

# CARS, SHG, THG and STED

## IR laser show for cells

Apr 24. – Apr 25., 2019  
BIOCEV, Průmyslová 595, Vestec

### Preliminary programme

#### Wednesday, Apr 24.

08:45 – 09:00 Registration

09:00 – 09:05 Welcome and organization details  
Aleš Benda

09:05 – 09:45 Principles of CARS, SHG a THG  
Aleš Benda

09:45 – 10:20 Principles of STED and its variants  
Marie Olšínová

10:20 – 10:35 Coffee break – Hands-on group assignment

10:35 – 11:15 Short presentations of participants – 3 minutes each

11:15 – 11:55 Introduction to deconvolution and spectral unmixing  
Radek Macháň

11:55 – 12:15 Application of super-resolution STED microscopy in the study of mitochondrial transfer in cancer.  
Jaromíra Kovářová

12:15 – 12:30 CARS, FLIM and *C. elegans*  
Zdeněk Kostrouch and Samuel Kaššák

12:30 – 13:30 Lunch

13:30 – 17:00 Hands-on – 1<sup>st</sup> rotation, CARS+SHG+THG, RESCue-STED, Data analysis

15:00 – 15:15 Coffee break

#### Thursday, Apr 25.

09:00 – 12:30 Hands-on – 2<sup>nd</sup> rotation, RESCue-STED, Data analysis, CARS+SHG+THG

10:30 – 10:45 Coffee break

12:30 – 13:30 Lunch

13:30 – 17:00 Hands-on – 3<sup>rd</sup> rotation, Data analysis, CARS+SHG+THG, RESCue-STED

15:00 – 15:15 Coffee break

The course is supported by the National Infrastructure for Biological and Medical Imaging (Czech-Biolmaging, Ministry of Education, Youth and Sports – Large Research Infrastructure, LM2015062).



BIOCEV



FACULTY OF SCIENCE  
Charles University

