FLIM not only for biologists (FNOB)
SIS code: MB100P03

Nov 14. – Nov 16., 2022
BIOCEV, Průmyslová 595, Vestec

Programme

Monday, Nov 14.
09:00 – 09:10 Welcome and introduction of organizers
   Aleš Benda
09:10 – 09:55 Fluorescence lifetime and imaging – Basic principles
   Dalibor Pánek
09:55 – 10:05 Coffee break
10:05 – 11:20 Introduction to FLIM instrumentation
   Peter Kapusta, Federica Scollo
11:20 – 11:30 Explanation of TTTR data format
   Aleš Benda
11:30 – 12:30 Introductions of the participants – (2 min about yourself and your research)
12:30 – 13:30 Lunch
14:30 – 14:40 Coffee break
14:40 – 15:40 Instrument Introduction 2 round
15:40 – 15:50 Coffee break
15:50 – 16:50 Instrument Introduction 3 round
16:50 - 18:00 Get together (pizza time :) )
**Tuesday, Nov 15.**

09:00 – 09:45 Different ways of FLIM data analysis  
Dalibor Pánek

9:45 – 10:15 Imaging membrane tension using Flipper-TR  
Eliška Miková

**10:15 - 10:30 Coffee break**

10:30 – 11:30 Protein-protein interactions visualized by FLIM-FRET: considerations needed for reliable experiments.  
Jana Humpoličková

11:30 – 11:50 Background for NAD(P)H imaging  
Aleš Benda

11:50 – 12:20 FLIM-FRET based sensor for inhibition of viral proteases in the precursor form and for drug evaluation  
Jana Humpoličková

12:20 – 13:00 Lunch

13:00 – 15:00 Hands-on – 4 stations – NAD(P)H imaging, FLIM-FRET, FLIPPER TR Imaging, Data Analysis including Pattern Matching - first round

15:00 – 15:15 Coffee break

15:15 – 17:15 Hands-on – 4 stations – NAD(P)H imaging, FLIM-FRET, FLIPPER TR Imaging, Data Analysis including Pattern Matching - second round

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<td>1st round</td>
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<td>NAD(P)H</td>
<td>FLIM - FRET</td>
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<td>Data analysis</td>
<td>Flipper TR</td>
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<td>3rd round</td>
<td>FLIM - FRET</td>
<td>Data analysis</td>
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<td>NAD(P)H</td>
<td>FLIM - FRET</td>
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**Wednesday, Nov 16.**

09:00 – 10:00 FLIM acquisition artefacts and interpretation pitfalls  
Peter Kapusta, Federica Scollo

10:00 – 10:45 Sensing lipid mobility using rotational and polarity probes – case study  
Piotr Jurkiewicz

**10:45 – 11:00 Coffee break**

11:00 – 11:20 PicoQuant FLIM Integration in NIS Elements  
Jan Horký, LIM Laboratory imaging s.r.o.

11:20 – 11:40 A guide to custom-developed TTTR Data Analysis software  
Aleš Benda

11:40 – 12:10 Color coding in FLIM  
Piotr Jurkiewicz
12:10 – 13:00 Lunch

13:00 – 15:00 Hands-on – 4 stations – NAD(P)H imaging, FLIM-FRET, FLIPPER TR Imaging, Data Analysis including Pattern Matching - third round

15:00 – 15:15 Coffee break

15:15 – 17:15 Hands-on – 4 stations – NAD(P)H imaging, FLIM-FRET, FLIPPER TR Imaging, Data Analysis including Pattern Matching - fourth round

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