Chinese-Russian Workshop on Biophotonics and Biomedical Optics-2023

Chairs:
Dan Zhu, Ph.D,Professor, SPIE Fellow, Deputy Director of Wuhan National Laboratory for Optoelectronics, Huazhong University of Science and Technology, Wuhan, China
Valery V. Tuchin, Corr.-member of the RAS, Doc. of Sci.,Professor, SPIE/OSA Fellow, Head of Optics and Biophotonics Department and Science Medical Center, Saratov State University; Head of Laboratory of Laser Diagnostics of Technical and Living Systems, Institute of Precision Mechanics and Control, FRC "Saratov Scientific Centre of the Russian Academy of Sciences"; Supervisor of Lab. of Biophotonics, Tomsk State University, Tomsk, Russia

Secretaries:
Tingting Yu, Ph.D, Associate Professor, Wuhan National Laboratory for Optoelectronics, Huazhong University of Science and Technology, Wuhan, China
Polina A. Dyachenko, Ph.D, Associate Professor, Optics and Biophotonics Department, Saratov State University, Saratov, Russia

September 25, Monday

ON-LINE INVITED LECTURES
Conference Hall 8, Building 3
ZOOM: **https://zoom.us/j/97105128804**

SESSION I
Chairs: **Valery V. Tuchin**, Saratov State University, Russia
Dan Zhu, Huazhong University of Science and Technology, China

Saratov time/China time
9:20-9:30/13:20-13:30
Welcome speech from the chairs of the Chinese-Russian Workshop on Biophotonics and Biomedical Optics-2022
Dan Zhu, Huazhong University of Science and Technology, Wuhan, China
Valery V. Tuchin, Saratov State University, Russia

9:30-9:50/13:30-13:50
Superstable Homogeneous Lipiodol-Icg Formulation for Interventional Fluorescence Imaging

Gang Liu, Xiamen University, Xiamen, China

9:50-10:10/13:50-14:10
Fluorescent Surgery Navigation Probes
Xiaolong Liu, Fujian Medical University, Fuzhou, China

10:10-10:30/14:10-14:30
Photodynamics of Photosensitizers and Fluorescence Molecular Probes in Solutions and on Biological Surfaces

Oleg S. Vasyutinskii, Ioffe Physical-Technical Institute of the Russian Academy of Sciences, St. Petersburg, Russia

10:30-10:50/14:30-14:50
Target Photomodulation Ameliorates Alzheimer's-Associated Pathology and Improves Cognition
Feifan Zhou, Hainan University, Haikou, China

10:50-11:10/14:50-15:10
Medical Applications of Sapphire Shaped Crystals Combined with Measurement of Spatially Resolved Diffuse Reflectance
Irina Dolganova, Osipyan Institute of Solid State Physics of the Russian Academy of Sciences, Chernogolovka, Russia

11:10-11:30/15:10-15:30
Upconversion Super-Resolution Microscopy
Qiuqiang Zhan, South China Normal University, Guangzhou, China

11:30-11:50/15:30-15:50
Study of Osmotic and Cross-Linking Deformations in Biological Tissues by Optical Coherence Elastography
Yulia Alexandrovskaya, Federal Research Center "A.V. Gaponov-Grekhov Institute of Applied Physics" of the Russian Academy of Sciences, Nizhny Novgorod, Russia

11:50-12:10/15:50-16:10
Photodynamic Therapy Method for Port Wine Stains
Cuiping Yao, Xi'an Jiaotong University, Xi'an, China

12:10-12:30/16:10-16:30
IR Raman Spectroscopy for Monitoring and Investigations of Microorganizms

Elena Perevedentseva, P.N. Lebedev Physics Institute of the Russian Academy of Sciences, Moscow, Russia

12:30-12:50/16:30-16:50
Luminescent Study of Proapo- and Proferroptotic Free Radical Reactions in the Presence of Phospholipids Detected in Atherosclerosis
German Stepanov, Department of Medical Biophysics, Faculty of Fundamental Medicine, Lomonosov Moscow State University, Moscow, Russia

12:50-13:10/16:50-17:10
Tissue Optical Clearing for Whole Organ Imaging
Tingting Yu, Huazhong University of Science and Technology, Wuhan, China

13:10-13:30/17:10-17:30
Influence of Wavelength of Light on Antimicotic Activity of Chlorine-Containing Photodynamic Drugs
Andrey Belikov, ITMO University, St. Petersburg, Pavlov First St. Petersburg State Medical University, Saint Petersburg, Russia

13:30-13:50/17:30-17:50
Modeling of COVID-19 Pread: from City Scale to Country Scale
Alexander Khilov, Federal Research Center "A.V. Gaponov-Grekhov Institute of Applied Physics" of the Russian Academy of Sciences, Nizhny Novgorod, Russia

September 26, Tuesday

Saratov time/China time

9:30-9:50/13:30-13:50
Robust Wavefront Aberration Compensation for Non-Invasive Deep Tissue Optogenetics
Ke Si, Zhejiang University, Hangzhou, China

9:50-10:10/13:50-14:10
Deep Learning for Dissecting Oxidation-Induced Optics of Molecules in the Human Organism
Evgeny Shirshin, M.V. Lomonosov Moscow State University, Moscow, Russia

10:10-10:30/14:10-14:30
Machine Learning Applications in Biological Samples Spectral Data Analysis and Characterization
Yury V. Kistenev, Tomsk State University, Tomsk, Russia

10:30-10:50/14:30-14:50
Noninvasive Optical Monitoring and Modulation in Deep Human Tissue: From Bench to Clinics
Ting Li, Chinese Academy of Medical Science, Beijing, China

10:50-11:10/14:50-15:10
Complex Approach to *In-Vitro* and *In-Vivo* Monitoring of the Degradation of Implants Based on Ester Copolymers Using MR and Fluorescence Imaging
Victoria V. Zherdeva, Federal Research Centre "Fundamentals of Biotechnology" of the Russian Academy of Sciences, Moscow, Russia

11:10-11:30/15:10-15:30
Drug Delivery to Hair Follicles and Its Optical Monitoring
Yulia Svenskaya, Science Medical Center, Saratov State University, Saratov, Russia

11:30-11:50/15:30-15:50
Multi-Elemental LIBS Image Revealing the Heterogeneity of Lung Cancer Tissue
Qingyu Lin, Sichuan University, Chengdu, China

11:50-12:10/15:50-16:10
Quantum Dots for Analytical Test-Methods
Olga A. Goryacheva, Saratov State University, Saratov, Russia

Plenary Lectures

14.00-14.35/18.00-18.35
Multi-focal structured illumination microscopy for deeper penetration superresolution imaging
Junle Qu, Shenzhen University, Shenzhen, China

14.35-15.10/18.35-19.10
Long-term optical imaging analysis for eye disease
Yao He, Soochow University, Suzhou, China

15.10-15.45/19.10-19.45
Photosafe non-invasive detection of deep-seated lesions via transmission Raman spectroscopy
Jian Ye, School of Biomedical Engineering, Shanghai Jiao Tong University, Shanghai, China