

3D-CLEM

Imaging function and ultrastructure

November 22. – 25. 2021
BIOCEV, Průmyslová 595, Vestec

Programme

Monday, Nov. 22.

08:45 – 09:00 Registration

09:00 – 09:10 Welcome and organization details
Aleš Benda

09:10 – 09:30 Brief introduction to fluorescence microscopy
Marie Olšínová

09:30 – 09:45 Brief introduction to electron microscopy
Lenka Koptašiková

09:45 – 10:45 Principles of Correlated Light and Electron Microscopy
Aleš Benda, Markéta Dalecká

10:45 – 11:00 Coffee break – Hands-on group assignment

11:00 – 11:45 Principles of live cell imaging on confocal microscopes
Dalibor Pánek

11:45 – 12:15 Introduction of the participants – 3 minutes talk each

12:15 – 13:00 Lunch

13:00 – 14:30 Hands-on session – Optical microscopy
Aleš Benda, Marie Olšínová/Dalibor Pánek

14:30 – 14:50 Coffee break

14:50 – 16:30 Hands-on session – Optical microscopy
Aleš Benda, Marie Olšínová/Dalibor Pánek

Tuesday, Nov. 23.

09:00 – 10:00 Introduction to 3D fluorescent data processing – deconvolution, drifts and chromatic aberration of confocal data
Michaela Blažíková

10:00 – 10:15 Coffee break

10:15 – 12:15 Hands-on session - Data analysis Huygens
Michaela Blažíková, Marie Olšínová, Anna Agafonova

12:15 – 13:00 Lunch

13:00 – 17:00 Introduction and hands-on session EM– sample preparation, ultramicrotomy
Lenka Koptašiková, Lucia Motlová

14:30 – 14:45 Coffee break

17:00– 18:00 Get together (beer and snacks)

Wednesday, Nov. 24.

9:00 – 12:30 Introduction and hands-on session EM – FIB-SEM/TEM

Markéta Dalecká/Irena Krejzová, Adam Schröfel/Jiří Mikšátko

10:30 – 11:00 Coffee break

12:30 – 13:30 Lunch

12:30 – 16:00 Introduction and hands-on session EM – FIB-SEM/TEM

Markéta Dalecká/Irena Krejzová, Adam Schröfel/Jiří Mikšátko

14:30 – 14:50 Coffee break

Thursday, Nov. 25.

9:00 – 9:45 How to work with FIB-SEM and CLEM data

Anna Agafonova

9:45 – 10:10 Practical example of FIB-SEM data analysis

Lenka Backová

10:10 – 10:30 Introduction to software Imod/etomo – How to work with EM tomography data

Adam Schröfel

10:30 – 11:00 Coffee break

12:00 – 12:45 Lunch

12:45 – 14:45 Hands-on session – Data analysis Amira/Imod

Markéta Dalecká + Anna Agafonova, Adam Schröfel + Jiří Mikšátko

14:45– 15:00 Coffee break

15:00 – 17:00 Hands-on session - Data analysis Amira/Imod

Markéta Dalecká + Anna Agafonova, Adam Schröfel + Jiří Mikšátko

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