



WORKSHOP

„Biomedical signal analysis and processing for diagnostics“

November 29-30, 2018

organized by the Institute of Physiology, The Czech Academy of Sciences

Venue:

Institute of Physiology CAS, meeting room, building DaI (ground-floor), Vídeňská 1083, Prague 4, 14220

Strategy AV21: Diagnostic Methods and Techniques



**Akademie věd
České republiky**
Strategie AV21
Špičkový výzkum ve veřejném zájmu



Imaging principles of life

29th November

- 9:15** **Introduction**
- 9:30 -10:30** **Cristina Malegori**, Department of Pharmacy, Group of Analytical Chemistry and Chemometrics University of Genova, Italy
The aquaphotomic approach: understanding water structures by a non-destructive perspective
- 10:30 – 11:00** **Jan Pokorný**, Institute of Physics CAS, Prague
Ordered water layers in biological systems
- 11:00-11:30* *Coffee Break*
- 11:30 – 13:00** **Annaliese Reid and John Stuart Reid**, Sonic Age Ltd, Acoustic-Physics Research, United Kingdom
The future of therapeutic sound
- 13:00-14:30* *Break*
- 14:30-15:30** **Roeland van Wijk**, Molecular Cell Biology, Utrecht University and Meluna Research on Biophotonics, Geldermalsen, The Netherlands
Water, Light and Life
- 15:30-16:00** **František Kožíšek**, National Institute of Public Health, Prague
Physical qualities of water from public health point of view
- 16:00-17:00* *Discussion and refreshments*
- 17:00-19:00* *Visit to the microscopy core facility - Institute of Physiology, CAS (Department of Biomathematics) and refreshments*

30th November

- 9:30 – 10:00** **Daniel Hadraba**, Institute of Physiology, CAS
Clinical application of label-free optical imaging
- 10:00 - 10:30** **Tomáš Čížmár**, Leibniz Institute of Photonic Technology, Jena, Germany and Institute of Scientific Instruments, CAS
Harnessing multimode propagation for deep-tissue imaging
- 10:30 – 11:00** **Michal Cifra**, Institute of Photonics and Electronics, CAS
Endogenous photonic biosignals: what are they telling us?
Strategy AV21: Diagnostic Methods and Techniques

11:00-11:30 *Coffee Break*

11:30 – 12:00 Filip Plešinger, Institute of Scientific Instruments, CAS
High Frequencies in ECG and Response to Cardiac Resynchronization Therapy

12:00 – 12:30 Radovan Jiřík, Institute of Scientific Instruments, CAS
Spatial regularization in DCE-MRI perfusion analysis

12:30 – 13:00 Jiří Kratochvíla, Institute of Scientific Instruments, CAS
Blind deconvolution in DCE-MRI perfusion analysis

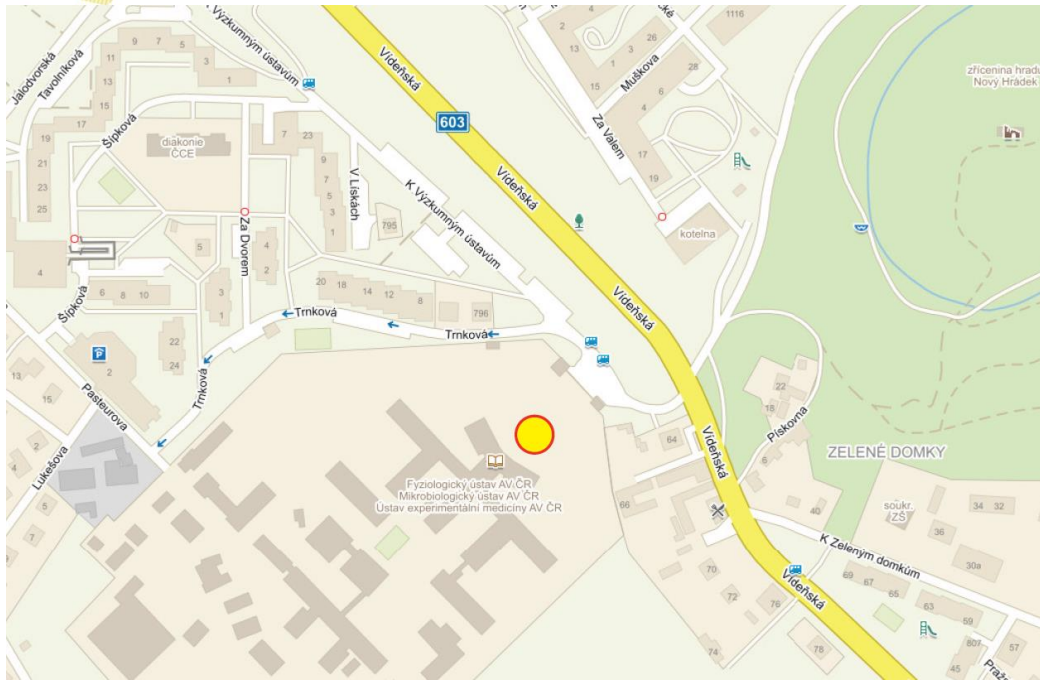
Contact and registration:

- No registration fee
- Registration: till November 26th, 2018 - E-mail: pavla.choteborska@fgu.cas.cz
- For special requests contact Lucie Kubínová lucie.kubinova@fgu.cas.cz

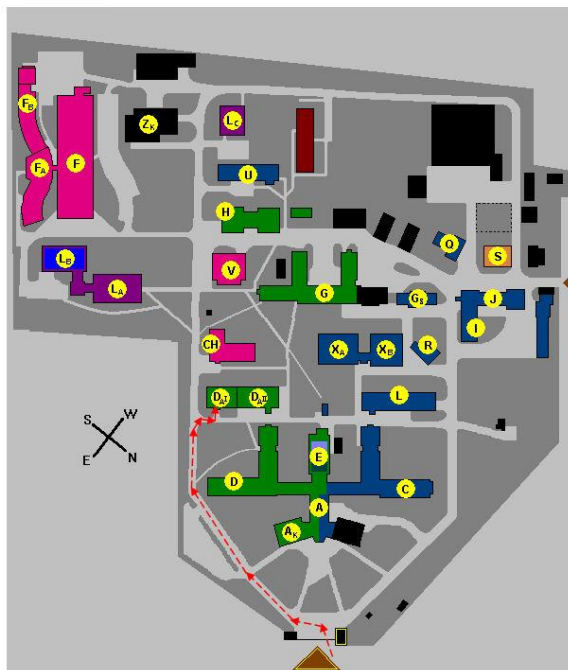
Address of Event: Institute of Physiology CAS, Department of Biomatematics, Building DaI, meeting room (ground floor), Vídeňská 1083, Prague 4, 14220

Public transport: bus 138 from Kačerov, stop: Ústavy Akademie věd

Car: Parking is available on campus.



ACADEMY OF SCIENCES OF THE CZECH REPUBLIC - PRAGUE KRČ



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- MAP LEGEND:
- INSTITUTE OF MICROBIOLOGY
 - A Administration and Services
 - C Management, Laboratories
 - G_o Offices
 - J Service Workrooms
 - L Laboratories
 - O Greenhouse
 - R Editorial Office of Folia Microbiologica
 - X_o Laboratories
 - X_o Biotechnological Pilot Plant
 - U Molecular Structure
 - A KRČ AREA ADMINISTRATION
 - Z_o Boiler House
 - INSTITUTE OF PHYSIOLOGY
 - A Administration and Services
 - A_o Scientific Information Department
 - D Management, Laboratories
 - D_o Biomathematics
 - D_o Laboratories
 - E Radiometry
 - G H Experimental Models
 - L_o INSTITUTE OF EXPERIMENTAL MEDICINE
 - L_o Laboratories
 - INSTITUTE OF MOLECULAR GENETICS
 - F Management, Laboratories
 - F_o Lecture Hall
 - F_o V CH Experimental Models
 - L_o F INSTITUTE OF BIOTECHNOLOGY
 - E INSTITUTE OF EXPERIMENTAL BOTANY
 - E INSTITUTE OF ANALYTICAL CHEMISTRY
 - S INSTITUTE OF ANIMAL PHYSIOLOGY AND GENETICS
 - BUSINESS/STORE BUILDINGS
 - Lodging House
 - Main Porter's Lodge
 - Main Entrance

Strategy AV21: Diagnostic Methods and Techniques



This scientific event is organised within the Strategy AV21 research program Diagnostic Methods and Techniques (topic „Advanced non-invasive diagnostics procedures for human and veterinary medicine and biology“), funded by The Czech Academy of Sciences, and in the framework of the Czech-BioImaging project (LM 2015062) funded by MEYS.