

Nanobiotechnology
August 22 - 23, 2011, Budapest

Organizers: Sandor G. Vari (Los Angeles, USA), S. Moein Moghimi
(Copenhagen, Denmark), Leland Chung (Los Angeles, USA)

August 22, 2011

13:00 – 14:00 Welcome Lunch

14:00 – 14:15 Opening Remarks

Sandor G. Vari
International Research and Innovation Management Program
Cedars-Sinai Medical Center & General Manager of the RECOOP HST
Consortium, Los Angeles, CA, USA

14:15 – 14:45 Introductions of Chairmen

14:15 – 14:30 Problems and Promises of Nanobiotechnology

S. Moein Moghimi
Department of Pharmaceutics and Analytical Chemistry
University of Copenhagen, Denmark

14:30 – 14:45 Using Nanoparticles to Combat Cancer

Leland Chung
Louis Warschaw Prostate Cancer Center, Cedars – Sinai Medical Center, Los
Angeles, CA, USA

14:45 – 16:00 Session I: Nanomedicine – Design and Targeted Drug Delivery

Chairman: S. Moein Moghimi

**14:45 – 15:00 Synthesis and optical properties of ultrasmall inorganic optical
markers based on lanthanides emission for bio-medical applications**

Artur Podhorodecki
Institute of Physics, Wroclaw University of Technology, Poland

15:00 – 15:15 Bio-applications of novel functionalized nanosized carriers

Rostyslav Stoika
Department of Regulation of Cell Proliferation and Apoptosis, Institute of Cell
Biology, National Academy of Sciences of Ukraine, Lviv

**15:15 – 15:30 Rational design of potential anticancer “drug-like” molecules based on
4-azolidinone scaffold**

Roman Bogdanovych Lesyk
Department of Pharmaceutical, Organic and Bioorganic Chemistry, Danylo
Halysky Lviv National Medical University, Ukraine

**15:30 – 15:45 Structure-function relationships underlying anticancer activity of
novel 4-thiazolidones**

Rostyslav Panchuk
Institute of Cell Biology, National Academy of Sciences of Ukraine, Lviv,
Ukraine

15:45 – 16:00 **Questions and Discussion**

16:00 – 16:30 **Coffee Break**

16:30 – 18:00 Session II: Nanomedicine – Applications and Toxicity

Chairman: Leland Chung

16:30 – 16:45 **Multifunctional magnetic nanoparticles for cell imaging**

Daniel Horák

Institute of Macromolecular Chemistry, Academy of Sciences, Prague, Czech Republic

16:45 – 17:00 **Quantum Dot Multiplexing Nanotechnology Detects Cancer Cell Signaling for Prostate Cancer Progression**

Haiyen E. Zhou

Louis Warschaw Prostate Cancer Center, Cedars – Sinai Medical Center, Los Angeles, California, USA

17:00 – 17:15 **The Alterations of Immune Response of Lymphocytes In Vitro Exposed to PLGA and TiO₂ Nanoparticles**

Katarina Volkovova

Department of Experimental and Applied Genetics, Slovak Medical University, Bratislava, Slovakia

17:15 – 17:30 **Using amino functionalized ORMOSIL nanoparticles as a non-viral DNA vector**

Zsolt Wagner

Department of Pharmacodynamics, Faculty of Pharmacy, Semmelweis University, Budapest, Hungary

17:30 – 17:45 **Nephrotoxicity of i.v. administered oleic acid coated Fe₃O₄ nanoparticles (NP) in rats**

Radana Kollárová

Department of Clinical and Experimental Pharmacotherapy, Slovak Medical University, Bratislava, Slovakia

17:45 – 18:00 **Questions and Discussion**

18:00 – 19:00 Session III: Nanomedicine – Vision of the Future

Panel Discussion:

Moderators: Leland Chung

S. Moein Moghimi

Sandor G. Vari

20:00 **Dinner**

August 23, 2011

Regnum I. Conference Room

9:00 – 10:30 Session IV: Nanomedicine – Traditional Methods and New Approaches with Nanoparticles

Chairman: Leland Chung

9:00 – 9:15 Nanobody-tagged polyplexes for transcriptional targeting of a lethal transgene and cancer cell killing

S. Moein Moghimi

Department of Pharmaceutics and Analytical Chemistry, University of Copenhagen, Denmark

9:15 – 9:30 SEREX-derived antigens for detection of breast cancer serum autoantibody profile

Filonenko Valeriy

Department of cell Signaling Pathways, Institute of Molecular Biology and Genetics National Academy of Sciences of Ukraine, Kyiv, Ukraine

9:30 – 9:45 Quantitative analysis of NaPi2b phosphate transporter expression in different histomorphological types of ovarian cancer

Maksym A. Shyian

Institute of Molecular Biology and Genetics, National Academy of Sciences of Ukraine and Institute of Biology, Taras Shavchenko National University of Kyiv, Ukraine

9:45 – 10:00 Novel human glioma model in rat brains

Vadym Kavsan

Department of Biosynthesis of Nucleic acids, Institute of Molecular Biology and Genetics, National Academy of Sciences of Ukraine, Kyiv

10:00 – 10:15 Capture of circulating tumor cells with a highly efficient nanostructured silicon substrates with integrated chaotic micromixers

Leland Chung

Louis Warschaw Prostate Cancer Center, Cedars – Sinai Medical Center, Los Angeles, CA, USA

10:15 – 10:30 Questions and Discussion

10:30 – 11:00 Coffee Break

11:00 – 13:30 RECOOP HST Consortium 3rd Nanobiotechnology Network Meeting

Review of the 2nd Network Meeting's Minutes

Rostyslav Stoika and Sandor G. Vari

Biobank for Ovarian and Breast Cancer Integrated Nanobiotechnology Research (INR)

Sandor G. Vari

Review of the potential Integrated Nanobiotechnology Research (INR) for Ovarian and Breast Cancer and Tumor Metastasis

Leland Chung
S. Moein Moghimi
Sandor G. Vari

Milestones of the Integrated Nanobiotechnology Research (INR) Plan

Leland Chung
S. Moein Moghimi
Sandor G. Vari

Planning the RECOOP HST Consortium 4th Nanobiotechnology Network Meeting

Sandor G. Vari

Wrap up

Leland Chung
S. Moein Moghimi

13:30 Lunch

Contact: Sandor G. Vari, email: Sandor.Vari@cshs.org

Venue: Hotel Regnum Residence, Regnum I. Conference Room
Budapest, Ganz street 8, H-1025
Contact: Ms. Gyongyver Keresztes
Director of Sales
Tel: +36-1 265 – 5080
E-mail: keresztes@regnumresidence.hu
Web: www.regnumresidence.hu

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