Program and schedule of events  
26-28 September, 2012, Saratov, Russia

<table>
<thead>
<tr>
<th>September 25, Tuesday</th>
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<tbody>
<tr>
<td><strong>9.30-21.30</strong></td>
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<th>September 26, Wednesday</th>
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| **9.00-9.10** | Opening of the Workshop  
**Valery Tuchin, Saratov State University, Russia** and  
**Lin Lin, Huazhong University of Science and Technology, P.R. China** | Building 10 Main Conference Hall |

**PLENARY SESSION**

**Chairs:** Alexander V. Priezzhev  
*Moscow State University, Moscow, Russia*  
**Hui Ma**  
*Tsinghua University, Shenzhen, P.R. China*  

| **9.10-9.45** | Progress in optical clearing of tissue in vivo  
**Dan Zhu, Huazhong University of Science and Technology, Wuhan, Hubei, P.R. China** |  |
| **9.45-10.20** | Fluorescence molecular bioimaging in drug design and screening  
**Alexander P. Savitsky, A.N. Bach Institute of Biochemistry, Moscow, Russia** |  |
| **10.20-10.40** | Coffee break |  |

**INVITED LECTURE SESSION I**

**Chairs:** Da Xing  
*South China Normal University, Guangzhou, P.R. China*  
**Alexander P. Savitsky**  
*A.N. Bach Institute of Biochemistry, Moscow, Russia*  

| **10.40-11.00** | Real-time monitoring of rare circulating liver cancer cells in an orthotopic model by in vivo flow cytometry assesses resection on metastasis  
**Xunbin Wei, Shanghai Jiaotong University, Shanghai, P.R. China** |  |
| **11.00-11.20** | Laser nanotechnologies for diagnosis and therapy of cancer and infections  
**Valery Tuchin, Saratov State University, Saratov, Russia** |  |
| **11.20-11.40** | Peptide-based nanoparticles for the targeted delivery of cancer diagnostic and therapeutic agents  
**Zhihong Zhang, Huazhong University of Science and Technology, Wuhan, Hubei, P.R. China** |  |
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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| 11.40-12.00 | In vivo multi-scale photoacoustic imaging for biomedical applications  
Da Xing, South China Normal University, Guangzhou, P.R. China |
| 12.00-12.20 | Optical assessment of biocompatibility and biosafety issues in interaction of nanoparticles with blood  
Alexander V. Priezzhev, Moscow State University, Moscow, Russia |
| 12.20-12.40 | Photobiomodulation-mediated pathway diagnostics  
Timon Cheng-Yi Liu, South China Normal University, Guangzhou, P.R. China |
| 12.40-13.00 | Photo of Russian and Chinese Delegations together                                              |
| 13.00-14.00 | Lunch                                                                                           |
| 15.00-17.00 | Social Event (Volga Boat Trip)                                                                 |

September 27, Thursday

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<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>9.30-13.00</td>
<td>SPIE Short Course, SFM-12 sessions, and visiting of laboratories</td>
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<tr>
<td>13.00-14.00</td>
<td>Lunch</td>
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| 14.00-14.20 | Polarization imaging: techniques, applications and the physics insights  
Hui Ma, Tsinghua University, Shenzhen, P.R. China |
| 14.20-14.40 | Spectroscopy analyses and detection of skin cancer  
Valery P. Zakharov, Samara State Aerospace University, Russia |
| 14.40-15.00 | Imaging-based quantification of glottic opening by fiber optical nasopharyngoscopy in healthy and asthmatic subjects  
Linhong Deng, Changzou University, Changzhou, P.R. China |
| 15.00-15.20 | Low-dimensional structures: sparse coding for neural activity  
Xin Tian, Tianjin Medical University, Tianjin, P.R. China |
| 15.20-15.40 | Dynamic investigation of breast tumor response to the targeted therapy by using gold nanoparticle based molecular beacons  
Yueqing Gu, China Pharmaceutical University, P.R. China |
## ORAL SESSION

**Chairs:**
- Valery P. Zakharov  
  Samara State Aerospace University, Russia
- Linhong Deng  
  Changzou University, Changzhou, P.R. China

### Schedule

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Speaker(s)</th>
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<tr>
<td>15.40-15.55</td>
<td>Microwave-induced thermoacoustic tomography for biomedical applications</td>
<td>Sihua Yang, South China Normal University, Guangzhou, P.R. China</td>
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<td>15.55-16.10</td>
<td>Laser diffraction analysis of shear deformability of human red blood cells incubated with nanodiamonds</td>
<td>Andrei E. Lugovtsov, Moscow State University, Moscow, Russia</td>
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<tr>
<td>16.10-16.25</td>
<td>Molecular imaging of small animals using combined system of fluorescence molecular imaging and micro-CT</td>
<td>Xiaoquan Yang, Huazhong University of Science and Technology, Wuhan, Hubei, P.R. China</td>
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<tr>
<td>16.25-16.40</td>
<td>Application of confocal laser microscopy for mesh explants control</td>
<td>Ivan A. Bratchenko, Samara State Aerospace University, Russia</td>
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<tr>
<td>16.40-17.10</td>
<td>Coffee break</td>
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<tr>
<td>17.10-18.30</td>
<td>BBO PLENARY INTERNET SESSION</td>
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|           | **Chairs:** Valery Tuchin  
  Saratov State University, Saratov, Russia  
  Dan Zhu  
  Huazhong University of Science and Technology, Wuhan, Hubei, P.R. China |                                                                                               |
| 18.30-21.00 | BBO POSTER SESSION AND INTERNET DISSUSSION                                                  |                                                                                               |
|           | **Moderators:** Dmitry Agafonov, Ivan Fedosov,  
  Saratov State University, Saratov, Russia  
  Xiaoquan Yang  
  Huazhong University of Science and Technology, Wuhan, P.R. China |                                                                                               |

## September 28, Friday

<table>
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<tr>
<th>Time</th>
<th>Event</th>
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<tr>
<td>9.00-12.00</td>
<td>Round-table discussions, visiting of research and student training laboratories, and closing of the Workshop</td>
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<tr>
<td>12.00-14.00</td>
<td>Social program (Open-air-Museum)</td>
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<tr>
<td>14.00-17.00</td>
<td>Social program (Barbecue)</td>
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**Building:**
- 10 Main Conference Hall
- 3rd floor Hall
- 3rd floor Hall
1. **The role of water in human tissue with certain compression: Studied with reflectance spectroscopy** Jingying Jiang, College of Precision Instrument and Optic Electronic Engineering, Tianjin University, Tianjin, P.R. China

2. **Second-harmonic generation imaging of elastic cartilage repair in a rabbit ear model** Xiaoqin Zhu, Fujian Normal University, Fujian, P.R. China

3. **Establishment of visible animal metastasis models for human nasopharyngeal carcinoma based on a far-red fluorescent protein** Min Chen, Hospital of Huazhong University of Science & Technology, Wuhan, P.R. China

4. **Noise reduction methods for OCT images** Oleg O. Myakinin, D.V.Kornilin, I.A. Bratchenko, V.P. Zakharov, and A.G. Khramov, Samara State Aerospace University and Image Processing Systems Institute, Samara, Russia

5. **The non-linear dynamic study on epilepsy ictal EEG** Tao Huaying, Xin Tian, Lab of Neurophysiology, Tianjin Medical University General Hospital, Tianjin, P.R. China

6. **Microwave therapy via bronchoscopes for severe tracheal stenosis** Liu Wei Min, Dai Li, and Lin Yu Hui, Respiratory Department of Zhongnan Hospital, Wuhan University, Wuhan, P.R. China

7. **Evaluation of the red blood cells shape parameter variance from the data of laser ektacytometry** Sergey Yu. Nikitin, Maria A. Kormacheva, Alexander V. Priezzhev, and Andrey E. Lugovtsov, Lomonosov Moscow State University, Moscow, Russia

8. **In vitro OCT study of alterations of adipose tissue structure induced by PDT treatment** Irina Yu. Yanina, Natalia A. Trunina, and Valery V. Tuchin, Saratov State University, Saratov State Medical University, and Institute of Precise Mechanics and Control RAS, Russia; University of Oulu, Finland

9. **Skin optical clearing by glucose and quantification of glucose diffusivity at its impact on skin tissues** Daria K.Tuchina, Alexey N. Bashkatov, Elina A. Genina, Vyacheslav I. Kochubei, and Valery V. Tuchin, Saratov State University and Institute of Precise Mechanics and Control RAS, Russia; University of Oulu, Finland

10. **TiO₂ and ZnO nanoparticles as disinfection compounds** Natalia A. Trunina, Alexey P. Popov, Jürgen Lademann, Valery V. Tuchin, Risto Myllylää, and Maxim E. Darvin, Saratov State University and Institute of Precise Mechanics and Control RAS, Russia; University of Oulu, Finland; Charité – Universitätsmedizin Berlin, Germany
11. **Relationship between the inflection point of anaerobic threshold and muscle oxygenation measured by NIRS during incremental exercises** Li Zhang, Wuhan Institute of Physical Education, P.R. China

12. **Reveal of using artificial sweetener in the process of natural juices and other drinks manufacturing** Anton Malinin, Anastasia Zanishevskaya, Julia Skibina, Valery Tuchin, and Igor Silokhin, Saratov State University, LLC SPE Nanostructured Glass Technology, and Institute of Precise Mechanics and Control RAS, Russia; University of Oulu, Finland

13. **Full field laser speckle contrast imaging technique application for visualization of rat's pancreas micro capillary blood flow** Polina A. Timoshina, Maxim A. Vilensky, Denis A. Alexandrov, Valery V. Tuchin, and Victor A. Kuleshov, Saratov State University, Saratov State Medical University, and Institute of Precise Mechanics and Control RAS, Russia; University of Oulu, Finland
1. **Multi-Modality Molecular Imaging for Nanomedicine and Cancer Research** Qiushi Ren, Department of Biomedical Engineering Scholar, College of Engineering, Peking University, P.R. China (Internet Plenary Lecture)

2. **Newly developed NIR contrast agents for cancer targeted imaging** Chunmeng Shi, Institute of Combined Injury, State Key Laboratory of Trauma, Burns and Combined Injury, Department of Preventive Medicine, Third Military Medical University, Chongqing, P.R. China (Internet Invited Lecture)

3. **Singlet oxygen dosimetry for photodynamic therapy** Buhong Li, Key Laboratory of OptoElectronic Science and Technology for Medicine of Ministry of Education, Fujian Provincial Key Laboratory for Photonics Technology, Fujian Normal University, Fuzhou, Fujian, P.R. China (Internet Invited Lecture)

4. **Investigation of red blood cells aggregation in plasma and in proteins solutions by optical trapping** Kisung Lee, A.V. Priezzhev, A.Yu. Maclygin, I.O. Obolenskii, M. Kinnunen, R. Myllylä, Lomonosov Moscow State University, Moscow, Russia; University of Oulu, Oulu, Finland

5. **Optical properties of the human nasal polyps in the spectral range from 300 to 2500 nm** Ekaterina A. Kolesnikova, Alia A. Muldasheva, Julia P. Ireneva, Darya N. Zmeeva, Alexey N. Bashkatov, Elina A. Genina, Vyacheslav I. Kochubey, Anatoly B. Knyazev, and Valery V. Tuchin, Saratov State University, Saratov State Medical University, and Institute of Precise Mechanics and Control RAS, Saratov, Russia; University of Oulu, Oulu, Finland