

Scientific Program for
1st International Symposium on
Molecular Imaging and Nanomedicine

August 20-24, 2011, Lijiang, China

Sponsored by Institute of Chemistry, CAS

Supported by 973 Program

Symposium Chair:

Prof. Mingyuan Gao

Institute of Chemistry, the Chinese Academy of Sciences

Organizing Committee:

Prof. Zhifang Chai

Prof. Mingyuan Gao

Prof. Jiacong Shen

Prof. Guojun Zhang

Venue

Guanfang Hotel Lijiang, Shangri-la Road, 674100 Lijiang, Yunnan, China

August 20, 2011

14:00-22:00 Registration

August 21, 2011

Morning

08:45-09:00 Opening Remarks

Section 1 Chairman: Prof. Yan Zhang

09:00-09:30 Colloidal nano- and microparticles towards sensing applications
Prof. Wolfgang Parak, AG Biophotonik, University of Marburg

09:30-10:00 Optical Molecular Imaging in Anti-Cancer Drug Discovery
Prof. Guojun Zhang, Cancer hospital of Shantou University medical college

10:00-10:20 Coffee break, Gather together for symposium photo

Section 2 Chairman: Prof. Hans-Joachim Galla

10:20-10:50 Imaging Biological Functions Using Split-Reporter Reconstitution Analyses

Prof. Takeaki Ozawa, department of Chemistry, Tokyo University

10:50-11:20 New Therapy Strategy Based on Gold Nanoparticles
Prof. Xingyu Jiang, National Center and Nanoscience and technology

11:20-11:50 MRI Cancer Molecular Imaging
Prof. Fabao Gao, West China Hospital, Sichuan University

12:00-13:00 Lunch

Afternoon

Section 1 Chairman: Prof. Xingyu Jiang

14:00-14:30 Novel Functional Bioimaging Techniques with Rationally designed fluorescence probes
Prof. Yasuteru Urano, Laboratory of Chemical Biology and Molecular Imaging, Graduate School of Medicine, The University of Tokyo

14:30-15:00 Conjugated Polymer-based Fluorescence Resonance energy Transfer (FRET) Technique for Biosensing and Cell Imaging
Prof. Shu Wang, Institute of Chemistry, CAS

15:00-15:20 Coffee Break

Section 2 **Chairman: Prof. Yasuteru Urano**

15:20-16:00 Flashtalk for Poster Presentations

16:00-18:00 Poster discussion

18:30 Welcome banquet

August 22, 2011

Morning

Section 1 **Chairman: Prof. Guojun Zhang**

09:00-09:30 Aerogels from Metal- and Semiconductor Nanocrystals
Prof. Alexander Eychmüller, Department of Chemistry and Food
Chemistry, TU Dresden

09:30-10:00 Hepatic Ischemia/reperfusion Injury Promotes Lung Metastasis after
Major Hepatectomy by Mobilization of Circulating Endothelial
Progenitor Cells (EPCs) – Application of Optical Imaging System in
Rat and Mouse Models with Othotopic Liver Cancer
Prof. Kwan Man, Department of Surgery, LKS Faculty of Medicine,
The University of Hong Kong

10:00-10:30 Spectroscopic Probes and Labeling Analysis
Prof. Huimin Ma, Institute of Chemistry, CAS

10:30-10:50 Coffee Break

Section 2 **Chairman: Prof. Wolfgang Parak**

10:50-11:20 Development of MRI Contrast Agents for Diagnosis of
Tumor and Brain Lesion

Prof. Hao Lei, Wuhan Institute of Physics and Mathematics

11:20-11:50 Engineering Interfacial Nanomaterials toward Capture of Cancer
Cell

Prof. Shutao Wang, Institute of Chemistry, CAS

12:00-13:00 Lunch

Afternoon

14:00-17:30 Free Discussion

18:30 Dinner in the old city of Lijiang

20:00 Watch the show of Naxi Ancient Music show

August 23, 2011

Morning

Section 1 Chairman: Prof. Alexander Eychmüller

- 09:00-09:30 How to breath: Analysis of Surface Topology and Chemical Composition of Nanostructured Artificial lung Surfactant Films
Prof. Hans-Joachim Galla, Institute of Biochemistry, University of Münster
- 09:30-10:00 Non-cadmium quantum dots emitters covering visible to NIR
Prof. Renguo Xie, College of Chemistry, Jilin University
- 10:00-10:30 In vitro/in vivo Imaging of PtII-based Anticancer Drugs
Prof. Weijiang He, School of Chemistry&Chemical Engineering, Nanjing University
- 10:30-10:50 Coffee Break

Section 2 Chairman: Prof. Takeaki Ozawa

- 10:50-11:20 Water Soluble NaLnF₄ Nanoparticle for Highly Multiplexed Bioassays
Dr. Yi Hou, Institute of Chemistry, CAS
- 11:20-11:40 Receptor-mediated Delivery of Magnetic Nanoparticles across the Blood-Brain Barrier
Ruirui Qiao, Institute of Chemistry, CAS
- 11:40-11:50 Closing remarks
Prof. Mingyuan Gao, Institute of Chemistry, CAS
- 12:00-13:00 Lunch

Afternoon

- 14:00-17:30 Free Discussion
- 18:30 Conference dinner

August 24, 2011

Departure

Or Sightseeing to the Jade Dragon Snow Mountain, Impression Lijiang Show directed by Yimo Zhang, and Village & Baisha Murals tour.

Flashtalk and Poster Presentations

15:20-18:00, August 21, 2011

Chairman: Prof. Yasuteru Urano

Flashtalk

- 15:20-15:22 Potential Value of Snail in Early Detection of Colorectal Cancer Metastasis
Prof. Jun Du, School of Pharmaceutical Sciences, Sun Yat-sen University
- 15:22-15:24 Modulation on the Cellular Uptake of Quantum Dots
Prof. Yan Zhang, School of Chemistry and Chemical Engineering, Nanjing University
- 15:24-15:26 Aptamers: An Emerging Class of Molecules for Diagnostics and Therapeutics
Prof. Dihua Shangguan, Institute of Chemistry, CAS
- 15:26-15:28 Aggregation-Induced Emission: Promising Fluorescent Probes for Bioimaging
Prof. Jingzhi Sun, Institute of Biomedical Macromolecules, Department of Polymer Science and Engineering, Zhejiang University
- 15:28-15:30 In vivo MR Imaging of Tumor Spheres with Stem Cell-like Properties Labeled with USPIO
Prof. Feng Bi, Lab of Signal Transduction and Molecular targeted Therapy, West China hospital, Sichuan University
- 15:30-15:32 New Functional Studies of Conjugated Polymers: Anticancer Activity and Apoptosis Imaging
Prof. Libing Liu, Institute of Chemistry, CAS
- 15:32-15:34 Two-photon Ratiometric Fluorescent Sensor for Zinc Ions in Living Cells
Prof. Xue Lin, Institute of Chemistry, CAS
- 15:34-15:36 Silica Capsulated Nanoparticles for Bio-imaging and Bio-separation
Prof. Jiaqi Zhuang, College of Chemistry, Jilin University
- 15:36-15:38 Surface Biofunctionalized Multicore/Shell CdTe@SiO₂ Composite Particles for Immunofluorescence Assay
Dr. Lihong Jing, Institute of Chemistry, CAS
- 15:38-15:40 Quantum Dot-Antisense Oligonucleotide Conjugates for Multifunctional Gene Transfection, mRNA Regulation, and Tracking of Biological Processes
Yilin Li, Institute of Chemistry, CAS
- 15:40-15:42 Gelification- an Effect Measure for Achieving Differently Sized Biocompatible

Fe₃O₄ Nanocrystals through a Single Preparation Recipe

Qiaojuan Jia, Institute of Chemistry, CAS

15:42-15:44 Lateral Flow Immunochromatographic Assay for Sensitive Pesticide Detection by Using Fe₃O₄ Nanoparticle Aggregates as Color Reagents

Chunyan Liu, Institute of Chemistry, CAS

15:44-15:46 Investigation of the Binding Stability between PEG and Fe₃O₄ Magnetic Nanoparticles

Jianfeng Zeng, Institute of Chemistry, CAS

15:46-15:48 Preparation of Magnetic Polystyrene Beads with Different Coatings and Their Potential Applications in Biological Field

Xiaoyu Sun, Institute of Chemistry, CAS

15:48-15:50 Synthesis of PVP-Coated Magnetite Nanocrystals in a Continuous Flow Tubular Microreactor

Hongwei Zhang, Institute of Chemistry, CAS

15:50-16:10 Strategies for Success in Scientific Publishing

Dr. José Oliveira, Editor-in-Chief of Small, Wiley

16:10-18:00 Posters Discussion