



**INSTITUTE
OF PHYSIOLOGY** CAS



WORKSHOP

„Analysis of image data for diagnostics“

October 25-26, 2016
organized by the Institute of Physiology,
The Czech Academy of Sciences

Venue:
**Institute of Molecular Genetics, lecture room No. 0.195,
Videňská 1083, Prague 4, 14220**



Strategy AV21: Diagnostic Methods and Techniques





25th October

lecture room No. 0.195 (ground-floor)

10:00 **Introduction**

10:10-11:00 **Paolo Bianchini**, Instituto Italiano di Technologica, Genova

• **Quantitative STED and new advances towards label free nanoscopy**

11:00-11:30 *Coffee break*

11:30-12:00 **Oleksandr Chernyavskiy**, Institute of Physiology, CAS

• **Biomedical applications of time-correlated single photon counting**

12:00-12:30 **Štěpán Kubík**, Institute of Physiology, CAS

• **Arc/Homer 1a catFISH: Imaging the effect of psychotomimetic MK-801 on similarity of neuronal ensemble representations in the cognitive circuit**

12:30-14:00 *Break*

14:00-14:50 **Katja Schladitz**, Fraunhofer Institut für Techno- und Wirtschaftsmathematik (ITWM), Kaiserslautern

• **Characterization of biological structures by the intrinsic volumes**

14:50-15:20 **Jiří Janáček**, Institute of Physiology, CAS

• **Analysis of confocal images of capillary networks**

15:20-16:10 *Coffee break*

16:10-16:40 **David Kala**, Institute of Physiology, CAS

• **Methods for blood-brain barrier permeability detection**

16:40-17:10 **Filip Plešinger**, Institute of Scientific Instruments CAS

• **SignalPlant: Open platform for multimodal data analysis**

17:10-17:40 **Jan Kybic**, Faculty of Electrical Engineering, Czech Technical University in Prague

• **Multiple myeloma bone marrow infiltration detection in CT**

17:40-18:10 **Filip Španiel**, National Institute of Mental Health

• **What does MRI imaging tell us about self?**

18:20 *Visit to the microscopy core facility - Institute of Physiology, CAS
(Department of Biomathematics)*

18:45 *Party with refreshments – Institute of Physiology, CAS , Department
of Biomathematics, lecture room*



26th October

lecture room No. 0.195 (ground-floor)

- 8:30-9:00** **Radovan Jiřík**, Institute of Scientific Instruments, CAS
•**Quantification of tissue perfusion using MRI**
- 9:00-9:50** **Konstantin Korotkov**, Federal University of Informational Technologies,
Mechanics and Optics, Saint-Petersburg
•**The science of measuring energy fields, health and wellbeing.**
Non-invasive body imaging to assess body functions.
- 9:50-10:20** **Michal Cifra**, Institute of Photonics and Electronics, CAS
•**Imaging human endogenous chemiluminescence for non-invasive
monitoring of oxidative stress**
- 10:20-11:10** **Eva Dražanová**, Institute of Scientific Instruments, CAS
•**Specific approach for analysing MRI data in different animal models**
- 11:10-11:40* *Coffee break*
- 11:40-12:10** **Lenka Dvořáková**, Institute of Scientific Instruments, CAS
•**MR diffusion tensor imaging and evaluation of rat spinal cord injury**
- 12:10-12:40** **Daniel Jiráček**, Institute for Clinical and Experimental Medicine, Prague
•**MR imaging of transplanted cells**
- 12:40-13:10** **Petr Matula**, Faculty of Informatics, Masaryk University
•**Robust and reliable quantitative analysis of live cell
microscopy images**
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More information

Contact and registration:

No registration fee

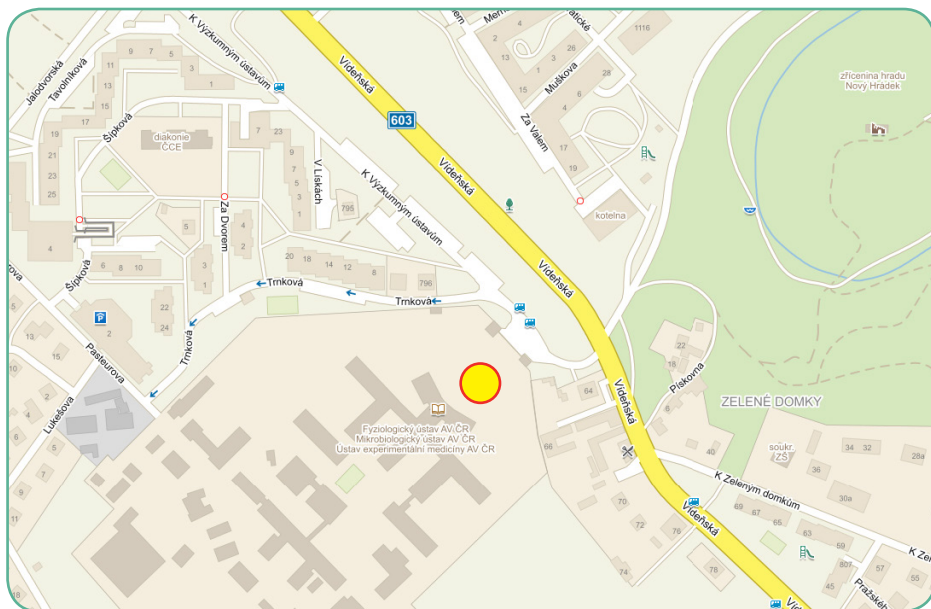
Free attendance

For special requests contact Lucie Kubínová - lucie.kubinova@fgu.cas.cz

Address of Event: Institute of Molecular Genetics, meeting room no. 0.195 (ground-floor), Vídeňská 1083, Prague 4

Public transport: bus 193, stop: Zelené domky

Car: Parking is available on campus.



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.