joint Collaborators are non profit- organisations or governmental bodies

- 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 Medicines Agency (EMA), London (UK)
- 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 Personalised Medicine (EPMA), Brussels (B)
- European Platform for Photodynamic Medicine (EPPM), Hull (UK)
- European Materials Research Society (E-MRS), Strasbourg (F)

Programme

Monday, May 7, 2012 (Registration from 07.45 h until 16.00 h)

PLENUM (Hall Montreal)

08.30 **1. Opening**

Opening on behalf of the European Foundation for Clinical Nanomedicine (CLINAM)

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

Opening Address on behalf of the European Technology Platform on Nanomedicine

Bertrand Loubaton, MBA, Chairman of the European Technology Platform for Nanomedicine, Paris (F) Opening Address of the European Commission

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

Opening Address of the Canton of Basel

Dr. Christoph Eymann, Member of the Governing Council of the Canton of Basel and Member of the Advisory Board of the European Foundation for Clinical Nanomedicine, Basel (CH)

09.15 2. Translate Nanomedical Solutions to Application

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

09.15 CLINAM 2012 – Stride Towards Bringing Nanomedicine from Bench to Bed

Prof. Dr. med. Patrick Hunziker, Deputy Head of the Intensive Care Clinic, University Hospital Basel; President of the European Society for Nanomedicine, Basel (CH)

09.35 Opening Keynote Lecture

Image Analysis as Indispensable Tool for the Future of Medicine

Prof. Dr. Gerd Binnig, Nobel Laureate and founder of Definiens, München (D)

- 10.10 Questions and Debate
- 10.30 **Break**

11.00 3. Unresolved Medical Problems Waiting for Nanomedical Solutions (1)

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

11.00 Cancer

The Metastasis Cascade of Solid Tumours – Unresolved Secret

Prof. Dr. med. Jean Yves Pierga, PhD, Medical Oncology Department, Institut Curie and University Paris Descartes; Member of the Scientific Audit Committee of the European Organisation for Research and Treatment of Cancer (EORTC), Paris (F)

11.10 Infectious Disease

Infection and Inflammation Beyond the Immune System / Drug Resistence

Prof. Dr. med. Andreas Widmer, Board in Internal Medicine and Infectious Diseases, Chief Infectious Diseases *Head* Hospital Epidemiology Division of Infectious Diseases, Basel (CH)

11.20 Cardiology

The Atherosclerosis Treatment Now and in the Future

Prof. Dr. med. Patrick W. Serruys, Chair Interventional Cardiology, Erasmus University and Head of the Interventional Department, Heartcenter, Rotterdam (NL)

11.30 Questions and Debate

11.45 Keynote Lecture

Cancer Nanotechnology – From Innovation to Clinical Translation - View from the NCI Alliance for Nanotechnology in Cancer (NIH) in the United States

Dr. Piotr Grodzinski, Director, Office of Cancer Nanotechnology Research, National Cancer Institute, National Institutes of Health (NIH), Bethesda, MD (USA)

12.30 Lunch

SESSION 1 (Hall Montreal)

13.30 4. Nanomedicine - Where Drug Delivery is Competitive

Session in cooperation with the Focus Group "Drug Delivery" of the International Association for Pharmaceutical Technology (APV)

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

The selection of competitive nano-based drug delivery platforms for targeting, solubilization or cell uptake is key for broader utilization of Nanomedicine. The clinical benefits of Nanomedicine products (increased efficacy and safety) have to outweigh their longer development timelines, increased technical development costs and risks as compared to alternative drug product options (standard formulations, next backup compounds, next biological target, antibodies). This session highlights how market forces, indications, delivery needs shape the competitiveness of Nanomedicines, how drug properties drive nanocarrier selection and how nanomedicine products are profiled for enabling first clinical studies (PHI), successfully scaled-up for late phase clinical trials, passed regulatory reviews and commercialisation. Further the session features how Nanomedicines compare and compete versus other drugs in their respective indications.

13.30 Enabling Full Utilization of Liposome Enabled Therapies

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

13.45 Overcoming Barriers to Broader Clinical Utilization of IV-Nanoparticles

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

13.55 Upscaling and Sterile Manufacture of Nanocarrier-based Drug Products

Dr. Marie-Andrée Yessine, Senior Scientist, Octoplus, Leiden (NL)

14.05 Nanoparticulate Oral Dosage Forms – Implementation of Industrial Requirements

Dr. Michael Juhnke, Novartis Pharma AG, Basel (CH)

14.15 Market Perspective on Nanocarriers

Sandra E. Erb, Vice President, Research, Technology Catalysts International, Falls Church, VA (USA)

14.25 Prerequisites for Successful Development of Parenteral Nanoparticle Depot Products Dr. med. René Verloes, PhD, MSc Appl Toxicol, Senior Director Early Development, Global Medical Development, Tibotec BVBA, a J&J Company, Beerse (B) Mastering the Development of Virosomes for Vaccination 14.35 Dr. Mario Amacker, Executive Management, Head of Process Development & Manufacturing, Pevion Biotech AG, Ittigen / Bern (CH) 14.45 Particle Characterization as Enabling Step Towards Clinical and Market Success Dr. Scott E. McNeil, Director, Nanotechnology Characterization Laboratory, National Cancer Institute at Frederick, Frederick, MD (USA) **Questions and Debate** 14.55 15.50 **Break** SESSION 2 (Hall Singapore) 5. Nanomedical Solutions at Hand: Cancer 13.30 Prof. Dr. Jan Mollenhauer, University of Southern Denmark, Head Molecular Oncology Director of Lundbeckfonden Center of Chair Excellence in Nanomedicine NanoCAN, Odense (DK) Imaging Control Therapy in Cancer Treatment for Targeting of Nanoparticular Drugs 13.30 Prof. Dr. med. Christoph Alexiou, Head Division for Experimental Oncology and Nanomedicine at the Department of Oto-Rhino-Laryngology, Head and Neck Surgery, University Hospital Erlangen (D) The Nanomechanical Signature of Breast Cancer 13.40 Prof. Dr. Roderick Lim, Argovia Professor for Nanobiology, Biozentrum and Swiss Nanoscience Institute, University of Basel (CH) Diagnostic Nano-interfaces for Cancer Detection 13.50 Prof. Dr. med. François Berger, Director of Unit "Nanomédecine et Cerveau" of INSERM, Grenoble (F) 14.00 Tailoring Liposome Formulations for Cancer Chemotherapy Prof. Dr. med. Alberto Gabizon, Hebrew University, Jerusalem (IL) **Questions and Debate** 14.10 6. Nanomedical Solutions at Hand: Inflammation, Infection and Immunology 14.30 Prof. Dr. med. Janos Szebeni, Director, Nanomedicine Research and Education Center, Bay Zoltan Ltd/Semmelweis / Miskolc Chair Universities, Budapest (H) 14.30 Targeting by Nanomedicines in Inflammatory Disease Prof. Dr. Claus-Michael Lehr, Head, Department of Drug Delivery (DDEL) Helmholtz-Institute for Pharmaceutical Research Saarland (HIPS), Saarland University, Saarbrücken (D) Particles in Vaccinology for Infection Diseases 14.40 Dr. Christian Moser, DVM. Head of Research, Pevion Biotech AG, Ittigen (CH) 14.50 Langerhans Cell-targeting Immunotherapeutic Nanomedicine (DermaVir) Towards the Cure of HIV Prof. Dr. Julianna Lisziewicz, President, Genetic Immunity, Budapest (H) 15.00 Nanoparticles and the Pulmonary Immune System Prof. Barbara Rothen-Rutishauser, Chair Bio-Nanomaterials Adolphe Merkle Institute, Université de Fribourg, Marly (CH)

15.10 Enzyme Replacement Therapy in Lysosomal Diseases

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 (SP)

15.20 Questions and Debate

15.50 **Break**

PLENUM (Hall Montreal)

16.20 7. Regulatory Aspects in the Development of Nanomedicine

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

16.20 An overview of Regulation, Advances in Regulatory Science, and a Perspective on Approaches to Nanotechnology

Dr. Carlos Peña, PhD, MS, Director, Emerging Technology Programs, Office of the Commissioner, Food and Drug Administration (FDA) Silver Spring, MD (USA)

16.40 Questions and Debate

17.00 8. Late Breaking and Ongoing Trials 1

Chair Prof. Dr. med. Christoph Alexiou, Head Division for Experimental Oncology and Nanomedicine at the Department of Oto-Rhino-Laryngology, Head and Neck Surgery, University Hospital Erlangen (D)

17.00 Transbucal Insuline Nanofilms for Diabetes - Early Clinical Development

Dr. med. Dr. h.c. Fritz R. Bühler, Chief Medical Officer, Midatech Ltd., London / Basel (UK / CH)

17.10 Cyclosporin Pro-Nanodispersion Formulation with Improved Bioavailability

Prof. Dr. Avi Domb, Institute of Drug Research, School of Pharmacy, Faculty of Medicine, Hebrew University of Jerusalem, Jerusalem (IL)

17.20 Liposomes as Lubricants, a New Approach for Osteoarthritis – Ongoing Trials

Dr. med. vet. Yaniv Dolev, CEO, Moebius Medical Ltd. Ramat Hahayal, Tel Aviv (IL)

17.30 Topical Interferon Alpha for Prevention of Cervical Cancer in Phase III Clinical Trials

Prof. Dr. M. Foldvari, D.Pharm.Sci, Canada Research Chair in Bionanotechnology and Nanomedicine, Professor of Pharmaceutical Sciences, School of Pharmacy, University of Waterloo (CND)

17.40 Questions and Debate

ETPN Policy and Industry Panel Session

18.10 9. The ETP Nanomedicine Policy – Industry Table – Goals 2012 -2020

Chair Dr. Sebastian Lange, Managing Director of the European Technology Platform on Nanomedicine, Berlin (D)

Today, the interdisciplinary field of "Nanomedicine" is developing faster than ever before. Worldwide research efforts have been intensified as now also pharmaceutical industry foresees the application of nanotechnologies for medicinal development as one of the future promising perspectives. New research results indicate the immense potential that nanotechnology is offering in medicine for delivering novel effective treatments and for translation of discoveries from bench to bed. Furthermore, in comparison to only one year ago the field of Nanomedicine has in the meantime significantly gained investor's interests and is thus receiving renewed attention from a wide audience. This session shall elucidate the actual interplay between industry, academia, politics and regulators where the goal will be to find pathways that help accelerating the development of Nanomedicine to the benefit of the patient and to society at large.

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

Prof. Dr. Marisa Papaluca Amati, Head of Scientific Support and Projects, European Medicines Agency, London (UK) ,

Bertrand Loubaton MBA, Director Pharmaceutica & Academic Research Collaboration, Director Strategy, Head of Innovation and Cooperation, GE Healthcare Europe, Velizy (F),

Dr. Bernd Riebesehl, Principal Fellow, Novartis Pharma, Basel (CH)(tbc)

Alastair Kent, Director of the European Genetic Alliances Network, London (UK)

Prof. Dr. Ehud Gazit, Vice President for Research and Development Incumbent, Endowed Chair for Nano-Biology, Chairman of the Board, Ramot Ltd. and Tel Aviv University, Tel Aviv (IL)

19.30 End of Day 1

20.15 Official CLINAM-Evening Event & Dinner at old Warteck Brewery "Im Sud"

Tuesday, May 8, 2012 (Registration from 07.45 h until 16.00 h)

CLINAM Focus Session 2012: The Interplay of Molecular Imaging and Diagnostics with Targeted Therapies

SESSION 1 (Hall Montreal)

08.30 10. The Building Blocks of the Interplay

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, Amherst (USA) and Prof. Dr. med Patrick Hunziker, Cardiologist, Deputy Head of the Clinic for Intensive Care of the University Hospital Basel (CH)

Generic

08.30 State of the Art in Targeting Ligands (Antibodies, Aptamere, Carbohydrates, Folic Acid)

Prof. Dr. Roy Bicknell, MA, D.Phil, FSB, Head of the Cancer Research UK Angionesis Group,
University of Birmingham (UK)

Application

08.45 GI Targeting of Biomarkers for Real Time Diagnostics of Malignancy

Prof. Dr. med. Abraham Rubinstein, Head, Drug Sciences Teaching Program, The Hebrew University of Jerusalem, Faculty of Medicine The School of Pharmacy, Institute for Drug Research, Jerusalem (IL)

Generio

09.00 State of the Art in High Throughput Diagnosis' (Immunoassays, Proteomics, Genomics, RNA- Analysis)

Dr. Ralph Schiess (CEO) ProteoMediX AG, Schlieren (CH)

Application

09.15 Early Diagnostics and Treatment Monitoring of Breast Cancer Using Nanotechnological Platforms **Prof. Dr. med. Yuri Volkov, PhD**, Department of Clinical Medicine, Trinity College Dublin, Dublin (IRL)

Generic

09.30 PET/CT and PET/MRI for Molecular Imaging

Prof. Dr. med. Andreas Kjaer, Dept. of Clinical Physiology, Nuclear Medicine & PET, Copenhagen University Hospital, Copenhagen (DK)

Application

09.45 Nanoparticles for Image Guided Cancer Therapy

Prof. Dr. Thomas Lars Andresen, Senior Researcher, Technical University of Denmark **DTU**, Department of Micro- and Nanotechnology, Lyngby (DK)

Application

09.55 Novel Cancer Chemotherapeutics by <u>Gd@C82(OH)22</u> Nanoparticles: Poison Cells or Prison Cells?

Prof. Dr. Yuliang Zhao, Deputy Director-General, National Center for Nanoscience and Technology of China; Director, Chinese Academy of Science Key Lab for Biomedical Effects of Nanomaterials and Nan safety, Beijing (RC)

10.05 Questions & Debate

10.45 **Break**

SESSION 2 (Hall Singapore)

08.30 11. In Vivo Experiences of Novel Nanomaterials

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

08.30 NANOTHERAPY: A Novel Nano-container drug carrier for targeted treatment of prostate cancer" Prof. Dr. George Kordas, Research Director, National Centre of Scientific Research "DEMOKRITOS", Athens, (GR)

08.40 First In Vivo Magnetic Blood Purification in a Rat Model of Intoxication

Dr. Inge Herrmann, Functional Materials Laboratory, ETH Zurich, Zurich (CH)

08.50	Nanocolloids: From Concept to Reality Prof. Dr. Dipanjan Pan, Asst. Professor in Medicine, Washington University, Division of Cardiology, St. Louis (USA)
09.00	Immunotoxicity in Vivo Testing of Nanodrugs Nanocarriesrs & New Method of Preventing Pseudoallergic Reaction
	Prof. Dr. med. Rudolf Urbanics, PhD. Semmelweis University & SeroScience Ltd. Budapest (H)
09.10	Glutathione Pegylated Liposomes to Safely Enhance the Delivery of Drugs to the Brain: Experimental Proof From In Vivo Models
	Dr. Marco de Boer, Head of Research, to-BBB technologies BV, Leiden (NL)
09.20	Combining Multifunctional Nanoparticles and Ultrasound in Cancer Theranostics First Outlook Dr. Ýrr A. Mørch , Research Scientist/Post doc, SINTEF Dept. of Synthesis and Properties/ NTNU Dept. of Physics, Trondheim, (N)
09.30	Targeted Delivery of Cisplatin-loaded Nanogels for the Brain Tumor Treatment – in Vivo Results Nataliya V. Nukolova, MSc, Senior Research Scientist, Department of Fundamental and Applied Neurobiology, Serbsky National Research Centre for Social and Forensic Psychiatry, Moscow (RU)
09.40	Questions and Debate
10.45	Break
SESSIO	N 3 (Hall Sidney)
08.30 Chair	12. Nanomedical Aspects at Hand: Regenerative Medicine Patrick Boisseau, CEA-Léti, Head of the Business Development Nanomedicine and Director of the European Platform for Photodynamic Medicine (EPPM), Hull (UK), Grenoble (F)
08.30	Nanomedicine Meets Regenerative Medicine: Does the Marriage have a Silver Lining? Prof. Dr. Kenneth Kak Yuen Wong, Department of Surgery, LKS Faculty of Medicine, University of Hong Kong and Queen Mary Hospital, Hong Kong (HK/RC)
08.40	Remineralisation of Hard Tissues by Nanoparticles Prof. Dr. Wendelin Stark, Institute for Chemical and Bioengineering, Chair in Functional Materials Engineering, ETH Zurich (CH)
8.50	Osteoarticular and Dental Regenerative Nanomedicine Dr. Nadia Jessel, PhD, HDR, Research Director, DR2 Inserm Active Biomaterials & Tissue Engineering (French National Institute for Health and Medical Research), Strasbourg (F)
09.00	Questions and Debate
Chair	13. Paradigms for Efficient Progress in Nanomedicine Prof. Dr. Bert Müller, Thomas Straumann Chair for Materials Science in Medicine, University of Basel (CH)
09.20	Public-Private Partnerships in Targeted Nanomedicine Development : Example Netherlands Prof. Dr. Gert Storm , Institute for Pharmaceutical Sciences, Utrecht University, Utrecht (NL)
09.30	Molecular Nanomachines Shaping the Future of Medicine Prof. Dr. Viola Vogel, Department of Materials Laboratory for Biologically Oriented Materials, ETH Zürich, Zürich (CH)
09.40	High-Speed AFM Has Come of Age: Seeing Cellular Motors at Work Prof. Dr. h.c. Christoph Gerber, Director for Scientific Communication at the Institute of Physics, University of Basel and co-inventor of the atomic Force Microscope and co-inventor of biochemical sensors based on AFM Technology, Basel (CH)
09.50	A New Apparatus for the Low Cost, High Throughput, Detection of Circulating Tumor Cells Prof. Dr. G. Scoles, University Hospital of the University of Udine, Udine (I) and Biology Department, Temple University, Philadelphia, PA (USA)

10.00 Challenges for Clinical use of Intravenously Injected Nanoparticles

Dr. Tore Skotland, Centre for Cancer Biomedicine, The Norwegian Radium Hospital, Oslo University Hospital and University of Oslo, Oslo (N)

- 10.20 Questions and Debate
- 10.45 **Break**

PLENUM (Hall Montreal)

11.15 14. The Interplay of Array Diagnostics and Targeted and Personalised Therapies

Chair Prof. Dr. Gert Storm, Institute for Pharmaceutical Sciences, Utrecht University, Utrecht (NL)

11.15 Short Keynote lecture

Ultra Rapid Sequencing for the Development of the Thousand-dollar Genome - the Tool for Personalised Medicine

Dr. Michael Hehenberger, Business Development Executive, IBM Research, New York (USA)

11.40 High Throughput Genomics for Cancer Therapy

Prof. Dr. Jan Mollenhauer, University of Southern Denmark Head Molecular Oncology Director of Lundbeckfonden Center of Excellence in Nanomedicine NanoCAN, Odense (DK)

11.50 Nanomedical Pathway: The Combination of Imaging, Diagnostics and Targeted Therapy – Gateway to Personalised Medicine

Prof. Dr. med. Vincenzo Costigliola, President of the European Medical Association (E.M.A.), President of the European Association for Predictive and Preventive & Personalised Medicine (EPMA), Brussels (B)

12.00 Natural Microvesicles: A Novel Source for Array Diagnostics

Prof. Dr. Raymond M. Schiffelers, Laboratory of Clinical Chemistry & Haematology, University Medical Center, Utrecht (NL)

12.10 Personalized Nanomedicine: Combining Non-invasive Imaging with Tumor-targeted Drug Delivery to Individualize (Chemo-) Therapeutic Interventions

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

12.20 Questions and Debate

Short Keynote Lecture

12.45 Quantum dot Technologies for an Improved Understanding of Cellular Information Leading to Improved Tissue Based Cancer Diagnostics

Phil Miller, Senior Vice President of Life Sciences Research and Development, Ventana Medical Systems, Inc. (member of the Roche Group), Tucson AZ (USA)

13.15 **Lunch**

SESSION 1 (Hall Montreal)

14.30 **15.** The Interplay of Molecular Imaging and Targeted Therapy

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

14.30 In Vivo Human Receptor Imaging for Gastric Cancer

Prof. Dr. Daxiang Cui, National Key Lab of Nano/Micro Fabrication Technology, Key Lab for Thin Film and Microfabrication of Ministry of Education, Institute of Micro-Nano Science and Technology, Jiao Tong University, Shanghai (RC)

14.45 DotaToc - Molecular Imaging and Targeted Therapy of Endocrine Malignancies

Prof. Dr. Helmut Mäcke, University Hospital Freiburg i. Br. (D)

15.00 DoxilTM: From Generics to Improved Therapeutics

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

Photodynamic Therapy of Cancer in Combination with Nanotechnology 15.15

> Patrick Boisseau, CEA-Léti, Head of the Business Development Nanomedicine and Director of the European Platform for Photodynamic Medicine (EPPM), Hull (UK), Grenoble (F)

Fluorescent Polycations as Fast Staining Agent for Charge Distribution on Tumor Cells 15.30

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

- **Questions and Debate** 15.45
- 16.15 **Break**

SESSION 2 (Hall Singapore)

16. Nanomedical Solutions at Hand: Neurodegenerative Diseases 14.30

Prof. Dr. Hans Joachim Güntherodt, Honorary President, NCCR Nanoscale Science & Swiss Nanoscience Institute (SNI), Basel (CH) Chair

14.30 **Brain Cancer**

Nanoparticle-based Cancer Therapy for Patients with Recurrent Glioblastoma

Dr. rer. nat. Andreas Jordan, CSO, MagForce Nanotechnologie AG MagForce, Berlin (D)

Alzheimer

14.45 Nanoparticles for the Therapy and Diagnosis of Alzheimer's Disease

Prof. Dr. David Allsop, Faculty of Health & Medicine, Lancaster University, Lancaster, Lancashire (UK)

Parkinson

15.00 New Non-oral Drug Delivery Systems for Parkinson's Disease Treatment

> Prof. Dr. med. Fabrizio Stocchi, Director of the Parkinson's Disease and Movement Disorders Research Centre at the IRCCS San Raffaele, Rome (I)

ALS

15.15 Amyotrophic Lateral Sclerosis: The Latest Innovations in Investigating Neurodegenerative Disorders Based on SECARS microscopy & MR imaging

Dr. Lina H. Machtoub, Clinic for Radiology, Innsbruck Medical University, Innsbruck (A)

- 15.30 **Debate & Questions**
- 16.15 **Break**

SESSION 3 (Hall Sidney)

17. ETP Nanomedicine Brokerage and CLINAM Universities "Small Talk" Sessions 14.30 Chair Prof. Mike Eaton, London (UK), Nicolas Gouze, VDI/VDE Innovation, ETPN, Berlin (D); Dr. Sc. nat. Ruth Schmid, Chief Business

Developer SINTEF Materials and Chemistry Synthesis and Properties Polymer Particles and Surface Chemistry Trondheim (N)

14.30 **ETPN Brokerage Session**

The EC Framework Programmes for Research and Technological Development are the EU's main instrument for supporting collaborative research, development and innovations in science, engineering and technology, providing funding to co-finance research, technological development and demonstration projects based on competitive calls and independent peer review of project proposals. Several calls for proposals relevant for the Nanomedicine community are currently ongoing and it is an opportunity to here briefly present their project ideas and by that attract further project collaborators to improve or complete the consortium. The session is organised and chaired by the ETPN. Presentations shall be no longer than 4 minutes and contain a maximum of 4 slides.

Universities Small Talk Sessions

Posters and Results of Scientists at Universities participating in the University Village 2012 are welcome to submit for a small talk of 4 minutes, serving to highlight the research activities in Nanotechnology / Health. The Small Talk 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 prove how the work at the University/Institute fits into the area of Nanomedicine including showing the future and outlook on translation of the work.

16.15 **Break**

PLENUM (Hall Montreal)

16.45 Chair	18. Late Breaking and Ongoing Trials with Preclinical and Clinical Results Prof. Dr. Roy Bicknell, MA, D.Phil, FSB, Head of the Cancer Research UK Angionesis Group, University of Birmingham (UK)
16.45	Keynote Presentation of 5 Trials Ligand-Targeted NanoMedicines: From Benchtop to Clinic". Clinical and Preclinical Data to several Late Breakingn Novel Drugs Prof. Dr. Philip Low, Ralph C. Corley Distinguished Professor for Biochemistry, Department of Chemistry, Purdue University, West Lafayette, IN (USA)
17.15	Short Keynote Presentation LipoViTo, a Novel Two Chemotherapeutics In One Liposome Anti-cancer Nano-drug: from Computation and Modelling to Design and Animal Studies Prof. Dr. Yechezkel Barenholz, Head, Lab of Membrane and Liposome Research Department of Biochemistry, Hebrew University - Hadassah Medical School, Jerusalem (IL)
17.30	NanoXray Concept and Rational for Clinical Design Dr. Laurent Lévy, CEO, Nanobiotix and Co-President of the French Technology Platform on Nanomedicine Paris (F)
17.45	Clinical Phase 1 Trial with Immunoliposomes Targeting the Epidermal Growth Factor Receptor Prof. Dr. med. Christoph Rochlitz , Head of the Department Oncology, University Hospital Basel (CH)
18.00	Questions and Debate
18.30	Poster Sessions & Apéro
19.45	End of Day 2
20.15	Speakers Dinner
Wedn	esday, May 9, 2012 (Registration from 07.45 am until 11.00 am)
PLENUN	M (Hall Montreal)
08.15 Chair	19. Bring SiRNA into the Human Being Prof. Dr. Yechezkel Barenholz, Head, Lab of Membrane and Liposome Research Department of Biochemistry, Hebrew University - Hadassah Medical School, Jerusalem (IL)
08.15	What does it Take to Bring an siRNA to Clinic Dr. Hans-Peter Vornlocher, Head of Research, Axolabs GmbH, Kulmbach (D)
08.35	DPC Technology for Safe and Effective siRNA Delivery Dr. David L. Lewis, Vice President & Site Head, Arrowhead Research Corporation, Madison, WI (USA)
09.00	Debate and questions
09.30	Changing Halls
SESSIO	N 1 (Hall Montreal)
09.40 Chair	20. Novel Perspectives Paradigms for Nanotechnology in Health Prof. Dr. Edwin C. Constable, Vice Principal and Head of Research, University of Basel, Basel (CH)
09.40	Nanomedicine: Converging Nanotechnology and Biotechnology Prof. Dr. Ehud Gazit, Vice President for Research and Development Incumbent, Endowed Chair for Nano-Biology, Chairman of the Board, Ramot Ltd. Tel Aviv University, Tel Aviv (IL)
09.50	Predictive Nano-periodic Property Patterns for Designing Optimum Nano-therapies Dr. Donald Tomalia, CEO/Founder of NanoSynthons LLC, National Dendrimer & Nanotechnology Center, Mt. Pleasant, MI (USA)

10.00 Novel Image-guided Nanodrug Paradigms for Enhanced Cancer Therapy

Prof. Dr. med. S. Nahum Goldberg F.S.I.R., Vice-Chairman for Research, Section Chief, Image-guided Therapy And Interventional Oncology, Department of Radiology, Hadassah Hebrew University Hospital, Jerusalem IL

10.10 Analysis of Micro- and Nano-sized Particles with a Tunable Nanopore Sensor for the Precise Engineering of Drug Delivery Systems for Nanomedicine Applications

Dr. Dimitri Aubert, Director of Izon EMEA, Centre for Innovation & Enterprise, Yarnton, (UK)

- 10.20 Questions and Debate
- 10.45 **Break**
- 11.15 **21. Nanotechnology at Hand in Ophthalmology**

Chair Prof. Dr. med. Stephan Marsch, Head of the Intensive Care Clinic, University Hospital Basel, Basel (CH)

11.15 Submicron Emulsions in Drug Targeting and Delivery in Ophthalmology

Prof. Dr. Simon Benita, Department of Pharmaceutics, The School of Pharmacy, Faculty of Medicine The Hebrew University, Jerusalem (IL)

11.25 Structural Reorganization of the Eye Caused by Glaucoma

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

- 11.35 Questions and Debate
- 11.45 **22. Safety aspects of Nanomedicine and Biologicals**

Chair **Prof. Dr. med. Simo Schwartz, Jr., PhD**, Nanomedicine Coordinator Molecular Biology and Biochemistry Research for Nanomedicine (CIBBIM-Nanomedicine) Vall d'Hebron Univ. Hospital Research Institute, Barcelona (SP) and **Prof. Dr. med. Janos Szebeni**, Director, Nanomedicine Research and Education Center, Bay Zoltan Ltd/Semmelweis/Miskolc Universities, Budapest (H)

11.45 Haemocompatibility Tests of Nanoparticles and Biologicals with Focus on Complement Assays

Prof. Dr. med. Janos Szebeni, Director, Nanomedicine Research and Education Center, Bay Zoltan Ltd/Semmelweis/Miskolc Universities, Budapest (H)

11.55 Understanding Immunotoxicity of Nanomaterials: Focus on Inflammasome Activation

Prof. Dr. med. Bengt Fadeel, PhD, Institute of Environmental Medicine (IMM) Karolinska Institutet, Stockholm (S)

12.05 The Mechanistic Aspect of Complement Activation by Nanoparticles

Prof. Dr. Moein Moghimi, Centre for Pharmaceutical Nanotechnology and Nanotoxicology, Department of Pharmaceutics and Analytical Chemistry, University of Copenhagen (DK)

12.15 Testing Lung Toxicity of Nanomedicines

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

12.25 Genotoxicity and Apoptosis as a Mechanism of Cellular Toxicity by Nanomedicines

Dr. Fabrice Nesslany, Head of Toxicology Laboratory, Institut Pasteur de Lille (F)

12.35 Immunotoxicity of Nanomedicines

Prof. Dr. med. Jaques Descotes, PharmD, PhD, fellow ATS, Head, Poison Center and Pharmacovigilance Department Lyon University Hospitals, Lyon (F)

- 12.45 Questions and Debate
- 13.15 **Lunch**

SESSION 2 (Hall Singapore)

09.40	23. Nanomedical Solutions at Hand: Cardiovascular Disease Chair Dr. med. Panagiotis Trohopoulos, Cardiologist and Nano-Physician, Thessaloniki (GR)
	09.45Cardiovascular Applications in Nanomedicine - Overview Prof. Dr. med Patrick Hunziker , Cardiologist, Deputy Head of the Clinic for Intensive Care of the University Hospital Basel (CH)
09.50	The Use of Polycoated Nanoperticles for Vascular Bypass Surgery Prof Dr. med. Michael Reinert, Department of Neurosurgery, Inselspital Bern, University of Bern (CH)
10.05	Photothermic Nanoplasty of Atherosclerosis Dr. med Alexander Kharlamov , Department of Interventional Cardiology, Erasmus Medical Center, Rotterdam (NL) and Ural Institute of Cardiology, Yekaterinburg (RU)
10.15	Nanomedicine links with Bioelectronics for Cardiovascular Applications Dr. med. Varvara Karagkiozaki, MSc, Nanomedicine Group, Laboratory for "Thin Films -Nanosystems & Nanometrology", Department of Physics, Aristotle University of Thessaloniki, and AHEPA Hospital, AUTh, Thessaloniki (GR)
10.25	Questions and Debate
10.45	Break
11.15 Chair	24. Nanotechnology at Hand for Implantation Dr. Nadia Jessel, PhD, HDR, Research Director, DR2 Inserm Active Biomaterials & Tissue Engineering (French National Institute for Health and Medical Research), Strasbourg (F)
11.15	PolyPid - A Lipid-and-Polymer-based Novel Local Drug Delivery System: From Physicochemical Aspects to Therapy of Bacterially Infected Bones Dr. Noam Emanuel, Co-founder & CTO. PolyPid, Ltd., Jerusalem (IL)
11.25	Nanostructuring of Polyeathereatherketone (PEEK) for Load Barring Polymer Implants Prof. Dr. Bert Müller , Thomas Straumann Chair for Materials Science in Medicine, Director of Biomaterials Science Center, University of Basel (CH)
11.35	Development of Drug Delivery Nanoplatform for Medical Implants Prof. Stergios Logothetidis, Laboratory for "Thin Films -Nanosystems & Nanometrology", Department of Physics, Aristotle University of Thessaloniki (GR)
11.45	Questions and Debate
12.00 Chair	25. Nanomedical Challenges & Solutions at Hand for Poverty-Related Diseases Prof. Dr. med. Patrick Hunziker, MD, CSO of the European Foundation for Clinical Nanomedicine
12.00	The Challenge of Global Interruption of Malaria - Current Tools

Prof. Dr. Robert Sinden, Head of the Infection and Immunity Department of Biological Sciences, Imperial College of Science, Technology and Medicine, London (UK)

12.15 Determinants For access to Effective Malaria Treatment

Dr. med. Thomas Teuscher, Executive Director, Roll Back Malaria Partnership, Geneva (CH)

12.25 Towards a Magic Bullet Against Malaria: Paul Ehrlich Revisited

Prof. Dr. Xavier Fernàndez-Busquets, Barcelona Centre for International Health Research, Research Associate, Institute for Bioengineering of Catalonia, Centre Esther Koplowitz, Barcelona (E)

12.35 Nanomedicine: is there a hope for Chagas's Disease Patients?

Prof. Dr. Eder Lilia Romero and Prof. Dr. Maria Jose Morilla, Programa de Nanomedicinas. Universidad Nacional de Quilmes, Buenos Aires (AR)

- 12.50 Questions and Debate
- 13.15 **Lunch**

SESSION 3 (Hall Sidney)

09.40 **26.** Projects within the Seventh Framework Programme (FP7) of the EU

Chair Dr. Mira Marcus-Kalish, Tel Aviv University Ramat Aviv, Tel Aviv (IL) and Dr. Maj-Inger NILSSÓN, Programme Officer, European Commission, DG Research & Innovation G4, Brussels (B)

09.40 NAMDIATREAM

Project Coordinator: **Prof. Dr. med. Yury Volkov**, PhD, Department of Clinical Medicine, Trinity College Dublin (IRL)

NAMDIATREAM project is focused on the developing of multimodal nanotechnology-based toolkits for the detection of biomarkers of most common cancer types, rare and single malignant cells and cancer metastases. These toolkits will enable identification of cells indicative of early disease onset in a high-specificity and throughput format in clinical, laboratory and point-of-care devices, providing a breakthrough in the current diagnostic standards of sensitivity and selectivity. The pan-European consortium NAMDIATREAM consolidates the efforts of 22 leading academic, research, clinical and industrial partners.

10.10 SaveMe - Nanopharmaceutics and Diagnostics

Project Coordinator: **Prof. Dr. med. Louis Shenkman**, Tel Aviv University, Faculty of Medicine, Ramat Aviv (IL)

The SaveMe Consortium is designing and developing a novel modular nanosystems platform integrating advanced functionalized nano-core particles and active agents for diagnostic and therapeutic applications for cancer. SaveMe main goal is focused on the development of molecular imaging agents (MRI, PET or Gamma Camera imaging) and delivery vehicles of highly potent non-classic drugs such as siRNA for diagnosis and therapy of pancreatic cancer as the first model system.

10.45 **Break**

11.15 I-ONE - Bio-articificial Organs

Project Coordinator: **Prof. Dr. Fabio Biscarini, Ph.D. FRSC**, CNR Research Director Nanotechnology of Multifunctional Materials Research Division, Head CNR-ISMN, Bologna (I)

I-ONE is focused on exploiting for flexible organic electronics for the development and testing of Active Multifunctional Implantable Devices (AMIDs) to treat Spinal Cord Injury (SCI). The use of flexible organic electronics devices will advance the state-of-the-art of implantable devices for SCI from passive to active layouts that will promote nerve regeneration by a combination of local stimuli delivered on demand, will sense inflammation, and will control the immune-inflammatory response. The biomedical impact of the project will be demonstrated in vitro and in vivo. In vitro, the neural therapeutic plasticity induced by the I-ONE device will be evaluated on stem cells, which will be differentiated to neural progenitor cells, and then to neural cells. In vivo, the study of neural plasticity will be transferred to endogeneous stem cells by implanting the I-ONE device into a contusion SCI animal model. I-ONE will acquire the knowledge and the technology required to regenerate the nerve in the niche of the injury.

11.30 Angioscaff - Regenerative Medicine

Project Coordinator: **Prof. Dr. Jeffrey Hubbell**, School of Life Sciences (FSV) - Interfaculty Institute of Bioengineering (IBI), Lausanne (CH)

The AngioScaff Large Scale Integrative Project of FP7 is dedicated to development and characterization of angiogenesis-inducing bioactive and biofunctional scaffolds for tissue repair and regeneration. The AngioScaff consortium innovates both in the scaffold per se and in the biofunctional ligands that are incorporated into the scaffolds, for example developing novel variant forms of growth factors and novel biomolecules to modulate the activity of growth factors. Both biological and synthetic scaffold materials are being developed. Clinical targets in skin, bone, muscle and nerve repair are being pursued, along with basic models of angiogenesis.

12.00 NeuroCare - Neurotechnology and Network Dynamics

Project Coordinator: **Dr. Philippe Bergonzo**, Director of Research, French Atomic Energy Commission, Head of the Diamond Sensors Laboratory CEA, LIST Institute, Centre d'Etudes de Saclay, Gif-sur-Yvette (F)

Medical implants can repair the nervous system following an accident or disease, notably to correct the loss or impairment of eyesight (through retinal degeneration) or hearing (through damaged cochlea). Traumatic

spinal injuries, drug-resistant epilepsies, psychiatric disorders and chronic neurodegenerative pathologies can also be treated (in the cortex) with such reconstructive approaches. NeuroCare aims to create better retinal, cortical and cochlear implantable devices through the use of improved interfacing between the electronic implants and living cells. The NeuroCare concept involves high-quality, low-cost, carbon-based materials, used as therapeutic neuro-interfaces, namely nanocrystalline diamond and graphene. These materials are well-adapted for use in medical implants, because they (i) offer a wide range of electronic properties (metal, semiconductor and insulator), (ii) are bio-inert, (iii) can be used on flexible substrates and (iv) are physically robust. The project starts spring 2012 but does benefit from the notable advances developed during the DREAMS-FP6 project, that included the fabrication of diamond-based micro-electrodes for retinal implants (DREAMS – FP6).

12.20 Questions and Debate on all Projects

13.15 **Lunch**

PLENUM (Hall Montreal)

14.15 **27. The Implications of Nanomedicine**

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

14.15 The Implication of Ethics in Nanomedicine

Prof. Dr. Göran Hermerén, Professor of Medical Ethics, Faculty of Medicine, Lund University; Chairman of the advisory board of the German reference centre for ethics in the life sciences; Past President of the European Group on Ethics in Science and New Technologies (Brussels), and Chair, Ethics committee of Swedish Research Council, Lund (S)

14.45 Converging today's Building Blocks to Ethical Medicine - When is Nanomedicine "NOW"?

Prof. Dr. Rogerio Gaspar, Full Professor, Faculty of Pharmacy University of Lisbon (FFUL, Portugal); Coordinator of Nanomedicine & Drug Delivery Systems research group, Lisbon (P)

15.10 Questions and Debate

Chair

15.30 **28. Regulation Environment in Nanomedicine**

Prof. Dr. Marisa Papaluca Amati, Head of Scientific Support and Projects, European Medicines Agency, London (UK)

Nanomedicine is – as every emerging novel field - in need of the thorough investigation. The Exploration of Scientific Aspects in Nanomedicine is necessary in order to make the right developments and regulatory considerations. This session investigates uncertainties in the research of nanotechnology, current approaches to address key scientific gaps in knowledge, methods, or tools, and current technical regulatory requirements. Investigators and regulators also discuss the joint efforts needed to accelerate the achievements promised by Nanomedicine

Participants:

Prof. Dr. Marisa Papaluca Amati, Head of Scientific Support and Projects, European Medicines Agency, London (UK)

Prof. Dr. Yuliang Zhao, Director, Chinese Academy of Science, Key Lab for Biomedical Effects of Nanomaterials and Nanosafety, Deputy Director-General, National Center for Nanoscience and Technology of China; Beijing (RC)

Dr. Carlos Peña, PhD, MS, Director, Emerging Technology Programs, Office of the Commissioner, Food and Drug Administration (FDA) Silver Spring, MD (USA)

Alastair Kent, Director of the European Genetic Alliances Network, London (UK)

Dr. Hripsime Shahbazian, Senior Science Advisor Office of Science Therapeutic Products Directorate, Marketed Health Products Directorate Health Canada, Ottawa, (CND)

NN. European Commission, Directorate-General for Health and Consumers Emerging Technologies - Risks - R&D – Nanotechnologies (SANCO), Brussels, (B)

16.45 Farewell Closure and Announcement of Conference 23. – 26. Juni 2013

Prof. Dr. med. Patrick Hunziker, CSO of the European Foundation for Clinical Nanomedicine, Basel (CH)

17.00 End of Conference 2012

Foyer-Exhibition, "University Village" and the "Small Talks" Session

The foyer exhibition allows meeting industrial pioneers in the field of Nanomedicine and related technologies. The members in the exhibition have tools, services and concepts that are of high value to the nanomedical community that meets in Basel. Within the highly interdisciplinary mix of the participants and among them many researchers look for solutions to be able to realise their work at best. To be able to translate academic research efficiently and successfully into clinical applications and industrial products, intensive communication between university researchers and industry, clinicians and regulatory agencies is a "must". The University Village and the "Small Talk" Session at CLINAM, give university participants the possibility to highlight their research activities and get valuable feedback from industry, physicians and regulatory experts. The combination of the "University Village" with a Foyer Exhibition gives unique chances to foster this dialogue at an early stage of scientific research and to contribute to bring new innovations to the patient quickly in a highly novel and regulated area.

Companies

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(DV Nano), Saarbrücken (D)

BASEL INKUBATOR - start-up center
of the University of Basle and the
FHNW, Basel (CH)and further companies

Universities

Switzerland (Basel and Zürich) Israel (Tel Aviv)

Norway (SINTEF Trondheim) Denmark (Copenhagen and Odense)

Austria (Graz)) Italy (Milano)

Sweden (Stockholm) Romania (Cluj-Napoca

France (Strasbourg) Egypt (Alexandria

Hungary (Budapest) Netherlands (Twente))

Spain (Barcelona)and further universities

Credit Points for Continuous Education

The European Conference for Clinical Nanomedicine is subject to Credit Points for Switzerland; 24 points approved by the Swiss Medical Association for Clinicians in all fields of Medicine and for 10 credit points approved by the Swiss Association for Governmental Veterinarians for all scientists involved in in-vivo

experimentation.





General Information

Presentation Times and Size of Posters. Poster discussion

Posters will be located in the Foyer visible for all conference attendees. Due to the tight conference schedule the meeting breaks and lunches will be the preferred time to study the posters. Therefore, during lunch and breaks the authors are asked to be present close to their poster. In addition after the the conference sessions on **Tuesday from 18.30 until 19.45** there time for poster vision

Posters are to be presented in the size of 1.40 meter wide and 1.00 meter high. In 2012 there will be the CLINAM-Poster Prize as well as the special poster award for Nanotoxicology by the European Center for Nanotoxicology (ENT), Graz, Austria. Prizes will be handed out on the third Day of the conference during lunch time. Poster installation is on May 7 as from 06.45 until 8.30. You will receive at the reception the location number of your wall.

"Small Talk" Sessions

Posters and results and University Village presenters are eligible for presentations in a special session of Small Talks, 3 minutes in length and serving to highlight the research activities in Nanotechnology in Health. The Small Talk 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 prove how the work at the University/Institute fits into the area of Nanomedicine including showing the future. Application for Small Talk Sessions are possible any time after acceptance of your Poster. You will be asked weather you want to use this chance in the Decision Form.

Responsibility

Beat Löffler, MA, CEO and Prof. Dr. med. Patrick Hunziker, CSO of the European Foundation for Clinical Nanomedicine, Basel (CH); Dr. Sebastian Lange, Managing Director of the European Technology Platform on Nanomedicine, Berlin (D)

Office

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

Target audience

The faculty includes the pioneers and opinion leaders in the fields of medicine and nanoscience, 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, This 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 the future potential of emerging technologies. Experts from venture companies can 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.

Conference Fees

Registration:	Early Until 15.1.12	Regular As from 16.1.12	Late After 5.4.12	1 Day	1Day Late After 5.4.12	
Academy member	530 €	590 €	660 €	240 €	280 €	
Academy regular	685 €	760 €	830 €	310 €	350 €	When receiving
Governmental /intern. Agency member	630 €	770 €	840 €	310 €	350 €	your registration
Governmental /intern. Agency regular	700 €	870 €	940 €	410 €	450 €	the organiser will
Industry member	830 €	920 €	990 €	390 €	430 €	send you an invoice
Industry regular	965 €	1′150 €	1′220 €	460 €	500 €	
Student member	350 €	400 €	430 €	145 €	165 €	
Student Regular	450 €	500 €	530 €	200 €	220 €	
Your contribution to the Official Evening Event: 50 €						

Your contribution to the Official Evening Event: 50 €

Registration is possible until May 4, 2012. On site registration is subject to a surcharge of 20%

We prefer web-registration www.clinam.org however, we also accept documents by E-mail and Fax

The People behind the Organisers

European Foundation for Clinical Nanomedicine

The CLINAM-Foundation is a non profit organisation 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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Dr. med. Panagiotis Trohopoulos, Cardiologist and Nano-Physician, Thessaloniki (GR)

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.

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The European Summit for Clinical Nanomedicine with Foyer Exhibition

CLINAM 5 / 2012 with ETPN

Monday, May 7, 8.45 h – Wednesday, May 9 2012, 17.00 h

I register for the **Fifth European Conference for Clinical Nanomedicine**.

Conference Registration Form

Regular Academy Industry Students I participate in the even	ning event on	May 7, 2012 a	Member □ □ □ t the support	t rate of 50	0 €	
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Conference Fees						
Registration: Academy member Academy regular Governmental /intern. Agency member Governmental /intern. Agency regular Industry member Industry regular Student member Student Regular Your contribution to the O Registration is possible up	530 € 685 € 630 € 700 € 830 € 965 € 350 €	As from 16.1.12 590 € 760 € 770 € 870 € 920 € 1'150 € 400 € 500 €	Late After 5.4.12 660 € 830 € 840 € 940 € 1'220 € 430 € 530 €	240 € 310 € 410 € 390 € 460 € 145 € 200 €	1Day Late After 5.4.12 280 € 350 € 450 € 430 € 500 € 165 € 220 €	When receiving your registration the organiser will send you an invoice

Send Registrations to the European Foundation for Clinical Nanomedicine, Alemannengasse 12, P.O. Box, CH-4016 Basel, Switzerland, Phone + 41 61 695 93 95 Fax +41 61 695 93 90 E-Mail <u>clinam@clinam.org</u>

The European Summit for Clinical Nanomedicine with Foyer Exhibition Monday, May 7, 8.45 h – Wednesday, May 9, 2012, 17.00 h

CLINAM 5 / 2012 with ETPN

Exhibition Registration Form

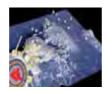
I herewith register as a participant within the Foyer Exhibition from May 7-9, 2012 at the Congress Center Basel, Switzerland

	Exhibition Space
	4 m^2
	Exhibition Booth (I need beyond the space also a booth) Booth construction including 1 table, 2 chairs, power connection, booth labelling $\begin{array}{cccccccccccccccccccccccccccccccccccc$
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CLINAM 5 / 2012 with ETPN

The European Summit for Clinical Nanomedicine with UNIVERSITY VILLAGE Monday, May 7, 8.45 am – Wednesday, May 9, 2012, 4.30 pm

REGISTRATION FOR THE UNIVERSITY VOILLAGE CLINAM 2012

University Village 2012

The University Village is the space for universities and research institutes, providing them with an opportunity to present novel approaches, new research projects and initial outcomes of research and experimental results as well as first patents. Researchers and engineers present their Universities and demonstrate the State of the Art of their competence in any discipline relating to Nanomedicine. They share their knowledge with conference participants, exhibitors and with colleagues from other Universities during the 3 days of the conference. Every University has the right to present a "small Talk" of 4 minutes in length and serving to highlight the research activities in Nanotechnology in Health. The Small Talk 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 prove how the work at the University/Institute fits into the area

	with register as □ University, □ University Institute or □ Research Lab for the CLINAM 2012 "University e" and book
	Village table (May 7-9, 2012) incl. 1 Table, 2 chairs, 1 pin board for poster, Power connection incl. 1 transferable institution-conference badge incl. lunch 590 €
Regis	stration Data:
Institu	ution Name
Depa	rtment
Resp	onsible: Last NameFirst Name
Addre	ess
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Phon	eFax
Email	IWeb Site www.
	YES (Sending this form is a legally binding participation in the CLINAM 2012 University Village

Please upload your data on web under conference and then button 4) <u>University Village Registration</u> or send registration by E-mail to the organisers' office clinam@clinam.org

Note: A general liability insurance has been signed for the duration of the event by the organiser. However this does not

include damages or theft of goods within the foyer and the conference halls.

or fax to +41 61 695 93 90 - European Foundation for Clinical Nanomedicine, Alemannengasse 12, CH 4016 Basel, Switzerland, Phone +41 61 695 93 95 Fax + 41 61 695 93 90 Email: loeffler@clinam.org Homepage: www.clinam.org

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 Zurich Airport, which is 55 minutes from Basel by train.

By Car

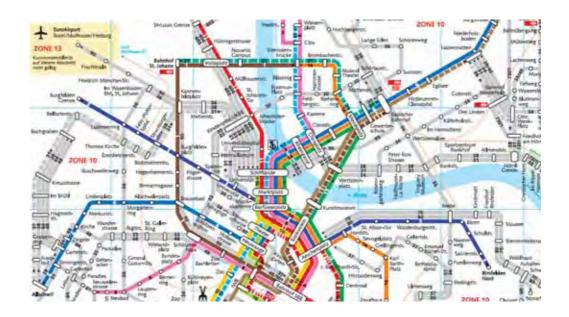
Basel is the point where the Swiss, French and German motorway networks meet. The Congress Center Basel and the trade-fair grounds have their own motorway exit. There is a Multi-storey car park with space for 1600 vehicles at the Exhibition Square.

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)



The European Summit for Clinical Nanomedicine

Basel, Switzerland, Monday, May 7, 09.00 am - Wednesday, May 9, 2012, 5.00 pm

Joint Collaborators for CLINAM 5/2012

All Joint Collaborators are non profit- organisations or governmental bodies



European Foundation for Clinical Nanomedicine (CLINAM), Basel (CH)



European Technology Platform on Nanomedicine (ETPN), Berlin (D)



European Medicines Agency (EMA), London, (UK)



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)



International Association for Pharmaceutical Technology (APV), Mainz (D)

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