Chinese-Russian Workshop on Biophotonics and Biomedical Optics-2022

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, Saratov State University; Head of Laboratory of Laser Diagnostics of Technical and Living Systems, Institute of Precision Mechanics and Control of the RAS, Saratov, Russia; Supervisor of Lab. of Biophotonics, National Research 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 26, Monday

ON-LINE INVITED LECTURES
Conference Hall 8, Building 3
ZOOM: https://osachapter.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-2020
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
Three-photon microscopy for neuroscience applications
Bo Li
Department of Neurology, Huashan Hospital, MOE Frontiers Center for Brain Science, State Key Laboratory of Medical Neurobiology, Institutes for Translational Brain Research, Fudan University, Shanghai, China

9:50-10:10/13:50-14:10
High speed photoacoustic imaging
Chengbo Liu
Shenzhen Institute of Advanced Technology, Chinese Academy of Sciences, Shenzhen, China

10:10-10:30/14:10-14:30
Platform for combined monte carlo and k-wave simulations of optoacoustic images for blood saturation mapping

Alexander V. Khilov
Institute of Applied Physics RAS, Nizhny Novgorod, Russia

10:30-10:50/14:30-14:50
Quantitative photoacoustic evaluation of the liver and kidney fibrosis
Liming Nie
Guangdong Academy of Medical Sciences, Guangzhou, China

10:50-11:10/14:50-15:10
Development of in vivo cytometry systems with photoacoustics and lightsheet detection
Daniil N. Bratashov
Department of innovation, Institute of physics and Laboratory of biomedical theranostics, Science medical center, Saratov state university, Russia

11:10-11:30/15:10-15:30
Upconversion super-resolution microscopy
Qiuqiang Zhan
South China Academy of Advanced Optoelectronics & MOE Key Laboratory of Laser Life Science, South China Normal University, Guangzhou, P. R. China

11:30-11:50/15:30-15:50
Imaging blood and endothelial cells and measuring their interaction forces with laser tweezers
Peter B. Ermolinskiy
Faculty of Physics, Lomonosov Moscow State University, Moscow, Russia

11:50-12:10/15:50-16:10
High-performance biomedical photoacoustic tomography
Chao Tian
University of Science and Technology of China; Institute of Artificial Intelligence, Hefei Comprehensive National Science Center, Hefei, China

12:10-12:30/16:10-16:30
Analysis of mouse blood serum in the dynamics of U87 glioblastoma by terahertz spectroscopy and machine learning
Denis. A. Vrazhnov
V.E. Zuev Institute of Atmospheric Optics SB RAS, Tomsk, Russia and
Laboratory of Biophotonics, National Research Tomsk State University, Tomsk, Russia

September 27, Tuesday

ON-LINE INVITED LECTURES
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SESSION II
Chairs:

Saratov time/China time
9:30-9:50/13:30-13:50
Deep imaging and focusing through scattering medium based on reflection matrix optical coherence tomography
Jing Cao
Key Laboratory of Biomedical Engineering of Hainan Province, School of Biomedical Engineering, Hainan University, Haikou, China

9:50-10:10/13:50-14:10
Ultra-small fluorescent metal nanoclusters for biological applications
Roman S. Tumskiy
Institute of Biochemistry and Physiology of Plants and Microorganisms, Saratov Scientific Centre of the Russian Academy of Sciences, Russia

10:10-10:30/14:10-14:30
Single-molecule localization super-resolution microscopy and its applications
Leiting Pan
The Key Laboratory of Weak-Light Nonlinear Photonics of Education Ministry, School of Physics and TEDA Institute of

Applied Physics, Nankai University, Tianjin, China; State Key Laboratory of Medicinal Chemical Biology, Frontiers Science Center for Cell Responses, College of Life Sciences, Nankai University, Tianjin, China

10:30-10:50/14:30-14:50
Synergistic therapeutic strategies for cancer treatment
Feifan Zhou
Key Laboratory of Biomedical Engineering of Hainan Province, School of Biomedical Engineering, Hainan University, Haikou, China

10:50-11:10/14:50-15:10
Night photo-therapy of alzheimer's disease
Oxana Semyachkina-Glushkovskaya
Head of Chair of Physiology of Human and Animals, Saratov State University, Department of Biology, Russia

11:10-11:30/15:10-15:30
Mesoscopic fluorescence molecular tomography combined with fluorescence lifetime determination
Ilya D. Solovyev
The Federal Research Center "Fundamentals of Biotechnology" of the Russian Academy of Sciences, Moscow, Russia

11:30-11:50/15:30-15:50
Metal clusters for biomedical application
Fu Wang
School of Biomedical Engineering, Shanghai Jiao Tong University, Shanghai, China

11:50-12:10/15:50-16:10
Sapphire shaped crystals for optically-based multimodal medical instruments
Irina N. Dolganova
Institute of Solid State Physics of the Russian Academy of Sciences, Chernogolovka, Russia

12:10-12:30/16:10-16:30
Closing Speech
Dan Zhu, Huazhong University of Science and Technology, China
Valery V.Tuchin, Saratov State University, Russia