



Russian-Taiwanese Symposium

# NANOBIOLOGY AND NANOMEDICINE



*3-5 November 2015, Institute Cytology and Genetics, Novosibirsk,  
Prospect Lavrentyeva 10 (Conference Hall)*

## PROGRAM

### Day 1: Tuesday, 3 November 2015

	<b>Arrival</b>
	<b>Hotel Check-In</b>
<b>14:00</b>	<b>Registration (Institute Cytology and Genetics)</b>
<b>19:00</b>	<b>Welcome Party (Hotel Golden Valley restaurant)</b>

9:00-9:30	<b>Opening Ceremony</b> <b>Introductory Speech</b>  Chairman: Tsu An Hsu and Moshkin Mikhail
9:30-10:00	<b>Self-assembling nanoconjugates with stimuli-responsive property for cancer theranostics</b> <a href="#">Wang T.-W.</a> Department of Materials Science and Engineering, National Tsing Hua University
10:00-10:30	<b>Contribution of Ural Center for Shared Use “Modern Nanotechnology” to nanotoxicological research</b> <a href="#"><sup>1</sup>Shur V.Ya.</a> , <sup>1,2</sup> <a href="#">Tyurnina A.E.</a> , <sup>1</sup> <a href="#">Kuznetsov D.K.</a> , <sup>1</sup> <a href="#">Shishkina E.V.</a> , <sup>1</sup> <a href="#">Vasileva D.S.</a> , <sup>1</sup> <a href="#">Vazhenin V.A.</a> , <sup>1</sup> <a href="#">Potapov A.P.</a> , <sup>1</sup> <a href="#">Morozova M.V.</a> <sup>1</sup> Institute of Natural Sciences, Ural Federal University, Ekaterinburg <sup>2</sup> UNIIM, Ekaterinburg, Russia
10:30-11:00	<b>Synthesis Multifunctional Nanoparticles for Theranostic Applications</b> <a href="#">Huang Y.-Y.</a> Institute of Biomedical Engineering, National Taiwan University
11:00-11:30	<b>Novel micelle-forming material used for preparing a theranostic vehicle exhibiting enhanced in vivo therapeutic efficacy</b> <a href="#">Liu T.-Y.</a> Department of Biomedical Engineering, National Yang-Ming University
11:30-12:00	<b>Coffee break</b>
12:00-12:30	<b>Bimodal Nanoparticles for Bio-applications</b> <a href="#">A.S. Minin</a> , <a href="#">Uimin M.A.</a> , <a href="#">Ulitko M.V.</a> , <a href="#">Yermakov A.E.</a> , <a href="#">Minin A.A.</a> , <a href="#">Smoluk L.T.</a> , <a href="#">Miheev M.N.</a> Institute of Metal Physics of Ural Branch of Russian Academy of Sciences, Ekaterinburg
12:30-13:00	<b>Engineering of magnetic nanoparticle-biomolecule conjugates for biomedical diagnostics</b> <a href="#">Pershina A.G.</a> , <a href="#">A.M.Demin</a> , <a href="#">A. A. Magaeva</a> , <a href="#">V. I. Itin</a> , <a href="#">A.E.Sazonov</a> , <a href="#">V.P.Krasnov</a> Siberian State Medical University, Tomsk Institute of Organic Synthesis, Ural Branch of Russian Academy of Sciences, Ekaterinburg
13:30-14:00	<b>Towards nanoconstructions bearing biologically active oligonucleotides</b> <a href="#">Pyshnyi D.V.</a> Institute of Chemical Biology and Fundamental Medicine, Siberian Branch of Russian Academy of Sciences, Novosibirsk
14:00-15:00	<b>Lunch</b>

**Chairman:** Yi You Huang and Ahmedov Shamil

15:00-15:30

**Modulating Trastuzumab Density and Magnetic Targeting Duration of pH-sensitive Magnetic Nanocarriers for Synergistically Targeting to HER2-positive Breast Cancer**

[Chen S. Y.](#)

[Department Materials Science and Engineering, National Chiao Tung University](#)

15:30-16:00

**Bispecific Antibody Conjugated MnMEIO for HER2/neu- and EGFR-Expressing Tumor Imaging**

[Hsu T. A.](#)

[Institute of Biotechnology and Pharmaceutical Research](#)

16:00-16:30

**Gadolinium Nanoparticle as stem cell tracker for In-vivo Imaging**

[Lin F. H.](#)

[Institute of Biomedical Engineering and Nanomedicine, National Health Research Institutes](#)

16:30-17:00

**Coffee break**

17:00-17:30

**Development of Magnetic Bioceramic Nanocrystals for Intracellular Hyperthermia**

[Wu H.-C.](#)

[Department of Materials Engineering, Tatung University](#)

17:30-18:00

**Long-term feeder-free and xeno-free culture of human pluripotent stem cells on biomaterials grafted with nanosegments**

[Hikuchi A.](#)

[Department of Chemical and Materials Engineering, National Central University](#)

**Chairman:** San Yuan Chen and Ilzira Minigalieva

9:00-9:30

**Liposome of Herbal Extract for Anti-photo Skin Aging In-vitro**

[Hsieh M.-F.](#)

[Department of Biomedical Engineering, Chung Yuan Christian University](#)

9:30-10:00

**Inorganic Nanoporous Nanoparticles for Tooth Bleaching and Drug Delivery Systems**

[Wu C.-W.](#)

[Department of Chemical Engineering, National Taiwan University](#)

10:00-10:30

**Development of nanotechnology for therapy of metabolic and cardiovascular diseases**

[Ahmedov Sh.](#)

[Research Institute for Cardiology, Tomsk](#)

10:30-11:00

**Cytostatic content magnetosensitive composites of phospholipids in oncotherapy**

[Fedushak T.](#)

[Institute of Petroleum Chemistry, Siberian Branch of Russian Academy of Sciences, Tomsk](#)

11:00-11:30

**Coffee break**

11:30-12:00

**Anticancer agents based on human milk protein – Lactaptin**

[Koval O.A.](#)

[Institute of Chemical Biology and Fundamental Medicine, Siberian Branch of Russian Academy of Sciences, Novosibirsk](#)

12:00-12:30

**Platelet growth factors and platelet-derived microvesicles in regenerative medicine and xeno-free ex vivo cell expansion and cell therapy**

[Burnouf T.](#)

[Institute of Biomedical Materials and Tissue Engineering, Taipei Medical University](#)

13:00-14:00

**Lunch**

**Chairman:** Dar Bin Shieh and Dmitrii Pyshnyi

14:30-15:00

**Nanomaterial biological system interaction and their inspired biomedical applications**

[Shieh D. B.](#)

[Institute of Oral Medicine, National Cheng Kung University](#)

15:00-15:30	<p><b>Common patterns and some specific features of organism's responses to impacts of different metallic nanoparticles (a synopsis of results obtained in animal experiments by an inter-institutional research group)</b></p> <p><a href="#">1Katsnelson B.</a>, <a href="#">1Privalova L.</a>, <a href="#">1Sutunkova M.</a>, <a href="#">1Minigaliyeva I.</a>, <a href="#">1Gurvich V.</a>, <a href="#">2Shur V.</a>, <a href="#">2Shishkina E.</a>, <a href="#">3Valamina I.</a>, <a href="#">3Makeyev O.</a> et al</p> <p><sup>1</sup>The Medical Research Center for Prophylaxis and Health Protection in Industrial Workers, Ekaterinburg  <sup>2</sup>Center of Nanotechnology, Ural State University, Ekaterinburg  <sup>3</sup>Ural State Medical University, Ekaterinburg</p>
15:30-16:00	<p><b>«Road map» for nose-to-brain transport of metal oxide nanoparticles</b></p> <p><a href="#">1Romashenko A.</a>, <a href="#">2Troitsky S.</a>, <a href="#">1Gerliskaya L.</a>, <a href="#">1Moshkin M.</a></p> <p><sup>1</sup>The Federal Research Center "Institute Cytology and Genetics, Siberian Branch of Russian Academy of Sciences, Novosibirsk  <sup>2</sup>Boreskov Institute of Catalysis, Siberian Branch of Russian Academy of Sciences, Novosibirsk</p>
16:00-16:30	<p><b>Enhancing organism's resistance to general and specific adverse bio-activity of metallic nanoparticles: theoretical premises, experimental data, practical needs and possibilities</b></p> <p><a href="#">1Katsnelson B.</a>, <a href="#">1Privalova L.</a>, <a href="#">1Sutunkova M.</a>, <a href="#">1Minigaliyeva I.</a>, <a href="#">1Gurvich V.</a>, <a href="#">2Shur V.</a>, <a href="#">2Shishkina E.</a>, <a href="#">3Valamina I.</a>, <a href="#">3Makeyev O.</a> et al</p> <p><sup>1</sup>The Medical Research Center for Prophylaxis and Health Protection in Industrial Workers, Ekaterinburg,  <sup>2</sup>Center of Nanotechnology, Ural State University, Ekaterinburg,  <sup>3</sup>Ural State Medical University, Ekaterinburg</p>
16:30-17:00	<p><b>Coffee break</b></p>
17:00-17:20	<p><b>Hypothermia induced by intranasal application of the metallic oxide nanoparticles</b></p> <p><a href="#">1Petrovskii D.</a>, <a href="#">2Troitsky S.</a>, <a href="#">1Romashenko A.</a></p> <p><sup>1</sup>The Federal Research Center "Institute Cytology and Genetics, Siberian Branch of Russian Academy of Sciences, Novosibirsk  <sup>2</sup>Boreskov Institute of Catalysis, Siberian Branch of Russian Academy of Sciences, Novosibirsk</p>
17:20-17:40	<p><b>Nanoparticles in a cell: respectable visitors, or illegal migrants?</b></p> <p><a href="#">Ryabchikova E.</a>, <a href="#">Razum K.</a>, <a href="#">Grigor'eva A.</a>, <a href="#">Pyshnaya I.</a></p> <p>Institute of Chemical Biology and Fundamental Medicine, Siberian Branch of Russian Academy of Sciences, Novosibirsk</p>
17:40-18:00	<p><b>Interactions of intracellular proteins and metallic oxide nanoparticles</b></p> <p><a href="#">Moshkin Yu.</a>, <a href="#">Romashenko A.</a></p> <p>The Federal Research Center "Institute Cytology and Genetics, Siberian Branch of Russian Academy of Sciences, Novosibirsk</p>
19:00	<p><b>Farewell Party (Hotel Golden Valley restaurant)</b></p>